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INVESTIGATING THE INTERRELATIONS AMONG SOCIAL CONTROL VARIABLES AND CONFORMITY

JOSEPH H. RANKIN*

Control theorists¹ have argued that subcultural and anomic theories of deviance fail to account for the consistent findings that most adolescents engage in delinquent activities, that most "drift out" of delinquency as they mature, and that much of their involvement in delinquent activities is sporadic and situationally induced. Recent proponents of these theories feel that the stress on deviance as the problem and motivation as the answer account for such theoretical failures. From the control perspective, deviance is taken for granted—conformity must be explained.

Control "theorists"² assume that everyone experiences pressures or motivations to deviate, that there is a common value system,³ and that deviant behavior is explained by variation in one's commitment to these conventional standards. The weaker this commitment, the greater the probability of delinquent activities. Differential involvement in delinquency, however, has been explained from two different control perspectives. Reckless⁴ considers deviant and conforming behavior to be a result of the operation and interaction among inner and outer containments, environmental pressures and pulls, and organic and psychological pushes. Hirschi⁵ contends that delinquent behavior becomes more probable as the strength of an adolescent's "bond" to society weakens.

Although these perspectives purport to account for variable involvement in delinquency, both have several limitations.⁶ Most notable are the conceptual and empirical ambiguities concerning the relationships between delinquent associational patterns, personal characteristics, and delinquent activities.⁷ This article will examine the relationships among conforming behavior, delinquent companions, conventional activities, educational expectations, attitude towards law, and attachment to school within the framework of each control perspective.

The Containment Perspective

A long list of variables related to deviant and conventional behaviors is presented in the containment literature.⁸ These variables are classified into four major categories: environmental pressures and pulls, outer containment, inner containment, and organic and psychological pushes. Pushes and inner containment are viewed as internal influences, whereas pressures, pulls and outer containment are supposedly external to the individual. In addition, pressures, pulls and pushes are presented as criminogenic variables, while inner and outer containments are depicted as sources of conforming behavior. Deviant or conforming behavior is considered to be a

* NIMH Graduate Trainee, University of Arizona. This research was completed under the support of a training grant from NIMH (MH13327-02). The data were provided by Bill Wild, research analyst at the Wayne County Juvenile Facility Network Program in Detroit, Michigan.

¹ Professor of Sociology, University of Arizona.

² See T. HIRSCHI, *THE CAUSES OF DELINQUENCY* (1969); W. RECKLESS, *THE CRIME PROBLEM* (4th ed. 1967) [hereinafter cited as *Reckless* (1967)]; Briar & Piliavin, *Delinquency, Situational Inducements, and Commitment to Conformity*, 13 *SOC. PROB.* 35 (1965); Piliavin, Vadum, & Hardyk, *Delinquency, Personal Costs and Parental Treatment: A Test of a Reward-Cost Model of Juvenile Criminality*, 60 *J. CRIM. L.C. & P.S.* 165 (1969); Polk & Hafferty, *Adolescence, Commitment and Delinquency*, 3 *J. RESEARCH CRIME & DELINQUENCY* 82 (1966).

³ See Piliavin, Vadum, & Hardyk, *supra* note 1.

⁴ T. HIRSCHI, *supra* note 1, at 23.

⁵ Reckless (1967), *supra* note 1.

⁶ T. HIRSCHI, *supra* note 1.

⁷ For more extensive criticism of the control perspective, see R. AKERS, *DEVIANC BEHAVIOR: A SOCIAL LEARNING APPROACH* (1973); C. SCHRAG, *CRIME AND JUSTICE: AMERICAN STYLE* 84 (1971); Jensen, *Containment and Delinquency: Analysis of a Theory*, 2 *U. WASH. J. SOC.* 1 (1970); Quinney, *THE SOCIAL REALITY OF CRIME* (1970); Tangri & Schwartz, *Delinquency Research and the Self-Concept Variable*, 58 *J. CRIM. L.C. & P.S.* 182 (1967).

⁸ See, e.g., T. HIRSCHI, *supra* note 1, at 152-59; Bordua, *Some Comments on Theories of Group Delinquency*, 32 *SOC. INQUIRY* 245, 258; Liska, *Comments on Jensen's "Parents, Peers, and Delinquent Actions,"* 79 *AM. J. SOC.* 999 (1974).

⁹ See Dinitz, Reckless, & Kay, *A Self Gradient among Potential Delinquents*, 49 *J. CRIM. L.C. & P.S.* 230 (1958); Dinitz, Scarpitti, & Reckless, *Delinquency Vulnerability: A Cross Group and Longitudinal Analysis*, 27 *AM. SOC. REV.* 515 (1962); Reckless, Dinitz, & Murray, *Self-Concept as an Insulator against Delinquency*, 21 *AM. SOC. REV.* 744 (1956) [hereinafter cited as *Reckless* (1956)]; Scarpitti, *The Good Boy in a High-Delinquency Area: Four Years Later*, 25 *AM. SOC. REV.* 555 (1960).

result of the "interaction" among the variables in all of these categories.⁹

Environmental pressures and pulls supposedly "draw the person away from his original way of life and accepted forms of living"¹⁰ and encompass such phenomena as adverse living conditions, unemployment, minority status, lack of opportunity, deviant companions,¹¹ membership in criminal subcultures and certain mass media influences. Reckless defines *outer containment* as "... the capability of society, groups, organizations and communities to hold the behavior of individuals within the bounds of accepted norms, rules, regulations, laws, expectations, and values," including institutional reinforcement of norms, effective supervision and discipline, and a reasonable scope of conventional activities.¹² *Inner containment* represents an individual's inner ability to follow expected norms. A focus on long-range approved goals, such as education, purportedly helps the individual conform to approved norms and expectations. Other aspects include a good self-concept and commitment to conventional values, norms, laws and customs. Finally, *organic and psychological pushes* include such things as psychological defects, inner tensions, organic impairments, anxiety and hostility.

