

Examining Strain in a School Context

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Abstract:

General strain theory has accumulated a considerable amount of empirical support. Many of these assessments have tested the direct relationship that strain has on crime and delinquency. The research presented here examines the relationship between schools and delinquency within a general strain theory perspective. More specifically, this research examines how schools can not only act as a source for an individual's strain and subsequent delinquency, but it examines how schools can also be a source for mediating or coping with strain and minimizing delinquency. In order to test the relationship between schools and delinquency, data from the National Educational Longitudinal Survey (NELS:88) are analyzed in a model of general strain that specifies sources of school-based strain and sources of school-based mechanisms for controlling strain.

KEYWORDS: NELS, School Administration, School Context, School Violence, Strain, Substance Use, Truancy

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INTRODUCTION

Schools and delinquency are related in a number of ways. Due to compulsory education laws, young people are legally bound to schools for a significant portion of the day and for several months each year. Since younger people are more likely to commit crimes or delinquent acts than older people and most criminals are more likely to offend against those individuals who are most like themselves, schools seem to be not only a likely place for delinquent acts to occur, but they are also a likely place for young people to be victimized (see DeVoe, Peter, Noonan, Snyder, and Baum, 2005; US Department of Education, 2003). This scenario of likely offending and likely victimization is one that should be of considerable interest and importance to the criminological community.

Other than identifying delinquency and victimization, schools are useful for the administration of surveys and the testing of theories among adolescent samples, and the basic tenets and constructs of our most popular criminological theories are conceptually tied to the daily routines of students. Hirschi's (1969) theory of social bonding predicts that adolescents who are more committed and involved in pro-social activities (like school) will be less likely to commit delinquency acts. Sutherland's (1947) differential association theory and Akers' (1977) social learning theory expect that a considerable amount of definitions of and attitudes towards delinquent acts are accepted, shared, or conditioned through adolescent peer associations. Strain theories such as Cohen's (1955) offer the idea that schools serve as conveyors of socially prescribed goals and create unique opportunities for these goals to become blocked from individuals who are from lower social and economic classes. Advances in strain theory have proposed that schools can be a unique source of social-psychological strain (Agnew, 1985, 1992, 2001).

This study examines this social-psychological version of strain and identifies how schools can not only act as a source for an individual's strain but how schools can also act as a source for mediation or coping with strain. First, a brief review of the development of strain theory is presented. Then, an application of contemporary strain theory specific to schools is discussed. Finally, an expanded model of general strain theory is offered as a more complete alternative to understanding schools as a source of delinquency causation and mediation. This model is assessed with data drawn from the National Education Longitudinal Study (NELS: 88). From this assessment, conclusions are presented and direction for continued school-based research and policy is offered.

LITERATURE REVIEW

Most versions of strain theory trace their origin to Merton's (1938) essay about anomie and social structure. In that essay, Merton suggested that personal success and satisfaction derive not only from attaining goals but from surpassing other competitors. This competitive spirit can lead individuals to manipulate different and sometimes illegal means to achieve success. These pursuits can also "invite exaggerated anxieties, hostilities ... and antisocial behavior" (Merton, 1938, p. 680). To some extent, Merton's propositions emphasize pecuniary success, but an expanded interpretation would allow for success to come in many forms and to not be limited to an individual's financial gains. Cohen (1955) and Cloward and Ohlin (1960) elaborated Merton's thesis and offered specific explanations for juvenile delinquency that included schools as a multi-faceted source of strain that might include diminished status and blocked opportunities to advance socially.

For several decades, strain theory was empirically assessed as a macro-level theory¹. That is, many strain assumptions have been tested through the identification and measurement of socially prescribed goals and achievement of those goals. Some tests have moved away from these aggregate or macro assessments of the theory and have begun to point towards aspirations to and achievement of individual measures of success (See Figure 1). This movement towards an individual model of strain was solidified when Agnew began to develop General Strain theory (see Agnew, 1985).

