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A Test of Hirschi's Social Bonding Theory

Juvenile Delinquency in the High Schools of Ankara, Turkey

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Travis Hirschi's social bonding theory has mostly been tested in the West. In this study, the theory is tested on juvenile delinquency in a developing country, Turkey. Data were gathered from 1,710 high school students in Ankara by using two-stage stratified cluster sampling. Factor analysis was employed to determine the dimensions of juvenile delinquency (assault, school delinquency, and public disturbance), and regression analysis was used to test the theory. Similar to some other traditional societies, the social bonding theory plays an important role in the explanation of juvenile delinquency in Turkey.

Keywords: *Hirschi; social bonding theory; delinquency; Turkey*

Hirschi's social bonding theory has been one of the few influential control theories in particular and theories of delinquency in general. In the period between 1970 (after the publication of Hirschi's seminal work *Cause of Delinquency* in 1969) and 1991, 71 studies that tested social bonding theory were done, almost all in the United States (Kempf, 1993). Likewise, the studies outside the United States have concentrated almost exclusively on other Western societies, especially European countries and on some Asian countries.[1] There are few studies concerning Middle Eastern countries, such as Turkey, in spite of the fact that these societies have strong tradition of family and community lives and hence individuals' acts are more closely supervised both directly and indirectly. Also, given that religion plays a greater role in the daily lives of Muslims (a type of bond that recent studies have used), individual bonds to

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society are much more important in Islamic societies. Testing the theories in the West only creates an impression that their validity is limited to these societies and that any cross-cultural generalizability is not possible or promising. Hence, existing theories reflect delinquent acts in a certain culture and at a certain point in time (Bennett, 1980). Turkey, both geographically and culturally, lies in the middle of both Islamic and Western societies. In a way, it is a gray area, which becomes interesting in the observation of how people's ties to society shape their engagements in deviant acts.

Testing outside the United States indicates that the social bonding theory has an important role in the explanation of delinquency, regardless of the study design (cross-sectional and longitudinal) and the socioeconomic and sociocultural levels of societies (developed vs. nondeveloped or traditional vs. nontraditional).

We think that Hirschi's (1969) social bonding theory is a politically conservative theory that can be best applied to societies with traditional sociocultural backgrounds. Research findings from traditional countries showed considerable support for the theory: for example, in China (Cheung & Ng, 1988; Wang, Qiao, Hong, & Zhang, 2002; Zhang & Messner, 1996), in India (Hartjen & Kethineni, 1999), in Israel (Cohen & Zeira, 1999), in Japan (Tanioka & Glaser, 1991), in the Philippines (Shoemaker, 1994), and in Taiwan (Sheu, 1988). Because family, friends, and religion are thought to be the most trustworthy Turkish institutions (Ergüder, Esmer, & Kalaycıoğlu, 1991), it seems appropriate to test this theory in the context of Turkey.

We believe that the literature on the testing of the social bonding theory in and outside the United States has some shortcomings, among which the fact that the studies have been generally restricted to those societies. Also, most studies were limited to the use of only one type of bond and mostly used local samples. Finally, the studies were mostly cross-sectional in their research designs. Not much is known about the relationship between social bonding theory and delinquency in non-Western societies, especially in a society with a blend of Islam and secularism. The current study attempts to overcome some of these limitations by testing the theory in a non-Western society and by using relatively comprehensive measures of social bonds. This is the first and relatively most comprehensive test of the theory in Turkey. To realize this goal, the present study tests the social bonding theory on self-reported juvenile delinquent acts of Turkish high school students in Ankara, the capital of Turkey.

Hirschi's Social Bonding Theory

Hirschi (1969) was interested not in explaining the reason for delinquency but in explaining the reason for not committing it. In other words, his major aim was to show what prevents juveniles from acting in delinquent ways. He viewed delinquency or deviance as being taken for granted and considered conformity or conventional conduct as being problematic (Matsueda, 1989). He also took for granted that there exists one type of moral value system (Hirschi, 1969).