While Reckless, Dinitz and Murray call their formulation a theory, it has been severely criticized on both logical and operational grounds. One critique points out that "it appears to be little more than an inadequate classification scheme"¹³ for there appears to be no rationale for classifying its variables as pushes, pulls, or inner and outer containments other than in terms of the behavior to be explained.¹⁴ There is also a scarcity of clearly stated, testable hypotheses other than that suggested by Reckless' "prediction model." The interrelations among the causal elements of the perspective are left to the reader.

The Social Bond Perspective

While Reckless believes that further research must "ferret out" the "basic regulators of normative

behavior," another author has attempted this within the framework of a different control perspective which explains differential involvement in delinquency by the *strength* of one's ties to conventional society. The major proponent of this perspective¹⁵ argues that the bond of an adolescent to the conventional order may be weak or virtually nonexistent, thus increasing the probability of delinquency. This bond has four components (belief, involvement, attachment, and commitment) which are positively related and are *thought* to have independent effects on delinquent behavior.¹⁶

Belief. Control theorists assume that the delinquent believes in the societal values and laws even as he violates them. Hirschi does not assume, as do Sykes and Matza,¹⁷ that the adolescent must "neutralize" these beliefs. Instead, he contends "that there is *variation* in the extent to which people believe they should obey the rules of society."¹⁸ The more strongly the adolescent is tied to the laws, the less likely he is to invent "techniques of neutralization." Conversely, the weaker his ties, the less he needs to neutralize normative constraints.

Involvement. An adolescent may simply be too involved in conventional activities to find time for law-breaking behavior.¹⁹ Indeed, the adolescent working at an after-school job, playing baseball, or doing homework is not committing delinquent acts. The idea is to keep juveniles off the streets by filling their time with conventional activities.

Attachment. Societal norms are, by definition, shared by most of its members. If an individual is insensitive to others' opinions, however, he is not entirely bound by those norms and is free to deviate. Similarly, those who do poorly in school reduce their educational interests and hence are free (to the extent of their reduced attachment to school) to commit delinquent acts.²⁰ Although school rewards those possessing the necessary skills to solve intellectual problems, it punishes academically incompetent adolescents. Thus, the child who possesses such skills

whereas its complement, "bad companions" (a variable favorable to delinquency), is regarded as an aspect of environmental pulls.

⁹T. HIRSCHI, *supra* note 1.

¹⁰*Id.* at 16-34.

¹¹Sykes & Matza, *Techniques at Neutralization: A Theory of Delinquency*, 22 AM. SOC. REV. 664 (1957).

¹²T. HIRSCHI, *supra* note 1, at 26.

¹³*Id.* at 22.

¹⁴See Hindelang, *Causes of Delinquency: A Partial Replication and Extension*, 20 SOC. FORCES 471, 476 (1973).

⁹See C. SCHRAG, *supra* note 6, at 82-83.

¹⁰Reckless (1967), *supra* note 1, at 480.

¹¹It is important to note that from Reckless' control perspective, delinquent companionship has a direct causal effect on the commission of delinquent acts.

¹²Reckless (1967), *supra* note 1, at 475.

¹³Jensen, *supra* note 6, at 4.

¹⁴For example, "supportive relationships" (a variable favorable to conformity) is listed under outer containment,

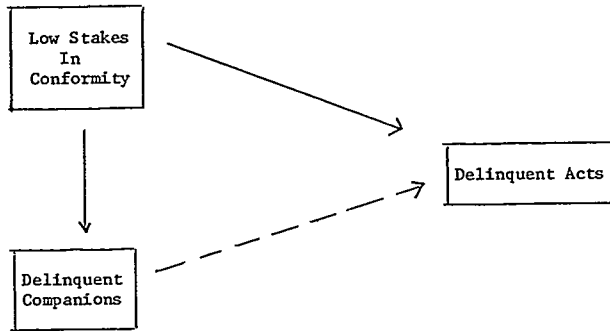


FIGURE 1*

Hypothesized relations among stakes in conformity, delinquency of companions, and delinquent acts (as proposed by Hirschi's social control model).

* The revised social control model includes an arrow from delinquent companions to delinquent acts.

and does well academically is more likely to enjoy school, increasing his attachment and lowering the probability of delinquency.

