

SOCIAL (DIS)ORGANIZATION AND TERROR RELATED CRIMES IN TURKEY

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The primary focus of this study is to explore the relationship between structural factors of a specific society and occurrence of terror related crimes. Accordingly, the objective of this study is to examine how or to what extent social disorganization theory, which is the basic theoretical foundation of this study, can explain terrorism related crimes in Turkey. Although several previous studies investigated the social and structural dimensions of terrorism in a country, many of those studies did not go beyond investigating the impacts of traditional structural factors such as poverty, inequality, and education on terrorism. This study goes a step further by adding the mediating factors between those primary social disorganization variables and terror related crimes. Direct, indirect and, total effects of structural variables on terrorism through the mediating variables, that is prevalence of voluntary associations and religious institutions, are examined.

Findings obtained from multivariate and mediation analyses show that while some structural variables such as education and poverty are directly related to distribution of terror related crimes, this relationship became indirect through the mediating variables for other structural variables such as residential mobility and unemployment. Results suggest that rather than overreliance on traditional antiterrorism strategies which are mostly depending on the public level control such as law enforcement process, programs supported by other levels of social control, that is, parochial and private levels must be encouraged.

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CHAPTER 1

INTRODUCTION

Statement of the Problem

The primary focus of this study is to explore the relationship between structural factors and occurrence of terror related crimes. Accordingly, the objective of this study is to examine how or to what extent social disorganization theory, the basic theoretical foundation of this study, can explain terrorism related crimes in Turkey.

Despite increased concern about terrorism, most empirical studies on the social causes are still in early stages (Boyns & Ballard, 2004). Terrorism as a social phenomenon has captured little interest by sociologists. Even though the conflict tradition is one of the leading traditions (Collins, 1998) in the field, Turk (2004) argues sociologists mostly focus on different areas such as class struggles, racial relations, and collective violence of riots and revolutions. Indeed as many sociologists (Roche, 2004; Turk, 2004; Jurgensmeyer, 2000) admit, until the terrorist attacks of September 11, 2001 on the World Trade Center, Sociology was not interested in the nature of these organized attacks perpetrated by civilians against other civilians (Roche, 2004). However, after the September 11th attacks, terrorism became one of the emerging interest areas of many sociologists. In order to understand the social dimension of this deviant behavior and develop a sociological theory of terrorism, many scholars studied different dimensions of this multifaceted phenomenon. Several researchers tested the impact of structural factors on terrorism. Those scholars who investigated the root causes of terrorism suggested that terrorism is a product of economic deprivation, educational disparity, population instability, and other political and social grievances. Using the same premises, this study attempts to

investigate the impact of structural variables on the geographical distribution of terror related crimes.

Regarding the effects of certain structural factors such as poverty, family disruption, and residential mobility on crime in general, the social disorganization theory has long captured the interest of many researchers. Social disorganization theory proposes that structural factors negatively impact the social order and stability in a society (Shaw & McKay, 1942; Sampson & Groves, 1989). It is assumed that since the residents living in places characterized by prevalence of all or some of these social problems, do not share common goals, values, and norms, the places tend to be less secure and instead crime prone (Bursik & Grasmick, 1993; Kornhauser, 1978; Berry & Kasarda, 1977). These assumptions regarding the relationship between social disorganization variables and low social capital have long been used to explain the spatial variation of crime in general. However, the applicability of these assumptions to explain terror related crimes has not been tested. In this study, the same assumptions are utilized to test their applicability to terror related crimes across 81 provinces in Turkey. In order to establish this goal, several steps have been followed: In the first phase, the impacts of primary social disorganization variables; poverty, family disruption, unemployment and residential mobility on the distribution of terror related crimes in Turkey are investigated. In the second phase, based on the recent arguments regarding the negative impact of parochial control agents on the prevalence on crime, the impact of mediating parochial control agencies, the prevalence of religious institutions and the prevalence of voluntary associations on the frequency of terror related crimes in the country are examined. Moreover, the premise of social disorganization theory that disorganized societies suffer from an inadequate institutional base has been also

examined. More specifically, the impact of primary social disorganization variables on the prevalence of parochial control agencies has been investigated.

Significance of the Study

This study parts from conventional approaches to terrorism in several ways. First, most of the empirical studies on the causes of terrorism have focused on micro level or macro level patterns. Some studies analyze the characteristics and profiles of individuals involved in terrorist attacks to understand the motivational resources of terrorist attacks. Other studies focus on macro structures and try to understand the structural problems that cause terrorism. Many examples of the later studies tried to find an answer to the question of why some countries produce more terrorists than others. Only a few of these studies analyzed the structural dynamics of terrorism within a country (Reinares, 2004; Koseli, 2007). This study provides a contextual analysis of terrorism inside a country. It makes a contribution to the social disorganization literature by testing the applicability of the theory on the special case of crime motivated by terrorism. It attempts to demonstrate how and to what extent social disorganization theory is relevant in explaining the geographical distribution of terror related crimes across the cities of Turkey.

Second, although several previous studies have been dedicated to the investigation of causal factors leading to terrorism in Turkey, most focused on the effects of individual factors such as poverty and regional inequality. They did not go beyond investigating the impacts of the traditional structural factors on terrorism. In addition to these factors, this study goes a step further by adding mediating factors; civic participation and parochial social control between those primary social disorganization variables and terror related crimes. Rather than

solely focusing on certain structural antecedents of a social disorganization framework (i.e. poverty and residential mobility), this study also considers the impact of factors that emerge as a result of community social (dis)organization and intervene the impact of structural antecedents on the distribution of crime rates.

Thus, the main theoretical framework of this study is based on the Social Disorganization theory of crime and its applicability to terror related crimes in Turkey. Most studies using social disorganization theory use micro level sample units such as neighborhoods in a city or communities in a neighborhood. In order to understand the spatial distribution of terror related crimes, this study will use individual cities as units of analysis by comparing social and structural factors across the cities in the country.

Organizational Map of the Study

The map of this study is as follows. Chapter 2 provides a literature review regarding the emergence and extension of the social disorganization theory and the concept of social control. Chapter 3 provides a detailed literature review regarding the available empirical research on terrorism and the structural causes of terrorism. This chapter also includes a detailed historical and conceptual explanation of terrorism in Turkey. Further, research questions and hypotheses are presented. Chapter 4 presents the research design and analytical strategy of the study. The data sources and measurement of independent and dependent variables used in the analysis are identified in this chapter. Chapter 5 presents the results of bivariate and multivariate analyses. The findings are discussed in the context of the theoretical framework and specified hypotheses in previous chapter. Lastly, Chapter 6 provides a detailed discussion about the

theoretical and policy implications of the results presented in the previous chapter. Limitations of the study and suggestions for future research are also mentioned.

CHAPTER 2

THEORETICAL FRAMEWORK

Crime and associative factors have long been one of the popular topics in social sciences. Early studies of deviance were based on individuals and addressed personal traits such as genetic problems and physiological characteristics of criminals. Rapid population growth in urban areas during the 18th and 19th centuries and increased crime rates influenced many researchers to search for the causes of crime in society rather than individuals. Starting from 19th century, sociological studies in deviance have started to be interested in crime prone societies or ecological causes of crime rather than “criminal men.”

Social disorganization theory is an influential approach that emerged from this tradition of approaching crime from a societal level. Starting with the early works of Thomas and Znaniecki (1918-1920), Park and Burgess (1925), and Shaw and McKay (1942), the social disorganization approach is one of the most important macro level theories in contemporary criminology. In this chapter, a conceptual explanation of the theory will be given and the expansion process of the theory will be reviewed. Further, studies regarding the dimensions of social control and the role of religious institutions as parochial control as they relate to social disorganization theory will be reviewed.

Causal Relationship between Ecology and Crime: Social Disorganization and Social Control

In its classical form, social control refers to “the capacity of a social group to regulate itself” (Janowitz, 1975, p.82). It is also used to explain the processes of socialization and social oppression. Although Durkheim (1893) was the first sociologist who discussed the idea of social control by using different concepts such as social fact and collective consciousness, the term

“social control” was first used by Edward A. Ross (1901) to articulate the social conditions that create harmony and balance in a society. Later, in the studies of Charles H. Cooley (1909) and William I. Thomas and Florian Znaniecki (1918-1920), “social control” and “social organization” became central concepts (Nett, 1953; Janowitz, 1975; Meier, 1982). Meier (1982) argued that for Cooley (1909), social control consisted of a set of legitimate moral principles which makes coercive control unnecessary. Rather than forcing individual to comply, it uses persuasion by “remnant of the primary group in the city.” Cooley (1909) argued that social control through the process of interaction is essential for the growth of the self, and the continuity of social control can be maintained through the interactions emanated from social relationships rather than the undisciplined human impulses (Janowitz, 1975, Meier, 1982). Janowitz (1975) argued that with the emergence of sociology as an independent discipline, the concept of social control served as a central concept for analyzing social change and social organization

In contrast, Thomas and Znaniecki (1920) state “the essential issue for both sociologists and persons in public and social affairs was to increase the importance and effectiveness of rational control in social life” (Janowitz, 1975, p. 90). Thomas and Znaniecki (1920) argued that the society is constructed by a set of irreducible social groups from primary to complex modern institutions. Social control consists of effective linkages among these social groups. For them, the continuity of social control depends on the effectiveness of the connections or articulation between these elements. They argued that social disorganization is a product of disconnection and disarticulation among these structural elements (Meier, 1982). They define social disorganization as “..a decrease of influence of existing social rules of behavior upon individual members of the group” (1920, pp.1128). They also claimed that different factors from

ecological to economic to technological are incorporated in terms of social control capability of a society (Janowitz, 1975).

Park and Burgess (1924; 1925) adopted the concept of social disorganization to explain the ecological differences regarding the spatial distribution of crime in Chicago. Using examples of the natural habitat of plants and animals and the natural habitat of human society, Park and Burgess (1925) developed the human ecology model, also known as concentric zone theory. First published in *The City* (1925), Park and Burgess defined five different zones in Chicago. The center is the business center and the zone just after the business center zone, the loop, is defined as transition zone or Zone II, where delinquency prevails. They argue that compared to other places in the city, those crime prone places are unique because of certain structural conditions. Along with the high rate of delinquency, these least desirable living areas were characterized by poor housing, physical decay, heterogeneous population (different groups and cultures living together), disrupted families, poverty, lower socioeconomic status, and residential mobility (Akers, 2000). Combining all of these factors, the transition zone is labeled as the most disorganized and unstable part of the city where mechanisms of social control are absent (Reid, 2000). Regarding the role of social control, Park and Burgess noted “all social problems turn out finally to be problems of social control” (cited in Meier, 1982, pp.40). Meier (1982) argued that they attempted to understand what kind of factors can be used to reproduce the social control effect of primary groups in a broader social setting.

The primary assumption of Park and Burgess’s study was that the societal environment which that individual lives in has an important effect on the criminality of that individual. That is, structural features of a neighborhood or community have a causal effect on criminality in

that society. According to Cullen and Agnew (2006) this idea of spatial distribution of crime became one of the important inspirations for the current social disorganization theory of crime. Their idea of concentrated criminality or crime prone places influenced many researchers such as Clifford R. Shaw and Henry D. McKay, and led to social disorganization studies of crime.

Shaw and McKay's Basic Social Disorganization Approach

According to social disorganization theorists, crime is not independent from ecological factors. Indeed, crime is a result, response, and reaction to the social environment. Like the functionalist approach, which views society as a living organism in which different organs perform different functions to contribute to the survival of the body, the social disorganization approach views society as a complex organism where all parts are interdependent, cooperating with each other to achieve social equilibrium to provide continuity within the society (Traub & Little 1985). It is assumed that social organization is a product of social consensus and cohesion of values, norms, and goals in a society. According to social disorganization theorists, this condition can only be achieved in moderately stable societies where common properties are accepted and recognized by relatively homogenous members of that society. However, as a result of rapid social change, population density and heterogeneity of the members, some societies cannot perpetuate the equilibrium which causes an increase in the rate of criminality (Traub & Little 1985). Social disorganization is a reduction of the common values of the residents and weakening of effective social control. The main assumption of this approach is that conflict and social disorganization tend to increase when the equilibrium of a social system is distorted during periods of rapid social change. As conflict and social disorganization increase, crime rates tend to increase.

In *Juvenile Delinquency and Urban Areas* (1942), Clifford R. Shaw and Henry D. McKay report their findings of a longitudinal study that covered over thirty years between 1900 and 1933. They analyzed the spatial distribution of home addresses of male delinquents who were brought to Cook County Illinois juvenile court, the Cook County Boys' Court and the Cook County Jail. Using Park and Burgess's human ecological model they tried to determine the causes of juvenile delinquency. They argued that three structural factors a) low income and poverty, b) ethnic heterogeneity, and c) residential mobility weaken the social organization and make the society socially disorganized. Although their geographic crime analysis is very primitive compared to the contemporary sophisticated crime mapping technology such as geographic information systems, or GIS, their study was remarkable, given the technological limitation of their time. Shaw and McKay used visual inspection and basic statistical techniques to examine the spatial distribution of delinquency among Chicago neighborhoods. They state:

In the areas of low rates of delinquents there is more or less uniformity, consistency, and universality of conventional values and attitudes with respect to child care, conformity to law, and related matters, whereas in the high-rate areas systems of competing and conflicting moral values have developed. (1942, p.164)

The most significant finding of Shaw and McKay's study was that despite changing characteristics of residents in certain areas, the rate of delinquency remained stable in those areas. Even though the areas were occupied mostly by minorities such as African Americans and immigrant populations, crime rates remained stable in those areas even when ethnic and racial composition of those areas was almost completely altered They state

Of the 25 areas with the highest rates of delinquents in the 1900-1906 series, 19 are included among the 25 highest in the 1917-23 series, and 18 among the 25 highest in 1927-33, even though these series are separated by approximately 2 and 3 decades, respectively. This is especially significant in

view of the fact that the nationality composition of the population has changed completely in some of these neighborhoods. (Shaw & McKay 1942, p.16)

In order to understand the causal relationship between the characteristics of community (residential mobility, poverty, family disruption, and heterogeneity) and high crime rates in that society, Shaw and McKay also applied qualitative methods such as extensive interviews, life stories, and case studies. The findings of the study helped them to construct the social disorganization theory. The social disorganization theory hypothesizes that rather than individual (biological or psychological) characteristics of residents in a community, the criminality in a society is associated with the structural characteristics of those communities. They claim that rather than the compositional effect of a neighborhood, the contextual effect of that neighborhood is more effective in terms of higher crime rates in that community (Cullen & Agnew, 2006). The findings support the assumption that, like Durkheim's concept of anomie, rapid population turnover in urban neighborhoods decreases the level of social control and cohesion in those communities. According to Durkheim (1897), during this time of structural transition, individuals are not sure of the moral laws that constrain them, and forces or institutions in that society lack the ability to regulate the individuals adequately. Durkheim's (1897) argument is that the loosening of the bonds between common morals is the root source of social disorder. Under this condition individuals are left to their own devices to adapt to the new conditions, values and norms which cause a chaos in social life that leads to high crime rates.

One of the important arguments of Park and Burgess's human ecology model is that residential areas which are characterized by lower socioeconomic status are inclined to have

higher rates of population turnover compared to other more affluent areas in the city. Since these areas are less desirable places to live because of structural problems, the residents living in those areas tend to leave the area as soon as they are economically able. Bursik and Grasmick (1993) argued that because of population turnover, residents living in those areas can not establish a common resistance to the flux of different groups with different backgrounds. For this reason, these areas are also characterized by ethnic and racial heterogeneity. Using the same arguments of Park and Burgess, Shaw and McKay argued that because of the structural characteristics of the neighborhoods, residents living there can not mount common goals, values and norms. This creates social disorganization in that society. From Shaw and McKay's work, Bursik and Grasmick (1993, pp. 33) inferred three basic reasons why population turnover and ethnic heterogeneity erode social control:

1. Institutions pertaining to internal control are difficult to establish when residents are "uninterested in communities they hope to leave at the first opportunity." (Kornhauser 1978:78)
2. The development of primary relationships that result in informal structures of neighborhood control is less likely when local networks are in a continual state of flux. (Berry & Kasarda 1977)
3. Heterogeneity impedes communication and thus obstructs the quest to solve common problems and attain common goals. (Kornhauser 1978:75)

In terms of social control, Shaw and McKay (1942) also emphasized on the importance of neighborhood organization and family supervision in order to prevent juvenile delinquency. They suggested that because there is no control in a disorganized society, youths do not receive support and supervision and thus try to establish their own rules. This causes a tradition and culture of crime (Akers, 2000).

Expansion of Social Disorganization Theory: “Informal Social Control”

Bursik (1984) claimed few works among theories of deviance have had more influence on the study of crime than Shaw and McKay’s social disorganization theory. Thanks to the studies of Sampson and Groves (1989), this theory became very popular again in the late 1980s. In *Community Structure and Crime: Testing Social- Disorganization Theory* (1989, p.777), Sampson and Groves define social disorganization as “the inability of a community structure to realize the common values of its residents and maintain effective social controls.” By using the British Crime Survey and several control variables, they empirically tested Shaw and McKay’s theory. An important part of their study added an informal social control dimension to the theory. By informal social control they refer to the local friendship networks in a community. They claimed that “the greater the density of networks among persons in a community, the greater the constraint on deviant behavior within the purview of the social network” (1989: pg 779). An important contribution of their study is the construction of direct measurements of social disorganization. They measured social disorganization using three variables 1) sparse local friendship network, 2) low organizational participation, and 3) unsupervised youth groups (Lowenkamp, Cullen & Pratt, 2003).

The threefold definition of social control which was established by Hunter (1985) was another key element regarding the expansion of the theory. In “Private, Parochial and Public Social Orders: The Problem of Crime and Incivility in Urban Communities” (1985), Hunter introduces three levels of social control: a) private, which refers to intimate primary ties that endorses social control through the allocation of sentiment, esteem, and support b) parochial, which refers to the ability of the neighborhood to supervise the behaviors of its residents

through broader level local interpersonal networks, and local institutions such as schools, churches, and voluntary organizations and c) public level of control that refers ability of community to secure external resources such as public investments and projects in the form of public goods, services, and utilities. Later, using the premises of Kornhauser's (1978) control theory and Hunter's (1985) three levels of social control concepts, Bursik and Grasmick (1993) expanded Shaw and McKay's basic social disorganization theory by introducing a neighborhood control theory grounded in systemic theory of community organization (Berry and Kasarda, 1977).

Social capital is another concept that was used by the researchers to explicate the positive features of community, the capacity of the community to maintain effective social control and the community's ability to achieve common desired goals (Sampson, Raudenbush, & Earls, 1997; Sampson, Morenoff, & Earls, 1999; Sampson & Raudenbush, 1999; Roman & Moore, 2004; Lyons, 2006). The concept of social capital was first used by L.J. Hanifan (1916), a state supervisor of rural schools in West Virginia. He defines social capital as:

..those tangible substances [that] count for most in the daily lives of people: namely good will, fellowship, sympathy, and social intercourse among the individuals and families who make up a social unit...The individual is helpless socially, if left to himself....If he comes into contact with his neighbor, and they with other neighbors, there will be an accumulation of social capital, which may immediately satisfy his social needs and which may bear a social potentiality sufficient to the substantial improvement of living conditions in the whole community. (Cited in Putnam 2000a, p.19)

Putnam (2000a) states that up until recent studies, the concept of social capital has been independently invented in various times. In *Outline of a Theory of Practice*, Pierre Bourdieu (1972) used the term to highlight the social and economic resources associated with social networks. In his later work *The Forms of Capital*, Bourdieu (1986) distinguishes between

three types of capitals: economic capital, cultural capital and social capital. He defines social capital as “the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance and recognition” (p. 248).

Developing his work on the relationship between education and social context, Coleman argued that rather than being individual property, social capital “inheres in the structure of relations between actors and among actors. It is not lodged either in the actors themselves or in physical implements of production” (1988, p.98). An important finding of Coleman and Hoffer’s (1987) longitudinal study, conducted between 1980 and 1987, was the positive impact of the students’ families and communities social capital on drop out rates and on the development of learning skills of students.

Although the concept of social capital was brought into use in the social sciences by afore mentioned theorists, Putnam (1993a; 1993b 1995; 2000a; 2000b) became very influential in the area of community development. Chupp (1999) illustrates Putnam’s reconceptualization of social capital on community development as “the debate over poor neighborhoods and the ills of society as a whole, social capital has become something of a wonder drug” (1999, p.2). In the *Making Democracy Work*, Putnam et al. (1993a, p. 167) define social capital as “features of social organization such as trust, norms and networks that can improve the efficiency of society by facilitating coordinated actions.” Using statistical data from the past 100 years and personal interviews related to some social indicators such as political participation, civic participation, and religious participation, Putnam (2000a, p.19) emphasizes the importance of social capital as follow:

By analogy with notions of physical capital and human capital-tools and training that enhance individual productivity- the core idea of social capital theory is that social networks have value. Just as a screwdriver (physical capital) or a college education (human capital) can increase productivity (both individual and collective), so too social contacts affect the productivity of individuals and groups.