Hirschi's (1969) social bonding theory is composed of four elements: attachment to significant others, commitment to traditional types of action, involvement in tradi-

tional activities, and beliefs in the moral values of society. Stated more specifically, Hirschi claimed that when youths are attached to parents, peers, and teachers, they are less likely to commit delinquent acts. For instance, he argued that the less a youth takes his or her teachers' opinions about himself or herself into account, the more likely the youth is to commit delinquent behavior. Also, commitment corresponds to the cost and benefit calculation of the consequences of conventional or unconventional actions of a youth. For example, attending a university and getting a prestigious job can be considered as commitment to a conventional type of action. In fact, according to Hirschi, if a youth is enthusiastic about spending time and energy in certain activities (e.g., getting a reputation for something valuable, having a business, or obtaining an education), it is less likely that the youth will commit delinquent acts, because when an individual is involved in traditional activities, the individual will be busy with plans, programs, deadlines, appointments, and so on. Hence, this individual will not have time to commit delinquent acts. Finally, if a youth believes it is wrong to violate the formal (laws) and informal (social norms) rules, the youth will not engage in delinquent behavior.

In short, Hirschi (1969) asserted that when youths are strongly attached to parents, peers, and school; committed to customary lines of action; engaged in conventional activities; and believe in the validity of the moral values of society (normative beliefs), there will be less likelihood of delinquency. In other words, when social bonds to conventional society are strong, individuals will be prevented from becoming delinquent, deviant, or criminal. In line with the theory, we expect that the elements of social bonding will be inversely related to juvenile delinquency.

We think that Turkey offers a unique sociocultural environment to test the theory because of the relatively higher social control exercised on juveniles by friends, families, and schools. Families still exercise strong control over juveniles. Individualism is not rooted in society as much as it is in the developed Western societies. Families feel responsible for their children until they graduate from university. Leaving home before marriage is not a common practice. Children remain dependent financially on their families until becoming income earners themselves, which coincides with university graduation or completion of military service in the case of children who quit school earlier. Similarly, schools exercise relatively strong control over juveniles; teachers still exercise physical punishment to children in cases of their wrongdoings. Society watches over juveniles through different mechanisms. In smaller residential places where everybody knows everybody, elders intervene directly in the affairs of juveniles and inform parents about their deviant behavior. Talk about the deviant behavior of their children in the community is not acceptable to families, and they take every precaution to prevent such incidences. In larger residential units, although such direct control lessens, communities try to exclude deviant youth by not letting their children to associate with them. Strong conformist traditions and relatively higher religiosity are other factors that contribute to preventing juvenile delinquent acts. In places where such factors lose their grip on individuals, social control is weakened and the bonds of the individual to family, school, and society become similar to that of the

Western countries. This is the reason why some findings are country-specific and others are universal.

Prior Studies

In Turkey, juvenile delinquency is one of the subjects that have not received enough theoretical attention (Gölcüklü, 1962; Saran, 1968; Taşkıran & Ağaoğlu, 1943; Türk Kriminoloji Enstitüsü, 1953; Uluğtekin, 1991; Yavuzer, 1981). Hence, there are few studies that have tested and found support for, or rejection of, the social bonding theory in the context of youth (Delikara, 2002; Kaner, 2002; Yılmaz, 2002). In her study, Delikara used attachment to conventional friends and attachment to delinquent friends as measures of the social bonding theory and found support for these variables: Whereas attachment to conventional friends creates a decrease in various delinquent behaviors, attachment to delinquent friends increases them. Kaner employed direct and indirect family control as indicators of the social bonding theory and found that these variables have negative influence on the various delinquent behaviors of the youth. Yılmaz used attachment to conventional friends and lack of attachment to family and found that attachment to conventional friends reduces, whereas lack of attachment to parents increases, various delinquent acts. The above Turkish studies can be criticized for several reasons. First, other elements of the social bonding theory (e.g., commitment, beliefs, involvement, and attachment to teachers) were not used in these studies. Second, none of these studies used control variables. Third, these studies were limited to only one city, therefore making generalization not possible. Finally, because the three studies were cross-sectional, causal order of the variables used was questionable.