(Insert Figure 1 about here)

General strain theory proposed that crime and delinquency were the result of an individual's emotional status produced by negative personal relationships (Agnew, 1992). The strain from these negative relationships is produced by a greater variety of circumstances than what was proposed in earlier strain theories, but General Strain theory has included among these circumstances a remnant of its theoretical predecessor. Namely, the disjunction between an individual's aspirations and expectations has been retained (see Figure 2). Added to this historic element of strain were the removal of positively valued stimuli (e.g., the loss of a boy/girlfriend, the death or divorce of parents, or the separation from a group of peers) and the introduction of negative stimuli (e.g., the presence of a mean-spirited teacher or bully). These strainful elements can produce within an individual what Agnew has referred to as a "negative affective state." This negative affect is expected to be associated with states of anger, frustration, and rage. Any individual who has developed a negative affect is also likely to experience an increased likelihood of delinquency or criminality. Despite the increased likelihood of delinquency, Agnew proposed that an individual might be able to develop, implement,

and enjoy coping strategies that could minimize the likelihood of delinquent responses. These coping strategies can be cognitive, behavioral, or emotional and might include activities like rationalizing stressful events as being temporary, pursuing social support, or participating in exercise or drug abuse.

(Insert Figure 2 About Here)

Since Agnew's (1985) initial proposition of the theory and subsequent elaborations and applications (Agnew 1992, 1995, 2001), the theory has enjoyed a considerable amount of empirical support. Although many of these empirical assessments include schools as an indirect source for the general strain, a more elaborate model might be necessary to accurately test if generalized strain operates within the school setting.

Agnew and White (1992) provided an initial examination of general strain by testing the likelihood that family, school, and neighborhood problems could affect delinquency and drug use. Their analysis provided some confirmation of the general strain propositions, but the magnitude of the effect could be considered minimal. While confirmatory, these results could be scrutinized due to use of data that measure the constructs of strain and delinquency longitudinally with a gap of three years between the first and last measurement. An attribute of general strain is that it identifies strainful experiences at an individual level; while it is likely that these negative affective experiences occur as a process over time, it is plausible to assume that this process will be more contemporaneous than what occurs over a three-year time span. Another possibly confounding issue is that delinquent peers were found to increase participation in delinquency and drug use and lower the measurement of self-efficacy. These

relationships with delinquent peers introduce the theory to competition from differential association and social learning theories.

Another assessment of this process was conducted by Paternoster and Mazerolle (1994). Using data drawn from the National Youth Survey (NYS) (see, Elliott, Huizinga, and Ageton, 1985), a direct test of the “hypotheses about the conditions of strain under which adverse conditions of strain may be amplified or muted” (Paternoster and Mazerolle, 1994, p. 246) was conducted. Paternoster and Mazerolle found that peer hassles were significantly related to subsequent delinquency and this was second in strength to negative relationships with adults and as strong as moral beliefs and delinquent peers. Although the NYS data used in this analysis presented a shorter (one-year) lag between measurements, distinct possible problems with this analysis could be with the scaling and measurement of the theoretical constructs. Some of the survey items that were used to measure the strain constructs could actually be considered measures of other theories (e.g., social disorganization). Additionally, some survey items intended to measure strain could actually provide an indication that schools could be a source of coping with negative affective state.

Other tests of general strain theory have found support for specific components of general strain (see, Brezina 1996; Mazerolle and Piquero, 1997; Mazerolle and Piquero 1998) and support among different populations of offenders (see, Broidy, 2001; Piquero and Sealock, 2000). The diversity of these tests provides confirmation that the theory should be tested more explicitly and completely with appropriate data drawn from an appropriate sample within an appropriate context.