Putnam (2000a) refers to the studies of Robert J. Sampson (Sampson & Groves 1989; Sampson, 1997; Sampson, Raudenbush, & Earls, 1997) and emphasizes the importance of social capital to create a “safer and productive environment.” In a study related to state level analysis of homicide, Putnam (2000b) found a perfect negative correlation between the social capital index score of the state and the rate of homicide in that state. With a -0.8 Pearson’s r coefficient, between the number of murder rates in a state and the state’s social capital index, Putnam (2000a, p.308) interprets the relationship as “astonishingly strong....as close to a perfect as one might find between any two phenomena.” Although he acknowledges other social conditions that might be responsible for this lower rate of crime in the states where social capital index is higher, Putnam argues that further analysis indicates the important role of social capital as poverty, urbanism and racial and ethnic heterogeneity as determinant factor of crime prevalence. Bursik (1999) also uses social capital level as a measurement variable for social organization level of a certain society. He argues that societies bereft of social capital tend to have fewer social networks. For this reason, he asserts that those societies are neither able to realize common values and norms nor maintain social control that promotes safety (Sampson, 2006).

Robert J. Sampson’s (Sampson et al., 1997; Sampson, Morenoff, & Earls, 1999) concept of *collective efficacy* is another term being used as a synonym of social capital/disorganization in the literature. Collective efficacy refers to level of cohesion and mutual trust among residents

in a society as well as their “willingness to intervene on behalf of the common good of the neighborhood” (Sampson et al., 1997, p.918; Morenoff, Sampson, & Raudenbush, 2001). Acknowledging the controversial evidence that in some neighborhoods, strong ties among residents may not necessarily produce social control against crime, Sampson and colleagues proposed the concept of collective efficacy. According to Sampson (2006), collective efficacy combines two dimensions of social life: social cohesion and shared expectation for social action. Sampson and Grove’s (1989) model considers the density and prevalence of local friendship networks as a source of informal social control, while the concept of collective efficacy involves another dimension that is the residents’ willingness to intervene or their shared expectations for social control (Sampson, 2006; Sampson, et al., 1999).

Collective efficacy theory emphasizes the connection between cohesion and mutual trust among residents and their common expectations for intervening to support informal social control rather than the prevalence of the networks (Sampson & Raudenbush 1999; Roman & Moore, 2004). Empirical findings also support the placatory effect of collective efficacy on crime. For example, Sampson et al. (1997) found that among 343 Chicago neighborhoods collective efficacy has a significant negative effect on violent crime. They found that compared to racial heterogeneity and poverty, collective efficacy was the most effective predictor of homicide.

Using the same dataset, Morenoff et al. (2001) found similar results. They found that once the level of collective efficacy was controlled, the effects of kinship and friendship disappeared. Another important finding of their study was the role of local organizations and voluntary organizations for promoting the activation of social control and mutual engagement

among residents. Browning, Feinberg, and Dietz (2004) also found collective efficacy was negatively associated with violent victimization and homicide rates. Furthermore, in their recent meta-analysis of more than 200 empirical studies, Pratt and Cullen (2005) found that, compared to other structural variables such as poverty, racial heterogeneity, and family disruption, level of collective efficacy has a stronger negative effect on crime rates.

Collective efficacy also addresses the subcultural criticisms regarding the contradictory findings of some studies which found high crime rates within communities which have relatively close relational social ties. Several studies about gang culture and organized crime show that social networks not only connect “do-gooders” they also connect some criminals such as drug dealers. As Sampson (2006, p.151) argues, “dense social ties thus potentially have both positive and negative ramifications, reminding us that in a consideration of networks it is important to ask what is being connected.” Sampson et al. (1997) suggested that the presence or intensity of social ties among residents does not necessarily mean there is an existing high level of social capital or social organization in that society. They have demonstrated that in order to establish collective efficacy or social capital in terms of “expectations for action within a collectivity”, the process should activate or convert social ties to establishment of a common good (Sampson et al., 1999; Sampson, 2006).

Social Control: Public, Parochial, and Private

In most general terms, social control means the regulation of individuals’ behaviors (Sampson, 1986). Janowitz (1975, p. 82) argued that for sociology, the concept of social control was the central concept for “analyzing social organization and the development of industrial society.” He defines social control as “the capacity of a society to regulate itself according to

desired principles and values.” In his influential study, Hunter (1985) distinguished three levels of social control: the private (family), the parochial (neighborhood), and the public (formal) orders. The first level is the private order of social control. He argues that private level of order is found in relations where the values of “sentiment, social support and esteem are the essential resources of the social control” (1985, p.233). This level of social order is based on the close and primary relationships such as family, kinship or close friendships. The basic coercive instruments of private level of control to provide the continuity of order are the sentimental sanctions such as criticism, gossip, ridicule, and ostracism (Bursik & Grasmick, 1993; Black, 1983).

The second level of social control is the parochial control. Relations in this level are based on local interpersonal networks rather than kinship or close friendship networks. Parochial control represents the broader “interpersonal networks and the interlocking of local institutions that serve the diurnal and sustenance needs of residential community” (Hunter, 1985, p.233). Voluntary organizations, religious institutions and schools are accepted as the most common agents of parochial social control (Bursik & Grasmick, 1993). As mentioned above, the concept of collective efficacy, that is the sense of collectivity and the willingness to interfere among residents in a society, can be achieved through the social networks created by relations within these types of social structures. Hunter notes these types of organizations can achieve social order by providing mutual aid and sustenance support and they differentiate the distribution of “local community status, or power and reputation” (1985, p.233-234). In contrast, since parochial control is mostly based on the interpersonal relations which were created in an environment where there is not a sentimental attachment, voluntary labor and

willingness to contribute are considered the key commodities of exchange in parochial order (Hunter, 1985; Bursik & Grasmick, 1993).

The third level of social control is the public level control. Hunter states “the institutional base of public order is found preeminently in the formal, bureaucratic agencies of the state” (1985, p. 234). This level of social control includes the external relations of the community with the other communities and official institutions. In order to illustrate the importance of the function of public level control, Bursik and Grasmick note that “it focuses on the ability of the community to secure public goods and services that are allocated by agencies located outside the neighborhood” (1993, p.17). Public level control includes the measures directly connected to the legitimate monopoly on power of the State to use force (Weber, 1978) and coercion –such as police intervention- against its citizens. For this reason, Hunter argues that unlike private and parochial level controls, public social control is “increasingly become defined as the final or ultimate source of social control” (1985, p.238).

Bursik and Grasmick (1993) highlight two important components of public level control in terms of external resources. First, the ability of the local community and organizations to influence public service providers such as municipal service bureaucracies and public-private decision making agencies in order to allocate economic resources to neighborhood crime control activities. The second one is the relationship between the neighborhood and the local police department. For example, studies showed that police attempts to control crime in a certain society do not affect only that society. Because of the potential spillover effect of these activities, police community relations in that society “is partly a function of simultaneous police activity in other nearby areas” (1993, p.18).

Although these three different types of social control function in different social realms - family, associations, and public-, they are very interdependent. Hunter (1985) argued that although the disruption of social order may derive from any of these levels, “the resulting attempts are likely to emerge not simply within a given social order, but as well from one or both of the remaining social order” (p.238). Given the possible effects of problems that affect the decision making process of the states (such as fiscal constraints, citizens’ desire for safety without violation of individual rights and personal liberties), has prompted a search for alternative methods of social control such as the revitalization of civic institutions. Hunter (1985) notes that shifting the focus from public level control to other types of orders by the “rediscovering of community”, supporting efforts of private and most importantly parochial level of orders are becoming the emerging trends in crime control activities.

Religious Institutions as Agents of Parochial Control

Previous studies on the effect of religiosity on criminality and on the relationship between religious ecology and criminality (Burkett & Warren, 1987; Burkett & White, 1974; Cochran et al., 1997; Elifson et al., 1983; Evans et al., 1995; Grasmick et al., 1991; Higgins & Albrecht, 1977; Hirschi & Stark, 1969; Peek et al., 1980; Stark et al., 1985; Stark et al., 1980, Stark et al., 1982) examined the preventive role of religion on criminality and tested the assumption of less crime rates in more religious communities. Most of these studies are based on individual responses and individual level or self reported religiosity rather than the distribution of religious institutions per se.

Rose (2000) mentions that many of these studies neglected a crucial role of religious institutions as agents of social control, specifically parochial control (Bursik & Grasmick, 1983;

Hunter, 1975). Rose (2000, p.341) states, “since the religious institutions are an important component of local organizational base” and since they exist in all kind of societies including even the communities devoid of any other kind of institutions, these institutions may be used as indicators of level of social organization in societies.

As mentioned above, parochial control can mostly be achieved through institutions such as voluntary organizations and religious institutions. Regarding their role as mechanisms of parochial control, two conceptual models of macro level associations between the role of religious institutions and crime are dominant in the literature. The first macro level perspective between the religious institutions and crime is the capacity of religious institutions to create a religious climate in societies. According to the *moral communities* approach, prompted by Durkheim (1879) and reintroduced by Stark, Kent, and Doyle (1982), religion can play a placatory role on criminality only when individuals are embedded in a religious environment. By comparing different studies, including their influential study: *Hellfire and Delinquency* (1969), Stark (1996) notes that “religious individuals will be less likely than those who are not religious to commit delinquent acts, *but only in communities where majority of people are actively religious*” (p. 165).

The second and most important role of religious institutions is maintenance of the solidarity of social structure by promoting other community organizations. For example, Ross (2000) found that among 77 community areas of Chicago, there is a strong positive correlation between the number of religious institutions and the number of voluntary organizations. Based on this finding she argues “religious institutions are a resource on which residents draw to organize and project their communities” (2000, 355). In his study regarding the relation

between prevalence of religious institutions and violent crime, Lee (2006) found that number of religious institutions and the density of civically engaged adherents are significantly positively correlated. Moreover, he found that number of religious institutions has a significant negative effect on the number of violent crimes. Moreover, Roman and Moore, (2004) also found that the number of religious institutions within a neighborhood is positively related to trust and reciprocated exchange among residents. It is also positively related to the mean level of other civic participation activities among neighborhoods in Washington D.C.

Bayat (2007) highlights the functions of religious institutions as parochial control agents in Muslim countries. He argues that especially for immigrants- mostly from rural to urban- Islamic institutions and rituals offer a sense of moral community and sense of belonging to a larger society (for more about the role of Islamic religious institutions and their role on community life see also Bayat and Denis, 2000; Bulac, 2008; Denoeux, 1993; Faradov, 2002; Kazemi, 1980; Kepel, 1986; Rahnema and Nomani, 1990). Karpas (1976) also lists religious institutions among factors that are responsible for perpetuating sense of community among gecekondu (slums) in Turkey.

The central role of religious institutions for social life and for cultural transmission is more salient in rural areas. Religious institutions in rural areas are not just places to go and pray. Most of these institutions serve many basic needs of the local community such as providing place different social and traditional occasions, festivals, food pantries, and offer different educational services for youths in the community (Lee & Bartkowski, 2004; Lee, 2006; Karpas, 1976; Rose, 2000). Because of their unique status, religious institutions are more likely to operate as multi-functional institutions for the local community.

Based on aforementioned arguments, the number of religious institutions has a twofold function in this study. The first function is as a social control variable. The second function of this variable is as a measurement of the level of social organization. Apart from the arguments about the relationship between religious institutions and other community organizations, the mosque building process in Turkey is very unique in terms of explaining community interaction. As Özcan (1994) mentioned, this process is a civil action rather than state intervention. Mosques are mostly built based on the decision of a group of people, who feel there is a need for a mosque in the neighborhood. These people usually establish a mosque association that deals with all the activities from collecting donations to supervising the construction.

Many of the ecological studies of criminality do not go beyond examining the direct effects of the structural variables such as income level, heterogeneity of population, and residential mobility on occurrence of crime in a certain society. Sampson and Groves (1989) argued that in addition to certain structural factors, other variables that intervene between community structure and delinquency should be used to measure the level of social (dis)organization of a society and its effects on delinquency. Inspired by the same approach taken by previous research(ers) (Sampson & Groves, 1989; Putnam, 2000a; 200b; Rose, 2000; Lee, 2006; Lee & Bartkowski, 2004), this study will consider the number of religious institutions and the number of voluntary organizations as intervening variables, which show the level of social (dis)organization in a society and thus influence the distribution of terror related incidents across cities.

CHAPTER 3

REVIEW OF LITERATURE

Societies that have gained social capital by establishing social networks and interaction among their residents tend to be safer places. Adolph Quetelet, the Belgium philosopher, stated “society contains in herself all the crimes which will be committed, in a sense, it is her who commits them” (Schmid, 1984:231). In this chapter, a review of literature that identifies significant social and structural factors that may impact the occurrence of terrorism is summarized. A brief operational definition of terrorism is given and the history of Turkey’s experience with terrorism is summarized. Research related to the impact of poverty, religion, civil participation and immigration on terrorism is also summarized.

Terrorism

The word terrorism originally comes from the Latin language in which *terrere*, means great fear and dread or to be filled with fear (Juergensmeyer, 2000). The word *terreur* was later used in the French language during the French Revolution (1789-1794) to define the political condition in which a government intimidates the public as directed and carried out by the party in power (Tilly, 2004). The word was then translated in English as the word terror. It referred to the revolutionaries in Russia during the year 1866, and after the World Wars, it was used in reference to the Jewish tactics against the British in Palestine in 1947.

Defining the concept of terrorism is a problematic issue. As Goodwin (2006) states, like many other “essential contested concepts” such as “democracy”, “power”, and “class”, there is not a certain agreement about the definition of terror, terrorism, and terrorists. The meaning of terrorism usually differs based on who defines it. A specific action may be considered a

freedom fight by some while it is considered a terrorist activity by others (Crenshaw, 2001; Lodge, 1982; Velter & Perlstein, 1991). The most commonly accepted definition is the “deliberate use of violence in order to influence some audiences” (Goodwin, 2006, p.2028). Terrorist movements have goals and in order to obtain these goals, member(s) of the organizations commit violent acts to attract interest from outsiders and to attempt to force them to comply with the terrorist organization’s ideology.

There are two controversial aspects to these many definitions. The first divisive feature is that it is not clear who can practice terrorism. Violence may be practiced by legitimate states against opposition and be labeled as terrorism or terrorism may only be practiced by organized oppositional groups or individuals. The second disagreement among the definitions has to do with the characteristics of the target of the terrorism. Terrorism may be practiced against civilians only, noncombatants only or anyone. Carr (2003), Ganor (2002), and Bergesen and Lizardo (2004) suggest that violence can be labeled as terror when only civilians and noncombatants are targeted. Black (2004, p.16) calls it as “pure terrorism” when the violence is “organized by civilians who covertly inflict mass violence on other civilians” and he suggests that this form of terrorism is an “ideal type”, in Weberian terminology, that specifies something in its purest form. However, not all terrorist activities are in this purest form. Further complicating matters is that it is possible to see different operators and target combinations among different incidents.

Koseli (2007) gives a detailed list of definitions of terrorism from various agencies of different countries such as France, Germany, United States of America, United Kingdom, and Turkey. The definition used by Turkey will be used in this study. Terrorism in Turkey is defined

in the Anti-Terror Law #3713, Article 1, (TMK, 1991) as follows: "Terror is all kinds of activities attempted by a member or members of an organization by using any coercion, intimidation, suppression, force, violence, oppression, and threat methods for the purpose of changing the characteristics of the Republic; the political, jurisdictional, social, secular, economic system which are stated in the constitution, destroying the territorial integrity of the state and its people, jeopardizing the existence of Turkish State and Republic, weakening, ruining or invading the authority of the State, demolishing the basic rights and freedoms, destroying homeland and foreign security of the State, public order, or public health."

The main goal of the Turkish Law is to protect the state and its citizens from any type of damage or harm (Koseli, 2007). As can be seen from its definition, Turkish Anti-Terrorism Act does not specify any specific target such as civilians or noncombatants. On the contrary, not only does it accept any action that targets any individual as terror crime, but also it accepts any activity that is motivated by the purposes mentioned above as terror crime. If any criminal activity which has been regulated under Turkish penal law, such as human trafficking, smuggling, homicide, theft, and etc., has been conducted by the motivation of terrorism, then it will be penalized as a terror related crime which results in increased incarceration period.

Terrorism in Turkey

Turkey's experience with terrorism is not new. For almost four decades terrorism has been one of the biggest problems for Turkey. According to the anti-terror department of Turkish National Police (TEMUH), there are thirteen active terrorist groups in the country. Including the sub groups that emerged from these major organizations, the Memorial Institute for the Prevention of Terrorism (MIPT) Terrorism Knowledge Base reports more than thirty

active terrorist organizations in Turkey (MIPT, 2008) spreading from leftist revolutionary organizations to ethnic separatist groups and to religious extremists. Although the successful operations of security forces prevent illegal infiltrations of suspects into the country, its geographical position as a gateway between Europe, Asia, and Middle East countries makes Turkey a crossing route for many terrorist organizations (Cline, 2004). Three different time periods are very important to understand terrorism in Turkey: the early days of the Republic of Turkey (1920-1940), the era of political movements and social turmoil between 1950 and 1980, and terrorist activities after 1980.

The first wave of terrorism consisted of ethnic/separatist activities mostly in the eastern and south eastern part of the country. Kurdish revolts at the beginning of the twentieth century, just after the new Turkish Republic had been established, have been identified as the first determining factor for the politicization of Kurdish cultural identity in the country (Yavuz, 2001). Although many of these activities were not labeled as terrorism during that time, many of ideas and arguments for current separatist terrorist groups (especially PKK, Partiya Karkeren Kurdistan-Kurdish Workers Party also known as KADEK, KONGRA-GEL) such as a separatist “Kurdish Nationalism” have roots from that time period. According to Kirisci and Winrow (2002), between 1919 and 1921 there were 23 revolts against the new Turkish government but Kurdish tribes joined only three of them. However, between 1924 and 1938, 16 revolts out of 18 had been conducted by Kurdish tribes. Although many of the revolts after 1924 were conducted by Kurdish tribes, it is argued that almost none of these revolts were motivated by ethnic separation (Akyol, 2006; Koca, 1998; Toker, 1968), and many of these revolts were not supported by most of local Kurdish tribes. For example, Koca (1998) states that out of 715

Kurdish tribes living in Eastern and Southeastern Anatolia regions, only around 50 joined the Sheikh Said Rebellion of 1925, one of the most important rebellions against Turkish Republic. According to scholars, many of these revolts were influenced by the reaction against reforms for the secularization of the State; especially the abolition of the caliphate on March 3, 1924 and the reaction against reforms for maintaining a centralized administration by abolishing local autonomies inherited from Ottoman Empire's "govern not rule" policy. In other words, as Yavuz (2001) mentioned, the idea of shifting from a multi-ethnic and multi-cultural social structure to a nation state model, and replacing old sources of legitimacy such as Islam and the caliphate by a new forced idea of homogenizing nationalism created conflict.

This rebellion was important for different aspects. First, although it was not supported by most of the Kurdish tribes, it was the first large-scale nationalist rebellion by the Kurds. The second and the most important consequence of this revolt and other revolts such as revolt of Agri (Ararat) (1931-31), and the revolt of Dersim (1937-1938) was the awakening suspicion of Turkish Republic against any form of Kurdish activities. After the revolt was crushed by Turkish army in 1925, the Takrir-i Sükun Kanunu (1925) (Restoration of Order Law) was enacted to prevent turmoil in the region. This law gave ultimate power to the government to suppress not only separatist or religious activities in the country but to also suppress all opposition movements.

Yavuz (2001) mentions that after these kind of activities "the state became more sensitive about its policies of creating a secular Turkish Nation" (p.8). This sensitivity of the "Kurdish Question" created even a special discourse that "to speak about them without pronouncing the word "Kurd" in the ethno-national sense" (Yavuz, 2001: p.8). Indeed, until very

recent time¹ the “Kurdish Problem” was considered the same as the “Terrorism Problem” because of the cumulative image of the people living in that part of the country as ethnically and religiously fanatic and a threat to the national integrity of the country.

The second important time period for understanding terrorism in Turkey is the era of political movements and social turmoil between 1950 and 1980. After 27 years of one party rule by the Republican People's Party, the Democrat Party won the 1950 elections. However, some policies supported by the government as well as economic problems created unrest in the society and resulted in many public riots, protests and strikes. Finally, in 1960, since the government was not able to control the turmoil and prevent the public discomfort, the military took control of the country (Erogul, 1987). After 18 months, in 1961, a new, more democratic constitution was approved, and civil rule was established by the constituent assembly (Bal & Laciner, 2001). After a more democratic environment was established by the new constitution, leftist movements started to show up in the political arena. Indeed, Communist Party of Turkey, the first communist party led by Mustapha Suphi, was established in 1920 in Baku, Azerbaijan. However, it was abolished in 1925 with the enacting of the Takrir-i Sükun Kanunu (Restoration of Order Law). Until the 1960s leftist movements continued via different associations (especially among university students) and publications. As Laqueur (1999) argues, these developments inside the country along with the student movements in Europe encouraged many leftist activities in Turkey. After the failure of the Socialist Turkish Labor Party in the election of 1969, some of these organizations decided to use violence as a tool to obtain their

¹ On 12 August, 2005, in Diyarbakir, the most populated south eastern city, Prime Minister Recep Tayip Erdogan stated that like many other big nations there are some mistakes in the history of our Nation, but we have to solve “Kurdish problem” by creating more democracy”. His speech has been accepted as a milestone for changing official viewpoints towards to the problem.

political goals. These revolutionary ideologies were prominent among university students (Bal & Laciner, 2001; Kislali, 1974). Public protests, strikes, and clashes between different politicized labor unions and different student groups caused social turmoil. During the same period as the backlash to these revolutionist and leftist ideologies, some nationalist and religious groups also became involved in the political struggle. This situation increased terrorism in the country (Erogul, 1987; Laqueur, 1999).