One effect of peer attachment is dependent upon the conventionality of these individuals.²¹ Since Hirschi argues that there is a strong tendency for adolescents to befriend those whose activities and interests are congruent with their own, individuals whose "stakes in conformity"²² are low would be more likely to have delinquent friends than would "high stakes" adolescents. Thus, Hirschi suggests that the relation between delinquent companions and delinquent behavior is spurious: "The boy takes up with delinquents *and* commits delinquent acts because he has lost his stakes in conformity."²³ Faced with data obviously to the contrary, however, Hirschi revised his model to include a (causal) arrow from delinquent companions to delinquent acts (see Figure 1). Even so, this suggests a causal ordering different from that assumed by differential association theorists who view delinquent companions as an intervening variable between "attitudes towards conventional persons or institutions" and "delinquent acts."

Commitment. While "attachment" is subsumed

²¹Hirschi also argues and claims to have shown empirically that attachment to peers is a deterrent to delinquency regardless of the conventionality of friends.

²²From such a view, decisions to commit delinquent acts are rationally determined, given the individual's potential costs and risks he runs of losing his previous investment in conventional behavior. See Piliavin, Vadum, & Hardy, *supra* note 1. The adolescent with high stakes in conformity is committed to meeting conventional expectations and is thus less likely to engage in criminal activity than is one for whom these stakes are low.

²³T. HIRSCHI, *supra* note 1, at 138.

by the notion of "stakes in conformity," "commitment" is synonymous with the term in that deviation jeopardizes one's chances of success. An individual who loses his incentives for conventional goals "is to that extent free to commit deviant acts without 'normal' concern for the consequences."²⁴ Thus, an adolescent who expects future pay-offs from a higher education increases his stakes and decreases his probability of delinquency.

Research Rationale

Although differential involvement in delinquency is explained somewhat differently by the two control perspectives, both predict identical bivariate relations between each of the five previously discussed variables and delinquency (see Figure 2). Very little conceptual or empirical information is offered, however, concerning the interrelations among delinquency and the various combinations of social control variables. One (conceptual) exception is Reckless' "prediction model" (see Figure 3)²⁵

... which maintains that crime rates are at a maximum where both inner and outer containments are weak, and at a minimum where the containments are strong. In cases where one is weak and the other strong, Reckless holds that weak inner containment has a higher probability of criminality than weak outer containment.²⁶

Moreover, Reckless claims that inner containment should operate to deter adolescents from delinquency *independently* of outer containment, and

²⁴*Id.* at 162.

²⁵Reckless (1967), *supra* note 1, at 478.

²⁶C. SHRAG, *supra* note 9, at 84.

Social Control Variables	Control Perspectives		Relation to Delinquency
	Containment	Bond	
1) No. of delinquent companions	Environmental Pulls	Attachment	Positive
2) Conventional activities	Outer	Involvement	Negative
3) Educational expectations	Inner	Commitment	Negative
4) Attachment to school	Inner	Attachment	Negative
5) Attitude towards law	Inner	Belief	Negative

FIGURE 2

Relationships between each of the five social control variables and delinquency, within the two control perspectives.

		Inner Containment	
		Strong	Weak
Outer Containment	Strong	1	3
	Weak	2	4

FIGURE 3

Reckless' "Prediction Model" and its hypothesized interrelations among inner and outer containments and delinquency,* controlling for strength of the containments.

* Where 1 = the lowest predicted number of delinquent acts, and 4 = the highest predicted number of acts.

measures of outer containment should have an effect in situations of both strong and weak inner containment. Accordingly, Reckless hypothesizes no interaction effects between elements of inner and outer containment.

Empirically, however, Hirschi reported a significant interaction among delinquent friends (or environmental pressures and pulls), stakes in conformity (or inner containment) and delinquency:

As is true in any case of interaction, the statement that the impact of delinquent friends depends on stakes in conformity implies a corollary statement: the greater the number of delinquent friends, the greater the impact of stakes in conformity. The low-stake boy with no delinquent friends is more likely to have committed delinquent acts than the high-stake boy with no delinquent friends, but the low-stake boy is *much more likely* than the high-stake boy to have committed delinquent acts when both have several delinquent friends.²⁷

Thus, Hirschi's empirical results run contrary to both his and Reckless' expectations. The present

research will further investigate the interrelations among delinquency and selected components of the social control perspectives.

The Present Investigation

The data for this study were gathered in 1974 by the Wayne County Juvenile Facility Network from public school districts in grades seven through eleven of the "out county"²⁸ area of Wayne County, Michigan. A two-stage sampling design was utilized. The first stage consisted of a sample drawn with replacement from the 33 public school districts in the "out county" area. Each district was then weighted according to its total seventh through eleventh grade enrollment so that each child in the collective district had an equal chance of being drawn. In this manner, eight different school districts were drawn, and two districts were each repeated once.²⁹

In the second stage of the sample, names were selected at random from all seventh through eleventh grade girls and boys in proportion to the actual enrollment in each grade at each school in every selected district. A total of 385 interviews, constituting 79 percent of the original sample, were conducted. Refusal to be interviewed, change in residence, and inability to contact parents accounted for the balance.³⁰

²⁸This includes all but the Detroit, Highland Park, and Hamtramck school districts.