The School-Strain Relationship

Agnew (2000) has argued that General Strain theory is particularly appropriate to study the relationship that schools have with delinquency. General strain theory predicts that several sources of strain can accumulate to produce the negative affective state that leads individuals into delinquency. These sources of strain can include neighborhood, familial, and school-based relationships (see Figure 3). Outside of school, neighborhood problems such as poverty, racism, inequality and relative deprivation can be examples of negative stimuli. At the familial level, negative stimuli can come from dysfunctional relationships with parents or siblings. While these experiences are likely to occur with some frequency among delinquent youths, the frequency and duration of school-based relationships makes them particularly interesting to study.

(Insert Figure 3 About Here)

The school experience can provide a variety of noxious events. While positive peer relationships exist for many students, negative peer relationships (e.g., bullying, teasing, and peer pressure) are also abundant. Likewise, teachers may represent negative relationships by exposing students to their poor temperament, demeaning attitude, or unfair grading practices. Low academic achievement or a learning disability might add to a general dissatisfaction with the entire school environment, increased levels of boredom, and can contribute to an attitude that school activities are irrelevant to either immediate or future life circumstances. While some students might cope with a lack of peer support by reveling in a “loner” status or rationalizing poor grades as being meaningful only to those in a college preparatory curriculum track, it should be expected that most students would find these experiences as negative life events. That is, to most students, these experiences

would be strainful and would contribute to the development of a negative affective state and the likely progression towards delinquent activity.

While the use of general strain theory to explain school-based delinquency seems plausible, it would be inappropriate to discount the impact that other theoretical perspectives and constructs might have within a school context. For instance, differential association (Sutherland, 1947) and social learning (Akers, 1977) theories suggest that the presence of delinquent peers could increase the likelihood of offending. To be sure, peers who are experienced in delinquent activities and willing to model their behavior certainly contribute to the school atmosphere and the availability of inappropriate social networks. Additionally, social control (Hirschi, 1969) theory suggests that schools represent an opportunity for students to become committed and involved in socially appropriate activities that inhibit participation in delinquent acts.

In a tangential line of research, Howard Kaplan and colleagues, over several decades, have developed and tested a general theory that suggests that social relationships can facilitate the individual motivation (e.g., negative self-feelings and self esteem) necessary to engage in delinquency and deviance (see Kaplan 1972, 1975, 1980, 1984; Kaplan and Damphouse, 1997; Kaplan and Johnson, 2001; Kaplan, Johnson, and Bailey 1986; Kaplan and Peck, 1992). A recent test has focused on the intervening and mediating effects of negative self-feelings on the relationship between relative deprivation and crime. Stiles, Liu, and Kaplan (2000) analyzed a single wave of panel data collected from over 6,000 subjects who were surveyed when they were in their mid to late twenties. They found that the fit of several multivariate models that considered self assessments of deprivation (relative to friends, neighbors, and perceived national

averages) improved when negative self-feelings was included as an independent variable. When negative self-feelings was included, the impact of relative deprivation, across social references, was either diminished or became statistically insignificant. This suggests that negative self-feelings, an independent parallel to negative affect, should be considered in any assessment of social-psychological relationships to delinquency and crime.

Whether alongside or completely aside from these theoretical perspectives, a more elaborate or extended school-based model should be able to more accurately define how schools can be a source of both the negative affective state and the coping strategies that are vital components of general strain theory (see Figure 4). That is, some of the constructs that previous research has identified as the school-based problems that create the negative affective state might also be able to contribute to the coping strategies that mediate strain. For instance, in some individuals, participating in sports or required physical education could produce strainful circumstances when the student is unable to succeed athletically. For others, athletics might provide the behavioral coping that Agnew discussed as mediating the strain that is due to poor academic achievement.

(Insert Figure 4 about Here)

A careful survey and measurement of these constructs could provide more explicit evidence that individual differences can alter the impact and direction of certain activities. An ability to manipulate these negative affective behaviors into potential coping behaviors could establish a fruitful school-based prevention program. By allowing the same constructs to fluctuate between risk and protective factors, delinquency could be seen more precisely as an individual phenomenon.