As a result of the increasing violence in the country and the inability of the government to handle the situation, the military forced the government to resign. Marital law was imposed in 1971 until 1974. After the military ultimatum, many terrorists, especially the leaders of many terrorist organizations were captured by security forces. In 1974, when the marital law was cancelled and the order was back to normal, a general amnesty was declared, and many of those terrorists were released. During the clashes between different ideological groups, especially between radical leftist organizations and extreme right groups, thousands of people were killed. According to Caglar (2000), between 1975 and 1980 approximately 30,000 terrorist incidents were reported, and more than six thousand people lost their lives in these incidents. Most of these terrorist activities were perpetuated by domestic organizations. The only exemption was the Armenian terrorist groups such as Secret Army for the Liberation of Armenia (ASALA). ASALA was supported by Libya, Union of Soviet Socialist Republics, and Syria. It was a Lebanon based Marxist-Leninist terrorist organization that assassinated Turkish citizens (mostly diplomats) all over the world and conducted random attacks inside the country (Aktan & Koknar, 2002; Mickolus, 1980; Mickolus, Sandler, and Murdock, 1989).

Rapid urbanization and high rate of population mobility from village-to-city was another characteristic of this era. For Laqueuer (1999), the rapid urbanization and the unequal distribution of economic resources were two important triggers of increasing terrorism and political violence in Turkey. According to Karpas (1976), between 1960 and 1970, the urban population of Turkey increased by 5 million and reached 39 % of total population in the country. Most of those immigrants from villages to cities lived in slums or squatter housing neighborhoods (gecekondu). Most of the gecekondu dwellers were conservative and favored the status quo in the neighborhood. However, feelings of resentment created by the prevalence of poverty, joblessness, and undermined family relations led to some of those new created slums to be flourishing environments not only for radical leftist movements but also for religious extremists (Bayat, 2007; Karpas, 1976; Landau, 1974).

The third important time period for terrorism problem in Turkey is the phase that started after the late 1980s. After the 1980 military coup, the country was ruled under military rule until 1983, when the general elections were held with a new constitution. From the first armed attack of PKK in 1984 until the time at which this is written the period is known by increasing violent terrorist activities led by ethnic/separatist and religious motivated terrorist organizations.

According to Turkish National Police, currently there are thirteen active terrorist organizations in Turkey. The first type of terrorist activity in Turkey is the ethnic/separatist terrorism. One of the most active of these terrorist groups is PKK (Partiya Karkeren Kurdistan-Kurdish Workers Party). PKK's ideology is based on revolutionary Marxism-Leninism and Kurdish nationalism. Yavuz argues (2001), PKK is an offshoot of the secularization process of Kurdish

question starting in the 1960s through the 1970s. The social, cultural, and economic problems and grievances of Kurds in the country and alternative solutions were starting to be expressed with socialist discourse. In order to gain public support from Kurdish segment of the society, many leftist organizations and political parties used Kurdish as well as Alevi identity issues, such as cultural rights and self determination rights, in their propaganda (Yavuz, 2001).

The establishment of Revolutionary Cultural Society of The East (Devrimci Dogu Kultur Ocaklari-DDKO in its Turkish acronym), in 1969 was one of the important steps of establishment of PKK. The DDKO was an organization that blended Kurdish nationalism with Marxism to activate a public Kurdish identity in the name of social justice with a socialist discourse (Yavuz, 2001). The organization was banned and their leaders were sentenced after the 1971 military coup. Following the return to civilian rule and the general amnesty in 1974, Kurdish movements reemerged. Abdullah Ocalan, the founder of the PKK, was one of the members of DDKO. In late 70s, due to ideological disputes between the organization, Ocalan and others left the organization and established PKK. The main goal of the organization PKK was to create an independent Kurdish state in the East and South Eastern part of Anatolia (Button, 1995). With support from local tribes and neighboring countries such as Syria, Iraq, Iran and Greece, the group captured a unique status not only for operational power but also for financial resources (Aktan & Konar, 2002; Button, 1995; Rodoplu, Arnold, & Ersoy, 2003; White, 1998).

According to official statistics (Aktan & Konar, 2002), since its first attack in 1984, the PKK is responsible for killing of 4,302 civil servants, including school teachers, doctors, imams, and workers, 5,018 soldiers and policemen, 4,400 civilians, including Turks as well as Kurds, and thousands of PKK members who were mostly recruited (willingly or forced) from the families

living in the region. Yavuz (2001: p.13) states, “..there is no neighborhood that does not carry the scars of the war. An entire generation of youth was born and socialized into this bloody and violent culture.”

The second type of terrorist activity in Turkey is the radical leftist revolutionary groups. Many of the current revolutionary leftist terrorist organizations are rooted in the different nonviolent political or intellectual organizations such as Communist Party of Turkey (TKP) and the *Fikir Kulupleri* (Idea-Clubs) from the 1960s and the 1970s (Karpas, 2004). However, because of ideological disputes these organizations fractionalized into different radical revolutionist groups. Adopting the ideologies of Marxism-Leninism, the ultimate goal of these groups is promoting a socialist revolution through guerilla warfare and generating a national insurgency among Turkish working classes. Currently, one of the most active of these leftist terrorist groups is the Revolutionary People's Liberation Party/Front (Devrimci Halk Kurtuluş Partisi/Cephesi (DHKP/C). The group is lead by Dursun Karatas. He and many other members of the group are at large in Western Europe, mostly in Belgium and France (Aktan & Koknar, 2002). The group is one of the descendant groups of Turkish Liberation Party/Front (Türkiye Halk Kurtuluş Partisi/Cephesi) (THKP/C), which was one of the deadliest leftist terrorist groups before 1980. The group killed many members of security forces, engaged in robbery, bombings as well as several attacks on U.S. citizens in the country.

The third type of terrorist groups in Turkey is constituted by religious extremists and right wing ultra nationalist groups. As a backlash against increasing leftist and revolutionary movements in the county, many radical right wing nationalist groups emerged during the 1970s. However many of these groups disappeared or became dormant after the 1980 military

coup. Nevertheless, religious motivated terrorist groups are still active in the country. Turkey has always been a target of religionist terrorist groups such as Hezbollah, Ibda-C and Al Qaeda. Some international events such as the Iranian Revolution of 1979, Afghan War (1978-92), ethnic conflict in Balkans during the 1990s and the Chechen War in particular triggered the radical religious movement's establishment (Laciner, 2007). In addition to these external factors, some internal factors such as State's secular interventions, such as the ban of headscarves in universities, are used by these groups for promoting their ideologies. These terrorist groups strive to overthrow the secular regime of Turkey and establish a new political system based on rule of religion. Starting from late 1970s, these groups are responsible for killing numerous secular journalists and academicians.

One of the most active of these religious terrorist groups is the Hezbollah (also known as Turkish/Kurdish Hezbollah). According to the group's sources (Bagasi, 2004), it was founded in the 1980s in the southeastern part of Turkey. The group delineates two important periods in the history of the organization. The first phase, between 1979 and 1991, is identified as the time of "education, invitation, and congregation." During this period the organization specifically avoided conflict with any group in the region, including the State's security forces. The main activity of the organization at this phase was disseminating propaganda about the organizational doctrine. The second phase, between 1991 and 2000, is referred to as the "period of struggle." In this decade, the group primarily engaged in violent disputes with the PKK (Basibuyuk, Karakus & Akdogan, 2007). According to official sources, in 1999, the number of Hezbollah members was estimated at as many as 25,000 adherents, including 4,000 armed militants. Most of these terrorists were based in southeastern Anatolia, where the group

originally operated (Laciner, 2007). Researchers also pointed out a connection between Hezbollah and Al-Qaeda and suggested that the group might be a bridge between Europe and Iraq for foreign fighters (Uslu & Cagatay, 2005). Huseyin Velioglu, the leader of the group, was killed by Turkish National Police in Istanbul in 2000. After the operation, thousands of Hezbollah members were either killed or captured. Because of these operations, the group has been dormant since 2000. However, the group is accused of killing of more than a thousand people including moderate religious people such as Izzettin Yildirim, the leader of a moderate Islamic group, and several imams serving in the region (Uslu, 2007).

Theories of Terrorism

Unlike many other crimes, terrorism is a multidimensional crime. There are theories from various academic fields which try to explain the causes and the effects of terrorism. For example, political theories focus on the ideological and political reasoning of the phenomenon such as anarchism and fascism. Psychological theories attempt to understand the profile, the role and motivation of individuals who join these kinds of activities. Along with these approaches, O'Connor (2007) lists various theoretical approaches from other areas including biological, philosophical, economic, and sociological theories that try to explain why terrorism occurs and what causes it.

In order to construct a sociological theory of terrorism, many researchers examine the relationship between different socioeconomic indicators of either macro structural samples (Piazza, 2006; Abadie, 2004) or micro level characteristics (Krueger & Maleckova, 2003). Classical arguments posit that rapid social, economic, demographic, or political changes affect the social equilibrium in those societies where these transformations happen and that they

generate social disorganization in those societies which encourage any kind of deviance including political violence because of decreasing social control (Robinson, Crenshaw, & Jenkins, 2006). Among these structural indicators, researches have argued that rapid urbanization is one of the key elements related to terrorism. Unintended consequences of rapid urbanization such as growing inequalities, existence of foreigners, resource competition, and erosion of traditional societal values produce grievances which are the major tools used by terrorist organizations for recruiting new members (Black, 2004; Goodwin, 2006).

Stemming from rapid developments in a certain society, some other related issues such as demographic change, unemployment, poverty, and lack of adequate education have been found to impact terrorism. For example, many researchers have argued that the rate of an unattached and unemployed youth bulge in a certain society plays an important role for the recruitment process for the terrorist organizations (Crenshaw, 1981; Hudson & Deboer, 2002). Moreover, several studies tested the effect of lack of adequate economic resources or lower economic status on terrorism, and some argued that low economic status has a significant effect on the occurrence of terrorism (Krueger & Laitin, 2003; Lai, 2004; Li & Schaub, 2004).

Poverty Crime and terrorism

In general terms, the relation between crime and poverty has been tested by various studies. For example, the economic theory of crime, which is introduced by Becker (1968) and developed by different scholars such as Ehrlich (1973) and Block and Heineke (1975), assumes that individuals allot their time between legitimate means, such as market, and illegitimate means, such as criminal activity, by comparing possible return from each. It also assumes individuals consider the probability and severity of being caught and punished as a result of that

illegitimate activity. Poverty and inequality lead to crime when individuals with low income get low return from legitimate means in proximity with the high income individuals whose assets are valuable (Kelly, 2000). This approach mainly emphasizes the deterrent effect of the criminal justice system and police activity on criminality. Many studies influenced by this approach have tested the relationship between inequality and criminal activity by using different measurements of inequality such as percent of people earning under the median income (Ehrlich, 1973), unemployment rate (Freeman, 1983), and income (Grogger, 1991; Machin & Meghir, 2004; Myers, 1983; Kelly, 2000).

Whereas economic theory of crime put the emphasis on the deterrence effect of criminal justice system, social disorganization theory, which is the main theoretical framework of this study, considers structural problems that reduce the social network among residents such as poverty, population mobility, and family disruption (Kornhauser, 1978). Scholars influenced by this approach suggest that societies with these structural problems, identified as societies with low social capital, (Sampson et al., 1999; Putnam, 2000) are where collective efficacy (Sampson, 2001, 2006) among residents is very limited and the ability of the community to exercise informal social control over their members has been undermined (Sampson and Groves, 1989). In sum, for social disorganization theory, poverty and inequality cause crime indirectly by means of diminishing the social network and social control among residents of a society.

Frustration caused by the gap between culturally defined common goals, such as monetary success, and institutional norms or means of achieving these goals is another aspect of the relationship between crime and poverty. This aspect has been emphasized by Merton's

(1938) strain theory. In *Social Structure and Anomie* (1938 p.672), Merton highlights this process as “discovering how some social structures exert a definite pressure upon certain persons in the society to engage in nonconformist rather than conformist conduct.” Merton introduces five types of adaptation processes when an individual is frustrated by the gap between cultural goals and institutional means. These five processes which Merton labels as “modes of individual adaptation” are: *Conformity* to both cultural goals and institutional means. This form of adaptation is the common and widely diffused form of adaptation. *Innovation* is the second type of adaptation process where an individual accepts the cultural goals but reject the legal institutional means, and illegal means are substituted. Innovation refers to the criminal activity and delinquency (Kornhauser, 1978). This type of adaptation process has captured great interest by many sociologists and criminologists studying crime and deviance. *Ritualism* is the third type of adaptation processes. Ritualism refers to the condition that the institutional or legitimate means to pursue the cultural goals are adhered to despite the fact that the goals themselves are out of reach or abandoned. It is such a condition which Kornhauser (1978) calls as “overconformity” when the individual deeply internalizes the institutional means approved by their society, put aside the cultural goals and adhere to the norms without attachment to the goals. The fourth type of adaptation is *Retreatism* where an individual rejects both the goals and the means of society. This adaptation mode includes many individuals who are mentally sick, drug addicts, alcoholics, and vagabonds. When they experience strain, these individuals are unable to keep the goals and use illegitimate means like innovators do, on the other hand they are also unable to adhere to the means and reject the goals like ritualists do. As a result of this unbearable condition they escape from the society

(Kornhauser, 1978), Merton (1938) states they are in the society but not of it, “they constitute the true aliens.” The final type of adaptation mode is *Rebellion*. It refers to the condition when the individual rejects both the cultural goals and the institutional means, but unlike retreatists they try to create a whole new society where “cultural standards of success would be sharply modified and provision would be made for a close correspondence between merit, effort and reward” (Merton, 1968, p.155). This mode of adaptation is especially important in studies of terrorism. Since changing the current regime, government, system or ideology is the key element of almost every terrorist activity, many rebellions and terrorists fall under this type of adaptation mode. This type of adaptation process

...is on a plane clearly different from that of the others. It represents a transitional response which seeks to institutionalize new procedures oriented toward revamped cultural goals shared by the members of the society. It thus involves efforts to change the existing structure rather than to perform accommodative actions within this structure, and introduces additional problems with which we are not at the moment concerned. (Merton 1938, p.676)

Merton (1968, p.198) suggests that the distribution of this structural strain and its consequences among different structures of the society is not random. The class structure operates in such a way that “the greatest pressures towards deviation are exerted upon the lower strata.”

These three ecological theories of crime (economic theory, social disorganization and strain theory) explain different facets of the relationship between poverty, inequality and crime. While social disorganization theory focuses on the problems of social structure that diminish the social network and informal social control, strain theory emphasizes the pressures to commit crime. Economic theory of crime, on the other hand, highlights the motivation of committing crime and the deterrence role of criminal justice system.

These criminological theories are also relevant to explain the relation between poverty, inequality and terrorism. Although there is a substantial division about the role of structural factors such as poverty, inequalities, and lack of adequate education in fueling terrorism, these factors are accepted as having direct effects on terrorism. Not only do policy makers and politicians from different countries around the world emphasize the role of structural problems in the flourishing terrorism problem, academicians also suggest that these structural problems such as poverty, ignorance, and inequalities play a core role in nourishing terrorism by stimulating the feelings of deprivation, injustice, and grievances among the individuals living in certain countries (Chen 2003, 2005; Paxson 2002; Li & Schaub 2004; Burgoon 2006; Parvin, 1973). Many of these studies promote economic and social equality to combat against poverty and inequalities as a way to fight against terrorism. Despite the popularity of this idea, there is little empirically tested evidence. On the other side, there are studies that are skeptic about this positive relationship between structural problems and terrorism. Many of these studies suggest that rather than structural problems, the roots of terrorism lay in politics. More specifically, ideological differences such as “clash of civilizations”, the political structure of the state (authoritarian or democratic), and the failure of the state to combat against terrorism are the core problems that have to be considered in terms of antiterrorism campaigns.

Acceptance of underdevelopment and poverty as primary roots of terrorism recently became popular among policy makers and scholars (see, e.g., Biden 2001; Bush 2002; Johnston 2001; Merritt 2001; Peres 1995; Tyson 2001). The relationship between poverty and terrorism suggests that poverty causes and nourishes terrorism by grounding sufferings and grievances which leads to political instability, extremism, and terrorism (Burgoon, 2006). According to this,

poverty is correlated with terrorism in several ways. First, poverty and economic deprivation among the citizens of a country may raise the feeling of “relative deprivation” a term developed by Ted Robert Gurr (1970). In *Why Men Rebel*, Gurr (1970, pp.3-4) defines relative deprivation as “the tension that develops from a discrepancy between the “ought” and the “is” of collective value satisfaction, that disposes men to violence.” Gurr suggests that facing economic deprivation, discontent, and poverty have an effect on propensity of individuals to choose political violence and extremism (Piazza, 2006).

Gurr’s discussion about the relationship between poverty and political violence has established a theoretical framework for many scholars who study conflict and terrorism. For example, in their cross national longitudinal study about civil war and political violence in 124 countries, Auvinen and Nafziger (1999) found that a decrease in per capita Gross Domestic Products and high level of income inequality play an important roles as the sources of “humanity emergencies.” Fearon and Laitin (2003) also found that rather than ethnic and religious fractionalizations, a state’s weakness marked by poverty, large population and instability have stronger effects on ethnic and civil wars. The effect of poverty on political violence is not only limited to creating grievances among the citizens of a state, it also affects the political power and legitimacy of the state that, in turn, creates safe havens and breeding grounds for extremists and terrorists (Burgoon, 2006; Li & Schaub, 2004). The evidence regarding the relationship between poverty and resorting to violent activity is not limited to macro level measurements as mentioned above. Paxton (2002) suggests that the propensity to resort to “any measures necessary” including illicit political violence and terrorist attacks decreased among citizens with higher education and wealthier economic status. Saleh (2004),

using a Poisson model including number of suicides and shooting attacks against Israelis by different Palestinian terrorist groups, also found a significant negative relationship between income per capita and committing both suicide and shooting attacks, and a positive association between unemployment rate and shooting attacks against Israelis. Several other studies testing the relationship between economic deprivation –both on individual and macro level- and terrorism found similar results.

Several studies found contradictory results regarding the relationship between poverty, lack of adequate education and terrorism. In their prominent study Krueger and Malečková (2002) (see also Malečková, 2005) found that there is not any significant connection between the educational and economic deprivation of Palestinian citizens and participation in violent attacks against Israelis. Using public opinion poll data collected by the Palestinian Center for Policy and Survey Research, they found that economic and educational deprivation does not affect the decision to participate in militant activities or support for these activities. Moreover, in their cross national comparison, they also found that among other indicators such as population size, civil liberties, religion, poverty and illiteracy rate are not significant predictors of the number of international terrorist incidents originating from 129 different countries. Some qualitative studies of members of different terrorist organizations found similar results. In a recent study Berrebi (2003), used individual level data collected from the biographies of 335 members of Hamas and Palestinian Islamic Jihad (PIJ) terrorist groups and found that among individuals participating in both organizations' activities, socioeconomic status and level of education have positive associations with participation in both organizations. That is compared to average living standards and education levels of Palestinians, individuals participated in

Hamas and PIJ tend to have higher living standards and higher level of education. Many studies show that especially for the radical leftist terrorist organizations which are mostly motivated by revolutionary theories such as Marxism, the leaders of terrorist organizations are well educated. As Russell and his associates indicated, universities are the major recruiting ground for these types of terrorist organizations. In their comprehensive study which is based on a sample compiled of over 350 known terrorists from 18 different revolutionary terrorist organizations from various countries around the world, they found that many "of those individuals involved in terrorist activities as cadres or leaders are quite well educated. In fact, approximately two-thirds of those identified terrorists are persons with some university training, university graduates or postgraduate students" (1977, p.30).

In sum, when we look at the results of afore mentioned studies, it is not easy to reach a concrete conclusion regarding whether there is (or what direction) a relationship between economic disparity and the occurrence of terrorism. However, because poverty can raise feelings of anger, desperation, and resentment among individuals living in the country and since it can weaken the state's ability to control and prevent terrorist activity within its borders, the role of poverty as a determinant of terrorism cannot be ignored. When poverty is analyzed from a macro perspective many studies suggest that poverty is one of the most important "permissive structural factors" that provides fertile conditions for recruitment and participation in terrorist activities (Newman, 2006; Ehrlich & Liu, 2002). As O'Neill (2002) argued, under certain conditions where economic disparity exists along with lack of adequate legal opportunities terrorism can be preferred as an option to resist.