In contrast to very few and incomplete studies on the relationship between social bond and delinquency in Turkey, there has been a great number of studies conducted elsewhere, especially in the United States, the birthplace of social bonding theory, and in some other Western and Asian countries. In general, the theory has mostly received support inside and outside the United States, depending on the type of research design (cross-sectional or longitudinal), age, gender, and types of delinquency. In the United States, studies have generally used a cross-sectional research design and indicated that social bonding variables play an important direct and indirect role in the explanation of delinquency.[2] Nevertheless, our review showed that longitudinal studies on the association between social bond and delinquency are, at best, mixed.[3] More important, in contrast to previous studies, a recent increasing number of studies have used only one or very few social bonding variables and ignored the rest (see Menard & Huizinga, 1994; Smith, Visher, & Jarjoura, 1991). One possible reason for this is that among the studies in the United States, social bonding variables are seen as mediating variables because of their proximity to delinquent behaviors (see Cattarello, 2000; Kierkus & Baer, 2002; Wadsworth, 2000). Another possibility is that numerous tests of the theory had been completed in the past. Also, recent tests of social bonding theory by some scholars were done with old data, dating back to as early as the 1960s, (e.g., see Ford,

2005; Li, 1999). Using old data seems to be a major deficiency because values, attitudes, and behaviors change as society changes. Assuming that societies are the same as those of 30 to 40 years ago can give misleading information on the understanding of today's societies.

The literature on the relationships between social bonding theory and delinquency in the United States indicates that various types of tests of social bonding theory (replication, comparison, integration, and expansion efforts) have been performed (Kempf, 1993). Nevertheless, studies outside the United States mostly appear to be the first application of the theory in the country in which the study was done, as is this study. Similar to cross-sectional findings in the United States, studies conducted in other Western societies and in Asian countries have generally lent support to the social bonding theory (for exceptions, see Cohen & Zeira, 1999; Hartjen & Priyadarsini, 2003). Similar to studies in the United States, the studies in these countries were mostly cross-sectional. This might explain why the findings are similar. Another problem with the studies is that most of them employed univariate descriptive statistics without introducing control variables into the analysis. Similar to recent studies in the United States, the scholars from some Western countries used few social bonding variables (e.g., see Junger-Tas, Terlouw, & Klein, 1994), and hence, their findings were incomplete at best. Further, the lack of longitudinal studies appear to be a major problem, and the findings should be seen as questionable (for exceptions, see LeBlanc, Vallieres, & McDuff, 1993; Li, 1999). However, even some longitudinal studies have some shortcomings. For example, in his study, Li used old longitudinal British data on working class boys born in 1953 in London ($n = 411$) and found an association between the index of social bond and delinquent acts. However, given that the data were old, limited to boys, lower class, and a single city, the validity of the study seems to be problematic. Likewise, LeBlanc et al. (1993) used longitudinal data on boys in Montreal ($n = 458$), and their findings gave mixed support for the social bonding theory: Among two social bonds (school performance and school bond), school performance (grade and number of years behind in school) was directly related to delinquency, whereas school bond (involvement in school activities, attachment to teachers, and commitment to education) did not have a direct impact. In other words, even the findings of these longitudinal studies should be interpreted with care. Taken together, we are left with cross-sectional data that contains some major deficiencies, such as causal order or control of prior delinquency.

Data

Data Gathering Instrument

In this study, the data gathering instrument was a self-administered questionnaire compiled under the supervision of the researcher. The questionnaire had a total of 99 questions. Of these, 45 probed the respondent's biographic information and background. The rest of the questions dealt with the various theoretical issues that this study investigated.