The current study addresses some of the issues discussed above. Specifically, this study analyzes data from two waves of a national representative sample separated by a two-year interval. In addition, the current study tests a specified model of school-based strain (see Figure 5). This model includes school mechanisms as both a contributing and mediating factor; that is, this is an assessment of the impact that schools can have in terms of both increasing and decreasing an individual's level of delinquency. In the present analyses, two hypotheses are tested:

H₁: Strainful school-based experiences are positively related to delinquency

H₂: School mechanisms are negatively related to delinquency and can mediate delinquency

(Insert Figure 5 about here)

METHODS

Data

Data for this study were originally collected as part of the National Longitudinal Education Study (NELS). The first wave of the NELS survey was administered to a national probability sample of students in 1988. Follow-up surveys were administered at two-year intervals beginning in 1990. This study analyzed data from the first and second follow-up surveys, in 1990 and 1992 respectively². The NELS survey included items that measured a large range of social phenomena; however, this study was primarily concerned with items that measured delinquency, school-based strain, students' affective state, and school mechanisms. The total sample size for both follow-ups used in this

analysis is 12,144 individuals. Descriptive statistics and sample characteristics are presented in Table 1.

(Insert Table 1 about Here)

School Strain

Two measures of school-based strain were included in this analysis. First, each respondent reported perceptions of safety while at school. Respondents indicated how strongly they agreed with the statement “I don’t feel safe at this school” on a four-point Likert-type scale. Responses were reversed from their original coding so that a higher score indicates greater perceptions of being unsafe and increased strain.

The second measure of school-based strain was exposure to criminal behavior. This was measured through three survey items. Respondents were asked to report the frequency of three acts occurring during the first half of the current school year. These acts included having something stolen from them while at school, having someone offer to sell them drugs while at school, and having someone threaten to hurt them while at school. For this analysis, responses were coded as either never occurring or occurring more than once. These responses were then aggregated into an additive measure of exposure to crime and victimization while at school. Our use of this construct and its coding is based on the expectation that any relationship with this exposure (rather than the frequency of exposure) is a strainful event and contributes to the school-based environmental strain.

Affective State

A total of fourteen items were used to assess each respondent's affective state (see Appendix A for a specification of each scale used in this analysis). Items were coded so that a higher score indicates a greater degree of negative affect.

School Mechanisms

School mechanisms are a construct that measures the school's ability to integrate activities that might promote coping or mediation of school-based strain. These mechanisms were divided into three separate categories. First, school recognition was measured with a nine-item scale that asked respondents to indicate if they had received any awards or other types of recognition. Measures of school recognition were coded as 0 for no recognition and 1 for one or more instances of official recognition.

The second school mechanism included was perceptions of the school atmosphere. This variable was measured using a four-item scale. Although there were a number of other items that measured the atmosphere of the school in the NELS survey, these four items were selected for two reasons. First, only those sentiments that could be manipulated by the school administration or faculty were included. Other items measuring school atmosphere dealt with sentiments that were the result of other students, not the school faculty or administration. Second, only items that were included in both the first and second follow-ups were included in the analysis. These items were measured with a four-point scale of agreement and have been coded so that higher values indicate a more positive school atmosphere.

The third type of school mechanism included in this study was school involvement. Although the types of activities included in the school involvement scale

were the same in both survey administrations, the items were organized differently (see Appendix A). For instance, in the first follow-up survey, respondents could indicate participation in a variety of team and individual sports (e.g., baseball, football, soccer, etc.), but in the second follow-up, respondents could indicate participation in either team sports and/or individual sports. That is, in the second follow-up administration of the NELS survey, several individual items had been grouped together. These items have been coded as 0 to indicate no involvement with any activities and 1 to indicate involvement in one or more activities. It is expected that any involvement could be just as meaningful to the predicted relationship as frequent involvement.

Delinquency

Three measures of delinquency are analyzed. The first measure of delinquency is violence, and is measured through a single item that reports the frequency of involvement in physical fights at school during the first half of the current school year. Responses to this item were coded as 0 = never, 1 = once or twice, and 2 = more than twice.