²⁹From this initial drawing, three districts could not participate (one district declined and the other two districts were too involved in labor negotiations to participate) and were replaced in a subsequent drawing. Wayne County Juvenile Facility Network, Survey on the Incidents of Juvenile Delinquency - initial report (1975) (unpublished paper).

³⁰Of the 102 unsuccessful interviews, only four occurred because of refusals by the juvenile to be questioned. Nonresponse bias might, therefore, rise from a "mobility"

²⁷T. HIRSCHI, *supra* note 1, at 157-58.

The geographic area under consideration included not only densely populated, blue-collar urban industrial communities, but also wholly residential communities, some of which were high income and white collar and others which were moderate to low income. The western edge of the county included some sparsely settled rural towns with occasional farms. The non-white population of the "out county" area is only about 5 percent, most of which is clustered in a few communities not included in the sample.

Operational measures. The present research examines the interrelations among delinquency, delinquent peers, conventional activities, educational expectations, attitude towards law and attachment to school. Delinquent peers and conventional activities are elements of outer containment or environmental pulls (or attachment and involvement, respectively), whereas the latter three variables are elements of inner containment (or commitment, belief and attachment, respectively) (see Figure 2).

The measure of conventional activities was based on the following items: "Do you have a job during the school year;"³¹ "How many times have you worked on a school paper or for some other club apart from sports in the past year;" "How many times in the past year have you been elected a class officer in school, or officer in a club at school or outside school;" "How many times in the past year have you played on a school athletic team?" Scores were calculated by summing each adolescent's responses to these four questions.

Delinquent peer associations were measured by responses to the question, "Of all your friends, how many out of ten have done this in the past year—(1)

taken something worth less than \$50.00 (petty larceny), (2) run away from home (defiance), (3) damaged property on purpose that wasn't his or his family's (damaged property), (4) been drinking with friends (drinking), or (5) gotten into a fist fight with someone either by himself or as part of a group (fights)?"

Single items served as measures of the remaining independent variables: "What kind of education do you expect to get after high school" (educational expectations); "What if someone steals something from a store just for the thrill of it" (Law 1); "Some people say there are too many unnecessary laws and regulations, and they lie to get around them" (Law 2) (attitude towards law);³² and "How much do you like school?" (attachment to school). All three measures of inner containment were dichotomized so that any respondent who expected no further education after high school was classified under weak inner containment, as were those who answered "not at all," "not very much," or "some-what" on the attachment to school question or "always all right," "often all right," or "all right once in a while" on the two attitude towards law questions. Conversely, anyone who responded "pretty well" or "very well" (attachment to school) as well as those answering "almost never all right" or "absolutely never all right" (attitude towards law) were classified under strong inner containment.

Rather than devising one delinquency scale covering a wide range of different acts, various offenses were used as separate measures of delinquent activities. "Petty larceny," "damaged property," "drinking," and "fights" were measured by asking the respondents, "How many times have you committed this act in the past year?" Defiance was operationalized through a series of four questions: "How many times in the past year have you (1) stayed out all night without your parents' permission, (2) cursed at your parents to their face, (3) hit either of your parents, and (4) run away from home?" Again, scores were obtained by summing each adolescent's responses to the previous questions. It would be

factor (i.e., those students moving into or out of the selected school districts could be more or less delinquent than those already residing in the areas). There has been, however, very little research on the consequences of juvenile transiency and none on its relation to delinquency. In fact, past research provides no empirical justification that such a relationship even exists. For example, Barrett and Noble concluded that "... children who had moved did not differ from a random sample of their peers in Total Disability Aggression, Inhibition, or Learning Disability..." Barrett & Noble, *Mother's Anxieties versus the Effects of Long Distance Moves on Children*, 35 J. MARRIAGE & FAMILY 181 (1973). Moreover, a study by Evans found no significant differences in IQ between mobile and nonmobile students. Evans, *The Effect of Pupil Mobility upon Academic Achievement*, 45 NAT'L ELEMENTARY PRINCIPAL, April 1966, at 18.

³¹A "yes" response was coded "1," "no" was coded "zero."

³²The author received these data after the study was completed, and did not participate in constructing the interview schedule. Admittedly, a single item which attempts to measure a general attitude toward many diverse laws may appear invalid. In an attempt to "correct" this, two measures of "attitude towards law" are included in the data analysis. The reader can draw his own conclusions as to the validity of the measure, but the similarity in the empirical results suggests its validity.

misleading, however, to conclude, that the dependent variables reflect the actual number of crimes committed by adolescents in the past year, for the social control perspective is actually a "theory" of conforming rather than deviant behavior. Thus, the five offenses are dichotomized into the categories "no acts committed" (conformity) and "one or more acts committed" (deviant behavior),³³ with the theoretical concern on explaining differences in the odds on conformity, relative to deviant behavior.