Table 1
Sample-Population by Sex and Age

	Sample (*n* = 1,705) %	Population (*n* = 197,456) %
Sex		
Male	48.2	51.7
Female	51.5	48.3
Age		
13 to 14	5	N/A
15	27	N/A
16	37	N/A
17	27	16
18	4	27
19	1	27
20	0	30

A pilot study was carried out to ensure that the questionnaire measured what it was intended to measure. For the pilot study, 82 high school students from two high schools (Kılıçarslan Lisesi in Yüzüncü Yıl and the private high school in Middle East Technical University) were selected. On the basis of this study, some questions were reformulated and the order of some questions was changed. Data gathered in the pilot study were not included in the analysis.

Sample and Data

Given the size of the population (*n* = 149,740), the sample size needed for the study was calculated as 1,067 assuming that a random sample was drawn. However, because of the employment of a stratified sample and the desire to be on the safe side, the sample size was increased to 1,700. The number of students that participated in the study was 1,730. Twenty students were excluded for various reasons, such as refusal to respond to the questionnaire and incomplete or dishonest responses (e.g., exaggerated answers to some questions).

Eventually, the data were gathered from 1,710 high school students in the city of Ankara in June, 2001. The response rate was 99%, which was quite high. As Table 1 shows, the sample and population were similar to each other on gender, although they were very different on age.

A two-stage stratified cluster sampling was employed to obtain a sample of high school students. In the first stage, the subdistricts within the boundaries of the greater Ankara municipality were stratified by their income status.

In the second stage, the high schools within each subdistrict were classified into four groups: *state* (for everybody), *private* (for the rich), *vocational* (for the poor), and *Anatolian high schools* (for successful students). The data for the type of schools and the number of students in each school were obtained from the Ministry of Education.

By using a probability proportionate to size design, the sample size needed for each type of school was calculated for each district. Taking the average size of the class as 40, the number of classes needed was calculated for each type of school within each district. The selection of schools was done randomly for each type of school within the districts. Final selection of the classes was done during the fieldwork at each school. Care was taken to obtain the desired number of students from each type of school. Nevertheless, because of the overlap of the timing of classroom and nationwide exams with the current study, the final selection of respondents was nonrandom.[4] The students were informed about the confidential and voluntary nature of the questionnaires.

Of the 1,710 high school students aged 13 to 20, 48.2 % were boys, and 51.5% were girls. Most of the students were state high school students (42.6%), followed by state vocational (30.5%), state Anatolian (19.8), and private high school students (7.2%). Concerning the social class of the students' families in terms of their monthly family total incomes, the poorest (14.2%) consisted of the families whose incomes were below or equal to 249 million Turkish Liras (TL); the lower class ranged from 250 to 499 million TL (34.2%); the middle class was in the bracket of 500 and 749 million TL (18.2%); the upper class was above 750 million TL. The median income was 400 million TL ($342.20) and the mean income was 633 million TL ($541.50). The state-defined minimum salary was about 120 million TL ($102.70).[5] Relatedly, 32.8% resided in low-, 40.3% in middle-, and 26.9% in high-income districts.

Measurement

Dependent Variable(s)

Juvenile delinquent acts corresponded to 15 items: 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; purposely vandalizing trees and lawns; throwing objects out of moving cars; and being unruly, rowdy, and loud in public places. Higher scores showed higher involvement in delinquent acts. The questionnaire items on delinquency were similar to the questionnaire items used in the United States (see Elliott & Ageton, 1980).

On the basis of findings from both factor analysis and the contents of delinquency items, the 15 items were reduced to three scales: assault, school delinquency, and public disturbance. Students were asked to indicate how often they committed a specific delinquent behavior in a year. The response categories ranged from *never* (1), *rarely* (2), *sometimes* (3), *generally* (4) to *always* (5). Higher scores indicated higher involvement in delinquent behaviors.

Assault (Cronbach alpha = .83) was an index that included using force on teachers, hitting other students, fist fighting, attacking someone, carrying knife or bat, using force on students, sexual harassment, and being engaged in gang fights.

School delinquency (Cronbach alpha = .74) was an index that involved such delinquent behaviors as being late for class, cheating on exams, school truancy, and damaging school properties.