The second category of delinquency measures truancy. This is also measured through a single item, which asked respondents to report the number of times they had cut or skipped classes within the first half of the current school year. Responses to this item were coded as 0 = never, 1 = 1-2 times, 2 = 3-6 times, 3 = 7-9 times, and 4 = over 10 times.

The final measure of delinquency is substance use/abuse. This was measured with four items that report respondents' use of cigarettes, alcohol, marijuana, and cocaine. The item measuring cigarette use asked respondents to report the number of cigarettes

they usually smoked in a day. Responses were coded as 0 = I don't smoke at all, 1 = less than 1 cigarette a day, 2 = 1 to 5 cigarettes a day, 3 = about ½ pack a day, 4 = more than ½ pack a day but less than 2 packs a day, and 5 = two packs a day or more. In the first follow up survey administration, alcohol, marijuana, and cocaine use were measured in terms of life-time use. In the second follow up administration, alcohol, marijuana, and cocaine use was measured in terms of previous 12 months. The responses were coded as 0 = never, 1 = 1-2 occasions, 2 = 3-19 occasions, and 3 = 20+ occasions.

RESULTS

Analyses were conducted over two stages. First, bivariate correlations were computed for all of the variables included in the analyses and a correlation matrix is presented as Table 2. In addition to this, a series of ordinary least squares (OLS) regression models were estimated for each measure of delinquency. In each model, the dependent variables are the various forms of delinquency measured during the second follow up administration of the survey. Additionally, each model estimates the impact of demographic characteristics and all independent variables measured during the first follow up of the NELS survey. Because this is an exploratory study, the models were estimated in a series of steps that progressively include blocks of prior measures of school-based strain or prior measures of school mechanism variables and then blocks of contemporaneous measures of school-based strain and school mechanism variables. In the final full model, all measures of prior and contemporaneous strain and school mechanisms were included.

Bivariate Correlations

School Mechanisms

Table 2 presents the correlation matrix. Overall, the correlations reported here are remarkably low. The largest correlation coefficient, excluding associations of the same variable measured across two waves, estimates the association of substance use and truancy both measured during the first follow-up survey ($r = .429$). Collectively, this matrix indicates that many relationships exist at a bivariate level in theoretically expected directions, and the small to moderate magnitude of these relationships indicates that problems with colinearity are not likely to exist in the multivariate models described below.

Multivariate Results

To test the causal relationships between the variables as well as the mediating impact of school mechanisms on the relationship between school strain and delinquency, a series of OLS multiple regression models were estimated. As described above, four models were estimated for each of the three measures of delinquency included in this study (i.e., the baseline model, school mechanisms model, school strain model, and full model).

Fighting

Table 3 presents the findings of the four OLS regression models that estimated the impact of school-based strain and school mechanisms on fighting. In model 1, all three measures of prior delinquency had a significant impact on current levels of fighting. In

addition, previous exposure to crime and victimization at school was the only measure of school strain that showed a significant relationship. Finally, both prior recognition and prior perceived atmosphere were significantly and negatively related to fighting. This model indicates that various forms of prior delinquency and exposure to delinquency and victimization increase subsequent delinquency while administrative recognition and positive atmosphere reduce subsequent delinquency.

(Insert Table 3 about here)

In Model 2, all of the baseline measures remained, and the contemporaneous school-based strain measures were added. In this model, all three measures of prior delinquency again had a significant impact on subsequent fighting. Also, prior administrative recognition was negatively related to subsequent fighting. In this model, the relationship between prior affective state and subsequent fighting is significant and negative. Perceptions of safety, exposure to delinquency and victimization, and negative affect also had significant and positive relationships with contemporaneous levels of fighting, indicating that current strain increases fighting while controlling for past measures of strain and school mechanisms.