Findings

The data were analyzed by Goodman's method for multiway contingency tables³⁴ and the (weighted)

³³Research by Erickson and Empey shows that the clearest distinction among official distinctions was that between non- and one-time offenders, on the one hand, and recidivists, on the other. Erickson & Empey, *Court Records, Undetected Delinquency and Decision-making*, 54 J. CRIM. L.C. & P.S. 456 (1963). Preliminary tests were thus run on all forty of the subtables in Tables I and II of this study to discover whether there were any discriminating dichotomies on the volume of delinquent offenses. The dependent variables were trichotomized (0, 1, 2 + offenses), and the resulting tables were then partitioned using the procedure described by Duncan in which the trichotomous dependent variables are represented as a set of three dichotomous formal variables. Duncan, *Partitioning Polytomous Variables in Multiway Contingency Analysis*, 4 SOC. SCIENCE RESEARCH 167 (1975). This method can provide statistical justification for collapsing categories of polytomous variables in multiway tables. The results revealed that in only three of the forty subtables should the dependent variables have been collapsed according to the results obtained by Erickson and Empey (i.e., 0 and 1 v. 2+ offenses). See Goodman, *The Multivariate Analysis of Qualitative Data: Interactions among Multiple Classifications*, 65 J. AM. STAT. ASS'N 226 (1970).

³⁴Essentially, Goodman's technique involves calculating expected frequencies for each of the models to be tested. The various models are evaluated by comparing expected frequencies to observed frequencies of hierarchical models, utilizing the likelihood ratio chi-square statistic to test "goodness of fit." Hierarchical models are compared by the subtraction of chi-square values and the degrees of freedom to yield a new chi-square statistic which is then examined for improvement of fit. Interpretation of the chosen model is clarified by computing odds and odds ratios on the expected frequencies; these describe the strength of the relationship, or the magnitude of each effect.

"Odds" are computed in a fashion similar to those used in horse betting. For example, the odds on "conformity," relative to "delinquent behavior," would be .33 if 33 respondents had reported zero delicts and 100 had reported at least one delict for a certain offense, within the *i*th category of both Educational Attachment and Delinquent Companions. "Odds ratios" are proportions of the odds and therefore describe the strength of each variable's effect.

minimum logit chi-square regression technique³⁵ with the dependent variable

$$Y_i = \log_e ((A_i+0.5)/(B_i+0.5)),$$

where A_i and B_i are frequencies for the *i*th response category ($i = 1, 2$). Independent variables included the linear scoring of the categories for conventional activities and delinquent friends and dummy variables for educational expectations, attachment to school, and attitude towards law.

The first set of analyses concerns the interrelations among the five delinquent acts, conventional activities, and the three measures of inner containment (educational expectations, attachment to school, and attitude towards law). No acceptable linear fit to the models could be obtained with the minimum logit chi-square regression technique, but it could be argued that there is a *nonlinear* relation between conventional activities and delinquent acts. Therefore, the measure of conventional activities was collapsed into a trichotomy (0, 1-4, and 5+), and the same data were then re-analyzed using the maximum likelihood multiway contingency table approach. The same conclusions are reached by either technique. As can be seen in Table I, conventional

³⁵Thiel, *On Estimation of Relationships Involving Qualitative Variables*, 76 AM. J. Soc. 103 (1970). This technique tests the linearity of the log odds of a dichotomous dependent variable on different combinations of scaled and dummy independent variables. A particular regression model provides an acceptable fit to the data if the predicted log odds do not differ significantly from the observed log odds. A particular model's "goodness of fit" is determined by calculating the logit chi-square statistic.

Weighting procedures are necessary to attain homocedasticity, an assumption necessary for tests of hypotheses in regression analysis. Weights are defined by the formula, $\text{weight} = (A_{ij}+0.5)(B_{ij}+0.5)/(A_{ij}+B_{ij}+1)$, where A_{ij} and B_{ij} are the number of juveniles responding "no delinquent acts" and "one or more delinquent acts," respectively, in the *i*th category of conventional activities or delinquent peers and in the *i*th category of either educational expectations, attachment to school, or attitude towards law.

Interpretation of the results can be clarified by an example of a minimum logit chi-square regression equation (from subtable [6] of Table III):

$$\hat{Y} = .81+1.06(X1) -.31(X2)$$

where \hat{Y} = the expected log odds on Conformity (petty larceny),

$X1$ = a dummy variable for Educational Attachment (0 = weak containment, 1 = strong), and

$X2$ = number of Delinquent Companions.

Thus, being strongly attached to the educational system raises the log odds on Conformity by 1.06, while an increasing number of delinquent companions lowers these log odds by .31.

activities has no effect on any of the five dependent variables when in combination with one of the measures of inner containment. This conclusion is similar to that reached by both Hindelang³⁶ and Hirschi,³⁷ who reasoned that most adolescents are frequently exposed to law-breaking behavior, and that the delinquent acts themselves actually require little time.

It is interesting to note that in all four subtables involving the delinquent act fights and in two of the subtables ([13], [15]) involving damaged property, the measure of inner containment also had no effect. In the remaining tables, however, inner containment did have a significant effect (at the .05 level of probability) in the hypothesized direction. The odds ratios (strong:weak) describing the relation between inner containment and the odds on conformity are all greater than one, indicating there are more conforming adolescents under conditions where inner containment is strong than under conditions when it is weak. Moreover, the strength of this association *appears* to be quite strong, as the odds ratios range from a low of 1.60 in subtable [5] to a high of 5.38 in subtable [19].