Public disturbance (Cronbach alpha = .65) was an index that was composed of such delinquent acts as purposely vandalizing trees and lawns, throwing objects out of moving cars, and being unruly, rowdy, and loud in public places. Because the Cronbach alpha is lower than the traditionally accepted level (i.e., .70), the internal validity of public disturbance is somewhat problematic. Hence, findings should be evaluated with caution in the following section.

Total delinquency (Cronbach alpha = .86) was simply the sum of the 15 delinquency items. Because of the skewedness of all the four dependent variables, natural logarithms of total, assault, school delinquency, and public disturbance were used. Although the results were generally identical with and without taking natural logarithm, logged dependent variables were preferred.

Independent Variables

Attachment to parent, attachment to teachers, conventionality of peers, family supervision, school commitment, normative beliefs, and school involvement (logarithm of hours spent on homework), as indicators of the social bonding theory, were used as independent variables.

Attachment to parent (Cronbach alpha = .83) was an index that contained the following items: "I can share my thoughts and feelings with my parents," "My parents explain why they feel the way they do," "My parents and I talk over my future plans," "My parents want to help me when I have problems," "When my parents make a rule I don't understand, they will explain the reason," "My parents know what is best for me," and "I would like to be the kind of person my parents are." Greater scores pointed to a greater degree of attachment to both mother and father.

Attachment to teachers (Cronbach alpha = .78) was an index comprising the following items: "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." Higher scores reflected a higher level of bond to teachers.

Conventionality of peers (Cronbach alpha = .70) was an index that included three items: "My friends tend to get in trouble with their parents," "My friends tend to get into trouble at school," "My friends tend to get into trouble with the police." Higher scores indicated a higher degree of conventional friends.

Family supervision (Cronbach alpha = .81) was an index that covered such items 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." Higher scores corresponded to higher level of parental indirect control.

School commitment (Cronbach alpha = .70) was an index that included "Getting good grades is important to me," "School attendance is important to me," "The things I do in school seem worthwhile and meaningful to me," "I dislike school" (this item was reverse coded), and "I try hard in school." Higher scores showed a higher degree of commitment in school.

Beliefs (Cronbach alpha = .44) was an index that included "Suckers deserve to be taken advantage of," "To get ahead, you have to do some things that are not right," and "It is alright to get around the law if you can get away with it." Higher scores indicated a greater level of conventional beliefs. Because the alpha level of the belief index was much lower than traditionally accepted level (a Cronbach alpha lower then .70 is statistically considered as problematic), the findings concerning this variable should be evaluated with care.

Involvement in school activities was a logarithm of time spent on homework in and out of school in a week. Because distribution of school involvement is non-normal, this variable was logged to have normal distribution.

Control Variables

In addition to the above social bonding variables—age, gender, and logged income—some variables from strain (monetary strain and blocked opportunity) and differential association theories (delinquent friends and definition) were used as controls. Age was an interval variable and denotes biological age. Gender was a dummy variable, and being male was the reference category. Monthly total family income was a continuous variable. Because monthly total family income is not normally distributed, a natural logarithm of income was preferred. Perception of blocked opportunity (Cronbach alpha = .63) was measured by asking, "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." Greater scores corresponded to a higher degree of perception of limited opportunity. The questions for the variable came from Vowell and May's (2000) study. Monetary strain (i.e., the discrepancy between monetary aspiration and educational expectation) was measured as the difference between two items: "I want to make lots of money" (monetary aspiration) and "What will be the highest education you think you will get?" (educational expectation). Greater scores indicated greater monetary strain. The questions for the variable were taken from Farnworth and Leiber's study (1989). Delinquent friends was a dichotomized variable measured by asking, "Have any of your close friends ever been picked up by the police?" Not having delinquent friends was treated as the reference category. Three specific definitions corresponding to the three dependent variables given by the respondents were used. Each definition was an index: Higher scores corresponded to a higher level of approval of assault (Cronbach alpha = .92), school delinquency (Cronbach alpha = .77), and public disturbance (Cronbach alpha = .82). A general index of definition (Cronbach alpha = .93) was also created and used only in the case of total delinquency as dependent variable.

