SOCIAL BONDING AND JUVENILE MALE VIOLENCE:
AN EMPIRICAL INVESTIGATION

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ABSTRACT

This paper examined the relationships of several social bonding components and juvenile violence. Specifically, the components as operationalized in this study are rejection by parents, rejection by teachers, and disaffection from the conventional community. We employed these as predictor variables in a causal model and examined both the direct and indirect effects each of these variables had on juvenile violence. The data were obtained from a 1994 survey of 172 seventh grade male students in an eastern Ohio urban school system. In order to compare the reliability of the social bond components across racial groups, we conducted separate path analyses for African American youth and white American youth. Differences in the strength of the predictive ability of these variables were found across racial groups. Although rejection by parents proved to be the most significant predictor variable for the African American sample, it was not significant for the white American sample. The findings reveal disaffection with the conventional community to be the most important predictor of violent behavior for the African American sample. The causal model explained more of the variance in violence for the African American sample than for the white American sample. Finally, our findings indicate no difference between the two races as far as the rate of violent behavior is concerned.

INTRODUCTION

Statistics reveal that juveniles under the age of fifteen were arrested for 5.6 percent of all criminal offenses for the year 1994 and 5.8 percent of all violent crimes for the same year (U.S. Department of Justice 1995). The need to address this serious national problem has led social scientists to expand their investigation into the nature and causes of juvenile delinquency.

One productive line of social research emanating from these investigations examines the relationships between social bonds and juvenile delinquency. Much of this research emerges from Travis Hirschi's (1969) social bonding theory in which he hypothesized that individuals whose social bonds are weak or severed have a greater propensity to engage in delinquent behavior than those whose bonds are strong. Elements of social bonding include attachment and commitment to, and involvement in, institutions such as family and school. Hirschi also includes "belief in conventional values," such as legitimacy of the law, as a component of social bonds.

Various studies have revealed significant relationships between the bonding components and forms of juvenile delinquency ranging from status offenses to violent behaviors (Krohn, Massey 1980; Liska, Reed 1985; Rankin 1983; Wiatrowski, Griswold, Roberts 1981). According to the conclusion reached in many of the studies, however, the bonding elements may explain one form of delinquency better than another (Gardner, Shoemaker 1989; Krohn, Massey 1980; Van Voorhis, Cullen, Mathers, Garner 1988). Van Voorhis et al (1988), for example, examined the relationship of the family bond and various forms of delinquent behavior. Their findings revealed: 1) significant relationships between measures of family quality and overall delinquency and status offenses; 2) moderate relationships between drug offenses and property offenses and family quality; and 3) weak but significant effects of home quality on violent behaviors.

Although we acknowledge the relevance of investigating the causes of all categories of juvenile delinquency, this study focuses on the relationships between juvenile violent behavior and the social bonding components for African American and white American youth. We have tapped several measures pertinent to Hirschi's bond components of attachment to parents, attachment to school, and belief in conventional values, and we refer to them in this study respectively as rejection by parents, rejection by teachers, and disaffection from the conventional community. Although Hirschi (1969) looked at the separate direct effects each of the bonding variables has on delinquency, we employ the social bonding measures as predictor variables in an integrated causal model and are concerned with examining both the direct and indirect effects each has on juvenile violence.

There is a strong possibility that the predictor variables may have differential effects on juvenile delinquency when controlling for race. Therefore, a second concern of this study is to investigate the effects of the social bond components on juvenile violent behavior across racial categories. Hirschi (1969) contends that the causes of delinquency do not vary between social categories and that all
elements of bonding apply equally for all racial categories. If this indeed is true, then we might expect each of the social bonding components to exert the same level of influence upon delinquency for our African American and our white American subjects. Matsueda and Heimer (1987) clearly indicate, however, that variable levels of influence would not invalidate Hirschi's theory but would call into question the argument that no racial differences exist. We also investigate whether there is a difference in the rate of juvenile violence between African American and white American youth.