Religion, Crime and Terrorism

Similar to the relationship between poverty and delinquency, there is a lack of consensus about the nature of the relationship between religion and delinquency. As Johnson, Li, Larson, and McCullough (2000) state researchers found beneficial, harmful, or no association between religion and crime. Although several studies found mixed results about the association between these two variables, as a social control agent, religion has attracted many researchers and has gained constant attention in delinquency research. Studies investigating the nature of the relationship between religion and delinquency focus on two dimensions: the effect of religiosity on delinquency and the effect of religious ecology on criminality (Rose, 2000; Johnson et al., 2000). While the first dimension is dealing with the individual level religiosity and its effect on delinquency, the later is examining the effect of the social or community level religiosity, “religious ecology”, on delinquency.

Although their study was not the first attempt to examine the relation between religion and crime (Barnes & Teeters, 1951; Bongers, 1916; Falk, 1961; Kvaraceus, 1944; Reckless & Smith, 1932; Schur, 1969; Tappan, 1949; Travers & Davis, 1961), Hirschi and Stark (1969) found that contrary to expectations, there is not a significant association between religiosity and crime. More specifically, they did not find a significant difference in the likelihood of committing delinquent behavior between youth who have religious beliefs and attend religious activities frequently and the youths who do not believe in religion. In their words “participation in religious activities and belief in a supernatural sanctioning system have no effect on delinquent activity” (1969 p.211). This controversial and provocative finding, as Evans, Cullen, Dunaway, and Burton (1995) argued, made *Hellfire and Delinquency* (1969) a landmark in

studies about the relationship between delinquency and religion, and it started a field of research that continues today.

Burkett and White's (1974) study of victimless crimes replicated the Hirschi and Stark's findings. They also found a strong relation between substance use (alcohol and marijuana) and religiosity among adolescents. Cochran, Wood, and Arneklev (1994) also suggest that when other social control variables such as parental supervision and socialization, are introduced the relationship between religiosity and delinquency disappears.

On the contrary, many researchers argue that because of the threat of supernatural sanctions and promise of supernatural rewards, religion not only promotes and encourages normative behaviors but also has a deterrent effect on the commission of crime (Baier & Wright, 2001). The deterrent effect of religion has intuitive appeal. For example, this idea suggests that like other social institutions, religious institutions create religion based social networks and promote normative behavior by attaching individuals to the larger society (Grasmick, Bursik, & Cochran, 1991; Marcos, Bahr, & Johnson, 1986). Examining the effects of individual level religiosity on commission of various forms of deviance including crime, researchers found that because of certainty and severity of informal punishment such as shame and embarrassment from deviant behaviors, persons who are identified as more religious tend to commit less crime compared to less religious people (Baier & Wright, 2001; Grasmick et al. , 1991).

The deterrence effect of religiosity on delinquency is not limited to the individual level. The "moral communities" assumption introduced by Stark, Doyle, and Kent (1982) suggest that the failure of Hirschi and Stark's (1969) "hellfire" factor in explaining the deterrence factor of

religion on crime is due to the social environment or ecologies where the samples of their studies was drawn (Evans et al., 1995). They have argued that rather than level of religiosity of the individual or type of delinquent behavior, the religiosity level of community is more important regarding the effect of religion on crime. More specifically, Stark et al. (1982, p. 7) argue "religion only binds people to the moral order if religious influences permeates the culture and the social interactions of the individuals in question."

While the moral communities approach focuses on the association between high levels of religious adherence and low levels of crime rates, the institutional base perspective emphasizes the role of religious institutions in preventing crime. Religious institutions play an important role as agents of social control through creating social interaction, transmitting norms and promoting sense of community by creating networks among people with similar values (Lee, 2006; Stark et al., 1982). As mentioned above rather than individual criminality, this approach focuses on crime prone places as unit of analysis (Bursik, 1988; Bursik & Grasmick, 1993; Lee, 2006; Reiss, 1986; Rose, 2000; Stark, 1996).

There is a body of research that emphasizes the importance of religious institutions as agents of parochial control in society. Parochial control, the second level of social control between private and public levels of social control, refers to the ability of the neighborhood to supervise the behaviors of its residents through broader level local interpersonal networks, and local institutions such as schools, churches, and voluntary organizations (Bursik & Grasmick 1993; Hunter, 1985). According to the main assumptions of both the "moral community" and social disorganization approaches, the deterrent effect of strong personal religiosity on delinquency would not be expected to be efficient in communities characterized by a low level

of religiosity. Further, societies characterized by lower levels of social organization tend to suffer from insufficient institutional bases (including religious institutions) (Rose, 2006; Stark, 1982). As Rose (2000) argued, since religious institutions are a unique type of social institution which is present in any type of society, large and small, poor and affluent, even societies that suffer from paucity of other types of social institutions, their prevalence would be considered as an indicator of the level of community organization in a society. Thus it would not be wrong to assume that religious institutions should impact rates of crime. As Lee (2006, p. 313) asserts, religious institutions “act as a metaphorical water cooler, where people meet, exchange information, and become acquainted with another. Thus they enhance social organization and social control.”

Although the discussion about the connection between religion and terrorism is not new, especially after the brutal attacks to the World Trade Center on Sept. 11, 2001, the putative relationship between religion and terrorism has been debated (Hoffman, 2006; Juergensmeyer, 2004a). Throughout history, because of some early versions of extremist groups such as the Zealots, the Sicarians, the Thugs, and the Assassins, religion has been thought to be the flaming factor for some forms of political violence (Hess, 2003; Hoffman, 2006).

Although the debate about the relationship between religion and political violence (terrorism in particular) is not new, there is a lack of agreement on the nature of this relationship. On one hand, by using afore mentioned historical examples and numerous contemporary incidents, many academicians, politicians and even religious leaders from different religious backgrounds condemn either all types of religions or some of them for being a “source of violence” among the believers (Hoffman, 2006; Mulyadi, 2003; Simon & Benjamin,

2000). After the 9/11 attacks, the idea of “Islamophobia” crept into academia and public discussions. This is a well known example of thinking that religion is a source of violence. Despite, as Juergensmeyer (2004a, p. 2) argues, evidence to the contrary Islam has been labeled as a terrorist religion.

The assumption of those who hold this “religion is the problem” position is that Islam’s relationship to politics is peculiar. But this is not true. Most traditional societies have had a close tie between political leadership and religious authority, and religion often plays a role in undergirding the moral authority of public life. In Judaism the Davidic line of kingship is anointed by God; in Hinduism the kings are thought to uphold divine order through the white umbrella of dharma; in Christianity the political history of Europe is rife with contesting and sometimes merging lines of authority between church and state. Violent Jewish, Hindu, and Christian activists in recent years have all, like their Muslim counterparts, looked to traditional religious patterns of politicized religion to justify their own militant stance.

Although, few terrorist attacks have been perpetrated by religious motivation, some scholars believe that religiously motivated terrorism is on the rise and is more lethal than other forms of terrorist attacks (Sosis & Alcorta, 2008). For example, Hoffman (2006) argues that in 1994, out of forty nine international terrorist organizations sixteen of them were religiously motivated (almost 33 %); in 1995, the proportion had been raised to almost 50 %; among 56 international terrorist groups, 26 of them were religiously motivated. In 2004, again almost 50 % of active terrorist group in that year were religiously motivated groups. However, in terms of the attacks that have been launched by these terrorist organizations, the portrait is opposite. According to the National Counterterrorism Center's Worldwide Incidents Tracking System, among the 10,774 incidents between 2004 and 2006 of which perpetrators are known, religious groups (including Islamic, Jewish, Christian and other religious extremists) are responsible for almost 30 % of the incidents compared to almost 70 % of the incidents which were perpetrated

by secular, political groups. Many other scholars, such as Rene Girard (1973), Bruce Lawrence (1989), Regina Schwartz (1997), also recognized the link between violence and religion.

Others see religion as a victim. They believe that religion is being used as a political tool that facilitates otherwise impossible behavioral outcomes (Sosis and Alcorta, 2008). As Juergensmeyer (2004a, p.3) reports, for people who support this viewpoint, religion is used as a tool for “masking problems that were essentially economic in nature.” This idea of abusing religious beliefs is supported by many mainstream religious leaders associated with different religions. “Fundamentalism” or the “fundamentalists” are the terms used by many mainstream religious leaders to condemn these kinds of radical actions and their perpetrators. For example, after the sarin gas attack to a Tokyo subway in 1995, many Buddhist religious leaders condemned the attacks that were perpetrated by members of Aum Shinrikyo, a Japanese Buddhist cult, and distanced themselves from this what they called a pseudo- Buddhist sect. After the Oklahoma City bombing in 1995, most Christians condemned the attack as being non-Christian and even non-religious, although Timothy McVeigh, the perpetrator of the attack was religiously motivated. In the same manner, many Muslim scholars and religious leaders condemn terrorist attacks such as the 9/11 attacks launched against innocent people. However, as Juergensmeyer (2004a) argues, none of these condemnations explain the nature of the connection between the religion and violence, instead they isolate radicals from the mainstream, normative nature of the religion.

Whether we accept the connection between religion and terrorism or not, it is clear that many terrorist organizations are religiously motivated and that they are using religious dialectics as praxis of justification for their actions and propaganda. How do religion and

terrorism affect each other? Sosis and Alcorta (2008) use Juergensmeyer's (2000, 2004a, 2004b) idea of "Cosmic war" to identify four different dimensions about the relation between religion and terrorism: 1) Framing the conflict 2) Moral justification, 3) Spiritual and eternal awards, and 4) Religious symbols, myths and rituals.

Juergensmeyer (2000, 2004a, 2004b) argues that religion is being used as a means by which terrorists transform their political struggle into a religious cosmic war. In *Terror in the Mind of God* (also see "From Bhindranwale to Bin Laden: The Rise of Religious Violence" and "Is religion the Problem?"), Juergensmeyer suggests that the grievances and discomfort caused by the structural problems such as political, economic, and social problems are the main components of many social struggles including terrorist movements. However, religion adds another dimension to this struggle. Terrorists reframe the conflict using religious references. They transform their political and worldly struggle into a divine struggle and holy war. The characters of current wars, such as government forces and oppositional groups, are being matched with the characters of legendary great wars from history and past religion. The cosmic war between good and evil is being evoked and transformed to the contemporary struggles.

These "acts of religious terror serve not only as tactics in a political strategy but also as evocations of a much larger spiritual confrontation" (Juergensmeyer, 2000, p.146). Once this kind of political struggle is launched by religious templates and references, it dramatically changes the perception of the conflict.

It absolutizes the conflict into extreme opposing positions and demonizes opponents by imagining them to be satanic powers. This absolutism makes compromise difficult to fathom, and holds out the promise of total victory through divine intervention. A sacred war that is waged in a godly span of time need not be won immediately, however. The time line of sacred struggle is vast, perhaps even eternal. (Juergensmeyer, 2004a, p.7)

Once the conflict has been absolutized, rather than the victory, it puts the struggle itself on front. That is, for religious terrorists, the sacred war which they are playing a role as religious soldiers in, is being conducted in a godly span of time thus it does not have to be won immediately. Playing their role correctly is more important than victory in this eternal war (Juergensmeyer, 2004a).

The concept of “Holy war” exists in almost all religions, and no religion is immune to criticisms of war and violence in a pure sense. Almost no sacred religious texts support total peace or total war with outsiders. It is also important to remember that the interpretation of the concept of holy war and even religion itself differs based on different social interests and social concepts such as different time periods, cultures, social grievances, problems and even geographical locations (Cigdem, 2006; Juergensmeyer, 2000; Basibuyuk, Karakus & Akdogan, 2007). As Juergensmeyer (2004a) argues, because of the grievances that are caused by the problems experienced by people living in certain areas, religion becomes an ideology of protest in a postmodern and post-Marxist world.

The second dimension of the relationship between religion and terrorism is providing moral justification. Transforming struggle from a political and worldly concept to a divine context purifies the violence from the perpetrators point of view. Religion provides moral legitimacy to violent acts of terrorists (Juergensmeyer, 2004a). The idea of divided universes, what Durkheim (1912) called “sacred” and “profane”, creates a constant tension between the forces of good and evil in a “Cosmic war” context. Within this context, the acts of violence are transformed into good acts. On one side, it creates martyrs and sacrificial victims, on the other

side it invents enemies, who were considered as serving evil forces to destroy the “true path” or religion itself (Juergensmeyer, 2000).

According to Barr (1977), one of the main features of fundamentalist ideologies is the “oppositional” character of their thoughts. As a result of this character, fundamentalists perceive a constant threat to both the religion itself and the believers. He asserts:

The presence of the questioner breaks down the unnatural symbiosis of conflicting elements which makes up the total ideology of fundamentalists. Fundamentalism as an ideological option is profoundly threatened by the presence of people who do not believe in it, who do not share it, who question it. (Barr 1977, pp. 314-315)

Terrorists mostly justify their violent acts by using this moral framework imposed by their ideology (Juergensmeyer, 2000; Sosis & Alcorta, 2008).

Along with moral justification, religion provides motivation by defining spiritual and eternal awards. Terrorists have various religious motivations for their violent acts. The premise of “heavenly luxuries” exists in almost all religiously motivated ideologies. For instance, Juergensmeyer (2004b, p.2) argues the motivational spiritual benefits for Sikh militants were “the religious experience in the struggle itself: the sense that they were participating in something greater than themselves. Like any kind of religious transformation, it would not only bring great honor to their families but also redeem them personally.” The statements of Rashid Sakher, an Islamic Jihad suicide bomber, about suicide bombing reflect similar way of thinking. In an interview he said after blowing himself up, he will become “God’s holy martyr”, and he will be awarded a place for he and his family in paradise (Juergensmeyer, 2000, p. 198)

The final dimension of the interaction between religion and terrorism is the cohesive role of religion itself through symbols, myths, and rituals (Juergensmeyer, 2004a). The early studies

of Durkheim (1912) highlight the dynamics of religious rituals and their capacity to produce social integration and solidarity. Durkheim (1912) suggests that “cults” are the structural foundation of basic group life in all societies. Cults are groups of individuals who are “organized around common beliefs and solidified by systems of ritual practices” (Boyns & Ballard, 2004, p.19). Cults maintain high levels of social cohesion through social rituals practiced among the members. As Boyns and Ballard (2004) argue, Durkheim’s conceptualization of the cult structure of society is built on two dimensions. The “positive cult”, refers to the moral force of the society which constituted by the normative and commonly accepted social norms of the society. The second dimension of the cult structure of a society is the “negative cult” which refers to the taboos and prohibitions that individuals must abstain from to protect their membership bond to the society.

These concepts of cult structure of a society are important for understanding terrorism. As Alexander (2004) argued, terrorist attacks are not simple violent acts, they are symbolic acts. Terrorists select their targets mostly based on the symbolic importance of the targets such as public buildings, economic structures, or military fixtures because as Boyns and Ballard (2004, p. 20) argue, terrorist attacks will be effective when the targets have significant symbolic importance and “it is a ritual act that intentionally violates the proscriptive and negative cult structure of the offended group; it is an oppositional ritual that seeks to attack the solidarity of a group by compromising its sacred symbols.” Religion also serves for sustaining the cohesiveness among the members of a terrorist organization. Communal rituals, myths and religious symbols not only help to motivate the members of terrorist organization, they also

maintain group commitment and individual commission to the group's ideology (Sosis & Alcorta, 2008).

Most of the early expectations of twentieth century predicted that, through modernization and urbanization, the role of religion in society would be diminished and its importance in social and political arenas was expected to decline (Sahliyah, 1990). However, many examples from different religious extremist groups around the world show that rather than disappearing from the social and political arenas, religion became more influential in the modern environment (Fox, 2007). The role of religion in political conflict including terrorism is debatable. On the one hand, many scholar and religious leader argue that religion has a role in promoting peace, integrity, and civility. On the other hand, some scholars and religious leaders see all or some religions as a source of conflict and violence. Representatives from the former view see religion as a victim that is exploited by radicals, extremists, or fundamentalists for their political purposes. Numerous historical and contemporary incidents of religious motivated violence support the later view that sees religion as a direct source of violence. However, the mediating role of religion is usually overlooked. It is logical to claim that, as a few studies show, instead of being a direct cause of violence, religion serves as an intervening role between the social, economic, and political problems which create grievances, such as sense of alienation, frustration, and marginalization, and violence/tensions within or between different societies. Religion, because of its unique role, not only adds another dimension to the conflict and intensifies the violence; but can also play a more positive role to solve the conflict with nonviolent alternatives such as tolerating the differences and peaceful resolutions (Juergensmeyer, 2004a).

Social Capital, Crime and Terrorism

As mentioned in Chapter 2, researchers have invoked the concept of social capital to explain the spatial distribution of crime in general. They argue that societies with low social capital tend to have higher rates of crime since they can not be well organized to effectively control crime in their neighborhoods (Sampson, 2006; Putnam, 2000). However, the applicability of social capital concept to explain the terror related crimes is not clear enough. How does the level of social capital of a society affect the occurrence of terror related crimes will be explored further in this study.

In order to measure the level of social capital of a society, apart from poverty and economic disparity, researchers use different indicators such as the level of civic engagement, political participation and population stability of the society (Putnam, 2000). Applying the social capital perspective to explain terror related crimes assumes that the antecedents of terror related crimes are similar to other types of crimes. In other words, it is assumed that similar to other types of crime, level of indicators of social capital such as economic disparity, civic, religion and political participation, family disruption, and population mobility, should have an influence on the spatial distribution of terror related crimes.

The complexity of the relationship between economic deprivation, religion and terrorism were explained above. Similar to these factors, the relationship between terrorism and civic and political participation is also debatable. Given the dearth of direct research on civic and political participation, studies on the relationship between democracy and terrorism were reviewed. Researchers have long argued that societies characterized with more interaction among citizens, higher number of associations, and higher rates of participation in social groups

usually have higher levels of social capital. Those societies with higher levels of social capital are better able to create and maintain democracy (Paxton, 2002). The increased level of institutional accountability was accepted as one of the most important consequences of democratization progress in terms of explaining the nature of the relationship between crime and democratization progress in a society.

Rodrigues (2006) argues that level of civic participation has a direct effect on government performance, especially in terms of effective social policies, corruption reduction, accountability, and confidence in institutions such as police and judiciary system. She found that civic participation and perceptions of legitimacy of police force have significant effects on perceived risk of crime.

Regarding the effects of democracy on terrorism, two different theoretical arguments in the literature posit contradictory expectations (Li, 2005). On one hand, researchers claim that democracies are more likely to have terrorism at higher rates than are authoritarian states. Because of increased level of civil liberties such as freedom of press, freedom of gathering and expression, and freedom of association, democracies not only allow terrorists to organize and operate easily (Eyerman, 1998, Ross, 1993; Schmid, 1992; Wilkinson, 2001), but also the desire to protect civil liberties in democracies makes it harder for security forces and judicial system to prevent, detect, and fight against terrorism (Crenshaw 1981, Eubank and Weinberg, 2001; Li, 2005; Schmid, 1992; Weinberg & Eubank 1998).

Other scholars argue that aspects of democracy diminish political violence and terrorism. The main arguments used by these scholars are that through free and fair elections, democracies give nonviolent opportunities to citizens for political participation. Not only do

democracies give people the chance to change the ruler, but they give dissenters the opportunity to express their grievances and claim social changes without using violence (Crenshaw, 1981; Li, 2005; Ross, 1993; Schmid, 1992). “Since democracy lowers the cost of achieving political goals through legal means, groups find costly illegal terrorist activities less attractive” (Li, 2005, p.281). Another argument about the placatory consequences of democracy on terrorism is the effect of civic participation. Li (2005) argued that since civic participation increases the political capability of citizens to change policies, it will be more difficult to recruit new members from the society. When citizens or dissenters have grievances because of government’s policies, greater political participation gives them chance to seek favorable policy changes and redress (Ross, 1993).

Population stability is one of the key elements for establishment of social capital. Sampson, et al. (1997) highlights the destabilizing effect of rapid population change on society’s social organization. That is, high rates of residential mobility “fosters institutional disruption and weakened social control over collective life” (p.919). Kasarda and Janowitz (1974) emphasize the negative effect of residential mobility on the assimilation process of newcomers. They argue that “residential mobility operates as a barrier to the development of extensive friendship networks, kinship bonds, and local associational ties” (Sampson & Groves, 1989, p. 780).

Research on the relationship between immigration and terrorism has focused primarily on the population mobility as one of the consequences of terrorism. However, studies on the recruitment process of terrorist groups indicate that slums which are created as a result of rural to urban migration (e.g. gecekondu in Turkey, ashwaiyyat in Egypt) create a fertile

environment for terrorist groups to recruit new members especially among restless and resentful youths living in those areas (Bayat, 2007; Galvin, 2002). Galvin (2002, p.132) illustrates the process as “disruptive migrants, torn from rural roots, isolated in the city and prone to violence and extremism as a result of increasing disillusionment with urban life.”

