

STRAIN, SOCIAL BONDING THEORIES AND DELINQUENCY*

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Öz

Bu çalışma gerilim ve sosyal bağ teorilerini birlikte inceleyerek, şu iki amacı hedeflemektedir: Birincisi, hangi teorinin daha fazla açıklayıcı olduğunu ortaya koymak, ikincisi ise, anomi değişkenlerinin suç üzerindeki etkisinin sosyal bağ değişkenlerinin aracı olup-olmadığını Ankara'daki adölesanlar örnekleminde incelemektir. Her ne kadar bu konular batıdaki kriminolojide yeni değilseler de, bu çalışma Türkiye'deki kriminoloji alanında bahsedilen bu konularda iki 'yarışan' temel teorilerin test edilmesinde ilktir. Çalışmanın bulguları, sosyal bağ teorisinin anomi teorisinden daha fazla açıklayıcı güce sahip olduğunu ve anomi değişkenlerinin etkisini tamamen sosyal bağ değişkenleri üzerinden suçla ilişkileri olduğunu ortaya çıkarmaktadır.

Anahtar Sözcükler

Gerilim Teorisi, Sosyal Kontrol Teori, Teori Sentezi, Çocuk Suçları, Ankara, Türkiye

Abstract

The study simultaneously examines both strain and social bonding theories, first, to show which theory has a more explanatory role, and second to demonstrate whether social bonding theory mediates between the link between strain and delinquency by using a sample of adolescents in Ankara. Although these issues are not new in the western criminology literature, this study is the first to test two 'competing' major theories in relation to these issues in criminology in Turkey. The findings reveal that social bonding variables play a more important role than strain variables, and social bonding variables fully mediate the relationship between strain variables and delinquency.

Key Words

Strain Theory, Social Control Theory, Theory Integration, Juvenile Delinquency, Ankara, Turkey

Gerilim, Sosyal Bağ (Kontrol) Teorileri ve Çocuk Suçluluğu

Introduction

This article tries to find answers to two crucial questions: First, are strain or social bonding variables more important in the explanation of delinquency? Second, in line with the criminological literature, do social bonding variables *mediate* the link between strain and delinquency? In order to answer the two questions, the present study uses self-reported survey, and data come from a sample of high school students residing in the central section of Ankara, Turkey.

Both strain and social bonding theories can be applicable to Turkish society for several reasons. Hirschi's social bonding is a conservative theory in political terms and more relevant to societies where individuals have stronger bonds to society, like Turkey. As for classic strain theory, Turkish people were and have been exposed to new values which emphasized earning a large amount of money in one night ("cutting corners") but without putting any importance on

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the ethical or normal ways (hard working) of earning money starting with the mid-1980s. This disharmony between goals and means coming from the realities of Turkish life corresponds to Merton's thesis. Children who were born at the early 1980s were high school students around the time when this survey was carried out. They were exposed to the new values which stress cutting corners or reach individual goals without hard working or ethics in a 'traditional' society. For example, a former Turkish prime minister (e.g., Turgut Özal) claimed that "my staff knows his own business" (e.g., "benim memurum işini bilir" in Turkish) which was said with the intention that if a state staff had a financial problem, s/he could find her/his own way of solution, which could be any type of illegal act. In fact, this is not the only statement made by the people in higher echelons of the society (for example, "nothing happens if a law is broken one time" which is "yasaları bir kez delmekle birşey olmaz" in Turkish). In addition to this type of public talks, *liberal* economic politics started in the mid-1980s did not accompany by formal or official rules which led to a lot of fraudulent acts by the rich, for example, sending stones (as if they were potatoes) to a neighboring country for the purpose of 'trade' and, as a consequence, getting a substantial amount of the state money for the aim of "creation and development of bourgeois class."