In consideration of the above, the first section of this paper discusses the theoretical basis relating the direct and indirect influences of the social bonding components on juvenile delinquency. Although we will be referring to juvenile delinquency in general, we contend that since juvenile violence is one particular form of juvenile delinquent behavior, this framework can rightfully be employed in our investigation of juvenile violence. We base this conclusion on the finding by Salts, Lindholm, Goddard, and Duncan (1995) that the predictors of general delinquent behavior are also predictors of violent behavior. From this discussion, we construct the causal model which guides our investigation, and we present the set of testable hypotheses extrapolated from the model. The second section of the paper summarizes the results of the path analyses testing the key hypotheses as they relate separately to the African American sample and the white American sample. The third section discusses the relevance of our findings and suggests ways to correct for any methodological and theoretical errors that may be a part of this study.

LITERATURE REVIEW AND THEORETICAL CONSIDERATIONS

We present a framework through which we consider the direct and indirect effects each of the social bonding components has on juvenile delinquent behavior. We will begin with a discussion of the family bond since it has been identified in the literature as the most important bonding component.

With the increase in the rate of juvenile delinquency occurring concomitantly with the increase in the number of broken homes, there has been a resurgence of interest in Hirschi's social bonding theory, particularly interest in the effects of the family structure on juvenile delinquency. Evidence marshalled from these investigations has, however, produced mixed results. As Van Voorhis et al point out generall the relation between broken homes and delinquency is modest when delinquency measured by official data and weak when it is measured by self-report data. (1988)

Not surprisingly, therefore, there are those who have concurred with the view stated by Nye (1958) nearly forty years ago that it is not family structure which is causally related to delinquency, but rather it is the nature and quality of the child/parent relationship in the family unit which acts as a fairly important determinant of involvement in delinquency (Cernkovich, Giordano 1987; Jensen 1972; Simons, Robertson, Downs 1989).

Although these researchers have examined various dimensions of family quality, there appears to be some consensus concerning the importance of including rejection by parents as a measure of family quality. Cernkovich and Giordano (1987), for example, offer a multidimensional interpretation of this construct. Included in the interpretation is a dimension referred to as "identity support" which Cernkovich and Giordano (1987) characterize as the "belief that parents respect, accept, and support the youth for what he is." They argue these are the most critical areas of support a family can provide a child. Simons et al (1989) reached a similar conclusion in their review of the literature examining the relationships between family factors and adolescent deviance. They reported that the strongest and most consistent associations have been found for the variable parental rejection. In their own investigation of rejection and juvenile delinquency, Simons et al (1989) found that this "relationship remains robust after controlling for the effects of other family factors such as control, organization, religiosity, and conflict." Moreover, the relationship between parental rejection and delinquent behavior has been established in both the African American and white American population (Salts et al 1995). Parental rejection has also been linked with juvenile aggressive behavior (Bandura, Walters 1959).

Focusing on the nature of the relationship between rejection by parents and delinquent behavior, Simons et al (1989) offer two possible explanations for the association: 1) Since rejected children are socialized in a non-trust ing environment which consists of little
affection or concern for others, they are likely to generalize this callused attitude to outside relationships; and 2) Rejected children may not develop an attachment to their parents and therefore would not be influenced by their parents' values, causing them to be unconcerned with acting in a manner that parents would not approve. This is similar to the position stated by Hirschi that

the more strongly a child is attached to his or her parents, the more strongly he or she is bound to their expectations and therefore, the more strongly he or she is bound to conformity with the legal norms of the larger system. (1969)

Awareness of the relationship between the family bond and juvenile delinquency, however, does not preclude the investigation of the relationships between other bonding components and delinquency. As already noted, the school also provides an environment in which the adolescent may form a bond with the social order. As a social institution, one of the responsibilities of the schools involves the transmission of the normative culture including the values, norms, attitudes, and beliefs of society. Therefore, social bonding theory argues that the less the adolescent feels attached to the school, the more apt he or she is to reject the norms, thus freeing him or her to engage in activities that violate the conventional standards. Empirical investigations testing this proposition have uncovered a relationship between attachment to school and belief in conventional norms (Thornberry 1985; Wiatrowski et al 1981).

