

# A Revised Strain Theory of Delinquency\*

ROBERT AGNEW, *Emory University*

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## *Abstract*

*Current strain theories argue that delinquency results from the blockage of goal-seeking behavior. Unable to achieve valued goals, individuals become frustrated and may turn to delinquency as a result. This paper points to another major source of frustration and delinquency, the blockage of pain-avoidance behavior. Adolescents are compelled to remain in certain environments, such as family and school. If these environments are painful or aversive, there is little that adolescents can do legally to escape. This blockage of pain-avoidance behavior is likely to be frustrating and may lead to illegal escape attempts or anger-based delinquency. This theory is tested using data from a national sample of adolescent boys. Data indicate that location in aversive school and family environments has a direct effect on delinquency and an indirect effect through anger. These effects hold even after social control and subcultural deviance variables are controlled. Given the weak support for traditional strain theories based on the blockage of goal-seeking behavior, these data suggest a new direction for the development of strain theory.*

Strain theory is based on the idea that delinquency results when individuals are unable to achieve their goals through legitimate channels. In such cases, individuals may turn to illegitimate channels of goal achievement or strike out at the source of their frustration in anger. This is an appealing idea and it is not surprising that strain theory has had a major impact on delinquency research and public policy (Liska,b). Recent research, however, has been critical of strain theory or, at best, has provided only mixed support for the theory. This has led a number of researchers to call for either the abandonment or revision of strain theory (Elliott et al.; Hirschi; Kornhauser). This paper reviews the criticisms of current strain theories, examines some recent efforts to revise these theories, and then presents a new revision of strain theory based on the idea that delinquency results from the blockage of pain-avoidance behavior. This new revision is tested using data from a national sample of adolescent boys.

\*An earlier version of this paper was presented at the 1983 meetings of the American Sociological Association. Address correspondence to the author, Department of Sociology, Emory University, Atlanta, GA 30322.

## Critique of Current Strain Theories

Current strain theories are dominated by Merton, Cohen (a), and Cloward and Ohlin. While these theories differ from one another in many important ways, they all attribute delinquency to the inability of adolescents to achieve conventional goals through legitimate channels. Merton and Cloward and Ohlin focus on the inability of adolescents to achieve the goal of economic success, while Cohen focuses on the somewhat broader goal of middle-class status. In Merton, the inability to achieve one's goals may lead directly to delinquent behavior as the adolescent searches for alternative means of goal achievement. According to Cohen and Cloward and Ohlin, goal-blockage is unlikely to lead to delinquency unless adolescents first form or join delinquent subcultures.

These theories have been criticized on a number of points, with perhaps the most damaging criticism having to do with the research on the disjunction between aspirations and expectations (for summary, see Kornhauser, 174–80). If strain theory were correct, we would expect delinquency to be greatest when aspirations were high and expectations were low. We would, for example, predict that delinquency would be greatest when there was a strong desire for monetary success and a low expectation of fulfilling that desire. Many studies have attempted to test this idea, focusing for the most part on educational and occupational goals. Most of these studies, however, have failed to support strain theory (Elliott and Voss; Gold,a; Hirschi; Johnson; Liska,a).<sup>1</sup> Generally, these studies have found that delinquency is highest when both aspirations and expectations are low, and delinquency is lowest when both aspirations and expectations are high. This finding has been interpreted in terms of social control theory: high aspirations and expectations are said to be indicative of a strong commitment to the conventional order (Hirschi; Kornhauser). Not wishing to jeopardize that commitment, the individual conforms.

A second major criticism of current strain theories deals with the relationship between social class and delinquency. The above strain theories predict that delinquency is concentrated in the lower class, since low-class individuals most often lack the means to achieve economic success or middle-class status. Recent data, however, have seriously challenged this prediction (Hindelang et al.,a,b; Johnson; Krohn et al.; Thornberry and Farnworth; Tittle et al.). While the relationship between social class and delinquency is still a matter of debate (Braithwaite; Elliott and Ageton; Elliott and Huizinga), data indicate that delinquency is quite common in the middle class and that the relationship between class and at least certain types of delinquency is negligible.

These theories have also been criticized because they cannot explain the fact that most delinquents abandon crime in late adolescence (Greenberg,a; Hirschi); they cannot explain why delinquents will often go

for long periods of time without committing delinquent acts (Hirschi); and they neglect many variables that are strongly related to delinquency—such as the quality of family relationships. Further criticisms of strain theory can be found in Clinard and Cohen (b). While the validity of certain of these criticisms may be debated, it is clear that there are at least some facts about delinquency that strain theory has trouble explaining. As a result, a number of revisions in the above strain theories have been made.