Family disruption is accepted as another factor that disrupts social cohesion and integration (Sampson, Raudenbush, & Earls, 1997). As mentioned in previous chapter family disruption not only negatively affects the socialization process of youths (Sampson 1986, 1987), it also affects the ability of informal social control of the society by diminishing the social networks and interaction among residents (Bursik & Grasmick, 1993; Sampson, 1987; Messner & Sampson, 1990). Family disruption allows social disorganization by causing decreased participation in local voluntary organizations, and it decreases the level and effect of formal and informal social control institutions in the community (Sampson et al., 1999; Sampson, 1986; Sun, Triplet, & Gainey, 2004). The relation between family disruption and terrorism mostly examined indirectly through some other structural variables such as poverty (Newman, 2006). Several researchers investigated the structural causes of ethnic, religious, and racial motivated hate crimes found that family disruption or divorce rates do not have a significant direct impact on the existence of violent groups (Jefferson & Pryor, 1999; Krueger & Maleckova, 2003).

Unlike other types of crimes such as homicide which can more easily be interpreted in psychological terms, terrorism is a sociological phenomenon. Terrorism does not emerge by accident or suddenly. Moreover, terrorist do not select their targets randomly, on the contrary, targets (either people or properties) have symbolic meaning for perpetrators as well as for victims. In this chapter, some factors which are accepted as “root cause of terrorism” such as

economic deprivation, religion, population instability and social capital were explained. Based on these arguments, the major purpose of this study is to explore the relationship between structural factors of a specific society and the occurrence of terror related crimes. More specifically, the objective of this study is to examine how social disorganization theory is relevant for explaining the distribution of terror related crimes in cities of Turkey.

Research Context, Questions, and Hypotheses

Research Context

The Republic of Turkey was established in 1923. Turkey lies in the Middle of Islamic-Eastern and non-Islamic Western societies, both geographically and culturally. According to the Turkish Statistical Institute, the current population of the country is almost 70.6 million. Because of the urban migration process that started in the 1950s and the 1960s, today almost 71 % of the population lives in urban areas. There are 81 cities across the country. These cities are located in seven administrative regions based on geographical locations and characteristics of the cities.

Islam is the dominant religion among the Turkish population (98%). Inherited from the multicultural and multi-religious social structure of the Ottoman Empire and the Sufi tradition of Islam, *Turkish Islam* is accepted as a version of liberal Islamic thinking in the Middle East (Turam, 2004; Yavuz, 2004; 2003). Despite the religious and cultural roots of the society Turkey is a secular and republican parliamentary democracy (Tank, 2005; Zubaida, 1996). Freedom of religion and belief is guaranteed by the constitution for all citizens in the country.

The major law enforcement agencies of Turkey are the Turkish National Police (TNP) and gendarmerie. The Turkish National Police Organization is comprised of 200,000 employees and

serves Turkey through regional centers across all 81 provinces under the command of the General Directorate in Ankara. While the TNP have jurisdiction in the urban centers of each province, gendarmerie is responsible for the countryside (Bahar & Fert, 2008). All crime statistics, including terror related crimes and public order crimes are collected by these agencies.

According to a recent United Nations report (2007), with an average 6.8% real GDP growth rate for the last six years, Turkey is one of the fastest developing economies in the region. Despite this, economic and structural problems such as a high inflation (16.6 % between 1997-2007) and high unemployment rate (10 %between 1997-2007) still threaten the economic security of the country. Average adult literacy rate, was 88.1% in 2006. Gross National Product Per Capita (GPD Per Capita) was \$5,058 with a 0.38 Gini coefficient, in 2005 (TURKSTAT, 2008). The Gini coefficient is an inequality criterion which shows the inequality of the distribution of economic variables such income and consumption expenditure between neighborhoods, cities, counties, regions, countries, and etc. (Gini, 1921; Druckman & Jackson, 2008). It is also used as a measure of segregation (James & Taueber, 1985; Massey & Denton, 1988; Silber, 1989) Gini coefficient ranges between 0 and 1 where zero represents no inequality and one represents the maximum possible degree of inequality.

There is not an official method for determining the level of poverty for each city in Turkey (Erdogan, 1997). However, in 2002 the Turkish Statistical Institute (TURKSTAT) implemented the annual Household Budget Surveys in order to measure poverty. According to TURKSTAT (2007), based on the basic needs expenditures including food & non-food expenditure components the poverty rate in Turkey is 17.81 %.

Research Questions and Hypotheses

In order to understand the relation between structural factors and the frequency of terror related crimes, it is hypothesized that the higher/lower number and intensity of structural factors of terrorism, the higher the number of terror related crimes perpetrated by terrorist organizations in the cities. Based on the evidence regarding the association between prevailing social disorganization and structural problems in a society, and considering the link between social disorganization and terror related crimes following relationships of terror related crimes in Turkey are hypothesized:

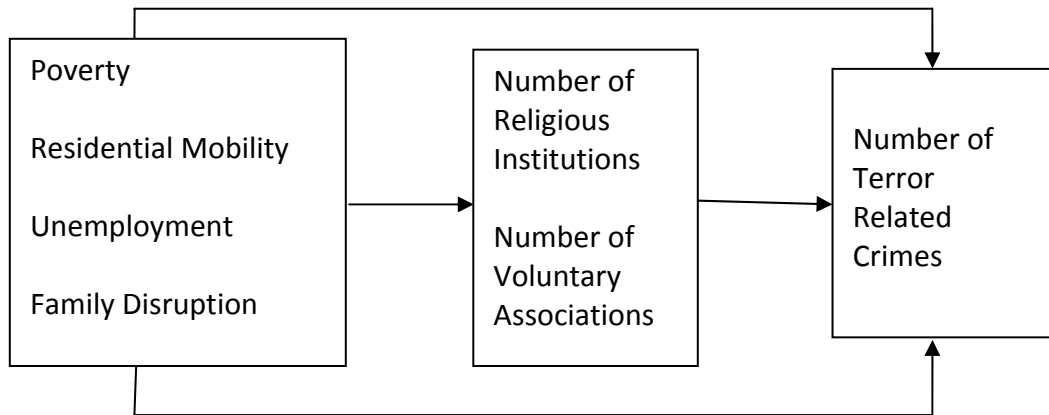


Figure 1: Causal model of the relationship between structural and intervening variables and number of terror related crimes.

(1) How does social disorganization influence the occurrence of terror related crimes in Turkey?

H_{1a}: Across the country, poverty rates will be positively related to the number of terror related crimes.

H_{1b}: Across the country, the rate of residential mobility will be positively related to the number of terror related crimes.

H_{1c}: Across the country, unemployment rate will be positively related to the number of terror related crimes.

H_{1d}: Across the country, divorce rates will be positively related to the number of terror related crimes.

(2) What is the impact of parochial control and civic participation on the distribution of terror related crimes?

Social disorganization and Parochial Control (Intervening Variables):

Religious Institutions

H_{2a}: Across the country, poverty rates will be negatively related to the number religious institutions.

H_{2b}: Across the country, residential mobility rates will be negatively related to the number religious institutions.

H_{2c}: Across the country, unemployment rates will be negatively related to the number religious institutions.

H_{2d}: Across the country, divorce rates will be negatively related to the number of religious institutions.

Voluntary Associations

H_{3a}: Across the country, poverty rates will be negatively related to the number voluntary association.

H_{3b}: Across the country, residential mobility rates will be negatively related to the number voluntary organizations.

H_{3c}: Across the country, the rates of unemployment will be negatively related to the number voluntary organizations.

H_{3d}: Across the country, divorce rates will be negatively related to the number of voluntary organizations.

Parochial Control and terror related crimes:

H_{4a}: Across the country, the number of religious institutions will be negatively related to the number of terror related crimes.

H_{4b}: Across the country, the number of voluntary organizations will be negatively related to the number of terror related crimes.

CHAPTER 4

DATA AND METHODOLOGY

The purpose of this chapter is to clarify the characteristics of sample, data, and variables used in this study. Moreover, detailed information about the analytic strategies that will be employed are also included.

Data

This study is a secondary analysis of reported terror related crime incidents in Turkey. All other variables included in the study have been created by using different aggregated statistics prepared by various government agencies in Turkey. Since, the data collection process employed in this study do not involve contact/interaction with human subjects and no identifiable private information is used, this project received an IRB exemption status (IRB Exempt # 08-066) from University of North Texas institutional review board.

Terror related crime data have been obtained from the Central Database at General Headquarters of TNP in Ankara. The data collection process is as follows: The original data is collected by a first respondent unit, mostly police stations or related divisions such as public order divisions, anti terror divisions, and traffic divisions of the city police department at the neighborhood level based on a uniform crime reports. After this process, statistical information about the incident is reported to the department responsible for Central Database through regional command and control center divisions of the city police department.

This study uses the officially designated definition of terror crime as found in the third section Anti-Terror Law #3713, Article 1, (TMK, 1991). Terrorism is defined as: " all kinds of activities attempted by a member or members of an organization by using any of coercion,

intimidation, suppression, force, violence, oppression, and threat methods for the purpose of changing the characteristics of the Republic, the political, jurisdictional, social, secular, economic system which are stated in the constitution, destroying the territorial integrity of the state and its people, jeopardizing the existence of Turkish State and Republic, weakening, ruining or invading the authority of the State, demolishing the basic rights and freedoms, destroying homeland and foreign security of the State, public order, or public health.” This database consists of aggregated statistics of five different crime types: public order crimes, terror related crimes, smuggling crimes, riots, and traffic accidents. Only the statistics regard to terror related crimes are used in this study.

Socioeconomic and demographic data, such as divorce rate, GDP per capita, and unemployment rate, were provided by the Turkish Statistical Institute (TURKSTAT) based on the 2000 Census. Data related to number of religious institutions in all provinces were obtained from The Presidency of Religious Affairs of the Republic of Turkey. The Presidency is the only institution to recognize, register and authorize any establishment as mosque, therefore all information about religious institutions are collected by this institution. This data consisted of the number of Mosques and the number of religious schools in all cities. In this study, the number of religious institutions recorded for the year 2005 will be used.

In this study, voluntary organizations are conceptualized as the organizations that established accordance with the Law of Associations #5253 (Dernekler Kanunu, 2004) in 81 cities in Turkey. The Law of Associations (Article 2) defines voluntary organizations as “Non-profit legal entities that were established by cooperation of knowledge and praxis of at least seven individual persons or institutions for the purpose of carrying out a common goal which is

not prohibited by law.” Data for the number of voluntary organizations per 10,000 people in each city were obtained from the Department of Associations at Ministry of Internal Affairs of Turkey and the Prime Ministry General Directorate of Foundations.

In several previous studies, the proportion of the population holding green cards in each city has been used as a measure of poverty level in Turkey (Koseli, 2007). Similar to the Medicaid program in the US, the green card system is aimed at helping the people who live below the poverty line and cannot pay for their medical expenses. The data about number of green card holders in the year 2005 have been obtained from the Ministry of Health of Turkey by an application letter

The primary unit of analysis to be studied is provinces in Turkey. Provinces are the largest local administrative entities in the country. They are established by law. Currently, there are 81 provinces in the country located in 7 geographic regions. According to the 2007 Census, the population of Turkey is 70,586,256 and 70.5 % of the population lives in cities. The provinces are divided up by administrative divisions. Geographically they consist of both rural and urban areas such as central cities, towns, and villages. Since the administrative system of the country is the Central Government, each province depends on the central government of Turkey. The central government directly controls and decides the quantity and quality of the public services including the distribution of resources (Atav, 2001; Koseli, 2007).

This study is a cross-sectional study. The number of terror related crimes that happened in the year 2005 will be used as the dependent variable in the study; however, the time dimension of the study covers different variables between 2000 and 2005. Most of the independent variables of this study are from the 2000 Census however the number of voluntary

associations is from 2003 and the variables about the number of religious institutions and the number of green card holders are from 2005. Thus in order to establish temporal order between variables, terror related crime that happened in the year 2005 have been included in the study.

Definitions of the Terms

For the purposes of this study, the following definitions will be used.

- Cities are constituted by both rural and urban divisions. They have been established by law, and there currently are 81 in Turkey.
- Parochial control agencies (institutions) refer to both religious institutions and voluntary associations.
- Religious institutions refer to mosques and the religious schools associated with them.
- Voluntary associations refer to entities such as associations, charities, and foundations which were established by a group of people for different social interests. *City/Province* refers to an administrative district of the country.

Measurement of the Concepts

In order to explore the distribution of terror related crime among Turkey's 81 cities, national level data will be used. These data consist of: 1) Official terror related crime rate 2) census data 3) voluntary associations data, and 4) religious institutions data. In the following section more detailed information will be given about the datasets and the measurement of variables.

Dependent Variables

Number Terror Related Crimes

Based on the aforementioned definition in Turkish Anti-Terror Law #3713 (TMK, 1991), information about terror related crimes were collected by the Turkish National Police across 81 cities in Turkey. Thus the validity and reliability of using police reports about terror related crimes is dependent on the accuracy of police reports. Although the accurateness of police reports has been questioned by several researchers (Warner, 1997; Warner & Pierce, 1993; Grant et al., 1998; Beehr et al., 2004), it is believed that when public perception about the seriousness of crime is higher, those reports reflect more accurate information (Sampson et al., 1997; Sampson & Raudenbush, 1999). Since anti terror divisions of cities' police departments are specialized departments and terror related crimes are serious in nature, the reported crime number is thought to be more accurate than other offenses (Gove, Hughes & Geerken, 1995; Jefferis, 2004). Thus police reports are likely to be highly reliable and valid measures of actual terror-related crimes.

In order to find the exact number of incidents that occurred per 10,000 people in all provinces in 2005, a measurement entitled Terror Incidents Frequency Ratio (TIFR) was computed for each province. This was done by multiplying the number of incidents by 10,000 and dividing it by population of the city. Terror Incidents Frequency Ratio (TIFR) expresses the number of terror related crimes per 10,000 people.

*TIFR = (Number of incidents(n)*10,000)/population (n)=1,2,3,...81 cities*

Among all 81 cities, the average TIFR is 0.17, with a minimum of 0, indicating no terror related crimes per 10,000 people and a maximum of 2.20 terror related crimes per 10,000 people (TNP, 2005).

Number of Religious Institutions

The data regarding number of religious institutions was obtained from the Presidency of Religious Affairs (PRA) of the Republic of Turkey. As mentioned above since the Presidency is the only institution to recognize, register and authorize any establishment as mosque, all information about religious institutions are collected by this institution. In this study, number of religious institutions consists of number of mosques and number of religious schools in a city in 2005. Similar to terror related crimes, in order to eliminate the effect of population on the number of religious institutions, the number was multiplied by 10,000 and then divided by city population. Religious Institutions Frequency Ratio (RIFR) was calculated as follows

$$RIFR = (Number\ of\ Religious\ Institutions(n) * 10,000) / population\ (n) = 1, 2, 3, \dots, 81\ cities$$

The average RIFR is almost 18 with a minimum of 3.3 and with maximum 67.4 religious institutions per 10,000 people (PRA, 2005).

Number of Voluntary Associations

In Turkey, most of the voluntary organizations are registered by Ministry of Internal Affairs Department of Associations and Prime Ministry General Directorate of Foundations. Two exceptions of this are labor unions which are registered with the Ministry of Industry, and co-operatives which are registered with the Ministry of Agriculture and Rural Affairs. Since labor unions as well as co-operatives are mostly profit or trade based organizations, only non-profit voluntary organizations will be used in this study.

These organizations function with the help of volunteers, which are members of these organizations, the number of voluntary organizations indicates the level of civic participation and the citizen network in a society. Previously, number of voluntary organizations, number of members of these organizations, and participation in these organizations were used as indicators of social capital (Sampson & Groves, 1989; Putnam, 2000; Rodrigues, 2006).

The data about number of voluntary organizations in 2003 were obtained from the Ministry of Interior Department of Associations and General Directorate of Foundations of the Republic of Turkey. In order to prevent the effect of population, the number of institutions per 10,000 has been computed. Similar to religious institutions Frequency of Voluntary Organizations Ratio (VAFR) was calculated as follows:

$$VAFR = (Number\ of\ Voluntary\ Associations(n) * 10,000) / population \quad (n) = 1, 2, 3, \dots, 81$$

The average VAFR is 10.3 with a minimum of 2.2 and a maximum of 21.8 voluntary associations per 10,000 people.

By using the previous studies that used religious institutions (Rose, 2000) and voluntary organizations (Sampson & Groves, 1989; Putnam, 2000; Rodrigues, 2006) as two important agents of social organization in a society, it is thought that using these two as indicators of the level of social (dis)organization in cities of Turkey has acceptable content validity.

Independent Variables

Poverty

Poverty is generally measured as the proportion of the population living below the poverty line in a geographic area. However, since this measure of poverty is not available some researchers (Koseli, 2007) use the proportion of the population holding green cards in each city

as a measure of poverty in Turkey. The United States Department of Health and Human Services (2008) defines Medicaid as “a health insurance that helps many people who can't afford medical care pay for some or all of their medical bills.” A very similar concept, “green cards can only be given to Turkish citizens who are not covered by any social welfare institution and who do not have enough economic resources to cover their medical expenses (Act Number 3816/1992), Several studies use the number of people using Medicaid as a proxy indicator for poverty or low-income populations (Minnesota DHHS, 2005; Rauh et al., 2001; Sullivan, 1993), thus, using “Green Card” it thought to be a valid measure of poverty. The Poverty Ratio for the year 2000 was calculated as follows:

$$Poverty = \text{Number of Greencard holders}(n) / \text{population}(n) \quad (n) = 1, 2, 3, \dots, 81$$

Residential Mobility

Researchers underscore the importance of residential stability as an essential condition to increase the level of social organization by promoting mutual trust and social ties among residents in a society (Shaw & McKay, 1942; Sampson et al., 1997; Sampson & Groves, 1989). For example, regarding the impact of residential stability on the assimilation process of new comers, Kasarda and Janowitz (1974, p.330) state that “since the assimilation of newcomers into the social fabric of local communities is necessarily a temporal process, residential mobility operates as a barrier to the development of extensive friendship and kinship bonds and widespread local associational ties.” The higher the level of residential mobility that exists in a society, the less likely it is that the lower rate of formal and informal social interactions among residents which directly affects the ability of neighborhood to control the threat of crime (Bursik & Grasmick, 1993).

The percentage of individuals who have lived in the same household for the past five years is generally used as an indicator of residential stability (Eitle et al, 2006; Osgood & Chambers, 2000; Ross, Reynolds, & Geis, 2000; Schieman, 2005; Morenoff et al., 2001). However, as Bursik and Grasmick (1993) argue, using this criterion as a measurement of population stability would fail under certain circumstances. For example, if a large number of people migrate outside the city, the remaining smaller portion of the population who has lived in that city more than five years will not be an efficient measurement indicator for residential mobility. Accordingly, since all types of migration, whether into the city (in migration from outside) or out of the city (out migration from the city), would have an effect on social organization and integration of the city, the portion of people moving in and out of the city in the last five years is utilized as a measure of residential mobility in this study.

The number of residents who move out of and in to the city between the years 1995 and 2000 has been obtained from Census data and will be known as Total Population Mobility. The Total Population Mobility Ratio (TPMR) is calculated as follows:

$$TPMR = (In\ migration(n) + Out\ migration(n)) / Population(n) \quad (n) = 1, 2, 3, \dots, 81$$

Family Disruption

Family is accepted as one of the key elements of the socialization process (Gottfredson & Hirschi, 1990). Past research on criminality has already indicated the deleterious effects of family disruption on crime (Bursik & Grasmick, 1993; Sampson, 1987; Messner & Sampson, 1991). Sampson (1987) argues that family disruption in combination with other structural problems, such as residential instability and heterogeneity, solidifies the deleterious effects of neighborhood disadvantage because it reduces the likelihood of effective socialization and

supervision on residents, especially youth. Moreover, family disruption allows social disorganization by causing decreased participation in local voluntary organizations, and it decreases the level and effect of formal and informal social control institutions in the community (Sampson et al., 1999; Sampson, 1987; Sun, Triplet, & Gainey, 2004).

Family disruption is generally operationalized as the number of divorces per 1,000 marriages, and/or the number of female headed households in a geographic area. Similarly, for the analysis of the distribution of terror related crimes across the cities in Turkey, the number of divorces per marriage in the year 2000 will be employed as a measure of family disruption and will be known as the Family Disruption Rate. Family Disruption Rate has been calculated as follow:

$$FDR = \text{Number of divorces}(n) / \text{number of marriages}(n) \quad (n)=1,2,3,\dots,81$$

Unemployment

Considerable amount of research that examines the direct effects of unemployment on crime find that unemployment has a great motivational effect on overall crime (Herzog, 2005), property crime (Britt, 1997; Kleck, 2002; Young, 1993), violent crime (Messner, 2001; Raphael & Ebmer, 2001), and terrorism (Laqueur, 2004; Burgoon, 2006). Unemployment rate for each city, which is incorporated into the analysis of terror related crimes in Turkey, has been obtained from the 2000 census.

Control Variables

Consistent with past literature, two control variables, education and region, will be included in the analysis of the spatial distribution of terror related crimes in Turkey. Several researchers note the significant positive impact of lack of adequate education on terrorism

(Berrebi, 2003; Hippel, 2002; Frey & Luechinger, 2002; Kruger & Maleckova, 2003; Russell et al., 1977; Saleh, 2004; Testas, 2004). The education variable is measured by using the number of public and private elementary, middle and high schools in the city, in the 2000 - 2001 school year. Information about the number of schools was retrieved from Ministry of National Education.