Although Kaplan, Johnson, and Bailey (1986) provide further evidence confirming the relationships between rejection by parents and rejection by teachers and delinquency, they offer a somewhat different, yet complimentary, perspective to explain this association. Kaplan et al (1986) concluded that negative self-attitudes, as measured by perceived rejection by parents and perceived rejection by teachers, were positively correlated with the frequency of committing delinquent behavior. They clearly indicate, however, that these relationships are indirect in that they are mediated by what they refer to as "disposition to deviance." Included in their definition of disposition to deviance is a component referred to as "disaffection with the conventional community." This component parallels Hirschi's variable belief in conventional values. Kaplan et al (1986) explain that if the normative structures of the person's membership units (family, school) fail to provide environments which allow opportunities for self-enhancing experiences, the individual may lose motivation to conform to the norms of the conventional community. As a result, with no norms to guide his or her behavior, it is expected that the likelihood of this individual engaging in deviant behaviors may be greatly augmented.

A review of previous research testing the effects of the bonding components on juvenile delinquency indicates that although studies share common assumptions, they vary in the choice of dimensions employed to measure the bonding components and in the posited direction of the effects (direct, indirect, reciprocal). In this study, we employ "rejection by parents" as a measure of attachment to parents. We argue, as did Simons et al (1989), that level of attachment to parents is partially a product of the level of the parental rejection
felt by the youth in the parent/child relationship. We apply this same line of reasoning to explain our choice of “rejection by teachers” as the dimension measuring attachment to school - the youth’s level of attachment to the school is partially a product of the level of teacher rejection felt by the youth in the teacher/student relationship. Finally, in explaining our choice of disaffection from the conventional community to measure Hirschi’s belief in conventional values, we posit that the strength of the youth’s belief in the conventional norms of society is very much a reflection of the degree of disaffection he/she feels from the conventional community. That we have chosen to examine the direct and indirect effects of the bonding components on juvenile delinquency is apparent in Figures 1a and 1b which present our causal model of the relations between the variables rejection by parents, rejection by teachers, disaffection from the conventional community and juvenile violence for both racial categories. Our hypotheses are derived from this model.

Causal Model for Path Analysis

Kaplan et al (1986) argued that the youth’s sense of disaffection from the conventional community decreases the amount of obligation and commitment he or she feels to the conventional community, thus increasing the likelihood that he or she may engage in delinquent behaviors (Path 43). However, as indicated above, the youth’s level of commitment to the conventional norms of society is very much a result of the rejection he or she feels from family and from teachers. This formulation suggests that the effects of rejection by parents and rejection by teachers on juvenile delinquency are indirect in that they are mediated by the variable disaffection with the conventional community (Path 31 and Path 32 respectively). Rejection by parents and rejection by teachers, however, may also have direct effects on juvenile delinquency (Path 41 and Path 42 respectively).

Furthermore, it is possible that the youth’s feeling of rejection by parents may increase his or her feelings of rejection by teachers, thus exacerbating the existing disaffection with the conventional community and further increasing the possibility that he or she will commit delinquent acts. In this regard, parental rejection may have two indirect effects: 1) through the mediating variable disaffection with the conventional community (Path 31), and 2) via the mediating variable rejection by teachers (Path 21).

By placing the rejection by teachers and disaffection with the conventional community constructs as intervening variables, we contend that a portion of the effect of rejection by family on delinquency is mediated by these variables. If this conclusion is correct, most of the effect of rejection by parents on delinquency will be mediated by the rejection by teachers and the disaffection variables.

The main hypotheses which emerge from the above discussion are presented below. Once again, we are only examining juvenile violent behavior. The hypotheses, therefore, are stated in such a way that reflect this consideration.

Hypothesis 1 - Disaffection with the conventional community has a positive effect on juvenile violent behavior. This effect is partially influenced by the youth’s perceived rejection by parents and rejection by teachers.

Hypothesis 2 - Rejection by parents has a positive effect on juvenile violent behavior. This effect is mediated by the variables rejection by teachers and disaffection from the conventional community.

Hypothesis 3 - Rejection by teachers has a positive effect on juvenile violent behavior. This effect is mediated by the variable disaffection from the conventional community.

Since a concern of this study is to examine the predictive ability of the causal model for African American youth and white American youth, we separately test the hypotheses for each racial category. Lastly, to examine the possibility that rate of juvenile violence may differ between the races, we include Hypothesis 4 which states: The rate of juvenile violent behaviors does not differ between the races.