### Revisions in Strain Theory

Most of the revisions challenge the assumption that monetary success or middle-class status is the primary goal of adolescents. Certain theories attempt to specify alternative goals that adolescents pursue (Marwell; Morris). The general theme of most revisions, however, is that adolescents may pursue a variety of goals and that goal commitment should be considered a variable rather than a given (Elliott and Voss; Elliott et al.; Greenberg,a; Simon and Gagnon). Such an approach allows these theories to explain middle-class delinquency. If goal commitment is a variable, one can argue that the middle class has higher aspirations and this offsets whatever advantage they might have in achieving goals (for examples, see Elliott and Voss; Mizruchi).

While most revisions state or imply that goal commitment is a variable, they also suggest that adolescents will be more interested in the achievement of immediate goals rather than long-range goals like monetary success (Coleman; Elliott and Voss; Empey; Greenberg,a; Quicker). The immediate goals of adolescents may include such things as popularity with peers, good grades, doing well in athletics, and getting along with parents. (This focus on immediate goals has been explained in terms of the special structural position of adolescents in our society (Coleman; Greenberg,a)). Focusing on immediate goals also allows strain theory to explain middle-class delinquency, since the achievement of many immediate goals may be independent of social class (see Elliott and Voss). In addition, the focus on immediate goals allows strain theory to explain away those findings dealing with the disjunction between aspirations and expectations. Studies in this area focus on future goals like occupational status. If such goals are unimportant to the adolescent, then we would not expect the disjunction between aspirations and expectations to be related to delinquency. A disjunction between *immediate* goals and the achievement of these goals, however, might result in much delinquency.

Other revisions have been made in strain theory. Much work, in particular, has focused on the factors which may condition the link between strain and delinquency (see especially Elliott et al.). Nevertheless, the major suggested revision is that we treat goal commitment as a vari-

able and focus on the immediate goals of the adolescent. Preliminary tests of this revision, unfortunately, have not been encouraging (Agnew; Elliott and Voss; Greenberg's, b, reanalysis of Quicker; Reiss and Rhodes). While these tests are not definitive (see Agnew), it would nevertheless seem useful to explore other revisions in strain theory. This paper presents a revised version of strain theory that differs from current strain theories and the revised versions of these theories discussed above. This new theory seeks to explain why individuals engage in delinquency, although it also has the potential to explain variations in delinquency rates over time and between groups.

### Strain as the Blockage of Pain-Avoidance Behavior

The current and revised strain theories discussed above assume that frustration is due to the blockage of goal-seeking behavior. Individuals, however, not only seek certain goals, they also try to avoid painful or aversive situations. According to Zillman, individuals engage in both reward-seeking and punishment-escaping behaviors. Like goal-seeking efforts, efforts to avoid painful situations may be blocked. Adolescents who find school aversive, for example, may be prevented from quitting school. This blockage of pain-avoidance behavior is likely to be frustrating to the adolescent, irrespective of the goals the adolescent is pursuing. The blockage of pain-avoidance behavior, then, constitutes another major source of strain and it forms the basis for the revised strain theory in this paper. In particular, it is argued that adolescents are often placed in aversive situations from which they cannot legally escape. This blockage of pain-avoidance behavior frustrates the adolescent and may lead to illegal escape attempts or anger-based delinquency.

One way to keep the distinction between the two sources of strain clear is as follows. In the blockage of goal-seeking behavior, the individual is walking *toward* a *valued goal* and his or her path is blocked. In the blockage of pain-avoidance behavior, the individual is walking away from an *aversive situation* and his or her path is blocked.<sup>2</sup> The two sources of strain are not incompatible and the same situation may be related to both types of strain. For example, an adolescent picked on by teachers may be frustrated because there is no escape from this harrassment or because the harrassment interferes with the achievement of valued goals. Other situations, however, may only be relevant to the blockage of pain-avoidance behavior. Adolescents may find certain situations aversive even though these situations do not interfere with the achievement of valued goals. Certain situations may be intrinsically aversive (e.g., the infliction of physical pain, the deprivation of sensory stimuli); they may be conditioned aversive stimuli (e.g., verbal insults); or the adolescent may simply

be taught to experience these situations as aversive. The work of Schachter and Singer and of Becker, for example, indicates that cues provided by the social environment may determine whether individuals experience emotionally arousing situations as pleasant or aversive. The inability to escape from these aversive situations will be frustrating, even though the achievement of valued goals is not threatened.