In addition to education, region, a dummy variable will be utilized in this study. There are seven official geographical regions in Turkey: Marmara, Aegean, Mediterranean, Eastern Anatolia, Blacksea, Inner Anatolia, and South Eastern Anatolia. Previous research that examined the geographical distribution of terror related crimes in Turkey claimed that some cities located in the Eastern and Southeastern regions are the most problematic places because of their clustered higher incident rate (Demirci & Suen, 2007) Consistent with this argument, region, a dummy variable representing the cities in the Eastern Anatolia and South Eastern Anatolia regions of Turkey will be included in the analysis to determine whether being in a certain geographical region has any effect on the number of terrorist incidents. There are a total of 23 cities in these two regions (14 cities in Eastern Anatolia and 9 cities in South Eastern Anatolia region).

Analytic Strategy

The main purpose of this study is to investigate the distribution of terror related crimes across 81 cities in Turkey. In order to explore the relationship between variables used in the study, a correlation matrix will first be estimated. This will help to examine bivariate relationships and potential multicollinearity among variables. After this process, multivariate statistical analyses will include four different phases. First, the number of terror related crimes

will be regressed on structural variables (Poverty, residential mobility, unemployment, and family disruption). Since the dependent variable is continuous, ordinary least squares regression technique will be applied using SPSS Version 15.0 software. For the purpose of diagnosing the assumptions of multivariate regression STATA (Intercooled 9.2 version) software will be used.

Secondly, in order to see the relationship between intervening variables and structural variables, number of religious institutions and number of voluntary associations will be regressed on the structural variables in two different models. Similar to the first model, since the level of measurement for the dependent variables are continuous, ordinary least squares regression will be used.

Third, in order to see the effect of mediating/intervening variables on the dependent variable, number of terror related crimes will be regressed on the independent variables including number of religious institutions and number of voluntary organizations. This third model is aimed at exploring whether intervening variables significantly contribute to our understanding of the distribution of terror related incidents while controlling for the impact of structural antecedents as this represents the major shift from previous research on the relationship between structural correlates and terror incidents.

Fourth, control variables (education and region) will be added to the model to examine whether the effects of independent variables on dependent variable change depending on number of schools in the cities and the geographical region of the cities. In this phase, region variable will be coded as a dummy variable. All cities located in the Eastern Anatolia and Southeastern Anatolia will be coded as “1” while other cities in the country will be coded as “0”.

Since all the other variables are continuous and region variable is a dummy variable, ordinary least squares regression will be the technique applied in order to test the specified hypotheses enumerated above. Individual impact of each hypothesized structural characteristic on the spatial distribution of terror related crimes will be estimated while controlling for the impacts of all other independent variables. Finally, in order to measure the direct indirect and total effects of mediating variables, Amos 16.0 Statistical Analysis Software has been used

Given that the dataset contains all the information about dependent, independent, and control variables for all cities across the country, there will be no missing values. However, since ordinary least squares regression will be used in the study, the main assumptions of ordinary least squares regression such as normality, linearity, and multicollinearity, will be tested before the analysis. Based on the results of these examinations, the appropriate treatment techniques such as transformations and combining or eliminating certain variables and/or observations will be applied for the problematic variables. Moreover, since the hypotheses specifies in this model are directional hypotheses, one-tailed tests will be used throughout the study. Furthermore, the sample size of the study is relatively small ($N=81$). Since several researchers (Warner, 2008; Agresti & Finlay, 1999) suggest using larger alpha levels when the sample size is small, an alpha level of 0.10 is used to indicate statistical significance in the models tested throughout the study.

Table 4.1

Variables and Expected Relationships

Measurement	Variable	Source of Data	Expected Relationship
Terrorism	DV: Number of terrorist incidents for every 10,000 people	Turkish National Police	
Religion	IV: Number of Religious Institutions (for every 10,000 people) in all provinces	The Presidency of Religious Affairs of the Republic of Turkey	-
Social Control			
Civic Participation	IV: Number of Voluntary organizations (for every 10,000 people) in all provinces	Department of Associations and General Directorate of Foundations	-
Poverty	IV: Portion of population using green card in all provinces.	Ministry of Health	+
Family Disruption	IV: Number of divorce per marriage in all provinces	Turkish Statistical Institute (TURKSTAT)	+
Unemployment	IV: Unemployment rate in all provinces.	Turkish Statistical Institute (TURKSTAT)	+
Residential Mobility	IV: Portion of population immigrated in or out of the city.	Turkish Statistical Institute (TURKSTAT)	+
Education	IV: Number of public and private elementary, middle and high schools in all provinces.	Ministry of National Education	-
Region	IV: Dummy variable, Eastern Anatolia and Southeastern Anatolia regions will be coded as "1" other cities will be "0"		N/A

CHAPTER 5

ANALYSIS AND FINDINGS

This study presents several hypotheses that test the mediating effect of parochial control institutions on the relationship between structural variables and terror related crimes. This chapter presents the findings of different models regarding testing these hypotheses. After explaining analysis and procedures for all models, the results of bivariate correlations between variables and multivariate analysis are presented.

Descriptive Statistics

City level descriptive data for all variables is presented in Table 5.1. According to results presented in the table, the Turkish National Police recorded 1,243 terror related crimes in 57 cities (71 %) in 2005. The number of terror related crimes ranges from 0 to 323 with a mean score of 15.35. In order to eliminate the effect of population on the number of incidents, I multiplied it with 10,000 and then divided it by the population of the city. By doing so, the number of terror related crimes was calculated per 10,000 people. According to results shown in Table 5.1 the average number of terrorist incidents is 0.17 per 10,000 people. It ranges from 0 to 2.20 per 10,000 people living in the city.

Number religious institutions, measured as the total number of mosques and religious schools per 10,000 people in the city, ranges from 3.31 to 67.38 with 17.98 average religious institutions per 10,000 people, in 2005. Number of voluntary associations ranges from 2.21 to 21.77 with an average number of 10.34 associations per 10,000 people.

The independent variables used in the study represent the structural factors which were believed to be related to crime in general based on the assumptions of social disorganization

theory. These variables are family disruption, unemployment, poverty, and residential mobility. Family disruption, calculated as the number of divorces per marriages, ranges from 0 to 0.28 with an average of 0.07 divorces per marriage in the country. Poverty is measured as the percent of people who are green card beneficiaries. Similar to Medicaid program in the United States, the Green card program in Turkey provides health care benefits to people who do not have enough economic resources to afford health services. Results shown in Table 5.1 indicate that among the people living in the 81 cities in the country, on average 20 % are included in green card program. The percent of green card beneficiaries ranges from 4 to 56 % of the population of the cities.

Residential mobility is measured as the total percent of people moving in and out of the city in the last five years. It ranges from 0.09 % to 0.37 % with a mean score of 0.16 %.

Unemployment is the percent of population aged 12 and above in a city who are unemployed. It ranges from 3.60 to 17.40 with an average percent of 7.85.

Finally, results related to two control variables used in this study indicate that number of schools ranges from 2.15 to 15.57 with a mean score of 8.16 schools per 10,000 people living in a city. The geographical location of the city, dummy coded, ranges from 0 to 1 with a mean score of 0.28.

Table 5.1

Descriptive Statistics (N=81)

Variable	Mean	SD	Min	Max	Skewness	Kurtosis
Dependent Variable						
Terror Related Crimes	15.35	39.60	0.00	323.00	6.27	46.63
Terror Related Crimes (Per 10,000 people)	0.17	0.32	0.00	2.20	4.03	20.61
SQRT(Transformed) Terror Related Crimes	0.27	0.29	0.00	1.48	1.44	2.84
Mediating Variables						
Religious Institutions (per 10,000 people)	17.98	10.12	3.31	67.38	2.15	6.95
Log (Transformed) Religious Institutions	1.20	0.22	0.52	1.83	0.037	0.94
Voluntary Associations (per 10,000 people)	10.34	4.54	2.21	21.77	0.36	-0.26
Independent Variables						
Family Disruption	0.07	0.05	0.00	0.28	1.44	4.32
Inverse (Transformed) Family Disruption	-0.94	0.04	-1.00	-0.78	0.989	2.27
Green card percent	0.20	0.13	0.04	0.56	1.31	0.59
Residential Mobility	0.16	0.04	0.09	0.37	1.95	7.17
Log (Transformed) Residential Mobility	-0.82	0.11	-1.06	-0.43	0.65	1.39
Unemployment	7.85	3.11	3.60	17.40	6.32	47.15
Log (Transformed) Unemployment	0.86	0.17	0.56	1.24	0.18	-0.85
Control Variables						
Number of Schools (per 10,000)	8.16	3.26	2.15	18.57	1.09	1.58
Region	0.28	0.45	0.00	1.00	0.98	-1.07

Univariate Distributions

Before examining the bivariate correlation results between the dependent and independent variables, a normality test was applied to all variables to examine the distribution of the variables. Based on the results of preliminary data analysis it is determined that the dependent variable, number of terror related crimes per 10,000 people in 2005 and four

independent variables; family disruption, residential mobility, unemployment, and number of religious institutions are considerably positively skewed. Given several researchers (Agresti & Finlay, 1999; Tabachnick & Fidell, 2007; Warner, 2008) recommend transformations (such as logs, square roots, and inverse) to make nonnormal distributions normal or nearly normal, the following transformation methods have been applied.

For the number of terror related crimes, a square root transformation is applied. The family disruption variable is transformed by using an inverse transformation. Residential mobility, unemployment and number of religious institutions variables are transformed by using a logarithmic transformation method. The descriptive statistics for transformed variables are presented in Table 5.1. The skewness and kurtosis values obtained from transformation process indicate that after transformation process the distribution of the transformed variables became normal. The transformed variables which were computed in this step are used in the following bivariate and multivariate analyses.

Bivariate Analysis

Table 5.2 presents the results of bivariate correlations between dependent and independent variables. Correlation analyses results presented in Table 5.2 indicate the seven hypotheses enumerated in previous chapter, that is H_{1a} , H_{1c} , H_{2c} , H_{3a} , H_{3c} , H_{4a} , H_{4b} are supported. The main purpose of the first two hypotheses (H_{1a} , H_{1c}) is to examine the relationship between structural factors and frequency of terror related crimes in cities. First, there is a statistical significant positive correlation between poverty and number of terror related crimes ($r = 0.450$, $p < 0.01$). This relation indicates that poverty has a positive impact on terrorism in Turkey. The frequency of terror related crimes tends to be higher in the cities where the percent of green

card beneficiaries is higher (H_{1a}). Second, the significant positive relationship between unemployment and number of terror related crimes ($r=0.515$, $p<0.01$) indicates that in the cities with larger unemployment rates, the frequency of terror related crimes are higher (H_{1c}).

The next four hypotheses, that is, H_{2c} , H_{2d} , H_{3a} , and H_{3c} examine the relationship between structural factors and parochial control institutions. First, there is a statistically significant negative association between unemployment and number of religious institutions ($r=-0.490$, $p>0.01$). In the cities with a high unemployment rate, the number of religious institutions tends to be lower (H_{2c}). Second, family disruption and prevalence of religious institutions share statistically significant negative correlation ($r= -0.209$, $p<0.05$). Specifically, in the cities where the divorce rates are higher, the number of religious institutions is lower (H_{2d}). The significant negative relationship between the percent of green card beneficiaries and the number of voluntary organizations ($r=-0.737$, $p<0.01$) lend support for H_{3a} . As expected, the prevalence of voluntary associations is lesser in the cities with higher poverty rates. Moreover, the significant negative correlation between unemployment and the number of voluntary associations ($r=-0.456$, $p<0.01$) indicates the negative impact of unemployment on the prevalence of voluntary associations.

Regarding the relationship of the control variables and the dependent variable, the results are as follows: there is a statistically negative relationship between the number of schools and the frequency of terror related crimes ($r= -0.150$, $p<0.10$). The frequency of terror related crimes tends to be lower in the cities where there are more schools. Region also shares a significant relationship with frequency of terror related crimes ($r=0.482$, $p<0.01$). That is, the

cities in the east and southeastern parts of the country have more terror incidents than do cities elsewhere in Turkey.

Finally, the last two hypotheses, that is H_{4a} and H_{4b} examine the relationship between mediating variables, parochial control institutions, and the dependent variable, the frequency of terror related crimes. As anticipated, both mediating variables share negative relationships with the frequency of terror related crimes. A significant negative relationship between the number of religious institutions and the number of terror related crimes indicates that the frequency of occurrence of terror related crimes is lower in the cities with higher number of religious institutions ($r = -0.441$, $p < 0.01$). Likewise, the significant negative relationship between number of voluntary associations and the frequency of terror related crimes ($r = -0.493$, $p < 0.01$) suggests that prevalence of voluntary associations has a placatory effect on terrorism in Turkey.

According to the bivariate correlation results presented in Table 5.2, the hypothesis (H_{1b} and H_{1d}) concerning the impact of residential mobility on Frequency of Terror Related Crimes is not supported. Likewise, bivariate correlations do not support the hypothesis about the effect of Poverty (H_{2a}) on prevalence of religious institutions.

Interestingly, the findings for four hypotheses (H_{1d}, H_{2b}, H_{3b}, and H_{3d}) regarding the impact of residential mobility and family disruption on the frequency of terror related crimes and on the prevalence of parochial institutions are contrary to expected. According to results presented in Table 5.2, family disruption has a statistically significant negative effect ($r = -0.217$, $p < 0.05$) on the frequency of terror related crimes. That is, the number of terror related incidents is higher in the cities where the divorce rates are lower. The relationships between residential mobility and the number of religious institutions ($r = 0.262$, $p < 0.01$) and residential

mobility and the number of voluntary associations ($r = 0.345$, $p < 0.01$) are significantly positive. That is, for the cities characterized with higher rates of residential mobility the prevalence of religious institutions and voluntary associations are higher. Similarly, the relationship between family disruption and the number of voluntary associations is statistically significant and positive ($r = 0.433$, $p < 0.01$). Considering the limitations of bivariate correlation in terms of its validity, these counterintuitive findings will be discussed in the following multivariate analyses. Certain factors that affect both dependent and other variables can invalidate these results. For example, there may be a positive significant correlation between family disruption and the number of voluntary association, but the relationship becomes significantly negative in multivariate analyses (Table 5.5).

Another aspect of bivariate correlation is the ability to detect high intercorrelations between independent variables. A correlation coefficient exceeding 0.70 between two independent variables can affect the accuracy of the measurement by causing multicollinearity. Multicollinearity is a condition in which two or more independent variables are highly correlated. This high correlation between independent variables can create inflated or large standard errors for regression coefficients and generate unstable parameter estimates (Agresti & Finlay, 1999; Pratt & Godsey, 2003). One straightforward method of detecting multicollinearity is by observing the correlation coefficients among independent variables. An individual correlation coefficient higher than 0.70 is accepted as a sign of a multicollinearity problem in the model (Gujarati, 2003). Berry and Feldman (1985) use a lenient cut-off and suggest that multicollinearity is not considered to be a problem unless correlations exceed .80. Most of the bivariate correlation coefficients presented in Table 5.2 are less than 0.70. The

exception is the high correlation between poverty and region variables. The correlation coefficient for these variables is slightly higher than the 0.70 benchmark ($r = 0.74$, $p < 0.01$). In order to satisfy the assumptions of multivariate analyses, additional multicollinearity tests will be conducted before running the following regression models.

Table 5.2

Bivariate Correlations

	1	2	3	4	5	6	7	8	9
1- Frequency of Terror Related Crimes	-								
2- Family Disruption	-0.217**	-							
3- Residential Mobility	-0.098	0.104	-						
4- Poverty	0.450***	-0.640***	-0.167*	-					
5- Unemployment	0.515***	-0.230**	-0.323***	0.480***	-				
6- Religious Institutions	-0.441***	-0.209**	0.262***	0.020	-0.490***	-			
7- Voluntary Associations	-0.493***	0.433***	0.345***	-0.737***	-0.456***	0.224**	-		
8- Number of Schools	-0.150*	-0.452***	0.205**	0.430***	-0.243**	0.616***	-0.285***	-	
9- Region	0.482***	-0.605***	-0.009	0.744***	0.467***	-0.131	-0.655***	0.328***	-

*. Correlation is significant at the 0.10 level (One Tailed)

**. Correlation is significant at the 0.05 level (One Tailed)

***. Correlation is significant at the 0.01 level (One Tailed)

Multivariate Analyses

The following multivariate regression models and analyses examine the effects of the primary social disorganization variables on frequency of terror related crimes (dependent), prevalence of religious institutions and prevalence of voluntary associations (mediating variables) across 81 cities in Turkey. Three different models are estimated below. The first model (base model) investigates the impact of primary social disorganization variables (poverty, residential mobility, family disruption, and unemployment) on frequency of terror related crime. The second model investigates the impact of aforementioned basic social disorganization variables and mediating variables (religious institutions and voluntary associations) on frequency of terror related crimes. The third model includes the control variables (region and education) along with the independent and mediating variables and examines whether the impact of poverty, residential mobility, family disruption, and unemployment (independent variables), prevalence of religious institutions and voluntary associations (mediating variables) on frequency of terror related crimes changes after including region and education.

OLS Regression Results for Frequency of Terror Related Crimes

Table 5.3 presents the results of Ordinary Least Squares analyses of the first three models. Model 1 estimates a baseline equation with primary social disorganization variables, that is, poverty, residential mobility, family disruption, and unemployment on frequency of terror related crime. The equation for this model is:

$$E(Y) = \alpha + B_{(Family\ Disruption)}X_{(Family\ Disruption)} + B_{(Residential\ Mobility)}X_{(Residential\ Mobility)} + B_{(Poverty)}X_{(Poverty)} + B_{(Unemployment)}X_{(Unemployment)}$$

Model 1 explains 33 % of variance in frequency of terror related crimes. The overall F statistic ($F_{(4, 76)} = 9.23, p < 0.001$) indicates sufficient evidence to reject the null hypothesis that all of the regression coefficients obtained from this model are equal to zero. The results presented in Table 5.3 indicate that two hypotheses derived from basic social disorganization theory are consistent with the assumptions of the theory. As expected poverty (H_{1a}) has a positive impact on frequency of terror related crimes in the cities ($B=0.69, p<0.001$). That is, controlling for other variables, the frequency of terror related crimes is higher in the cities where poverty is more widespread. Moreover, unemployment also has a positive significant effect on the frequency of terror related incidents in the cities ($B=0.716, p<0.001$). Controlling for other variables, the frequency of terror related crimes are higher in the cities where the unemployment rates are higher (H_{1c}). Indeed, unemployment is the strongest predicting variable in Model 1 because it has the largest standardized coefficient (0.406). These results regarding the impact of poverty and unemployment are consistent with the bivariate correlation results. Contrary to expectations, two hypotheses regarding the impact of family disruption (H_{1d}) and residential mobility (H_{1b}) are not supported by the first model. That is, controlling for other variables, these variables do not have a significant effect on the frequency of terror related crimes in Turkey. Moreover, collinearity does not appear to be a problem in Model 1 because individual Variance Inflation Factor (VIF) scores range from 1.12 to 2.11 in the model. The influence of multicollinearity on the results in Model 1, Model 2, and Model 3 was assessed by estimating the VIF diagnostics. When using VIF for multicollinearity diagnosis different researchers use different cut offs. The most conservative approaches suggests multicollinearity is a problem when a VIF is larger than 4.0 for an individual variable (Allison,

1999). However, some researchers use more tolerant cut offs and suggest that multicollinearity is a problem when the VIF for any variable in the model is larger than 10 (Chatterjee, Hadi, & Price, 2000; Gujarati 2003; DeMaris, 2004; Lim, Bond, & Bond, 2005).

Model 2 takes the analysis a step further and addresses the parochial control dimension by adding religious institutions and voluntary association variables. The introduction of these variables increased the explained variance in dependent variable almost 12 %. In the second model, 45 % of variance in frequency of terror related crimes is explained by using independent and mediating variables. The overall F statistic ($F_{(6, 74)} = 9.98, p < 0.001$) indicates sufficient evidence to reject the null hypothesis that all of the regression coefficients obtained from this model are equal to zero. Consistent with the hypotheses regarding the impact of parochial control on terror related crimes, number of prevalence of religious institutions (H_{4a}) and voluntary associations (H_{4b}) have negative impacts on frequency of terror related crimes in the country, holding other variables constant. These results suggest that terror related crimes are lower in the cities where there are more religious institutions per capita ($B = -0.49, p < 0.01$). They also suggest that the frequency of terror related incidents are higher where there are fewer voluntary associations ($B = -0.013, p < 0.10$). Compared to Model 1, the impact of poverty and unemployment on terror related crimes decrease but they are still statistically significant. In addition to these variables, residential mobility has become a statistically significant predictor. The coefficient for this variable ($B = 0.462, p < 0.05$) indicates that frequency of terror related incidents are higher where the percent of residential mobility is higher. Consistent with the results of Model 1, family disruption lacked statistical significance in Model 2. A nested F-test was performed to compare Model 2 with Model 1.