In the United States of America, numerous empirical studies on the link between social bonding theory and delinquency have been identified, and they have been done for the purposes of comparison, replication, integration, and expansion of the theory (Kempf, 1993). In sixteen studies, social bonding theory has been compared to various other theories (Kempf, 1993), and there are, nevertheless, few tests of both strain and social bonding theories together in the same analysis (for exceptions, see Cernkovich, 1978a; Eva, 1978; Segrave and Hastad, 1983; Segrave and Hastad, 1985). In Turkey, there, however, have been very few studies of strain (Özbay, 2003; Özbay and Özcan, 2006) and social bonding theories (Delikara, 2002; Kaner, 2002; Özbay, 2004; Özbay and Özcan, 2006; Özbay and Özcan, 2008; Yılmaz, 2002). More importantly, no simultaneous test of the two theories has existed so far. Existing studies (Delikara, 2002; Kaner, 2002; Yılmaz, 2002) did not use control variables (for example, age, gender, social class) which are the most traditionally used control variables in the criminology literature. These studies (Delikara, 2002; Kaner, 2002; Yılmaz, 2002), also, did not include very important variables from social bonding theory, such as commitment, belief, involvement, and attachment to teachers.

1. Strain and Social Bonding Theories

Strain Theory: Merton's strain theory (1968), one of the most prominent strain theories, is related to Durkheim's conception of anomie (Featherstone and Deflem, 2003; Martin, 2000). In its basic form, strain theory hypothesizes that delinquency is an outcome of unfulfilled desires or aspirations (Elliott, Huizinga, and Ageton, 1985). That is, the major thesis of strain theory is that there exists a gap between what is valued (money) and how can be achieved (hard working or delinquency). Merton claimed that the discrepancy will be more likely to take place among the lower classes because they do not have the necessary means (material sources) to achieve their goals. The lower class has been traditionally blocked in their efforts to succeed in their aims. One possible

way of overcoming the blockage is to commit delinquency. On the basis of this argument, it is expected that strain will be associated positively with delinquent behavior.

Social Bonding Theory: Similar to Merton's strain theory, social bonding theory of Hirschi, one of the major control theories, also is in the tradition of Durkheim or social disorganization theory. Whereas strain theory deals with motivational factors that tend to lead to delinquency, social bonding theory deals with non-motivational factors that deter juveniles from committing delinquent acts (Agnew, 2004; Elliott et al., 1985). In other words, the major difference between the two theories is that strain theory assumes that socialization or social control is constant, and strain varies. In contrast, social bonding theory assumes that strain is constant, and socialization or social control varies (Elliott et al., 1985). In general terms, Hirschi (1969) argued that when an individual has a greater level of social bonding to society, the individual will be less likely to commit delinquent act. In other words, he claimed that if a juvenile is strongly attached to parents, friends, and teachers, committed to the conventional goals of society (education), involved in conventional activities (homework, sports), and believes in the importance of the accepted norms of society, the juvenile will tend not to engage in delinquent behavior. As the latter statement implies, the theory has four major components: Attachment to significant others, commitment, involvement, and belief. On the basis of social bonding theory, it is hypothesized that social bonding variables will be related inversely to delinquent behavior.

2. Literature Review

To the author's knowledge, there were only a few tests that paid special attention to the test of strain and social bonding theories *together* and these studies dated back about thirty-five years ago in the United States (Cernkovich, 1978a; Elliott and Voss, 1974 cited in Elliott et al., 1985; Eva, 1978; Segrave and Hastad, 1983; Segrave and Hastad, 1985). In spite of their different assumptions on the causes of delinquency, some criminologists argued that both strain and social bonding theories could be integrated in order to understand juvenile delinquency better. While the current study has implication for integrated theories, it is beyond the aim of this paper to deal with the integration issue (for a comprehensive discussion, see Bernard and Snipes, 1996, see Pearson and Weiner, 1985 for a more general theoretical integration).

Although there have been some tests of various delinquency theories in the extant literature, they did not *fully* test both strain and social bonding theories together (Aultman, 1979; Aultman and Wellford, 1979; Cheung and Ng, 1988; Edwards, 1992; Elliott, Ageton, and Canter, 1979; Hoffmann, 2002; Rodriguez and Weisburd, 1991; Simons, Miller, and Aigner, 1980; Smith, 1979; Smith and Paternoster, 1987). That is, most of these studies used one or perhaps a few major concepts from such theories as strain/anomie, labeling, differential association/social learning, social bonding/control, deterrence, subculture, and self-esteem.

The literature review is organized according to the two research questions mentioned above. That is, first, are strain or social bonding variables

more important in the explanation of delinquency? Second, do social bonding variables *mediate* the link between strain and delinquency?