The idea that the blockage of pain-avoidance behavior may lead to frustration and aggression is common in the physiological literature,<sup>3</sup> and psychological research indicates that exposure to various types of aversive stimuli may lead to aggression, especially when the individual believes that the exposure is undeserved (Zillman). These findings are paralleled in the sociological literature, where data indicate that delinquency is related to such aversive stimuli as parental rejection, unfair or inconsistent discipline, parental conflict (Rodman and Grams), adverse or negative school experiences (Schafer and Polk), and unsatisfactory relations with peers (Short and Strodbeck). The sociological data, however, have not been interpreted in terms of the blockage of pain-avoidance behavior. The relationship between aversive experiences and delinquency is most commonly explained in terms of social control theory. Punitive disciplinary practices, for example, are said to lead to a breakdown in internalized, indirect, and direct social control (Nye). Subcultural-deviance theory is also used to explain the effect of aversive environments. Punitive discipline, for example, is said to implicitly teach the child that aggression is good (Gold,a).

Occasionally, the effect of aversive environments is explained in terms of strain theory. For example, Cohen (a) argues that aversive school experiences lead to delinquency because they interfere with the attainment of middle-class status. Morris argues that family conflict interferes with the ability of females to satisfy their relational goals. In each case, the aversive situation leads to delinquency because it interferes with the achievement of valued goals. As indicated earlier, however, limited tests of this idea have not produced promising results (Agnew; Elliott and Voss; Reiss and Rhodes). Studies focusing on the disjunction between goals and goal achievement (or the expectation of goal achievement) usually find that these disjunctions are, at best, only weakly related to delinquency. The revised strain theory makes no assumptions about the valued goals of adolescents or how particular situations might interfere with the achievement of these goals. The revised strain theory only assumes that it is frustrating to be unable to escape from an aversive situation. This makes the revised strain theory somewhat more parsimonious than the above strain theories, and it allows the theory to explain the fact that aversive situations affect delinquency even when these situations do not seem to interfere with the achievement of valued goals (e.g., Hirschi).

So while the idea that frustration may result from the blockage of pain-avoidance behavior is not new, this idea has not been used by crimi-

nologists to explain delinquency among adolescents. The theory, however, would seem particularly well-suited to this task. One of the distinguishing features of adolescents is that they lack power and are often compelled to remain in situations which they find aversive. They are compelled to live with their family in a certain neighborhood; to go to a certain school; and, within limits, to interact with the same group of peers and neighbors. If any of these contexts is aversive, there is little the adolescent can do legally to escape. Most adults, by contrast, have many legal avenues of escape available, such as divorce, quitting one's job, or moving to another neighborhood. (Certain adults, unable to take advantage of these legal escape routes due to economic hardship or other factors, may resemble adolescents in their lack of power.)

Adolescents located in aversive environments may turn to delinquency for one of two reasons. First, delinquency may be a means to escape from the aversive environment or remove the source of aversion. Adolescents, for example, may escape from an aversive home environment by running away or by stealing to reduce their financial dependency on parents. Or adolescents may fight to end harassment from peers. When escape or removal of the aversive source is not possible, the adolescent may become angry and strike out in rage at the source of aversion or a related target. This second link is less instrumental and more emotional in nature.

Whether the blockage of pain-avoidance behavior actually results in delinquency is undoubtedly influenced by a number of factors. One crucial factor that will be considered in this paper is whether the adolescent believes the aversion being experienced is undeserved (for related discussions, see Bandura; Berkowitz; Elliott et al.). Other factors mentioned in the literature include the beliefs of the adolescent regarding delinquency, the presence of delinquent peers, whether aggression-provoking cues are present, the likelihood that the delinquent act will be punished, and the adolescent's level of social control. This study will not examine the extent to which these additional factors condition the effect of aversion on delinquency. At this early stage of research it would seem most useful to focus on main effects rather than interactions.

If the revised strain theory is correct, we would expect location in an aversive environment to have a direct effect on delinquency since adolescents in such environments would be more likely to engage in illegal escape attempts. We would also expect an indirect effect on delinquency through anger. In examining the effect of aversion on delinquency, however, it is necessary to control for social control and subcultural-deviance variables. This is because part of the direct effect of aversion on delinquency may be due to the fact that aversion causes or is correlated with low social control and deviant beliefs. These connections are summarized in the causal model in Figure 1. This model will be estimated using path analysis.