In Model 3, all of the baseline measures again remained in the model, but the three measures of contemporaneous school mechanisms replaced the contemporaneous measures of school-based strain. As in the baseline, Model 1, both prior fighting and prior truancy are significantly and positively related to subsequent fighting; however, the relationship between prior substance use and subsequent fighting is negative. Also, the relationship between exposure to crime and violence in school and subsequent fighting continued to be the only significant relationship between the measures of school strain

and fighting. In this model, the impact of school atmosphere on subsequent fighting was not significant; however, the impact of prior administrative recognition on subsequent fighting remained significant and negative. Additionally, the only contemporaneous measure of school mechanisms to have a significant impact on fighting was school atmosphere, and this was in the expected direction of reducing fighting.

Finally, the full model included all of the baseline measures and all of the contemporaneous school mechanisms and school strain measures. In this model, the impact of prior delinquency and prior school-based strain is assessed simultaneously with the measures of both contemporaneous school-based strain and contemporaneous school mechanisms. The impact of prior delinquency on subsequent fighting remained significant and positive. The impact of prior affect and recognition also remained significant and negatively related to fighting, but all other measures of prior strain and school mechanisms are not significant. The only contemporaneous measures of school mechanisms to show a significant impact on fighting was perceived school atmosphere, and this was in the expected negative direction.

Truancy

Table 4 presents the findings of the four OLS models that include truancy as the dependent variable. For Model 1, both prior truancy and substance use/abuse had a significant impact on subsequent truancy. As in the previous models for fighting, prior exposure to crime and violence at school was the only measure of school-based strain that had a significant impact on increasing truancy. Also, prior administrative recognition and prior perceptions of school atmosphere had a significant impact on reducing truancy.

(Insert Table 4 about here)

The results for Model 2 indicate that the relationship between prior delinquency (specifically, truancy and substance use) and subsequent truancy remained consistently significant and positive in this model as well. The impact of prior affective state on subsequent truancy is significant and negative, but the impact of negative affect on truancy is positive and of greater magnitude. The other measures of strain, feelings of safety and exposure to violence and crime at school, also were significant and positive indicating increases in truancy. Perceived atmosphere had a significant and negative impact on subsequent levels of truancy.

In Model 3, prior truancy and substance use are again significantly and positively related to subsequent truancy. Also, the impact of prior administrative recognition on current truancy remained significant and negative. Unlike Model 3 for fighting, a significant and positive relationship between prior school involvement and subsequent truancy was found in this model. Finally, in this model, all three measures of contemporaneous school mechanisms (administrative recognition, involvement, and atmosphere) were significantly and negatively related to current truancy indicating that school mechanisms can reduce contemporaneous truancy.

In the full model, prior truancy and substance use again had a significant impact on subsequent truancy. Also, the impact of prior affect on subsequent truancy is again significantly and negatively related to truancy, as it was in Model 2. Prior and current administrative recognition and current school atmosphere have a significant negative impact on truancy in the full model, but prior involvement in school activities has a significant positive impact. Most importantly, the measures of school-based strain,

(perceptions of safety, exposure to crime and violence, and affect) all showed a consistent significant and positive impact on current levels of truancy.

Substance Use

Table 5 presents the findings of the four OLS models that included substance use as the dependent variable. The findings from Model 1 show that both prior truancy and substance use have a significant positive impact on subsequent substance use. Unlike the first model for fighting and truancy, the estimates for this model show that prior negative affect has a significant positive impact on subsequent substance use. This finding is not unusual considering that general strain predicts that substance use can be a form of coping with strain. Similar to the findings from Model 1 for truancy, both prior administrative recognition and prior perceived school atmosphere showed a significant negative impact on current levels of substance use.

(Insert Table 5 about here)

In Model 2, the measures of current school strain were included, and the estimates for the impact of prior truancy and prior substance use on subsequent substance use remained significant and positive. Counter to what could be anticipated, both prior feelings of being unsafe and prior negative affect showed a significant negative impact on subsequent substance use. As expected, prior perceived atmosphere was significantly and negatively related to subsequent substance use. Finally, two measures of school-

based strain, exposure to crime and violence at school and affect, showed a significant and positive impact on contemporaneous levels of substance use.