Concerning the first question, classic strain and social bonding theories have been frequently examined by criminologists in the West (especially the United States). Research indicated that whereas social bonding variables generally received empirical support (Kempf, 1993), support for strain variables was mixed at best (Burton and Cullen, 1992).

As for the second question, depending on the types of strain measures (including social class), studies reported that strain variables had *only an indirect* impact on delinquency through delinquent friends (Cheung and Ng, 1988: Edwards, 1992: Elliott et al., 1985: Roitberg and Menard, 1995: Segrave and Hastad, 1985), self-esteem (Edwards, 1992), alienation (Aultman and Wellford, 1979), labeling (Cheung and Ng, 1988: Edwards, 1992), deviant values (Cheung and Ng, 1988), subculture (Cernkovich, 1978a: Segrave and Hastad, 1983: Segrave and Hastad, 1985), blocked opportunity (Segrave and Hastad, 1983: Segrave and Hastad, 1985) as well as their *direct* impacts (Cernkovich, 1978a: Edwards, 1992). More relevant to the current study, research indicated that the influence of strain variables on delinquency was *largely* mediated by social bonding variables (Cernkovich, 1978a: Cernkovich, 1978b: Eva, 1978: Elliott and Voss, 1974 cited in Elliott et al., 1985: Elliott et al., 1985: Roitberg and Menard, 1995: Segrave and Hastad, 1983: Segrave and Hastad, 1985). All of these findings mean that strain variables tend to influence delinquency indirectly. There are several possible reasons for this mediation. First, compared to strain variables, social bonding variables are a more proximate cause of delinquency. In other words, individuals may care what happens to them in the near future rather than the far-away future. When the issue also is approached from a functionalist theoretical position, the Turkish family plays a very important role in reducing the highly stressful events faced by its members or in balancing individuals' aspirations and expectations in the face of unfortunate events. On the basis of these findings and arguments, it is expected that strain variables will mostly have an indirect impact on delinquent behaviors through the mediating role of social bonding variables.

In Turkey, tests of theories of delinquency/crime are not common among the Turkish scholars. Nevertheless, in recent times, some Turkish scholars have started to test some western theories in the context of Turkey. The two theories which were more frequently tested are Merton's strain (Özbay, 2003: Özbay and Özcan, 2006) and Hirschi's social bonding theories so far (Delikara, 2002: Kaner, 2002: Özbay, 2004: Özbay and Özcan, 2006: Yılmaz, 2002) as well as self-control theory (Özbay, 2008: Özbay and Köksoy, forthcoming). More important, no simultaneous tests of the two theories have existed up until now (even in the United States, there have not been many studies on the mediating roles of social bonding theory in the relationship between strain theory and delinquency). Existing studies in Turkey (Delikara, 2002: Kaner, 2002: Yılmaz, 2002) did not use control variables (age, gender, and social class) which are the most traditionally used variables in tests of theories of delinquency. Some studies (Delikara, 2002: Kaner, 2002: Yılmaz, 2002) also did not include very important variables from social bonding theory, such as commitment, belief, involvement, and attachment to teachers. The existing tests

of strain and social bonding theories in Turkey indicated that attachment to teachers, family supervision, school commitment, and belief in the norms of society seemed to be the most consistent variables from social bonding theory (Özbay and Özcan, 2006). Furthermore, monetary strain and perception of blocked opportunity appeared to be the most consistent variables in relation to classic strain theory (Özbay, 2003). No test of social class in relation to strain theory was used in the previous test of the theory even though it played a very important part in the theory. Furthermore, when the two theories were compared in terms of their explanatory power (R^2), social bonding variables played a more important role than strain variables. Whereas the explanatory power of social bonding variables ranged from 17 to 40 percent (Özbay and Özcan, 2006), that of strain variables ranged from 1 to 6 percent (Özbay, 2003). More importantly, no test of the *mediating* role of social bonding variables on the link between strain variables and delinquency has been conducted. The latter point is very significant due to the fact that we can dismiss the impact of strain on delinquency just on the basis of the absence of its *direct* impact.