The second set of analyses concerns the interrelations among the same five delinquent acts, delinquent companions, and the same measures of inner containment. Regressing the log of the odds on conformity on delinquent companions results in a good linear fit (the only exceptions being subtables [12], [15], and [16] of Table II).³⁸ The chi-square statistics and preferred minimum logit chi-square regression equations are presented in Table II.

The different measures of inner containment have an *independent* effect on the dependent variable in only five of the twenty subtables ([6], [9], [10], [19], and [20]) in Table II. In view of the dummy variable scoring convention adopted,³⁹ none of these independent effects are in the direction hypothesized by Reckless (see Figure 3). Since Reckless predicts

more deviance in situations where inner containment is weak and outer containment is strong than under the opposite conditions, there should also be more conformists (or less deviants) under the latter situation. Results contrary to Reckless' expectations, however, are found in all five subtables. Figure 4 presents the (fitted) log odds on conformity by number of delinquent friends within categories of attachment to school for subtable [10] of Table II. The log odds on conformity under situations of strong inner containment (or highstakes) and weak outer containment are .35, as compared to the opposite situation where the log odds on conformity are 2.09. Results similar to these are found in the other four subtables.

Comparing the subtables in Table II with the corresponding subtables in Table I, it appears that the association between the elements of inner containment and the dependent variables is often spurious or indirect (compare subtables [5], [7], [8], [14], [16], [17], and [18]) when controlling for number of delinquent companions. Even though different (causal) models could lead to this finding, these results run contrary to Hirschi's expectations in his social control model (see Figure 1), in which he predicted the association between delinquent friends and delinquency would be negligible when controlling for measures of inner containment.

Moreover, significant interactions between measures of inner and outer containments and conformity are found in only three subtables ([11], [12], and [15]) of Table II. None of these interactions, however, are in the direction reported by Hirschi.⁴⁰ While the odds on conformity for low stakes (weak inner containment) adolescents with no delinquent friends are lower than the corresponding odds for high stakes (strong inner containment) adolescents with no delinquent friends in subtables [11] and [15],⁴¹ the odds on conformity for the low stakes adolescent with many delinquent friends were *not* found to be a "great deal" lower than the corresponding odds for the high stakes adolescents as suggested by Hirschi. Quite the contrary, the odds on conformity for subtables [11] and [12] reveal that the low stakes adolescent with many delinquent friends is actually *less* likely to commit delinquent acts than the high stakes juvenile with an identical number of delinquent companions!

³⁶Hindelang, *supra* note 20, at 481-83.

³⁷T. HIRSCHI, *supra* note 1, at 187-91.

³⁸In order to test for a *nonlinear* effect, "delinquent friends" was collapsed into a trichotomy (0, 1-4, 6-10) and these subtables were then analyzed by Goodman's technique. The trivial model of three-way interaction had to be accepted for subtables [12] and [15], and the observed cell frequencies were therefore needed to explain the association among the three variables. The association in subtable [16], however, can be explained by the single nonlinear effect of delinquent friends on the dependent variable.

³⁹The dummy variable scoring procedures were as follows: educational expectations—0 = strong containment, 1 = weak; attachment to school and attitude towards law—0 = weak containment, 1 = strong.

⁴⁰T. HIRSCHI, *supra* note 1, at 158.

⁴¹Subtable [12] revealed that there is no statistically significant difference between low and high stakes adolescents (with no delinquent friends) in relation to conformity.

TABLE I
Chi-Square Statistics, (Fitted) Odds on Conformity (Relative to Delinquent Behavior), and (Fitted) Odds Ratios (Strong: Weak) for the preferred Models of the 3-Way Contingency Tables, Delinquent Acts (A) by Conventional Behavior (B) by 4 Indices of Inner Containment (C)

Dependent Var.	C = Educ. Expect.	C = Educ. Attach.	C = Law 1	C = Law 2
A = Flights	[1] Not significant at .05 level	[2] Not significant at .05 level	[3] Not significant at .05 level	[4] Not significant at .05 level
A = Petty Larceny	[5] $\{BC\} \{AC\} X^2 = 4.6$, 4 d.f. P = .33 <u>Odds</u> <u>Ratio</u> Str. 1.90 1.60 Weak 1.19	[6] $\{BC\} \{AC\} X^2 = 2.0$, 4 d.f. P = .74 <u>Odds</u> <u>Ratio</u> Str. 2.48 3.44 Weak .72	[7] $\{BC\} \{AC\} X^2 = 2.0$, 4 d.f. P = .73 <u>Odds</u> <u>Ratio</u> Str. 1.88 2.47 Weak .76	[8] $\{BC\} \{AC\} X^2 = 4.9$, 4 d.f. P = .30 <u>Odds</u> <u>Ratio</u> Str. 2.18 2.16 Weak 1.01
A = Defiance	[9] $\{BC\} \{AC\} X^2 = 6.7$, 4 d.f. P = .15 <u>Odds</u> <u>Ratio</u> Str. 3.07 2.90 Weak 1.06	[10] $\{BC\} \{AC\} X^2 = 7.3$, 4 d.f. P = .12 <u>Odds</u> <u>Ratio</u> Str. 3.12 2.76 Weak 1.13	[11] $\{BC\} \{AC\} X^2 = 4.4$, 4 d.f. P = .36 <u>Odds</u> <u>Ratio</u> Str. 2.59 2.91 Weak .89	[12] $\{BC\} \{AC\} X^2 = 7.2$, 4 d.f. P = .12 <u>Odds</u> <u>Ratio</u> Str. 3.48 3.22 Weak 1.08
A = Damaged Property	[13] Not significant at .05 level	[14] $\{BC\} \{AC\} X^2 = 4.4$, 4 d.f. P = .36 <u>Odds</u> <u>Ratio</u> Str. 6.66 2.73 Weak 2.44	[15] Not significant at .05 level	[16] $\{BC\} \{AC\} X^2 = 1.4$, 4 d.f. P = .83 <u>Odds</u> <u>Ratio</u> Str. 6.84 2.64 Weak 2.59
A = Drinks	[17] $\{BC\} \{AC\} X^2 = 1.5$, 4 d.f. P = .83 <u>Odds</u> <u>Ratio</u> Str. 1.10 1.80 Weak .61	[18] $\{BC\} \{AC\} X^2 = 2.9$, 4 d.f. P = .57 <u>Odds</u> <u>Ratio</u> Str. 1.13 1.88 Weak .60	[19] $\{BC\} \{AC\} X^2 = 1.6$, 4 d.f. P = .81 <u>Odds</u> <u>Ratio</u> Str. 1.13 5.38 Weak .21	[20] $\{BC\} \{AC\} X^2 = 1.3$, 4 d.f. P = .86 <u>Odds</u> <u>Ratio</u> Str. 1.35 3.0 Weak .45