RESEARCH DESIGN
Sample and Data Collection

Data were collected through the use of a self-report questionnaire consisting of 101 items, and the survey was administered in the spring term of the 1994 school year. The sample, which was drawn from an urban school system in eastern Ohio, consists of 172 seventh and eighth grade male students and yielded approximately 21 percent of the total male population in this system. A nonrandom
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Table 1: Zero Order Correlations Between Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Rejection by Parents</th>
<th>Rejection by School</th>
<th>Disaffection from Conventional Community</th>
<th>Violent Behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rejection by Parents</td>
<td>---</td>
<td>.26</td>
<td>.21</td>
<td>.39**</td>
</tr>
<tr>
<td></td>
<td>---</td>
<td>.74**</td>
<td>.28*</td>
<td>.14</td>
</tr>
<tr>
<td>Rejection by School</td>
<td>---</td>
<td>---</td>
<td>.31*</td>
<td>.31*</td>
</tr>
<tr>
<td></td>
<td>---</td>
<td>---</td>
<td>.26*</td>
<td>.25*</td>
</tr>
<tr>
<td>Disaffection from Conventional Community</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>.41**</td>
</tr>
<tr>
<td></td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>.40**</td>
</tr>
<tr>
<td>Violent Behavior</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
</tbody>
</table>

The first number in each row indicates the correlation coefficient for the African-American sample. The second number in each row indicates the correlation coefficient for the white-American sample.

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

convenience sampling method was used in the selection of schools and the students within each school. There was equal participation of students by grade and by race in the study. Participation was voluntary and required an informed consent letter signed by a parent or guardian. To facilitate and encourage participation and trust, students were guaranteed anonymity.

VARIABLES

Violent Behavior

The dependent variable consists of five separate indices: 1) starting a fist fight; 2) carrying a weapon; 3) taking part in gang fights; 4) beating someone up without a cause; and 5) using force to get money or valuables from another person. Students were asked to indicate by responding “no” or “yes” if they had engaged in any one of these behaviors in the past six months.

Included in the analyses were the following three sets of independent variables which directly were drawn from the questionnaire used by Kaplan et al (1986) in their study of juvenile deviance. Responses to all three sets ranged from 1) definitely false to 6) definitely true.

1) Rejection by Parents - The four components comprising this scale reflect Hirschi’s social bond component of attachment to the family. The indices center on the individual’s perception of parental rejection he feels in the parent-child relationship. These are: 1) As long as I can remember, my parents have put me down; 2) My parents are usually not very interested in what I say; 3) My parents do not like me very much; and 4) My parents wish that I were different from what I am. The scale is designed in such a way that it requires the respondent to focus upon both parents simultaneously rather than asking about each individually.

2) Rejection by teachers - Hirschi’s bonding component attachment to teachers is assessed through a group of indicators which refer to the individual’s perception of the teacher’s evaluation and interest demonstrated toward him in the teacher/student relationship. The items duplicate those designed by Kaplan et al (1986) and are stated as: 1) My teachers are usually not interested in what I say or do; 2) By my teachers standards, I am a failure; 3) My teachers do not like me very much; and 4) My teachers usually put me down.

3) Disaffection with the conventional community (Hirschi’s belief in conventional values) - In order to measure this variable, we used a scale constructed by Kaplan et al (1986) which consists of the following six indices: 1) I would like to quit school as soon as possible; 2) I would like to leave home; 3) If you stick to law and order, you will never fix what is wrong with this country; 4) The law is always against the ordinary guy; 5) I have a better chance of doing well if I cut corners than if I play it straight; and 6) The kids who mess up with the law seem to be better off than those who play it straight. In addition to the variables measured relevant to this study, other variables were included as part of a larger study.