3. Data and Method

The data for the study consisted of 1,710 high school students in the central parts of Ankara in 2001, and information from the students was obtained by means of a self-reported survey. Framework for sampling was created by obtaining the information which included the number of students in various types of schools within three districts from the Ministry of Education. Sample size was determined by using a two-stage-stratified cluster sampling: First, central districts of Ankara were divided on the basis of their socio-economic levels: Low, middle, and high. Later, various high schools within each district were grouped into four clusters: State, state occupational, state Anatolian, and private high schools. On the basis of each school's population size in each district (probability proportionate to size), the necessary sample size was calculated. Because of some unexpected constraints (classroom and nation-wide exams), the final selection of students was not carried out randomly (Özbay, 2003). For this reason as well as the fact that this study used a sample in only one city, the findings can not be generalized to the students in other cities in the overall Turkey.

3.1. Dependent Variables

The dependent variable, delinquency, covered fifteen items that tapped diverse juvenile delinquent behaviors. The items were sexual harassment, school truancy, cheating on exams, vandalizing school properties, attacking someone, being late for class, fist fighting, hitting other students, employing force on students, carrying knife, bat etc, using force on teachers, being loud, rowdy, or unruly in public places, throwing objects out of a moving car, purposely vandalizing lawns and trees, and being engaged in gang fights. Response categories for the fifteen juvenile delinquent acts were "always" (= 5), "generally" (= 4), "sometimes" (= 3), "seldom" (= 2), and "never" (= 1). The items on delinquency were very similar to those in the United States (for example, see Elliott and Ageton, 1980).

Three indices were created as a consequence of factor analysis: Assault, school delinquency, and public disturbance. Additionally, a global delinquency

index was made by adding the three indices. *Assault index* ($\alpha = .83$) was composed of eight delinquent acts: Using force on teachers, hitting other students, fist fighting, attacking someone, carrying knife, bat etc, using force on students, sexual harassment, being engaged in gang fights. *School delinquency index* ($\alpha = .74$) covered such delinquent behaviors as being late for class, cheating on exams, school truancy, and damaging school properties. *Public disturbance index* ($\alpha = .65$) included such delinquent acts as purposely vandalizing trees and lawns, throwing objects out of moving cars, being unruly, rowdy, and loud in public places. Finally, *total delinquency index* ($\alpha = .86$) covered assault, school delinquency, and public disturbance indices.

3.2. Independent Variables

Strain Variables: Three strain variables were used to measure the construct of strain: The gap between educational aspiration and educational expectation (educational strain), the gap between monetary aspiration and educational expectation (monetary strain), and perceived blocked opportunity.

The gap between educational aspiration and educational expectation (educational strain) corresponds to the difference between the following items: “What would be the highest educational level that you aspire to?” (educational aspiration), and “what will be the highest educational level that you think you will get?” (educational expectation). Response categories concerning the two questions were “high school” (= 1), “two-year university” (= 2), “university” (= 3), and “masters/doctoral degree” (= 4).

The gap between monetary aspiration and educational expectation (monetary strain) corresponds to taking the difference between the following questionnaire items: “I want to make lots of money” (monetary aspiration), and “what will be the highest educational level that you think you will get?” (educational expectation which was the same item above). The response categories for monetary aspiration were “strongly agree” (= 5), “agree” (= 4), “no idea” (= 3), “disagree” (= 2), and “strongly disagree” (= 1).

Perception of blocked opportunity was an additive index and covered the following questions: “I believe people like me are treated unfairly when it comes to getting a good job,” “laws are passed to keep people like me from succeeding,” “no matter how hard I work, I will never be given the same opportunities as other kids,” and “even with a good education, people like me will have to work harder to make a good living.” Response categories were “strongly agree” (= 5), “agree” (= 4), “no idea” (= 3), “disagree” (= 2), and “strongly disagree” (= 1). Higher scores indicated higher degree of perceived blocked opportunity. The questionnaire items for the construct were gathered from Vowell and May’s study (2000).

In addition to the above frequently used strain variables in the literature, *logged income* was employed as an indicator of social class. Because income was skewed, its logarithm was used. The reason for the use of social class as a part of strain theory in the present study is that Merton’s strain theory is known exclusively as a theory which is based on social class (Tittle, 1983).