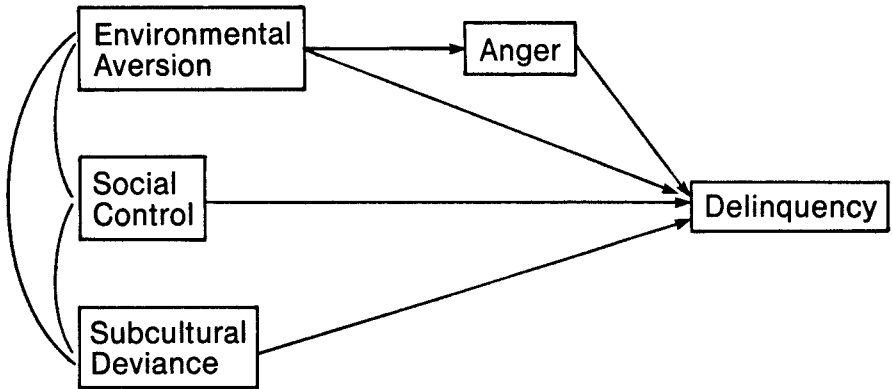


Figure 1. A PATH MODEL OF THE REVISED STRAIN THEORY

## Data and Methods

### DATA

Data are from the Youth in Transition survey: a national survey of adolescent boys conducted by the Institute for Social Research, University of Michigan. In October and November of 1966, a multi-stage sampling procedure was used to select 2,213 boys who, according to the researchers, constitute "an essentially unbiased representation of 10th grade boys in public high schools throughout the contiguous United States" (Bachman et al.,3). This survey was used since it contained data on the boys' school and family environments, as well as measures of social control, deviant beliefs, and delinquency.

### MEASURES

The survey contained numerous measures of the variables in Figure 1. Through the use of factor analysis, these measures were combined to create scales measuring environmental aversion, anger, parental and teacher attachment, commitment to school, and deviant beliefs.<sup>4</sup> The survey already contained scales measuring delinquency.

#### *Environmental Aversion*

The adolescents in the survey were compelled to remain in at least two environments: family and school. Three scales were used to determine whether the adolescents believed these environments were undeservedly aversive. In particular, scale items asked adolescents such things as whether they were physically punished, verbally harassed, or deprived of adequate sensory stimulation in these environments. (1) *Parental Punitiveness*. High scorers on this 10-item scale report that their parents often

scream, slap, threaten, nag, withdraw love, withdraw privileges, and ignore them. High scorers also state that their parents often disagree about whether punishment should be administered and that they "give out undeserved blame." Scores on this scale range from 1 to 5, with a mean of 2.3. (2) *Mean Teacher*. High scorers on this 3-item scale report that their teachers often lose their tempers, make negative comments, and talk down to students. Scores on this scale range from 1 to 5, with a mean of 2.85. (3) *Dissatisfaction with School*. High scorers on this 23-item scale report that they find school boring and a "waste of time," that they would rather be elsewhere, and that they can probably learn more outside of school. Scores on this scale range from 1 to 4 with a mean of 1.78.

While all adolescents were compelled to spend time with parents and teachers, there were undoubtedly differences in the amount of time spent with these agents. The data, unfortunately, did not allow us to obtain accurate measures of these differences. This is not a serious limitation, since most adolescents probably spent a significant amount of time with parents and in school. Nevertheless, future studies should attempt to measure both environmental aversion and the amount of time adolescents are compelled to spend in aversive environments.

### *Anger*

High scorers on this 9-item scale state that they lose their temper easily, carry a chip on their shoulder, feel like a powder keg ready to explode, are irritated by small things, hold grudges, and "feel like" verbally and physically aggressing against parents and teachers. High scorers, in short, are angry, frustrated individuals. If the revised strain theory is correct, this scale should partly mediate the relationship between aversive environments and delinquency. Scores range from 1 to 5, with a mean of 2.41.

### *Social Control/Subcultural Deviance Measures*

The data set used in this study is the same used by Wiatrowski et al. in their study of social control theory. This study includes all of the social control variables that Wiatrowski et al. found to be significantly related to delinquency, as well as certain measures of social control not in their study.<sup>5</sup> There are a total of 13 social control and subcultural deviance measures. Two scales measure attachment to parents, a 3-item scale called *Father Attachment* and a 2-item scale called *Mother Attachment*. High scorers report that they feel close to and want to be like their father or mother. One 3-item scale measures *Teacher Attachment*. High scorers report that teachers take a personal interest in them and that they talk privately with teachers about school and nonschool matters. Seven scales or single-item measures index commitment to school. These scales and items measure average school *Grades*, the *Value Placed on Academic Achievement* (4 items), the amount of *Time Spent on Homework*, the amount of *Extracurricular Read-*



ing, the adolescent's *Self-Concept of School Ability* (3 items), *Occupational Aspirations*, and the amount of *Time Spent Dating* (3 items). Finally, 3 scales measure the adolescent's values. A 13-item scale called *Nonaggression* measures the value placed on aggression. High scorers report that it is good to be kind and gentle, even if you are provoked or harmed by others. A 4-item scale called *Deviant Beliefs* measures the value placed on other types of deviance. High scorers report that it is good to engage in such deviant acts as charging bills without knowing how to pay for them, borrowing money without expecting to pay it back, and getting hold of a final exam copy. A 5-item scale called *Guilt* measures whether individuals feel guilty about their mistakes or wrongs. The presence of such guilt indicates that the individual possesses some degree of internalized control.