In Model 3, both prior truancy and prior substance use continued to show a significant positive impact on subsequent substance use. Also, prior administrative recognition continued to show a significant negative impact on subsequent substance use. Only two of the three measures of school mechanisms showed a significant contemporaneous relationship with substance use, administrative recognition and perceived school atmosphere.

In the final full model, the impact of prior truancy and substance use continued to be significantly and positively related to subsequent substance use. The impact of prior feelings of safety and prior negative affect are significantly and negatively related to subsequent substance use and counter to what would be predicted by strain theory. Consistent with the other models for substance use, prior administrative recognition showed a significant negative impact on substance use in the full model. No other measure of prior school mechanisms was significant, but both administrative recognition and school atmosphere have significant, negative contemporaneous relationships with substance use. In this full model, exposure to violence and crime at school and negative affect display significant and positive contemporaneous relationships with substance use, while administrative recognition and school atmosphere are significantly and negatively related, indicating that school activities might be able to contribute to reducing substance use among students.

DISCUSSION

This study focused on two main hypotheses. First, it was expected that strainful school-based experiences would be positively related to various forms of delinquency. These multivariate models have indicated partial support for this hypothesis. Exposure to violence and crime while at school was consistently related to higher contemporaneous levels of fighting, truancy, and substance use, while controlling for other measures of strain such as a more general negative affect. Feeling unsafe was also significantly related to higher contemporaneous levels of fighting and truancy, although it was not significantly related to substance use.

The second hypothesis considered the relationship between school mechanisms and delinquency. It was expected that certain school mechanisms (i.e., administrative recognition, involvement, and atmosphere) would reduce involvement in delinquent acts. In the fullest models, school atmosphere was negatively related to each measure of delinquency, but the only other school-based measure related to lower levels of delinquency was administrative recognition, and this relationship was limited to significant reductions in truancy and substance use. Contrary to expectations, involvement in school-based activities did not reduce participation in the measures of delinquency considered here, but it is apparent that certain school experiences can act to reduce delinquency while others can act to increase delinquency.

These findings do offer some important information for school policy. First, by producing a more positive atmosphere and promoting recognition of those students who are committed to or doing well in the school setting, these findings suggest that schools can decrease the involvement in delinquency among students. This expectation is

consistent with evaluations that have indicated some success with promoting positive atmospheres in schools in order to control delinquency and other problem behaviors (Gottfredson, 1986). Further, expecting students to simply find opportunities for positive coping through school activities is not an effective approach to controlling delinquency. Schools should develop more direct ways to decrease levels of school strain and create a more positive affective state among students. The traditional model of passively encouraging participation may not be effective.

This research has been conducted with the recognition that further analyses should explicitly consider the dynamic processes that exist within schools. These processes can contribute to and control delinquent behavior. This research has tried to specify some of these dynamic relationships, but it is likely others exist. An additional attribute to this research is that it has been done longitudinally at a time in adolescents' lives when school is an important contributor to social development. It is possible that these relationships might not exist in the same way at different times in adolescents' lives, and criminologists and school administrators could benefit by examining different age groups or school grades than what was considered here. Also, these analyses are based on a two-year gap between survey administrations. Although this is more temporally restricted than other past investigations of general strain theory among adolescents, it is more open than others. Because adolescents develop at such a quick pace, it is possible that these analyses have not completely captured the nuances of the relationship between school-based strain, school mechanisms, and delinquency. Additionally, we have included one general measure of negative affect, but other measures of negative affect and other contributors to strain should further specify the intricate relationship that likely

exists with crime and delinquency. Future researchers should continue to refine these measures of strain and the social mechanisms that might mediate the impact of strain on delinquent and criminal behaviors.

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Figure 1: Traditional Strain Model (adapted from Merton, 1938; Cohen, 1955)