Findings

Total Delinquency

Attachment to teachers, conventionality of peers, family supervision, school commitment, belief, and school involvement are statistically significant and have negative influence on total delinquency (see Model 1 in Table 2)—that is, when a juvenile has a greater attachment to his or her teachers, has a higher degree of conventional friends, has a greater parental indirect control, has a higher commitment to school, believes more in the norms of society, and engages more in schoolwork, there is an associated decrease in general delinquency. The only nonsignificant variable is attachment to parent. When control variables are included in the analysis (See Model 2 in Table 2), attachment to parent becomes significant but school involvement is no longer significant. Interestingly, beta coefficients of most social bonding variables are reduced in size to a great extent. For example, although attachment to teachers has a beta coefficient of –.20 in Model 1, it is reduced to –.13 as a consequence of the control variables. Among the control variables, age, gender, income, delinquent friends, and definition are the only statistically significant variables. Age is associated positively with delinquency—that is, as age increases, so does delinquent behavior. Likewise, an increase in logged incomes is associated with an increase in delinquency. In other words, income has a positive effect on delinquency, a finding that is different than a negative association mostly found in the United States. Having delinquent friends and definition favorable to committing delinquency are associated positively with delinquency, which is consistent with the differential association theory and findings in other studies. In contrast, being female is related inversely to delinquency. School commitment (beta = –.19) and definition (beta = .19) have the greatest impact on total delinquency, followed by delinquent friends (beta =. 16).

Assault

When high school students have higher levels of attachment to teachers, conventional friends, parental supervision, school commitment, conventional beliefs, and engagement in school activity, the students will be less likely to be involved in assault (see Model 1 in Table 2). Only one of the social bonding variables, attachment to parent, is not statistically significant. In general, the findings corroborate the thesis of social bonding theory that stronger social bonds toward institutions or other individuals by a juvenile are associated with less involvement in delinquency. After such control variables as age, being female, logged income, monetary strain, blocked opportunity, delinquent friends, and definition favorable to assault are held constant, the same social bonding variables are still statistically significant (see Model 2 in Table 2). However, most of their beta coefficients are substantially reduced. For example, family supervision (beta = –.25) decreases to a half of its previous coefficient (beta = –.12). Gender has the greatest negative impact on assault, followed closely by delinquent friends (beta = .21) and definition (beta = .20)—that is, compared to males,

Table 2

Multiple Regression on Total Delinquency, Assault, School Delinquency, and Public Disturbance[a]

Independent Variable	Total Delinquency (n = 1,066)		Assault (n = 1,116)		School Delinquency (n = 1,157)		Public Disturbance (n = 1,146)	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Attachment to parent index	-.031	-.078**	.016	-.046	-.054**	-.081*	-.043	-.058
Attachment to teacher index	-.201*	-.135**	-.141*	-.084*	-.202*	-.101*	-.121*	-.107*
Conventionality of peers index	-.055**	-.034	-.083*	-.056**	-.003	.004	-.065**	-.056**
Family supervision index	-.227*	-.130*	-.257*	-.126*	-.151*	-.074*	-.137*	-.122*
School commitment index	-.250*	-.196*	-.124*	-.068**	-.296*	-.199*	-.169*	-.150*
Belief index	-.181*	-.127*	-.156*	-.100*	-.128*	-.070*	-.151*	-.131*
School involvement (logged hours spent on homework)	-.075*	-.033	-.094*	-.049**	-.071*	-.032	.031	.033
Control variables								
Age	—	.056**	—	.019	—	.103*	—	-.027
Gender (female)	—	-.104*	—	-.228*	—	-.038	—	.044
Logged income	—	.105*	—	.066*	—	.102*	—	.097*
Monetary strain	—	.036	—	.007	—	.037	—	.022
Blocked opportunity index	—	.034	—	.048**	—	.029	—	-.013
Friends picked up by police (yes)	—	.162*	—	.210*	—	.091*	—	.071**
Definition index[b] (assault, school delinquency, public disturbance)	—	.192*	—	.201*	—	.315*	—	.126*
R^2	.397*	.484*	.251*	.396*	.346*	.462*	.173*	.202*
Adjusted R^2	.393*	.477*	.247*	.388*	.342*	.455*	.168*	.193*