TABLE II
Chi-Square Statistics and the Preferred Minimum Logit Chi-Square Regression Equations Involving the Dependent Variables (Y), Measures of Inner Containment (X1), Delinquent Companions (X2), and an X1 by X2 Interaction (X3)

Dependent Var.	X1 = Educ. Expect.	X1 = Educ. Attach.	X1 = Law 1	X1 = Law 2
Y = log of the odds on Fights	[1] $\hat{Y} = 1.6 - .23(X2)$ $X^2 = 20.51, 20 \text{ d.f.}$.5 > P > .3	[2] $\hat{Y} = .16 - .23(X2)$ $X^2 = 16.04, 20 \text{ d.f.}$.8 > P > .7	[3] $\hat{Y} = 1.6 - .23(X2)$ $X^2 = 13.98, 20 \text{ d.f.}$.9 > P > .8	[4] $\hat{Y} = 1.6 - .23(X2)$ $X^2 = 18.36, 20 \text{ d.f.}$.7 > P > .5
Y = log of the odds on Petty Larceny	[5] $\hat{Y} = 1.5 - .31(X2)$ $X^2 = 19.01, 20 \text{ d.f.}$.5 > P > .3	[6] $\hat{Y} = .81 + 1.06(X1) - .31(X2)$ $X^2 = 20.31, 19 \text{ d.f.}$.5 > P > .3	[7] $\hat{Y} = 1.5 - .31(X2)$ $X^2 = 21.23, 20 \text{ d.f.}$.5 > P > .3	[8] $\hat{Y} = 1.5 - .32(X2)$ $X^2 = 19.05, 20 \text{ d.f.}$.7 > P > .5
Y = log of the odds on Defiance	[9] $\hat{Y} = 1.6 - .90(X1) - .27(X2)$ $X^2 = 24.07, 19 \text{ d.f.}$.2 > P > .1	[10] $\hat{Y} = .74 + .87(X1) - .27(X2)$ $X^2 = 28.76, 19 \text{ d.f.}$.1 > P > .05	[11] $\hat{Y} = .99 + 1.4(X1) - .65(X2) - .25(X3)$ $X^2 = 21.61, 18 \text{ d.f.}$.3 > P > .2	[12] 3-Way Interaction Cont. $\frac{\text{Del. fr.}}{\text{Str.}} = \frac{0}{8.2}$ Weak 1-5 2.7 4.8 6-10 .33 .44 1-5 .56 6-10 .75
Y = log of the odds on Damaged Property	[13] $\hat{Y} = 2.4 - .32(X2)$ $X^2 = 30.36, 20 \text{ d.f.}$.1 > P > .05	[14] $\hat{Y} = 2.4 - .33(X2)$ $X^2 = 28.09, 20 \text{ d.f.}$.2 > P > .1	[15] 3-Way Interaction Ratios Cont. $\frac{\text{Del. fr.}}{\text{Str.}} = \frac{0}{83.0}$ Weak 1-5 5.3 1.5 6-10 1.7 2.3 1-5 3.6 6-10 .75	[16] Goodman's Method [X1 X2] [XZ Y] $X^2 = 4.20, 3 \text{ d.f.}, P = .24$ $\frac{\text{Del. fr.}}{\text{Str.}} = \frac{0}{53.5}$ 1-5 4.6 6-10:0 .02 6-10 1.0
Y = log of the odds on Drinks	[17] $\hat{Y} = 2.1 - .43(X2)$ $X^2 = 19.81, 20 \text{ d.f.}$.5 > P > .3	[18] $\hat{Y} = 2.1 - .43(X2)$ $X^2 = 21.28, 20 \text{ d.f.}$.5 > P > .3	[19] $\hat{Y} = 1.3 + .99(X1) - .44(X2)$ $X^2 = 18.63, 19 \text{ d.f.}$.5 > P > .3	[20] $\hat{Y} = 1.6 + .73(X1) - .42(X2)$ $X^2 = 18.79, 19 \text{ d.f.}$.5 > P > .3