The formula for the nested F test is as follow (Agresti and Finlay, 1999):

$$F = \frac{(R^2_{(completemodel)} - R^2_{(restrictedmodel)}) / (k_{(completemodel)} - g_{(restrictedmodel)})}{(1 - R^2_{(completemodel)}) / [n - (k_{(completemodel)} + 1)]}$$

k= number of independent variables in complete Model

g= number of independent variables in restricted Model

The result of the nested F-test ($F_{(2, 74)} = 8.12, p < 0.001$) shows that adding these parochial control variables significantly improves my regression model and helps to explain greater variation in the frequency of terror related crimes in Turkey.

Table 5.3

OLS Regression Analysis of Frequency of Terror Related Crimes (SQRT) (N=81)

	Model 1			Model 2			Model 3		
	Terror Incidents			Terror Incidents			Terror Incidents		
Variable	B ^a (SE)	β^b	VIF ^c	B ^a (SE)	β^b	VIF ^c	B ^a (SE)	β^b	VIF ^c
Independent Variables									
Family Disruption	0.512 (0.940)	0.067	1.72	-0.280 (0.889)	-0.037	1.82	-0.255 (0.950)	-0.033	2.13
Residential Mobility	0.214 (0.274)	0.078	1.12	0.462** (0.264)	0.168	1.24	0.500** (0.287)	0.182	1.49
Poverty	0.693*** (0.304)	0.311	2.11	0.494* (0.367)	0.222	3.65	0.545* (0.386)	0.245	4.12
Unemployment	0.716*** (0.198)	0.406	1.43	0.322* (0.215)	0.183	1.99	0.182 (0.225)	0.103	2.22
Mediating Variables									
Religious Institutions	-	-	-	-0.488*** (0.154)	-0.362	1.74	-0.284** (0.010)	-0.210	2.59
Voluntary Associations	-	-	-	-0.013* (0.009)	-0.207	2.71	-0.017** (0.010)	-0.264	3.22
Control Variables									
Education	-	-	-	-	-	-	-0.024** (0.013)	-0.268	2.92
Region	-	-	-	-	-	-	0.078 (0.099)	0.121	3.22
Model F	9.23 ***			9.98***			8.12***		
Model R ²	0.33			0.45			0.47		

* p<0.10, ** p<0.05, *** p<0.01 (One tailed test), ^a Unstandardized regression coefficient, ^b Standardized regression coefficient, ^c Variance Inflation Factor

Among the variables used in Model 2, number of religious institutions is the strongest predictor in the model, according to the standardized coefficient (0.362). Moreover, similar to Model 1, collinearity does not appear to be a problem in Model 2 because the largest VIF is 3.65.

Model 3² evaluates the effects of control variables, that is education and region, on the frequency of terror related crimes in the country. Results of Model 3 presented in Table 5.3 show that the introduction of control variables did not change the original statistically significant impact of residential mobility, poverty, prevalence of religious institutions and voluntary associations on the frequency of terror related crimes. After introduction of education and region variables, the relationship between unemployment and frequency of terror related incidents became nonsignificant. The introduction of these variables increased the explained variance in the dependent variable two %. In the second model, 47 % of the variance in frequency of terror related crimes is explained by using independent, mediating, and control variables. The overall F statistic ($F_{(8, 72)} = 8.121, p < 0.001$) indicates sufficient evidence to reject the null hypothesis that all of the regression coefficients obtained from this model are equal to zero. The results of Model 3 support four hypotheses regarding the impact of two independent variables and two mediating variables on the frequency of terror related crimes. In this final model, results indicate that holding other variables constant, residential mobility has a significant positive impact on the terror related crimes (H_{1b}) ($B=0.5, p<0.05$).

² For Model 3 of OLS regression of the frequency of terror related crimes, most of the studentized residuals are lower than traditional accepted limit of 3. Only two residuals, case number 30 (Hakkari) and case number 12 (Bingol) are slightly higher than 3. The studentized residual scores for these two cases are 4.15 and -3.02, respectively. In order to determine the impacts of these two possible outliers in overall model, their hat values (leverages) were examined. Since leverage values for these cases are lower than the threshold of $3p/n = 0.3$ (Cameron & Trivedi, 1998), the model was run by including all cases. DFBETAS range from -0.005 to 0.54, and thus, all of them are less than the critical value of 1 (Agresti & Finlay, 1999).

Poverty also has a significant positive effect on the frequency of terror related crimes (H_{1a}) ($B=0.55$, $p<0.10$). Independent variables family disruption ($p=0.40$) and unemployment ($p=0.21$) lacked statistical significance in Model 3. That is the results do not support the two hypotheses regarding the impact of family disruption (H_{1d}) and unemployment (H_{1c}).

The statistically significant negative impacts of mediating variables remained stable, after introduction of the control variables. The coefficient for the number of religious institutions ($B= -0.28$, $p<0.05$) indicates that the frequency of terror related crimes is lower where there are more religious institutions per capita (H_{4a}). Moreover, the results of Model 3 support the hypothesis with regard to the impact of prevalence of voluntary associations on the frequency of terror related crimes (H_{4b}). This finding suggests that terror related crimes are lower where the number of voluntary associations is higher ($B= -0.017$, $p<0.05$). Another arresting finding of Model 3 is the impact of education on the frequency of terror related crimes. The coefficient for education ($B = -0.024$, $p<0.05$) indicates that terror related crimes are higher in cities where there are fewer schools. Region, on the other hand, does not have a statistically significant impact on the frequency of terror related crimes. That is, cities located in the Eastern and South Eastern Anatolia regions do not differ from cities in other parts of Turkey on the frequency of terror related crimes, holding other variables constant.

Among the variables which have significant effects, education is the strongest predictor in Model 3, as suggested by the standardized coefficient ($\beta=-0.268$, $p<0.05$). This finding suggests that controlling for other variables, where the number of schools is higher, the frequency of terror related crimes is lower. Regarding collinearity, only one VIF is slightly higher than the conservative cut-off point of $VIF>4.0$. The VIF score for poverty is 4.12 and other

individual VIF scores range from 1.49 to 3.22 in Model 3. To examine the impact of adding control variables on the regression model, a nested F-test was performed. The result of nested F-test ($F_{(2, 72)} = 1.35, p > 0.05$) indicates that adding control variables, education and region, does not significantly improve the regression model. Although it increased the percent of variance explained in dependent variable, this increase is not statistically significant. One possible reason for this small R^2 change is the sample size. Since the sample size of the study relatively small, it may effect the R^2 change in both Models.

Bivariate Results for Mediator Variables

One of the main assumptions of social disorganization theory is that disorganized societies suffer from an insufficient organizational base (Kornhauser, 1978; Rose, 2000). This assumption suggests that where social factors that lead social disorganization are observed, rates of prevalence of social institutions are lower. To examine this assumption, I have used number of religious institutions and number of voluntary associations as dependent variables, and have regressed them on the primary social disorganization variables of poverty, family disruption residential mobility, and unemployment.

The bivariate correlations between social disorganization variables and prevalence of religious institutions and voluntary associations are presented in Table 5.2. As anticipated, these results lend evidence that supports the impact of unemployment (H_{2c}) and family disruption (H_{2d}) on the prevalence of religious institutions. Specifically, increased unemployment rate ($r = -0.49, p < 0.01$) and increased family disruption ($r = -0.209, p < 0.05$) are associated with decreased numbers of religious institutions in the cities. Contrary to expectations, residential mobility has a significant positive impact on the number of religious

institutions ($r = 0.262$, $p < 0.001$). The hypothesis regarding the negative impact of residential mobility on the prevalence of religious institutions (H_{2b}) is not supported. Likewise, the hypothesis regarding the negative impact of poverty on the number of religious institutions is not supported (H_{2a}). Level of poverty does not have a significant effect on the number of religious institutions ($r = 0.02$, $p > 0.10$). Regarding voluntary associations, bivariate correlation results presented on Table 5.2 suggest arresting findings. Two hypotheses regarding the impact of poverty (H_{3a}) and unemployment (H_{3c}) are supported. In the cities where poverty ($r = -0.737$, $p < 0.01$) and unemployment rates ($r = -0.456$, $p < 0.01$) are more prevalent, the numbers of voluntary associations tend to be lower. Conversely, the results do not support two hypotheses regarding the impact of family disruption (H_{3d}) and residential mobility (H_{3b}). The findings suggest that the relationship between these variables and the prevalence of voluntary associations are contradictory. In the cities where the rates of divorce ($r = 0.433$, $p < 0.01$) and residential mobility ($r = 0.345$, $p < 0.01$) are higher, the number of voluntary associations are higher. These counterintuitive findings are examined in the following multivariate analyses.

OLS Regression Results for Number of Religious Institutions

Table 5.4 provides results of multivariate regression models testing the hypotheses enumerated above. Model 1 estimates the impacts of primary social disorganization variables on the number of religious institutions. Model 1 explains approximately 38 % of the variance in number of religious institutions per capita,. The overall F statistic ($F_{(4, 76)} = 11.399$, $p < 0.001$) indicates sufficient evidence to reject the null hypothesis that all of the regression coefficients obtained from this model are equal to zero. Results presented in Model 1 support two hypotheses (H_{2c} , H_{2d}) derived from basic social disorganization theory. Family disruption has a

significant negative effect on the number of religious institutions (H_{2d}). As anticipated, in the cities where family disruption rates are higher, the prevalence of religious institutions is lower ($B=-1.437$, $p<0.05$). Unemployment also has a negative impact on the prevalence of religious institutions (H_{2c}). In the cities where unemployment rate is higher, the number of religious institutions is lower ($B=-0.762$, $p<0.01$). Two hypotheses regarding the negative impact of residential mobility (H_{2b}) and poverty (H_{2a}) on the number of religious institutions are not supported by the findings of Model 1. Conversely, it appears that residential mobility has a significant positive impact on the prevalence of religious institutions ($B= 0.259$, $p<0.10$). Moreover, similar to the bivariate correlation results, poverty does not have a significant impact on the number of religious institutions ($B=0.261$, $p>0.10$). Collinearity does not appear to be a problem in this model because the VIF scores range from 1.12 to 2.11. The standardized coefficient, $\beta= -0.583$, for unemployment indicates that this variable has the strongest impact on the prevalence of religious institutions among the variables used in Model 1.

Table 5.4

OLS Regression Analysis of Number of Religious Institutions Per Capita (Log) (N=81)

	Model 1			Model 2		
	Number of Religious Inst.			Number of Religious Inst.		
Variable	B ^a (SE)	β^b	VIF ^c	B ^a (SE)	β^b	VIF ^c
Independent Variables						
Family Disruption	-1.437** (0.672)	-0.254	1.72	-1.252** (0.608)	-0.222	1.98
Residential Mobility	0.259* (0.195)	0.127	1.12	0.218 (0.174)	0.107	1.24
Poverty	0.261 (0.217)	0.158	2.11	0.079 (0.232)	0.048	3.38
Unemployment	-0.762*** (0.142)	-0.583	1.43	-0.291** (0.145)	-0.222	2.10
Control Variables						
Education	-	-		0.036*** (0.007)	0.542	1.99
Region	-	-		-0.180*** (0.060)	-0.374	2.71
Model F	11.399***			16.162***		
Model R ²	0.375			0.567		

* p<0.10, ** p<0.05, *** p<0.01 (One tailed test)

^aUnstandardized regression coefficient, ^bStandardized regression coefficient, ^cVariance Inflation Factor

Model 2³ takes the analysis a step further and examines the impacts of control variables. This model explains almost 57 % of variance in the number of religious institutions. The F statistic ($F_{(6, 74)} = 16.162$, $p < 0.001$) indicates sufficient evidence to reject the null hypothesis that all of the regression coefficients obtained from this model are equal to zero. Consistent with the results of Model 1, family disruption has a significant negative impact on the number of religious institutions ($B = -1.252$, $p < 0.05$). This result supports the hypothesis

³ For Model 2 of OLS regression of the number of religious institutions, studentized residuals range from -2.85 to 3.13. Only one residual score for case 78 (Karabuk) is slightly higher than the traditional threshold of 3. However, the leverage value for this case is 0.03 which is considerably lower than the suggested limit of 0.22 (3p/n). DFBETAS range from -0.003 to 0.23, that is, they are lower than accepted limit of 1.

that in the cities where family disruption rates are higher, the prevalence of religious institutions is lower (H_{2d}). Likewise, the hypothesis regarding the negative impact of unemployment of the number of religious institutions (H_{2c}) is supported by ($B=-0.291$, $p<0.05$). Namely, in the cities where family disruption and unemployment are observed, the prevalence of religious institutions is lower.

Education has a significant positive impact on the number of religious institutions. In the cities where the number of schools is higher, the number of religious institutions is higher ($B=0.036$, $p<0.01$). Also, the relationship between region and the number of religious institutions is statistically significantly ($B=-0.180$, $p<0.01$). The prevalence of religious institutions in the cities located in Eastern and Southeastern Anatolia is lower compared to the cities located in other regions in Turkey. After introduction of control variables, residential mobility is no longer a statistically significant predictor of the number of religious institutions. Poverty still does not have a statistically significant impact on the prevalence of religious institutions. Since the VIF score of the variables range from 1.24 to 3.38, collinearity does not appear to be a problem in the model. The highest standardized coefficient ($\beta=0.542$) for education indicates that this variable is the strongest in the model, and that the number of religious institutions is higher where there are more schools per capita. The result of a nested F-test ($F_{(2, 74)} = 16.00$, $p<0.001$) suggests that adding control variables, education and region, significantly improves the regression model and helps to explain the greater variation in prevalence of the religious institutions in the cities of Turkey².

Table 5.5

OLS Regression Analysis of Number of Voluntary Associations Per Capita (N=81)

	Model 1			Model 2		
	Number of Voluntary Associations			Number of Voluntary Associations		
Variable	B ^a (SE)	β^b	VIF ^c	B ^a (SE)	β^b	VIF ^c
Independent Variables						
Family Disruption	-6.750 (11.209)	-0.057	1.72	-20.093** (11.345)	-0.171	1.98
Residential Mobility	9.025*** (3.261)	0.213	1.12	12.387*** (3.24)	0.292	1.24
Poverty	-24.323*** (3.63)	-0.709	2.11	-15.970*** (4.325)	-0.465	3.38
Unemployment	-1.664 (2.364)	-0.061	1.43	-1.179 (2.707)	-0.043	2.11
Control Variables						
Education				-0.164 (0.135)	-0.118)	1.99
Region				-3.503*** (0.128)	-0.350	2.71
Model F	28.320***			23.124***		
Model R ²	0.598			0.652		

* p<0.10, ** p<0.05, *** p<0.01 (One tailed test)

^aUnstandardized regression coefficient, ^bStandardized regression coefficient, ^c Variance Inflation Factor

OLS Regression Results for Number of Voluntary Associations

Table 5.5 estimates the results of two regression models which examine the impact of primary social disorganization variables and control variables on the number of voluntary associations. Model 1 explains approximately 60 % of the variance in number of voluntary associations per capita, and the overall F statistic ($F_{(4, 76)} = 28.32$, $p < 0.001$) indicates sufficient

evidence to reject the null hypothesis that all of the regression coefficients obtained from this model are equal to zero. The results of Model 1 support only one hypothesis regarding the negative impact of primary social disorganization variables on the number of voluntary associations. According to results, as anticipated, poverty has a statistically significant negative impact on the prevalence of voluntary associations (H_{3a}). Specifically, in the cities where poverty is more prevalent, the number of voluntary associations is lower ($B = -24.323$, $p < 0.01$). Indeed, poverty is the strongest variable impacting the number of voluntary associations in Model 1 because it has the highest standardized coefficient ($\beta = -0.709$). The hypothesis regarding the negative impact of the residential mobility on the prevalence of voluntary associations is not supported (H_{3b}). The results indicate that the relationship between these variables is the opposite of what was expected. Residential mobility has a significant positive impact on the number of voluntary associations ($B = 9.025$, $p < 0.01$). This suggests that the number of voluntary associations is higher in the cities where the residential mobility is higher. Since unemployment and family disruption do not have a significant impact on the prevalence of voluntary associations, the remaining two hypotheses (H_{3c} and H_{3d} , respectively,) are not supported. Moreover, collinearity does not appear to be a problem in Model 1 because the largest VIF is 2.11.

Model 2⁴ evaluates the effects of control variables on the prevalence of voluntary associations. This model explains approximately 65 % of the variance in the number of voluntary associations. The overall F statistic ($F_{(6, 74)} = 23.124$, $p < 0.001$) indicates sufficient

⁴ Finally, for Model 2 of OLS regression of the number of voluntary associations, studentized residuals range from -1.75 to 3.02. Except three cases (1, 57, 62), hat values range within the traditional accepted limit 0.22 ($3p/n$). The leverage values for these three cases are slightly higher than the threshold (0.37, 0.25, and 0.25, respectively). However, studentized residual scores for these three cases are lower than accepted limit of 3 (0.06, 0.23, and -1.28, respectively).

evidence to reject the null hypothesis that all of the regression coefficients obtained from this model are equal to zero. After adding control variables, family disruption becomes a significant predictor of number of voluntary associations ($B = -20.093$, $p < 0.05$). This result supports the hypothesis regarding the negative impact of family disruption on the prevalence of voluntary associations (H_{3d}). The number of voluntary associations is lower in cities where family disruption rates are higher. Although the magnitude of the negative impact of poverty on the number of voluntary decreased, it is still significant. That is, in the cities where poverty is more prevalent the number of voluntary associations is lower (H_{3a}). This variable still has the strongest impact on the prevalence of voluntary associations. Consistent with the results of Model 1, residential mobility has a significant positive impact on the prevalence of voluntary associations ($B = 12.387$, $p < 0.01$). This result contradicts the hypothesis regarding the negative impact of residential mobility on the prevalence of voluntary associations (H_{3b}). Moreover, since unemployment does not have a significant impact on the number of voluntary associations, the hypothesis regarding the negative impact of unemployment is not supported (H_{3c}). Regarding the effects of control variables, education does not have a significant effect on the prevalence of voluntary associations. Conversely, the effect of region is statistically significantly ($B = -3.503$, $p < 0.01$). The prevalence of voluntary associations in the cities located in Eastern and Southeastern Anatolia is lower compared to the cities located in other regions in Turkey. Moreover, collinearity does not appear to be a problem in Model 2 because the VIF scores range from 1.24 to 3.38. The result of a nested F-test ($F_{(2, 74)} = 6.00$, $p < 0.01$) suggests that adding control variables, education and region, significantly improves the fit of the regression

model, and helps explain the greater variation in prevalence of the voluntary associations in the cities of Turkey.

Direct and Indirect Effects

One of the purposes of this study is to examine the effects of mediating variables -- prevalence of religious institutions and voluntary associations -- on the frequency of terror related crimes (H_{4c}). In order to determine the effect of a third variable on the relationship between independent and dependent variables, mediation analysis is one of the prominent technique used in statistical analyses. Once a new variable is included into the model, it plays different roles based on its effect on the relationship between the independent and dependent variables. The two most common observed alternative effects of the new variable are suppression and moderation.

Suppression refers to the condition that, when a new variable is included in the regression model, the magnitude of the relationship between the independent variable and dependent variable increases (MacKinnon, Krull, & Lockwood, 2000; Cheung & Lau, 2008) or “the other variables in the model unleash the latent predictive power of” the variable that is not observable in the first model (Yoder, Whitbeck, Hoyt, & LaFromboise, 2006, pp. 184-185). Moreover, the new variable functions as a suppressor variable when the direct and indirect effects of the variable have opposite signs (Mackinnon et al., 2000). To illustrate, this is the case for the effect of the Residential Mobility variable on the frequency of terror related crimes. According to the results presented in Table 5.3, this variable becomes a significant predictor of the number of terror related crimes, and its effect increased once prevalence of religious institutions and voluntary organizations are included in the model (Model 1 $B=0.214$, $p>0.10$,

Model 2 $B=0.462$, $p<0.05$, Model 3 $B=0.50$, $p<0.05$)). This finding illustrates a possible suppressor situation (Yoder, et al., 2006).

Unlike suppression, in mediation the magnitude of the relationship between independent and dependent variables decreases. In mediation it is assumed that the independent variable has a causal relationship with both the mediating variable and the dependent variable (MacKinnon, et al., 2000; MacKinnon, Fairchild, & Fritz, 2007).