a. Dependent variables are logged. b. Although the definition for total delinquency is general, the definitions for assault, school delinquency, and public disturbance are offense-specific.

*$p < .01$. **$p < .05$.

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females are less likely to commit assault (beta = –.22). Also, an increase in income (beta = .06) is positively associated with assault. Furthermore, students who felt blockage of opportunity (beta = .04) are more likely to engage in assault, lending support to the strain theory. Moreover, those whose friends were picked up by the police were more apt to commit assault. Finally, those who see assault in more favorable terms had a higher likelihood of being involving in assault. These two findings give support to differential association theory.

School Delinquency

Except for conventional friends, the rest of the social bonding variables are statistically significant: attachment to parents, attachment to teachers, family supervision, school commitment, belief, and school involvement (see Model 1 in Table 2). When the control variables are introduced into the analysis, school involvement now becomes nonsignificant (e.g., Model 2). As before, conventional friends are not statistically significant. Again, social bonding variables are reduced much in size as a result of the control variables. Age, logged income, delinquent friends, and definition favorable to school delinquency are statistically significant and have positive impacts. Definition favorable to committing delinquency in school has the greatest positive impact on school delinquency (beta = .31), followed by school commitment (beta = .19) and others.

Public Disturbance

Attachment to parents and school involvement are not statistically significant (see Model 1 in Table 2). However, attachment to teachers, conventional peers, family supervision, school commitment, and belief are statistically significant and inversely related to public disturbance, net of the control variables (see Model 2 in Table 2). Logged income, having delinquent friends, and definition favorable to engage in public disturbance have significant positive impact on public disturbance. School commitment has the greatest impact (beta = –.15), followed by belief (beta = –.13) and definition (beta = .12). In general, the explained variances of the four full models (Model 2 in Table 2) ranged from 20% to 48%.

Discussion and Conclusion

The aim of this study was to examine the social bonding theory in a society where secularism and Islam are blended together to test its cross-cultural generalizability. The findings show that the theory plays an important role in total delinquency, assault, school delinquency, and public disturbance. Although the questionnaire items were obtained from a Western society (i.e., the United States) and there is danger of a possible lack of relevance to Turkish society, we believe that the social bonding theory well explains the delinquent behavior in the context of Ankara, the capital of Turkey. The

findings of the study are in agreement with those studies that have found support for the social bonding theory elsewhere.

When the findings on the elements of social bonding theory are examined, attachment to teachers, family supervision, school commitment, and belief in conventional values are consistently significant. However, we did not find a consistent relationship between some social bonding variables and total delinquency, assault, school delinquency, and public disturbance. These are attachment to family, conventionality of peers, and school involvement. In this study, the central thesis of the social bonding theory holds true—that is, a higher level of social bond is related to a lower degree of delinquent behaviors.

Among the control variables, income (i.e., social class), delinquent friends, and definition favorable to engagement in delinquency are consistently significant across all types of delinquent behaviors. All of these variables have positive impacts on the dependent variables. Although age, gender (being female), and perceived blocked opportunity are also significant, their influences on the four dependent variables are less consistent. Whereas age and perception of blocked opportunity have positive effects, being female is related negatively to the dependent variables. An unexpected finding is that monetary strain has no relationship at all with total delinquency, assault, school delinquency, and public disturbance.