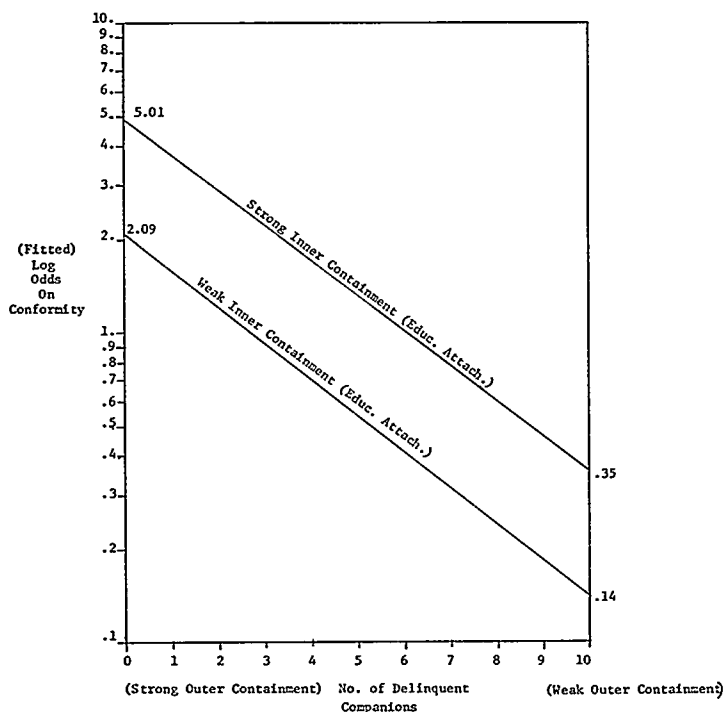


FIGURE 4

(Fitted) odds on conformity by no. of delinquent companions within categories of attachment to school (from "Subtable" [10] of Table II).

DISCUSSION

The present research does not support the widely held belief that "idle hands are the devil's workshop." Results from this study, at least, indicate that programs designed to keep youth busy and "off the streets" as a deterrent to crime may fail. However, while studies by Hirschi⁴² and Hindelang⁴³ support these results, Schaeffer⁴⁴ found a slightly negative relation between participation in high school interscholastic sports and official delinquency when controlling for academic achievement and father's occupation. Thus, involvement in conventional activities as a deterrent to delinquency warrants further empirical investigation because from a prevention and control viewpoint it represents one of the few variables with policy implications (i.e., as opposed to sex or race, involvement is a manipulable variable). If there is, in fact, a preventive effect due to involvement, future research must specify what types

of activities are meaningful (e.g., sports, church, recreational, clubs, etc.) and under what conditions and by which processes these possible preventive mechanisms occur.

Evidence from these data also fail to support Reckless' hypothesis that inner containment plays the larger role in controlling deviance. The results in Table II suggest that at least one element of environmental pulls (or outer containment)—number of delinquent companions—may be more important in controlling crime. In fact, the (supposed) association between inner containment and conformity "vanishes" in seven of the subtables when controlling for delinquent associations. The effect of inner containment is sometimes significant, however, in the other subtables. Further research must specify the conditions under which different elements of inner and outer containments have a deterrent effect on delinquency. Be as it may, the present findings lend no empirical support to Reckless' prediction of more delinquency under conditions of weak inner containment and strong outer containment than in the reverse situation. Furthermore, Table II yielded only three significant interactions among elements of inner and outer containment and conformity, and

⁴²T. HIRSCHI, *supra* note 1.

⁴³Hindelang, *supra* note 20.

⁴⁴Schaeffer, *Participation in Interscholastic Athletics and Delinquency: A Preliminary Study*, 17 Soc. PROB. 40 (1969).

none of these interaction effects were in the direction reported by Hirschi.

There are, however, many other variables encompassed by the control perspectives not presented in this study. This research examined only the relations among two aspects of outer containment, three measures of inner containment, and five delinquent acts. Moreover, there are two methodological differences which distinguish this study from Hirschi's: (1) both boys *and* girls were included in the present analyses, and (2) while Hirschi included six different acts in his measure of delinquency, separate analyses for five acts were conducted in this study, with the focus on conforming rather than deviant behavior. Moreover, while four of the offenses used by Hirschi were also encompassed by the present study (petty

larceny, fighting, and property damage), his other two acts (grand larceny and car theft) were clearly of a more serious nature than the status offenses utilized here (defiance and drinking).⁴⁵

Finally, even though this study was couched in terms of the containment perspective, the results are also applicable to Hirschi's perspective concerning the social bond. Both perspectives, therefore, received little empirical support using the present data.

⁴⁵Hirschi included two measures of petty larceny in his delinquency index: (1) Have you ever taken little things (worth less than \$2.00) that did not belong to you? (2) Have you ever taken things of some value (between \$2.00 and \$50.00) that did not belong to you? See T. HIRSCHI, *supra* note 1.