ANALYSES AND FINDINGS

The data analyses addresses several main objectives of this study: 1) to investigate if the rate of juvenile violence varies between the races; 2) to examine the social bond components as predictor variables when investigating juvenile violence; and 3) to appraise whether the predictor variables identified in this study
Figure 2: Percentages and Means of Juveniles Committing Delinquent Acts According to Race and Tests of Significance Between the Means

<table>
<thead>
<tr>
<th>Level</th>
<th>African-American</th>
<th>White-American</th>
<th>Significance 2-Tail Probability*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carry a weapon</td>
<td>24</td>
<td>14</td>
<td>1.11</td>
</tr>
<tr>
<td>Start a fist fight</td>
<td>20</td>
<td>17</td>
<td>1.16</td>
</tr>
<tr>
<td>Use force to get money or valuables from another person</td>
<td>15</td>
<td>17</td>
<td>1.16</td>
</tr>
<tr>
<td>Beat someone up without cause</td>
<td>16</td>
<td>14</td>
<td>1.11</td>
</tr>
<tr>
<td>Take part in gang fights</td>
<td>23</td>
<td>13</td>
<td>1.13</td>
</tr>
</tbody>
</table>

*Significance level = less than .05

contribute equally to the explanation of violence for both black juveniles and white juveniles. Therefore, our analyses involves several parts.

We begin by examining the simple bivariate relationships between juvenile violence and the predictor variables for both races. Next, we conduct t-tests to determine if a significant difference exists in the mean scores between the races. Lastly, because we are testing for both direct and indirect effects of the social bond variables on juvenile violence, we employ multiple regression techniques to form separate path analyses to explain juvenile violence for the African American sample and for the white American sample.

Findings

Zero-order coefficients were computed for violent behavior and the independent variables. The coefficients allow us to determine how strongly the variables are linked to violent behavior. The resulting correlation matrix is presented in Table 1.

For the African American subjects of this investigation, it was found that all of the social bonding variables reached statistical significance at either the .05 or .01 level of confidence. The variables which show the strongest positive correlation with violence are disaffection with the conventional community (.41) and rejection by parents (.39), with rejection by teachers showing a positive correlation of (.31).

Table 1 contains some interesting observations for the white sample. First of all, the correlation coefficients reveal no association between rejection by parents and violence (.14). There is, however, a modest positive association between rejection by teachers and violence (.25) and a strong positive correlation between the variable disaffection with the conventional community and violence (.40). These results show significant relationships between the variables rejection by teachers and disaffection from the conventional community with violence, but no statistically significant relationship between rejection by parents and juvenile violence for the white American sample. There is an obvious difference in the strength of the relationship between rejection by parents and juvenile violence for our two racial groups. Data shown in Table 1 clearly indicate that rejection by parents is more strongly correlated with juvenile violence for our African American sample than it is for our white sample.

T-tests were conducted to determine if a significant difference exists in the sum mean scores on the violence scale between the African American and white American samples. As reported in Figure 2, there are no significant differences in the mean scores between the racial categories. We can conclude, therefore, that the number of juvenile violent acts did not differ between the two racial categories (Hypothesis 4).

The simple Pearson correlations discussed do not provide adequate basis for testing the hypotheses of our causal model. Therefore, we extend our investigation by examining the predictive ability of each of these variables via path analysis.

Separate path analyses were conducted for the two racial categories. Table 2 presents the standardized coefficients on which the following analyses are based. Path analysis distinguishes three types of effects: direct, indirect, and total effects. These are all reported in Table 2. The causal model explains 29 percent of the variation in violent behavior for the African American sample and explains only 20
Table 2: Decomposition of Effects for Path Model

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Predictor Variable</th>
<th>Total Association</th>
<th>Total Effect</th>
<th>Indirect Effect Via Disaffection with the Conventional Community</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Rejection by Teachers</td>
<td></td>
</tr>
<tr>
<td>Rejection by</td>
<td>Rejection by Family</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teachers</td>
<td>African-American</td>
<td>.260</td>
<td>.209</td>
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<td>.209</td>
</tr>
<tr>
<td></td>
<td>White-American</td>
<td>.744</td>
<td>.723**</td>
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<td>.723**</td>
</tr>
<tr>
<td>Disaffection with</td>
<td>Rejection by Family</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>the Community</td>
<td>African-American</td>
<td>.200</td>
<td>.200</td>
<td>.06</td>
<td>.140</td>
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<tr>
<td></td>
<td>White-American</td>
<td>.192</td>
<td>.192</td>
<td>.06</td>
<td>.132</td>
</tr>
<tr>
<td>Community</td>
<td>Rejection by</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Teachers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>African-American</td>
<td>.297</td>
<td>.268</td>
<td></td>
<td>.268</td>
</tr>
<tr>
<td></td>
<td>White-American</td>
<td>.212</td>
<td>.116</td>
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<td>.116</td>
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</table>