Some limitations of the study should be noted. One deficiency in this study is that one of the dimensions of attachment (attachment to peers) is not really operationalized with multiple item indicators and does not fit into the traditional way of measuring it. Another deficiency is that involvement in activities other than school was not included in the analysis. Furthermore, during the administration of the survey, there were exams at the classroom level and the senior high school students were not present because of the nationwide exams. Hence, the final selection of students was not done randomly and generalizations should not be made. Also, only one city was considered and the findings may not reflect other cities of Turkey. Moreover, we did not include one of the major delinquent behaviors (theft) in the study owing to the low reporting of the behavior in the pilot study. One possible reason for this is that it is culturally shameful to steal, and this may have resulted in hiding such acts and hence in lower theft reporting. Last but not least, because the research design is cross-sectional, the findings should be interpreted in correlational not causal terms.

The findings have important theoretical implications. The impact of social bonding on delinquent behaviors (except for public disturbance) is mostly mediated through the control variables. To identify which factors mediate most in the association between social bonding variables and the three dependent variables, a further analysis was carried out. We did not discern any variable that has a consistent and large influence on the reduction of the impact of social bonding variables. Whereas differential association variables reduced the impact somewhat, none of the strain variables had such an impact. In this regard, the present study has implications for the integrated theory of Elliott, Huizinga, and Ageton (1985). Elliott et al. found that the impact of both strain and social bonding variables is only indirect and is mediated via delinquent friends. Although the indirect and direct impact in the path-analytical sense is beyond

the aim of this study, we find that social bonding variables have direct impacts on delinquent acts, regardless of the influences of both definition and delinquent friends. Although our measure of delinquent friends is a dummy variable and not a multi-item measure of delinquency such as Elliott et al.'s, we believe that the quality of social bonds in Turkey is more important than the quality of social bonds in the United States. This cultural difference can be the reason why social bonding variables play a more important role in Turkey in spite of such motivational factors, monetary strain, perceived blocked opportunity, definition favoring delinquency, and delinquent friends.

The test of the theory was carried out in an urban area of Turkey, but it would be fruitful to test it in a rural section of the country where the components of the social bonding theory might be more likely to account for delinquent behavior or non-delinquency because of higher social control exercised by families, schools, and communities. Finally, a test of the theory for males and females separately should be a topic of interest for future researchers.

Notes

1. Studies in Western countries include Mak (1990) in Australia; Kierkus and Baer (2002) and LeBlanc et al. (1993) in Canada; Junger-Tas et al. (1994) and Li (1999) in Great Britain; Hartjen and Priyadarsini (2003) in France; Junger-Tas (1992), Junger and Marshall (1997), Junger and Polder (1992), and Junger-Tas et al. (1994) in Holland; Bernburg and Thorlindsson (1999) in Iceland; and Svensson (2003) and Torstensson (1990) in Sweden. For the studies on such countries as Belgium, Germany, Greece, Italy, New Zealand, Portugal, Spain, Switzerland, see Junger-Tas et al. (1994).

2. Cross-sectional studies giving either direct or indirect support for social bonding theory in the United States are Li (2004), Thaxton and Agnew (2004), and Vazsonyi and Pickering (2003). For a more comprehensive list of early studies, see Kempf (1993). Cross-sectional studies giving weak or no support in the United States are Catarello (2000), Vazsonyi and Pickering (2003), and Wadsworth (2000).

3. Longitudinal studies supporting either the direct or indirect relationships between social bonding variables and delinquency in the United States are Elliott and Menard (1996), Ford (2005), and McNulty and Bellair (2003). Longitudinal studies not supporting the relationship in the United States are Ford (2005), Jang and Smith (1997), and McNulty and Bellair (2003).

4. The districts included in this study were Çankaya, Yenimahalle, Keçiören, Altındağ, Etimesgut, Mamak, and Sincan. Gölbaşı was excluded from the study because of its distance from the center. Çankaya was considered a high income district; Yenimahalle and Keçiören correspond to middle income districts; and finally, Altındağ, Etimesgut, Mamak, and Sincan were included to represent lower income districts.

5. One U.S. dollar was equal to 1.169.000 TL during the data gathering period.

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