On the basis of Merton’s version of strain theory, except for social class, educational and monetary strains, and perception of blocked opportunity are expected to have a *positive* impact on delinquency. However, in line with

Merton's prediction, it is hypothesized that lower class will have a higher engagement in delinquency. Hence, an *inverse* association between income (social class) and delinquency is the expected outcome.

Social Bonding Variables: Four main social bonding variables were used: Attachment (family supervision as indicator of attachment to family, attachment to teachers, and attachment to conventional friends), commitment, involvement, and belief. Most of the questions for social control variables were taken from Gardner and Shoemaker's study (1989).

Family supervision index ($\alpha = .81$) included such questions as "my parents know where I am when I am away from home," and "my parents know who I am with when I am away from home." The response categories were "never" (= 1), "sometimes" (= 2), "generally" (= 3), and "always" (= 4). Higher scores indicated higher family supervision.

Attachment to teacher index ($\alpha = .78$) involved "my teachers want to help me when I have problems," "I can share my thoughts and feelings with my teachers," "my teachers know what is best for me," "I would like to be the kind of person my teachers are," and "my friends respect their teachers." Response items were "never" (= 1), "sometimes" (= 2), "generally" (= 3), and "always" (= 4). Once again, greater scores corresponded to greater attachment to teachers.

Attachment to conventional friends was a categorical variable and measured by "if your friends got into trouble with the police, would you be willing to lie to protect them?" Response categories were "yes" (= 1), and "no" (= 2). "Yes" was used as the reference category.

School commitment index ($\alpha = .70$) consisted of "getting good grades is important for me," "school attendance is important to me," "the things I do in school seem worthwhile and meaningful to me," "I dislike school" (reverse coded), and "I try hard in school." Response categories included "never" (= 1), "sometimes" (= 2), "generally" (= 3), and "always" (= 4). Again, greater scores corresponded to greater school commitment.

School involvement index ($\alpha = .44$) covered such questions as "how often are you interested in enough to do more reading or other work than the course required?," and "outside of homework, how often do you have discussions with friends about ideas that come up in your courses?" The recoded response categories consisted of "very often" (= 4), "often" (= 3), "not often" (= 2), and "not very often" (= 1). As before, higher scores showed higher involvement in school works. The question items for this index were obtained from study of Wiatrowski and his associates (1981).

Finally, *belief index* ($\alpha = .44$) was composed of "suckers deserve to be taken advantage of," "to get ahead, you have to do some things which are not right," and "it is alright to get around the law if you can get away with it." Recoded response items involved "never" (= 4), "sometimes" (= 3), "generally" (= 2), and "always" (= 1). Again, greater scores referred to greater belief in the accepted norms of society. Cronbach alpha levels of public disturbance, school involvement, and belief are lower than the required level, which is .70. Therefore, the findings concerning these variables should be evaluated with this point in mind.

On the basis of Hirschi's main thesis (1969), it is expected that family supervision, attachment to teachers and friends, commitment in school, involvement in school, and belief in the accepted norms of society will have a negative influence on delinquent behavior. In other words, higher social bonds will have an inverse impact on delinquency.

Age and gender were used as control variables. Age is an interval variable which measured biological age. Gender was a dichotomized variable, and being male was the reference category.

4.Results

Total Delinquency: Among the four strain variables, monetary strain (the gap between monetary aspiration and educational expectation), perceived blocked opportunity, and income (social class) are statistically significant and have positive impacts on total delinquency (model 1 under the title of total delinquency in Table 1). Whereas monetary strain and perceived blocked opportunity are in the expected direction according to Merton's strain theory, income makes his prediction complicated. That is, while Merton claimed that lower class youth would commit more delinquency, income indicates the opposite: As the monthly family income of juveniles increases, the juveniles engage in more delinquent behavior. Also, educational strain (the discrepancy between educational aspiration and educational expectation) is not statistically significant.