### *Delinquency*

The blockage of pain-avoidance behavior may lead to any type of delinquency, since any delinquent act can be an escape attempt—however indirect—or an expression of anger. For this reason, a general measure called *Seriousness of Delinquency* is used. The 10 items in this self-report measure were adopted from Gold (b) and they measure the extent of the respondent's delinquent behavior during the prior three years. High scorers on this scale report that they have engaged in minor and serious theft, robbery, arson, and serious fighting (see Appendix for complete scale). Response categories for each item range from "1" (never committed the act) to "5" (committed the act 5 or more times). Scale scores range from "1" (never committed any of the acts) to "5" (committed all acts 5 or more times), with a mean of 1.38 and a standard deviation of .48. Variation in this scale is due largely to the minor theft items (shoplifting, larceny under \$50).

While the blockage of pain-avoidance behavior may lead to any type of delinquency, we would expect it to have an especially large effect on aggression and status offenses like truancy and cutting class. Compared to theft, aggression seems more suitable for the expression of anger and the removal of aversive sources. Status offenses like truancy and cutting class represent fairly direct ways of escaping from an aversive environment. An 8-item measure of *Interpersonal Aggression* is used. High scorers on this measure report that they have gotten into serious fights, have been in gang fights, and have hit their mother, father, and teacher. This scale is scored in the same manner as the *Seriousness of Delinquency* scale. Scale scores range from 1 to 5, with a mean of 1.51 and a standard deviation of .56. Variation in this scale is due largely to the three fighting items (see Appendix). A 4-item scale measuring *Escape Attempts from School* is also used. High scorers on this scale report that they are often late for class and school, and that they often skip class and school. Responses for each item range from "1" (never committed the act) to "5" (almost always

committed the act). Scale scores range from 1 to 5, with a mean of 1.66 and a standard deviation of .71.

## METHODS

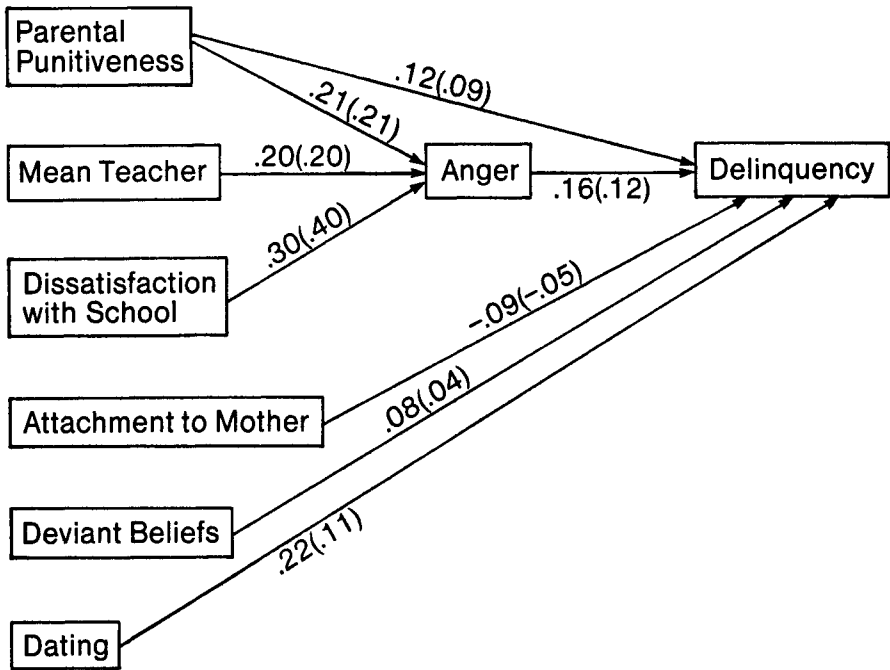
Path analytic methods are used to estimate the causal model in Figure 1. Through a series of regressions, the effects of the independent variables will be estimated. Path analysis makes a number of assumptions about the data (see Johnson, 96-8 for a discussion), and there are indications that the data violate certain of these assumptions. In particular, the data violate the assumption that variables are perfectly measured.<sup>6</sup> Imperfect measurement will most likely reduce the size of path coefficients. This will reduce the amount of explained variance in delinquency but, to paraphrase Johnson, it should not seriously interfere with our effort to test for the existence and relative magnitude of selected causal processes.