R2 for African-American sample=.13
R2 for white-American sample=.09

Juvenile Violence

<table>
<thead>
<tr>
<th>Predictor Variable</th>
<th>Total Association</th>
<th>Total Effect</th>
<th>Indirect Effect</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rejection by</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>African-American</td>
<td>.391</td>
<td>.391**</td>
<td>.034</td>
<td>.302*</td>
</tr>
<tr>
<td>White-American</td>
<td>.300</td>
<td>.300</td>
<td>.137</td>
<td>.113</td>
</tr>
<tr>
<td>Rejection by</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teachers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>African-American</td>
<td>.282</td>
<td>.211</td>
<td>.085</td>
<td>.126</td>
</tr>
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<td>.361</td>
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<td>.070</td>
<td>.191</td>
</tr>
<tr>
<td>Disaffection with</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Conv. Community</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>African-American</td>
<td>.338</td>
<td>.319*</td>
<td></td>
<td>.319*</td>
</tr>
<tr>
<td>White-American</td>
<td>.480</td>
<td>.390**</td>
<td></td>
<td>.390**</td>
</tr>
</tbody>
</table>

R2 for African-American sample=.29**
R2 for white-American sample=.20**

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

***This number refers to that portion of the total association due to the correlation of the predictor variables with other variables in the model, which in turn causes variation in the dependent variable.

percent of the variation for the white American sample. A look at the differential effects each of the predictor variables has on juvenile violence for the two racial categories helps to explain why the model had better predictive ability for the African American sample.

Turning to the predictor variables, it can readily be seen that for both races disaffection with the conventional community is a very significant correlate of violent behavior (African American: Beta=.319*) (white American: Beta =.390**). In fact, it proves to be the most significant correlate for the white American sample. We can conclude, therefore, that there is a relationship between feeling disaffected from the conventional community, which reduces the individual's belief in and commitment to the conventional norms, and juvenile violence and that this relationship exists for both racial categories (Hypothesis 1).

Our theoretical framework indicated that disaffection from the conventional community may also act as an intervening variable between rejection by parents and rejection by teachers and violent behavior. A discussion of the intervening role of this variable is included in our presentation of the findings concerning the relationships between rejection by teachers and rejection by parents and violence.

Regarding the predictor variable rejection by teachers, a comparison of the path coefficients reveals some interesting variations in the effects of this variable for the two racial
categories. The coefficients for the direct effect (0.126) and the total effect (0.211) of rejection by teachers on violence for the African American sample reveals no significant relationship between these variables. In fact, a rather modest portion (40%) of the total effect of this variable's influence on violence is mediated through the intervening variable disaffection with the conventional community (.085/.211). Table 2 shows that rejection by teachers has a direct, although insignificant, effect on disaffection from the conventional community (Beta = 0.268) which is strongly related to juvenile violence. Therefore, as our causal model predicts, at least part of the effect of disaffection from the conventional community on violence is transmitted through rejection by teachers.

Likewise, for the white American sample, the Betas for the direct effect and for the total effect of rejection by teachers on violence reveal no significant relationship between these variables. Table 2 shows that 73 percent (.191/.281) of the total effect of rejection by teachers on violence is through a direct path while 26 percent (.07/.281) of the total effect is mediated through the intervening variable disaffection with the conventional community. Although disaffection with the conventional community acts as an intervening variable between rejection by teachers and violence for both races, its mediating effect is slightly greater for the African American sample. These findings reveal no significant relationships between rejection by teachers and juvenile violence for both racial categories. Thus, we cannot, therefore, confirm Hypothesis 3 as it is stated in this study.

Investigating the effect of rejection by family on juvenile violence yielded the following results. Beginning with the African American sample, Table 2 shows that rejection by family exerts a direct positive effect on violent behavior (Beta = 0.302). Two indirect positive effects of rejection by family on violence are also apparent: 1) through rejection by teachers (.034), and 2) through disaffection from the conventional community (.055). It is important to note that only 23 percent (.089/.391) of the total effect of rejection by family is mediated by the variables rejection by teachers and disaffection from the conventional community, while 77 percent (.302/.391) of the total effect is through the direct path. This leads us to conclude that the direct influence of rejection by family on juvenile violence for African Americans remains significant after controlling for the other predictor variables. These results tend to support the findings in the literature, at least for our African American sample, that there is a significant relationship between attachment to family, as measured by our variable rejection by family, and juvenile violence (Hypothesis 2).