When the social bonding variables are entered into the equation (model 2 in Table 1), family supervision, attachment to teachers, attachment to friends, school commitment, and belief are statistically significant. Also, these variables are in the hypothesized direction according to Hirschi's main thesis: Greater level of indirect family supervision by parents, higher attachment to teachers and friends, greater commitment in school, and greater belief in the accepted norms of society are associated less with total delinquency. After the social bonding variables are included in the analysis, monetary strain and perceived blocked opportunity lose their significance. The only significant strain variable is income. This shows that the impact of the two strain variables is *generally* mediated by the social bonding variables. The social bonding variables by themselves account for 29 percent of the variation in total delinquency, which is three times higher than the accounted variance by the strain variables ($R^2 = 10$).

When age and gender (female) as control variables are entered into the analysis, the above strain and social bonding variables are still statistically significant, and the sizes of their coefficients are slightly reduced (Model 3 in Table 1). Age is related positively to delinquency, and being female, compared to being male, is inversely related. Among all the predictors, school commitment has the greatest impact on the dependent variable (beta or $\beta = -.228$), followed by family supervision ($\beta = -.177$), and attachment to non-delinquent friends ($\beta = -.144$).

Assault: Similar to the above finding, the only significant strain variables are monetary strain, perceived blocked opportunity, and income in relation to assault (model 1 under the title of assault in Table 1). They are related positively to assault. As before, the positive sign of income is problematic in terms of Merton's prediction. Nevertheless, monetary strain and perception of blockage of opportunity are in line with his thesis.

When the social bonding variables are included in the analysis (model 2 in Table 1), monetary strain, income, and perceived blocked opportunity lose their significance. This means that the social bonding variables *fully* mediate the relationship between the strain variables and assault. Moreover, most social bonding variables, except for involvement in school, are statistically significant and have a negative influence on assault. The social bonding variables account for 17 percent of the variance in assault, which is, again, about three times more than the accounted variance by the strain variables, which is 6 percent.

After age and gender are held constant (model 3 in Table 1), gender (female) is the only significant control variable. None of the strain variables are significant as before, and the above social bonding variables are still significant, except for school involvement. Among the independent variables, being female has the greatest impact on assault ($\beta = -.230$), followed by family supervision ($\beta = -.160$), and school commitment ($\beta = -.108$).

School Delinquency: Monetary strain, perception of blocked opportunity, and income are statistically significant and associated positively with school delinquency (model 1 under the title of school delinquency in Table 2). As before, the positive sign of income is in disagreement with Merton's argument. After the social bonding variables are in the equation (model 2 in Table 2), income is the only significant strain variable. Once more, this shows that the impact of the strain variables is *generally* mediated by the social bonding variables. All of the social bonding variables are significant and exert negative impacts on school delinquency, as expected by the theory. The social bonding variables explain 29 percent of the variance in school delinquency, compared to the explained variance by the strain variables (10 percent).

When age and gender are controlled (model 3 in Table 2), income is still statistically significant. Also, all of the social bonding variables continue to have significant impacts on school delinquency independent of age and gender. Age is the only significant control variable which has a positive impact on school delinquency. School commitment has the greatest impact on school delinquency ($\beta = -.287$), followed by attachment to friends ($\beta = -.151$), and family supervision ($\beta = -.127$).

Public Disturbance: Monetary strain, perception of blocked opportunity, and income have significant positive impacts on public disturbance (model 1 under the title of public disturbance in Table 2). After the social bonding variables are included in the analysis (model 2 in Table 2), monetary strain and perceived blocked opportunity are no longer significant. The only strain variable that is still significant is income. Except for school involvement, the remaining social bonding variables are significant and in the predicted direction. The accounted variance by the social bonding variables is 13 percent, which is twice more than the accounted variance by the strain variables (5 percent).

When age and gender are controlled (model 3 in Table 2), none of these variables are significant. Income and most social bonding variables (except for school involvement) continue to be significant. School commitment ($\beta = -.145$) and family supervision ($\beta = -.146$) have the greatest impacts on public disturbance, belief ($\beta = -.125$) and attachment to peers ($\beta = -.119$) follow them.