## Results

Figures 2, 3 and 4 show the estimated models for Seriousness of Delinquency, Interpersonal Aggression, and Escape Attempts from School. The figures, in particular, show the standardized effects of the independent variables and, in parentheses, the unstandardized effects. Only effects significant at the .05 level are included. Many of the 13 social-control and subcultural-deviance variables are excluded since they did not have a significant effect on delinquency.

All three measures of environmental aversion have a significant positive effect on anger. If we use a sheaf coefficient (Heise) to summarize the combined effect of these variables on anger, it is .53. When aversion rises by one standard deviation unit, anger rises by .53 standard deviation units. Being in an aversive environment, then, clearly makes the individual angry. Anger, in turn, has a significant positive impact on all measures of delinquency. As we might expect, it has a somewhat larger effect on aggression. If we examine the direct and indirect effect of the aversion variables on delinquency, we find a direct effect of .12 on Seriousness of Delinquency and an indirect effect of .11, a direct effect of .21 on aggression and an indirect effect of .16, and a direct effect of .26 on Escape Attempts from School with an indirect effect of .10. As predicted, the total effect of the aversion variables on Interpersonal Aggression (.37) and Escape Attempts from School (.36) is larger than the total effect on Seriousness of Delinquency (.23).

To put the data in better perspective, it is useful to compare the effect of the aversion variables to the effect of the social control and subcultural deviance variables. Focusing on Interpersonal Aggression, we find



**Figure 2.** THE PATH MODEL FOR SERIOUSNESS OF DELINQUENCY

that each of the aversion variables has a larger total effect than any other variable except dating. These variables have a larger effect than parental attachment, grades, aspirations, and values. Focusing on Escape Attempts from School, we find that Dissatisfaction with School has a larger total effect than all variables except dating, while the effect of Mean Teacher and Parental Punitiveness is only exceeded by dating and grades. The aversion variables also have a relatively large effect on Seriousness of Delinquency. Overall, these data attest to the importance of environmental aversion in the explanation of delinquency.

## Conclusions

The data provide strong support for the idea that the blockage of pain-avoidance behavior is a major source of delinquency. Adolescents located in aversive environments from which they cannot escape are more likely to be delinquent. The relationship holds even after social control and subcultural-deviance variables are controlled. These data are important because they suggest a new direction for the development of strain theory and they supplement the explanations of delinquency provided by social control and subcultural deviance theory. Social control theory focuses on

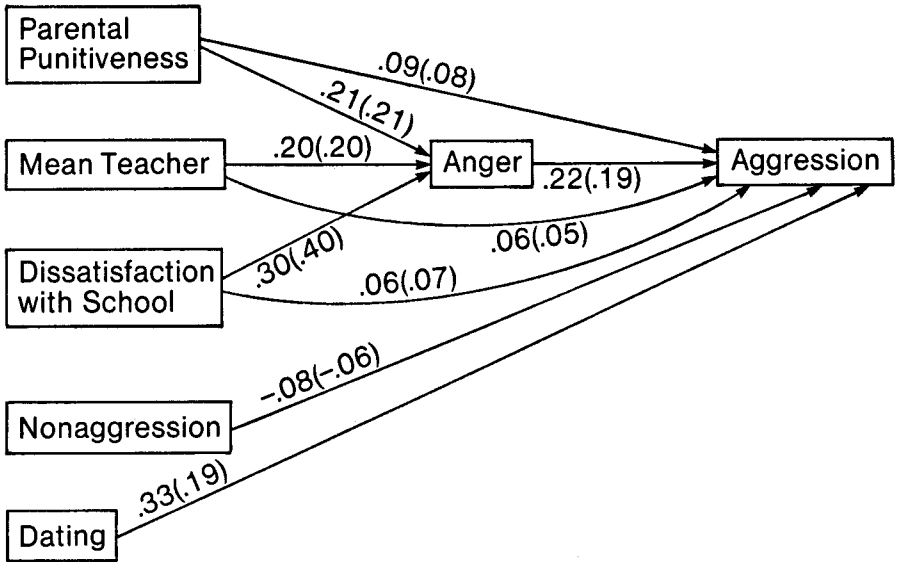


Figure 3. THE PATH MODEL FOR INTERPERSONAL AGGRESSION

*neutral* relationships, in which the individual lacks ties to conventional people and institutions. Subcultural deviance theory focuses on *positive* relationships with deviant others. The revised strain theory supplements these theories by describing how *negative* relationships may lead to delinquency. While negative relationships may result in low social control and deviant beliefs in certain cases, the revised strain theory argues that a major effect of location in an aversive environment is frustration. This frustration may lead to illegal escape attempts or anger-based delinquency.