Rejection by parents, however, did not prove to have any significant effects on violent behavior for the white sample. As Table 2 reveals, the direct effect of rejection by family on violence for the white American youth is practically negligible (Beta = 0.113). In fact, for this group, 62 percent (.187/.300) of the total effect of the family variable on violence is mediated by the intervening variables rejection by teachers (46%) and disaffection from the conventional community (16%). Therefore, we can conclude that when statistically holding constant the influence of all other variables in our causal model, rejection by family becomes insignificant as a predictor variable for the white American sample. These findings do not provide evidence concerning the significance of the variable rejection by family in the etiology of juvenile violent behavior. Thus, we cannot confirm Hypothesis 2 as it relates to our white American sample.

DISCUSSION AND CONCLUSIONS

The results of the present analyses yield several basic conclusions and reveal areas of concern which should be addressed when investigating the relationships of the social bonding components with juvenile delinquency. The data provide evidence confirming several of the hypotheses emerging from the social bonding theory while rejecting others. Additionally, while the findings reveal variations between racial categories, the most apparent difference is found in the effect of parental rejection on juvenile violence.

First of all, our data fail to confirm Hypothesis 3 which points to a positive association between rejection by teachers and juvenile violence. In fact, most of the effect of rejection by teachers on violence for both racial groups was mediated through the disaffection with the conventional community variable. Nevertheless, the total of the direct and indirect effect of rejection by teachers on violence was statistically insignificant for both racial groups.

One possible explanation relevant to the methodology of this study may help explain
this finding. We tested the relationship between rejection by teachers and violence in a recursive model. Liska and Reed, however, concerned that the effects of these variables might be reciprocal, examined them in a nonrecursive model and concluded that 

delinquency appears to be more of a cause than a consequence of school attachment, which only affects delinquency indirectly through its effect on parental attachment. (1985)

Perhaps it would have been advisable when constructing our causal model to have considered the possibility of reciprocal effects, since as Liska and Reed (1985) conclude, "the relationship between social attachment and delinquency is not as simple as implied in theories of social control." Thus, we contend that further research is needed to specify the possibility of reciprocal effects.

Secondly, although the results of this analysis showed strong associations between the family bond component (rejection by parents) and juvenile violent behavior, clearly this only applied to our African American sample. A comparison of the strength of the coefficients in the African American sample reveals rejection by parents to have the strongest effect on violence for this group, yet the total effect of this variable for the white American sample was rather modest.

We continue to acknowledge the importance of including the family bond component in the explanation of juvenile violence. We do suggest, however, the need to consider alternative conceptualizations of family attachment. This study employed the dimension of parental rejection as an indicator of family attachment. Our findings permit us to conclude that rejection is a powerful indicator of family attachment for African Americans. The insignificant direct effect and the modest total effect of parental rejection on violence for our white American sample, however, may reveal the need to either explore more accurate indicators of family attachment for this racial category or to construct universal indicators of family bonding which would be applicable for all racial categories.

The relevance of employing precise measures is specified by Weber, Miracle, and Skehan (1995) in their study of family bonding and delinquency. They advise researchers to be cautious when utilizing the social bonding measures in diverse groups, pointing out that "measures that may be valid indicators of the bonding components in one group may be an indicator of another component in another group" (Weber et al 1995). We concur with their conclusion that an accurate investigation of the predictors of juvenile violence across racial categories requires employing more universal measures of family bonding.

More precise indicators of the family bond also may have wielded stronger effects of this variable on disaffection with the conventional community. Our causal model proposed that internalization of the values and norms of society by the adolescent is greatly dependent on whether he or she feels an attachment to his or her family. Obviously, the findings for both racial groups support our argument that disaffection from the conventional community has a strong effect on juvenile violence, yet the findings do not support our proposed link between attachment to family (rejection by parents) and disaffection. Although the zero order correlations do show a modest relationship between rejection by parents and disaffection for the white American sample only, when controlling for other variables in our path analysis, this relationship becomes insignificant. In other words, our model does not significantly contribute to the explanation of the process through which the juvenile fails to internalize the values and norms of society. Nevertheless, since disaffection from the conventional community proved to be a strong predictor of juvenile violence for both racial groups, we contend that attention should be given to those factors which weaken the youth's ties to the conventional community. At this time we can only suggest that, if other indicators of family bonding such as parental supervision, parent/child communication, and parental involvement had been employed in this study, perhaps we would have found a stronger association between the family bond variable and disaffection from the conventional community.