Impacts of Strain Variables on Social Bonding Variables: A Further Elaboration

The above results indicate that the impact of some strain variables on delinquency is generally mediated by social bonding variables. In order to further explore the exact nature of this relationship, the strain variables are regressed on social bonding variables, net of the impact of age and gender (Table 3). Income, educational and monetary strains, and perception of blocked opportunity have negative effects on, at least, one of the social bonding theory variables such as family supervision, attachment to teachers and friends, school commitment and involvement, and belief (see Figure 1). In turn, the social bonding variables have inverse impacts on total delinquency, except for school involvement. More important, none of the strain variables had a *direct* impact on *total* delinquency. Family supervision, attachment to teachers and friends, school commitment, and belief *fully* mediate the impacts of income, educational and monetary strains, and perceived blocked opportunity on total delinquency. In other words, the social bonding variables have *containment* or *suppression effects* on the strain variables' impact on delinquency (Eve, 1978).

Conclusion

This article tries to answer two important questions: First, are strain or social bonding variables more important in the explanation of delinquency? The finding here indicates that social bonding theory plays a much more important role than strain theory. However, one can claim that the number of independent variables from each theory is not equal. Even though this situation increases the accounted variances by social bonding theory, the variables from social bonding theory are more consistent across types of delinquency, and their sizes (beta coefficients) are greater than the strain variables, independent of the impacts of strain variables.

The second and more important question is do social bonding variables *mediate* the relationship between strain and delinquency? The answer to this question is yes. Except for social class (income), educational strain, monetary strain, and perception of blocked opportunity have an indirect impact on delinquent acts through social bonding variables. However, social class has both a direct and an indirect influence on delinquency. Depending on one's stance on integration versus competition of criminological theories, these findings can be examined in two ways: From a theory-competition perspective, this can be interpreted as the dismissal of strain theory. Nevertheless, from a theory-integration perspective, it can be interpreted that the two theories can complete each other. This is, family supervision, attachment to teachers and friends, school commitment, and belief almost *fully* mediate the impacts of income, educational and monetary strains, and perceived blocked opportunity on total delinquency. On the basis of this finding, the present study is in favor of theory-integration perspective than theory-competition perspective (see Colvin, Cullen, and Ven, 2002 for a recent theoretical integration which includes elements from both strain-coercion- and social bond-social support- types of constructs).

An unexpected finding is that social class (income) is associated *positively* with delinquent behavior. However, Merton claimed that lower class individuals will have more strain than the middle and upper classes and therefore will be more likely to commit delinquency. In the present study, adolescents who

have higher incomes are more likely to engage in the common types of delinquent behavior (school delinquency and public disturbance). The positive association between social class and “common delinquency” here is also found in a previous study of high school students in Ankara (Özbay, 2006). Özbay’s study (2006) revealed that the relationship between social class and delinquent behavior is inconsistent, and social class have *both positive* and *negative* impacts on delinquency, depending on the *seriousness* of delinquency and type of social class measures used: Whereas social class (the finding that the adolescents from low and middle social standing districts in comparison to the adolescents from high social standing district are more likely to engage in assault) is associated *negatively* with *serious* delinquent behavior (assault), it (the finding that the students from low income families in comparison to the students from high income families are less likely to engage in delinquency) is associated *positively* with *non-serious* delinquent behaviors (school delinquency and public disturbance which can also be named as “common delinquency”) which is the case in the present study, too. In this context, an additional question is do educational and monetary strains and perception of blocked opportunity increase or decrease with social class? A correlation analysis indicates that income is correlated inversely with educational strain ($r = -.076, p. < .01$), not significant with monetary strain ($r = -.028$), and inversely with blocked opportunity ($r = -.111, p. < .01$). However, all these negative correlations are very small. This finding shows that strain is not prevalent among any specific social class. In addition to the finding on social class above, this later finding is not in agreement with Merton’s thesis.

Similarly, the current study challenges Hirschi’s (1969) argument that social class is not an important variable. The present study shows both the direct and indirect impacts of social class on delinquency, and it has a negative impact on the social bonding variables: Higher income is associated *negatively* with one’s ties to society. That is, high school students from upper classes are less likely to be supervised psychologically by their families, attached to their teachers and friends, committed to school, and believe the accepted norms of society. In sum, the findings that social class is positively associated with and has both direct and indirect (via social bonding variables) impacts on delinquent acts seem to question the two Western theories examined here. Nevertheless, just on the basis of this finding, it will be premature to make any definite decision on the issue.