In addition to being supported by the data, the revised theory is able to overcome the major criticisms of current strain theories. (1) The research on the disjunction between aspirations and expectations does not challenge the revised theory, since the revised theory is not based on the idea that delinquency results from the frustration of future goals. (2) The revised strain theory is able to explain the prevalence of middle-class delinquency, since middle-class adolescents may encounter aversive situations from which they cannot escape. In fact, a 5-item measure of SES was only weakly related to Parental Punitiveness ( $r = -.09, p < .01$ ), Mean Teacher ( $r = -.11, p < .01$ ), and Dissatisfaction with School ( $r = -.17, p < .01$ ). Other data confirm that social class is weakly related to many types of environmental aversion (Erlanger). (3) The revised theory is able to explain the decline in delinquency in late adolescence. We would expect such a decline since adolescents are leaving environments that they may have found aversive, such as family and school. Also, as adults, many

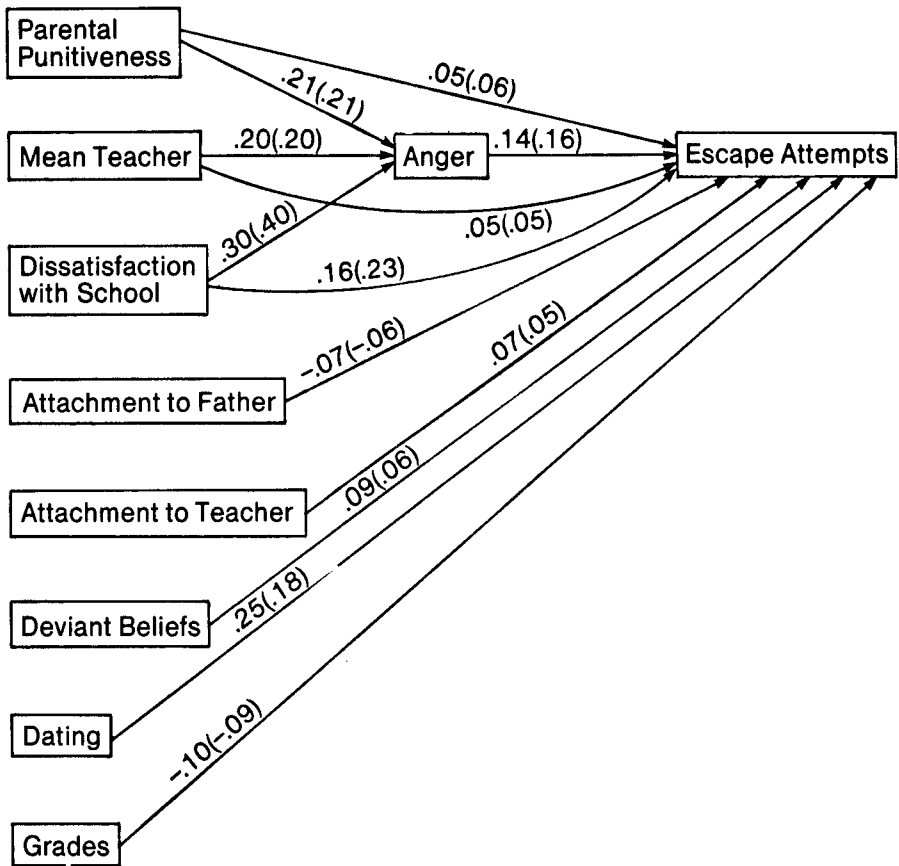


Figure 4. THE PATH MODEL FOR ESCAPE ATTEMPTS FROM SCHOOL

legal avenues of escape become available to these individuals. (4) The revised theory is able to explain the sporadic nature of delinquency. We would expect environmental aversion to fluctuate, and delinquency should be most likely at those times that adolescents find family, school, or other environments most aversive. (5) Finally, the revised strain theory assigns a central role to variables neglected by certain of the dominant strain theories, such as the quality of family relationships.