Finally, we believe that the explanatory power of our causal model would have been greater if we had given some consideration to other correlates of juvenile delinquent behaviors. Indeed, it is not reasonable to assume that juvenile delinquency naturally follows severing of the social bonds. Hirschi's theory more or less describes the conditions that allow for, but that do not necessarily cause delinquency. Therefore, important intervening factors such as Cloward and Ohlin's (1960)
availability of opportunities to engage in delinquent activities may explain why some individuals who are weakly attached to their parents turn to delinquent behaviors and others do not. With this consideration, it may be helpful for future research to consider those conditions in the environment which make available opportunities for the unattached youth to learn and to engage in delinquent activities. Sutherland and Cressey argued that a child does not necessarily become delinquent because he is unhappy. Children in unhappy homes may adopt delinquency patterns if there are any around for them to acquire. (1966)

One condition in the youth's environment which affects the availability of opportunities to engage in delinquent behaviors is associations with deviant peers. The importance of deviant peers is brought forth by Krohn and Massey (1980) who contend that social bonding theory should be complemented with "variables indicating deviance-producing motivation such as association with delinquent peers." According to Krohn and Massey (1980) once the family bonds are weakened or severed, the more deviant companions the adolescent has, the more likely he or she is to deviate. This proposition was tested by Matsueda and Heimer (1987), and in their findings they reported that the number of delinquent friends does have a statistically significant influence on delinquency. Placing their argument within the differential association framework, they explain that youths who are not attached to their parents and who have formed friendships with deviant peers are more exposed to deviant cultural patterns. Through association with deviant peers, the youth not only learns how to engage in deviant behaviors defined within the context of the deviant culture as acceptable, but also is more exposed to opportunities to participate in deviant acts. What follows is a loss of attachment to the conventional normative standards which stress adherence to the legal code. Hence, the chances of actually engaging in delinquent acts are increased.

We stated earlier that our causal model did not contribute to the understanding of how youths become disaffected from the conventional community. Perhaps the inclusion of the effects of deviant peer groups in our model would have made a difference. We posit that if association with deviant peers entails the learning and sharing of norms and beliefs which greatly oppose the norms and beliefs of the conventional society, then we could expect that the more strongly the youth is attached to and committed to his or her delinquent peers, the more disaffected from the conventional community he or she becomes. This line of reasoning introduces a fifth predictive variable into our causal model - deviant peer groups. As the discussion indicates, however, this variable's effect on juvenile delinquency is more indirect in that it serves as an intervening variable mediating the effects of the family bond on disaffection from the conventional community. Further research is needed to investigate the mediating role of deviant peer groups on delinquency. As a caveat, however, without examining reciprocal effects, we do not know if severing of the bonds with the family pushes the adolescent to form associations with deviant peers or if the adolescent's friendship with deviant peers leads to rejection by parents. Once again, we are confronted with the issue of disentangling reciprocal effects.

Despite the theoretical and methodological issues raised here, we cannot dismiss the relevance of our findings. First, our findings reveal the need to give further consideration to the causal structure of the relationships between social bonds and delinquency. Specifically, we suggest that theoretical consideration be given to the indirect effects of the bonding components on juvenile delinquency and the reciprocal causal effects between the bond components. Second, we indicated that racial variations in the effects of the family bond component on juvenile violence may have been a result of inaccurate measures of attachment to family, and we stressed the need to generate indices for this variable that would be equally valid for both races. This study, therefore, gives further support to the argument that careful consideration must be given to assure the use of more universal indicators of family bonding, and it also emphasizes the need to generate future research applying those indices. Lastly, we suggested that integrating the social bonding theory with differential association theory could result in a causal model that could make a greater contribution to the explanation of juvenile delinquency than either model alone could do.

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