The present study includes several deficiencies which future studies should avoid. First and foremost, this is a cross-sectional study and contains all of the limitations of this type of study, for example time-ordering of variables or lack of control for prior delinquency. Second, the findings are limited only to a single city which is populated by state staffs in great numbers. This further implies that the students with more stable monthly family incomes may not have strain. Third, the dependent variables in the study do not cover some other types of delinquent behaviors, say, offenses against property (more relevant to strain theory) or drug use. Fourth, while scholars have underlined the importance of relative deprivation in the strain literature, the current study did not include it. Fifth, culture-specific (as well as cross-cultural) variables concerning strain and

social bonding variables in relation to the Turkish society will be a more valuable approach. For example, nationalist feelings may be stronger among Turkish than American adolescents and can be used as an indicator of one's ties to his/her society (as well as city bond or "hemşericilik." Fifth, more theoretical research is required to have solid conclusions.

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Appendix

Table 1. Strain and Social Bonding Variables Regressed on Total Elinquency and Assault (Beta Coefficients)

Independent Variables	Total Delinquency (n= 1285)			Assault (n= 1298)		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Strain Variables						
Constant	6,648	38,311	31,561	4,508	16,581	14,327
Educational strain	,045	-,001	,002	,036	,005	,009
Monetary strain	,175**	,057	,055	,148**	,048	,047
Blocked opportunity	,157**	,042	,045	,143**	,050	,058
Social class (income))	,230**	,103**	,096**	,144**	,050	,035
Social Bonding Variables						
Family supervision	-	-,200**	-,177**	-	-,205**	-,160**
Attachment to teachers	-	-,131**	-,118**	-	-,106**	-,090*
Attachment to friends	-	-,152**	-,144**	-	-,102**	-,093**
School commitment	-	-,237**	-,228**	-	-,118**	-,108**
School involvement	-	-,060	-,055	-	-,052	-,042
Belief	-	-,125**	-,116**	-	-,126**	-,106**
Control Variables						
Age	-	-	,059*	-	-	,037
Gender (= female)	-	-	-,107**	-	-	-,230**
R ²	,103**	,395**	,409**	,062**	,234**	,284**

p < .01, ** p < .001

Table 2. Strain and Social Bonding Variables Regressed on School Delinquency and Public Disturbance (Beta Coefficients)

Independent Variables	School Delinquency (n= 1309)			Public Disturbance (n= 1310)		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Strain Variables						
Constant	,923	14,705	9,257	1,496	7,114	8,169
Educational strain	,046	-,003	-,002	,025	-,003	-,005
Monetary strain	,144**	,041	,040	,124**	,038	,038
Blocked opportunity	,141**	,041	,040	,083*	,005	,004
Social class (income))	,244**	,120**	,121**	,158**	,070*	,073*
Social Bonding Variable:						
Family supervision	-	-,134**	-,127**	-	-,135**	-,146**
Attachment to teachers	-	-,125**	-,110**	-	-,087*	-,093*
Attachment to friends	-	-,161**	-,151**	-	-,115**	-,119**
School commitment	-	-,298**	-,287**	-	-,140**	-,145**
School involvement	-	-,075*	-,076*	-	-,006	-,007
Belief	-	-,073*	-,073*	-	-,121**	-,125**
Control Variables						
Age	-	-	,107**	-	-	-,035
Gender (= female)	-	-	-,004	-	-	,047
R ²	,095**	,387**	,398**	,045**	,171**	,174**

* p < .01, ** p < .001

Table 3. Regression Analysis of the Impacts of Strain on Social Bonding Variables (Betas)^a

ependent Variables	Class (income)	Strain (education)	Strain (money)	Blocked opportunity	R ²
Family supervision	-.105**	-	-.157**	-.146**	.057
Attach-to-teachers	-.182**	-	-	-	.033
Attach-to-friends	-.151**	-	-.171**	-.123**	.065
School commitment	-.136**	-	-	-.134**	.032
School involvement	-	-.134**	-.127**	-	.029
Belief	-.105**	-	-.210**	-.165**	.084

* p < .01, ** p < .001

^a Non-significant coefficients and coefficients less than .10 were not included.

p < .01, ** p < .001

Figure 1. Path Analysis