As indicated earlier, the revised strain theory seeks to explain individual variations in delinquency. The theory, however, could easily be extended to explain delinquency rates over time and between groups. Efforts to explain delinquency over time would argue that environmental aversion or the perception of such aversion changes with changes in such things as the nature of school, child-rearing practices, and cultural definitions of aversion. Also, one might argue that the legal avenues of escape available to adolescents change as the regulations regarding school atten-

dance change or as norms regarding family obligations are altered. The explanation of group differences in delinquency would revolve around the fact that groups may vary in terms of environmental aversion and the ability to legally escape from such aversion. Aside from SES, however, the data did not allow us to explore group differences in these variables.<sup>7</sup>

Overall, then, the theory has a demonstrated capacity to explain delinquency among individuals and the potential to explain delinquency rates over time and between groups. In addition to exploring the macro implications of the theory, future research should (1) focus on additional forms of environmental aversion, (2) examine the amount of time adolescents are compelled to remain in aversive environments, and (3) examine the factors that condition the link between aversion and delinquency.

### Notes

1. A number of studies have found a relationship between perceptions of limited opportunity and delinquency (for example, Aultman; Cernkovich and Giordana). This relationship, however, may be interpreted in terms of social control as well as strain theory. One might argue that perceptions of limited opportunity are indicative of a low commitment to the conventional order. Only studies focusing on the disjunction between aspirations and expectations provide a pure test of strain theory.
2. The difference between goal-seeking and pain-avoidance behavior is, to some extent, a matter of semantics. If we view the desire to escape from an aversive environment as a goal, then pain-avoidance behavior becomes a subcategory of goal-seeking behavior. Nevertheless, there is still a difference. In one case the goal is to escape from negative stimuli, while in the other the goal is the achievement of positively reinforcing stimuli.
3. Elements of this idea can be found in Berkowitz's frustration-aggression theory and Bandura's social learning theory, although Bandura argues that aversion may lead to aggression even if legal avenues of escape are available. The revised strain theory, as indicated, focuses on those situations where legal avenues of escape are unavailable. Since the source of adolescent aversion is often a powerful other—like a parent or teacher—it seems unlikely that adolescents will engage in aggression or illegal escape attempts if legal avenues of escape are accessible.
4. Groups of items similar in content were factor analyzed. For example, 21 items having to do with teacher relations were factored. The eigenvalue was set at one and an orthogonal method of rotation was used. Scale items were equally weighted and scale scores are the average of the item scores. Copies of the resulting scales and the factor loadings of the items in these scales are available from the author.
5. Certain of the scales differ somewhat from those in Wiatrowski et al., since factor analysis was used to create the scales in this study. This, however, should only have the effect of increasing the validity of the scales. Items which did not load highly on a factor or loaded on more than one factor were eliminated.
6. The validity of all multi-item measures was estimated using a procedure developed by Heise and Bohrnstedt. Validity is defined as the correlation between the scale and the true variable that the scale is designed to measure. At a minimum, reliability is equal to the square root of validity. Most of the validities were in the .8 to .9 range, with two exceptions. Mean Teacher had a validity of .75 and Dating had a validity of .77. The effects of these two variables will therefore be underestimated relative to the other variables, and controls for these variables will not be complete.

7. The data set did not contain females, all respondents were of the same age, and the small number of blacks in the sample were not representative of black high school students in the United States.

## Appendix

### A. SERIOUSNESS OF DELINQUENCY SCALE

1. Taken something not belonging to you worth under \$50.
2. Set fire to someone else's property on purpose.
3. Got something by telling a person something bad would happen to him if you did not get what you wanted.
4. Hurt someone badly enough to need bandages or a doctor.
5. Taken something from a store without paying for it.
6. Taken a car that didn't belong to someone in your family without permission of the owner.
7. Taken an expensive part of a car without permission of the owner.
8. Taken an inexpensive part of a car without permission of the owner.
9. Used a knife or gun or some other thing (like a club) to get something from a person.
10. Taken something not belonging to you worth over \$50.

### B. INTERPERSONAL AGGRESSION SCALE

1. Got into a serious fight with a student in school.
2. Got something by telling a person something bad would happen to him if you did not get what you wanted.
3. Hurt someone badly enough to need bandages or a doctor.
4. Hit a teacher.
5. Hit your father.
6. Taken part in a fight where a bunch of your friends are against another bunch.
7. Hit your mother.
8. Used a knife or gun or some other thing (like a club) to get something from a person.

### C. ESCAPE ATTEMPTS FROM SCHOOL

1. How often do you come late to school?
2. How often are you late to class?
3. How often do you skip classes (when against the school rules)?
4. Skipped a day of school without a real excuse.

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