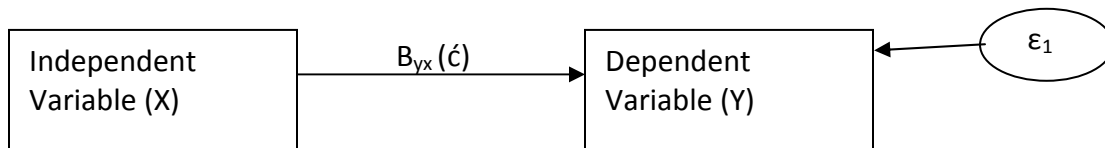
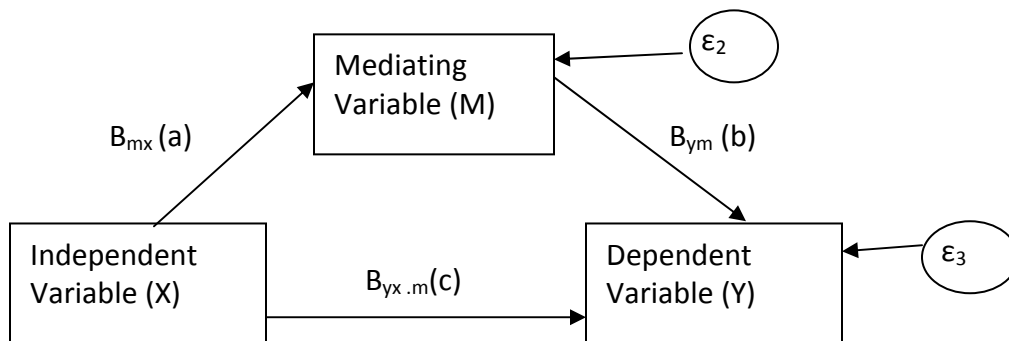


Figure 2: Theoretical model of total effect of X on Y



Direct effect	: c ($B_{yx.m}$)
Indirect effect	: ab ($B_{mx})(B_{ym})$
Total effect	\hat{c} (B_{yx}): $c+ab [(B_{yx.m})+ (B_{mx})(B_{ym})]$

Figure 3: Theoretical model of direct effect of X on Y, given M, and indirect effect of X on Y, through M

The theoretical relationship between an independent variable (X), mediating variable (M), and dependent variable (Y) for a single mediator model is illustrated in Figures 2 and 3 (Raudenbush and Sampson, 1999; MacKinnon et al., 2007; MacKinnon et al., 2000). Mediation analysis assumes that the independent variable has both direct and indirect effects, through

the mediating variable, on the dependent variable. It is defined as the reduction in the regression coefficient of the independent variable on dependent variable, when controlling for the effects of a third variable (Cheung & Lau, 2008; Baron & Kenny, 1986; Judd & Kenny, 1981).

In order to determine the mediating effect, a causal step model is operationalized by four steps in this study. First, the frequency of terror related crimes is regressed on the structural variables, which include primary social disorganization variables (poverty, family disruption, unemployment, and residential mobility) and control variables (region and education). Second, the mediating variables (number of religious institutions and number of voluntary associations) are regressed on the aforementioned structural variables. Third, the frequency of terror related crimes is regressed on all variables including primary social disorganization variables, control variables, and mediating variables. Fourth, the unstandardized coefficients for the structural variables are compared for the models with (step 3 above) and without (step 1 above) the mediating variables.

Mediation analysis can be carried out with reference to the decomposition of effects of the structural variables on the number of terror related crimes. In particular, the *Total Effects* are the sums of the *Direct Effects* and *Indirect Effects* (see Figure 2). The coefficients for the structural variables in the first step are equivalent to *Total Effects*, and the coefficients for the structural variables in the third step are *Direct Effects*. The difference in coefficients in the fourth step is the same as the *Indirect Effect* of the structural variables on the number of terror related crimes via the mediating variables (MacKinnon et al., 2000; 2007). For a given structural variable, there is evidence for a mediating effect when the total and indirect effects are statistically significant, the total effect is larger (in absolute value) than the direct effect, and

the coefficient of the structural variable in the model predicting the mediator variables (see Table 5.3) is statistically significant. Structural variables that fail to have mediating effects may have significant direct or indirect effects, or they may display suppressor effects whereby the total effect is smaller than the direct effect. The decomposition of effects for each structural variable is given in Table 5.6.

The results presented in Table 5.6 indicate that the impacts of unemployment and region variables on the number of terror related crimes are mediated by the parochial control variables, that is, the prevalence of religious institutions and voluntary associations (H_{4c}). The indirect and total effects of these variables are statistically significant. The total effects of these variables are not significant. Family disruption has an indirect effect on the distribution of terror related crimes through its effect on the parochial control agencies. Education and poverty have significant direct effects on the number of terror related crimes. Poverty also has an indirect significant effect through mediating variables on the number of terror related crimes. That is, while the impact of education on the distribution of terror related crimes is not mediated by the prevalence of parochial control agencies, the impact of Poverty is partially mediated by the prevalence of religious institutions and voluntary associations, in addition to its direct effect on the number of terror related crimes.

Table 5.6

The Direct, Indirect and Total Effects of Structural Variables and Control Variables on the Frequency of Terror Related Crimes in Turkey (N=81).

Variable	Direct Effect ^b	Indirect Effect ^a	Total	Type of Effects
Family Disruption	-0.255	0.698**	0.444	Indirect
Residential Mobility	0.500***	-0.274**	0.226	Suppression
Poverty	0.545*	0.250*	0.796**	Direct Indirect
Unemployment	0.182	0.103*	0.285*	Mediated
Education	-0.024**	-0.007	-0.032***	Direct
Region	0.078	0.111***	0.189***	Mediated

^a Indirect effects through mediating variables: Religious institutions and Voluntary associations.

^b Unstandardized coefficients, *p<0.10, **p<0.05, ***p<0.01, (One-tailed test)

Total, Indirect, and Direct Effects

Total Effects of Structural Variables on the Distribution of Terror Related Crimes

As anticipated, poverty is positively related to the frequency of terror related crimes in the 81 provinces of Turkey (B=0.796, p<0.05). Consistent with the results of full model, education has a negative significant impact on the distribution of terror related crimes (B=-0.032, p<0.01). Region, contrary to the findings of the final model, also has a significant impact on the frequency of terror related crimes (B=0.189, p<0.01). The results show that total effects of other structural variables examined in the first step on the distribution of terror related crimes in the country are not statistically significant.

Direct Effects of Structural Variables on the Distribution of Terror Related Crimes

The results presented on Table 5.6 show that, adding the mediating variables (number of religious institutions and number of voluntary associations) to the model reduces the

impacts of all variables except residential mobility. As mentioned above, this result indicates the suppression effect of religious institutions and voluntary organizations for the effect of residential mobility on the frequency of terror related crimes. Adding the mediating variables helped to partial out the criterion irrelevant components variance of residential mobility variable (Cheung & Lau, 2008; Tzelgov & Henik, 1991) and unleash the predictive power of this variable ($B=0.5$, $p<0.01$) on the distribution of terror related crimes (Yoder et al., 2006). Poverty and education variables are the two other variables with significant direct effects on the frequency of terror related crimes. Poverty remains significantly positively related to the number of terror related crimes ($B=0.545$, $p<0.10$), but its coefficient is considerably smaller than it was prior to the inclusion of the mediating variables. Education also remains significantly negatively related to the number of terror related crimes ($B=-0.024$, $p<0.05$), although the regression coefficient decreased after the inclusion of mediation variables. The direct effects of other variables used in the model are not statistically significant.

Indirect Effects of Structural Variables on the Distribution of Terror Related Crimes

Table 5.6 lists the total effects, the direct effects and the indirect effects. It also indicates the significance level of these effects. Indirect effects were calculated using Amos 16.0 Statistical Analysis Software. Amos provides standard errors and significance levels for indirect effects using a bootstrapping procedure (Cheung & Lau, 2008). Moreover, several researchers testing the statistical significance of mediator variables argued that the bootstrapping method is very efficient statistical procedure, and it provides more accurate results when compared to other methods, especially for small sample sizes (MacKinnon, Lockwood, & Williams, 2004; Mallinckrodt, Abraham, Wei, & Russell, 2006). After using the bootstrap procedure with 2,000

samples, the results indicate that all variables except education have significant indirect relationship with the frequency of terror related crimes. Although the direct and total effects of family disruption on terror related crimes are not significant, the indirect effect of family disruption on the frequency of terror related crimes is significantly positive ($B=0.698$, $p<0.01$). Interestingly, residential mobility has a statistically significant indirect negative impact on the distribution of terror related crimes ($B=-0.274$, $p<0.05$). This counterintuitive finding is caused by the suppression effect of mediating variables. As anticipated, the indirect relationships between poverty ($B=0.250$, $p<0.10$) and unemployment ($B=0.103$, $p<0.10$) are significantly positive. Region also has a significant indirect positive relationship with the frequency of terror related crimes ($B=0.111$, $p<0.01$).

The types of these effects are presented in the last column of Table 5.6. Findings obtained from mediation analyses show that family disruption has an indirect effect on the frequency of terror related crimes. The effects of unemployment and region are mediated by the prevalence of religious institutions and voluntary associations. Education and poverty have direct significant effects on the distribution of terror related crimes, while poverty has also an indirect effect. Finally, the relation between residential mobility and the frequency of terror related crimes is suppressed by the mediating variables. These findings partially support the hypothesis (H_{4c}) that the impact of primary social disorganization variables on the distribution of terror related crimes are mediated by the parochial control variables.

Summary of Findings

Table 5.7 provides a summary of findings from this chapter. The results from these analyses provide expected, counterintuitive, and arresting findings. As anticipated, the results

of the final OLS model for the frequency of terror related crimes reveal strong support that residential mobility and poverty have a considerable significant positive impact on the distribution of terror related crimes in Turkey. Moreover, as expected, mediating variables measuring the level of social organization and social capital of the society have significant negative impacts on the distribution of terror related crimes. That is, in the cities where religious institutions and voluntary associations are more prevalent, the frequency of occurrence of terror related crimes is lower. Another conclusion that may be drawn from the results of the final OLS model is the negative impact of education on the frequency of terror related crimes. This finding supports the assumption that the frequency of terror related crimes is lower in the cities where there are more schools per capita. Moreover, it is evident from the results that family disruption seems to have no significant direct impact on the distribution of terror related crimes in the cities. However, the results presented on Table 5.6 indicate that the indirect effect of family disruption is positively significant. Surprisingly, the results of the final OLS model suggested that although unemployment has a positive impact on the frequency of terror related crimes, this direct impact is not statistically significant. Similarly and also contrary to expected, region does not have a direct significant impact on the distribution of terror related crimes in the country. However, according to the results listed on Table 5.6, the effects of unemployment and region are mediated by the prevalence of religious institutions and voluntary associations. The indirect effects of unemployment and region on the frequency of terror related crimes are positively significant.

Regarding the impact of primary social disorganization variables on the prevalence of parochial control institutions, religious institutions and voluntary associations, the results

presented in Table 5.8 provide both expected and unexpected findings. The results of the final OLS models for the prevalence of these parochial control agencies indicate that family disruption has a significant negative impact on the number of religious institutions and on the number of voluntary associations. Region also has a significant impact on the prevalence of these institutions. That is, compared to the cities located in the other regions of the country, religious institutions and voluntary associations are less prevalent in the cities located in the Eastern Anatolia and Southeastern Anatolia (versus other) regions of Turkey. While unemployment has a significant negative impact on the prevalence of religious institutions, this negative impact is not significant for the number of voluntary associations. The findings regarding the impact of residential mobility on the prevalence of these parochial institutions were surprising. Residential mobility has a significant positive impact on the number of voluntary associations; by contrast, it does not have a statistically significant effect on the prevalence of religious institutions. While poverty has a significant negative impact on the number of voluntary associations, the impact of poverty on the number of religious institutions is not significant. Conversely, while education has a significant positive impact on the prevalence of religious institutions, it does not have a significant impact on the prevalence of voluntary associations.

In the next chapter, I provide an extended discussion about the theoretical and policy implications of the results of the bivariate and multivariate analyses presented in this chapter. Limitations of the study and suggestions for future research will also be mentioned.

Table 5.7

Summary of Hypotheses Testing for the Frequency of Terror Related Crimes

Dependent Variable:	(Model 1) Frequency of Terror Related Crimes per 10,000	(Model 2) Frequency of Terror Related Crimes per 10,000	(Model 3) Frequency of Terror Related Crimes per 10,000
N:	81 provinces	81 provinces	81 provinces
Hypothesis:			
H _{1a} : Across the country, poverty rates will be positively related to the number of terror related crimes.	Supported	Supported	Supported
H _{1b} : Across the country, the rate of residential mobility will be positively related to the number of terror related crimes.	Not Supported	Supported	Supported
H _{1c} : Across the country, unemployment rate will be positively related to the number of terror related crimes.	Supported	Supported	Not Supported
H _{1d} : Across the country, divorce rates will be positively related to the number of terror related crimes.	Not Supported	Not Supported	Not Supported
H _{4a} : Across the country, the number of religious institutions will be negatively related to the number of terror related crimes.	-	Supported	Supported
H _{4b} : Across the country, the number of voluntary organizations will be negatively related to the number of terror related crimes.	-	Supported	Supported
H _{4c} : The relationship between the social disorganization variables and the number of terror related crimes will be mediated by parochial control variables.	Supported		

Table 5.8

*Summary of Hypotheses Testing for the Prevalence of the Parochial Control Institutions
(Religious Institutions and Voluntary Associations)*

Dependent Variable:	(Model 1) Number of Religious Institutions per 10,000	(Model 2) Number of Religious Institutions per 10,000	(Model 1) Number of Voluntary Associations per 10,000	(Model 2) Number of Voluntary Associations per 10,000
N:	81 provinces	81 provinces	81 provinces	81 provinces
Hypothesis:				
H2a: Across the country, poverty rates will be negatively related to the number religious institutions.	Not Supported	Not Supported	-	-
H2b: Across the country, residential mobility rates will be negatively related to the number religious institutions.	Not Supported	Not Supported	-	-
H2c: Across the country, unemployment rates will be negatively related to the number religious institutions.	Supported	Supported	-	-
H2d: Across the country, divorce rates will be negatively related to the number of religious institutions.	Supported	Supported	Not Supported	Supported

(table continues)

Table 5.8 (continued)

Dependent Variable:	(Model 1)	(Model 2)	(Model 1)	(Model 2)
	Number of Religious Institutions per 10,000	Number of Religious Institutions per 10,000	Number of Voluntary Associations per 10,000	Number of Voluntary Associations per 10,000
N:	81 provinces	81 provinces	81 provinces	81 provinces
Hypothesis:				
H3a: Across the country, poverty rates will be negatively related to the number voluntary association.	-	-	Supported	Supported
H3b: Across the country, residential mobility rates will be negatively related to the number voluntary organizations.	-	-	Not Supported	Not Supported
H3c: Across the country, the rates of unemployment will be negatively related to the number voluntary organizations.	-	-	Not Supported	Not Supported
H3d: Across the country, divorce rates will be negatively related to the number of voluntary organizations.	-	-	Not Supported	Supported

CHAPTER 6

DISCUSSION AND CONCLUSION

Drawing on officially reported crime reports, census data, and different institutional statistics regarding the number of religious institutions and voluntary associations, this study tested several hypotheses regarding the mediating effect of parochial control institutions on the relationship between primary social disorganization variables and frequency of terror related crimes in provinces of Turkey. This chapter provides an extended discussion regarding the theoretical insights about the findings in previous chapters. Policy implications, limitations of the study and suggestions for future research are also mentioned.

Discussion

Social disorganization theory proposes that certain structural factors such as poverty, family disruption, and residential mobility negatively impact the social order and stability in a society (Shaw & McKay, 1942; Sampson & Groves, 1989). It is assumed that since the residents living in those places do not share common goals, values, and norms, they tend to be less secure and instead crime prone places (Bursik & Grasmick, 1993; Kornhauser, 1978; Berry & Kasarda, 1977). These assumptions regarding the relationship between social disorganization variables, low social capital and spatial variation of general crime have long captured the interest of researchers. In this study, I used the same assumptions to test their applicability to specific crimes that are motivated by terrorism. In the first phase, poverty, family disruption, unemployment and residential mobility were hypothesized to have significant positive impact on the distribution of terror related crimes in Turkey. In the second phase, based on the recent arguments regarding the negative impact of parochial control agents on the prevalence on

crime, the number of religious institutions and the number of voluntary associations per capita were hypothesized to have significant negative impact on the frequency of terror related crimes in the country.

Multivariate analyses of the frequency of terror related crimes in Turkey reveal a number of important findings. As expected, the results indicate that among primary social disorganization variables, poverty has a significant positive impact on terror related crimes. Although several researchers are suspicious about the relationship between terror related crimes and poverty (Kruger & Maleckova, 2002; Berrebi, 2003; Piazza, 2006; Abaide, 2004), the findings are consistent with the assumptions of social disorganization theory and several other studies that accept the association between poverty and terrorism (Borgoon, 2006; Auvinen & Nafziger, 1999; Fearon & Laitin, 2003; Li & Schaub, 2004). The results suggest that in this research context, the number of terror related incidents are more prevalent in cities where poverty is more prevalent.

Residential mobility is another primary social disorganization variable that has significant positive impact on the distribution of terror related crimes across the country. Residential mobility is accepted as one of the key elements that diminish informal social control and social capital in a society (Sampson, et al., 1997; Sampson & Groves, 1989; Kasarda & Janowitz, 1974). The results presented in previous chapters indicate that the number of terror related crimes is higher in cities where there is a higher rate of population mobility. This finding is not only consistent with the assumption of social disorganization theory, it is also consistent with findings of several studies that investigate the impact of residential mobility on violent crimes including political violence. For instance, Galvin (2002) argues that individuals who were

torn from their rural roots tend to become isolated and prone to crime as a reaction to the disappointment and grievances associated with urban life. Karpat (1976) and Bayat (2007) also highlight the positive impact of residential mobility on political extremism in Turkey.

Conversely, according to final multivariate analysis results, unemployment rate and family disruption do not have any significant impact on the frequency of terror related crimes.

However, the unemployment variable is noteworthy. In bivariate analysis and in the first two models of the multivariate analyses, unemployment has a significant positive impact on the frequency of terror related crimes. This significant impact disappears when the control variables are introduced in the final model, though the relationship remains positive.

Another assumption of social disorganization theory regards the effect of mediating variables on crime rates. Drawing upon communities and crime literature; specifically assumptions of *informal social control* (Sampson & Groves, 1989), *collective efficacy* (Sampson et al., 1997, 1999) and *social capital* (Putnam, 1993a, 1993b, 2000a; Bursik, 1999), arguments parochial control agencies, that is, religious institutions and voluntary associations were hypothesized to have significant negative impact on the frequency of terror related crimes in the country. As anticipated, the distribution of terror related crimes and the prevalence of religious institutions and voluntary associations have significant negative relationships. In the cities where religious institutions and voluntary associations are more prevalent, terror related crimes tend to be lower. This finding is consistent with the assumption of social disorganization theory that there is more effective social control, social order, and social integrity in societies where residents interact more and trust each other (Putnam, 2000, Bursik & Grasmick, 1995). Moreover, this finding is also consistent with the findings of several studies that investigate the

impact of democracy and civil society on terrorism. As illustrated in Chapter 4, voluntary associations give dissenters the opportunity to express their grievances and claim social changes without using violence (Crenshaw, 1981; Li, 2005; Ross, 1993; Schmid, 1992). Voluntary associations are important to community life. They not only promote integrity and activism which are crucial to building social organization in a society, they also give opportunity to express communities' collective needs to outside sources (Ross, 2000). In other words, voluntary associations not only promote parochial control within the society, they also promote public control to protect and achieve resources for collective needs of the society. Civic participation also increases the legitimacy of the administration and confidence in administration (Putnam, 2000) by providing accountability (Rodrigues, 2006) thus it maintains democracy (Paxton, 2002).

Another salient finding of the current study is the significant negative relationship between religious institutions and terror related crimes. As mentioned in Chapter 4, the mosque building process in Turkey is a civic action. Mosques are mostly built by voluntarily organized groups (Özcan, 1994). Moving beyond the traditional role of religious institutions for developing religiosity and providing moral guidance, this finding suggests that religious institutions are instrumental in the development of parochial control in several ways (Ross 2000). First, they can be found in any society whether they are poor or wealthy, small or large. Second, by promoting interaction and activism among residents they play an essential role in the development of social capital and collective efficacy in a society. Likewise, Bayat (2007) and Karpas (1974) highlight the role of religious institutions for perpetuating sense of community in Turkey. In this sense, the finding of the multivariate analyses is consistent with the assumptions

of social disorganization theory that assumes there will be more effective social control and high social capital in the societies where there are more religious institutions per capita. This finding also illustrates a possible way to realize Jurgensmeyer's (2004a) arguments about the role of religion for solving the conflict with nonviolent alternatives such as tolerating differences.

Although it is not among the primary social disorganization variables, education is another significant variable for estimating the distribution of terror related crimes in Turkey. Despite contrary findings of several studies (Kruger & Maleckova, 2002; Berrebi, 2003), the results of the final OLS model indicate that education has a significant negative impact on the frequency of terror related crimes. This finding suggests that terror related crimes are lower in the cities where there are more schools per capita. This finding is intuitively appealing and it is consistent with the assumptions that school attainment reduces the risk of political violence first by encouraging political participation, and second by keeping individuals, especially students, from illegal activities (Collier & Hoeffler, 2001). Education is also accepted as one of the most important predictors of political and social engagement (Helliwell & Putnam, 2007). Indeed, the standardized regression coefficient associated with this variable in the final model indicates that education is the strongest variable for determining the distribution of terror related crimes in the country.

The impact of region is also examined in this study. The findings of final multivariate analyses indicate that region, a dummy variable representing the location of the city in the Eastern or Southeastern Anatolia regions, does not have any significant impact on the distribution of terror related crimes. Compared to the provinces located in other regions, the

provinces located in these two regions are characterized by prevalent structural problems such as high poverty and high unemployment rate (DPT, 2003; Erdogan, 1996; Tusiad, 2005). The results of bivariate correlations indicate that being located in these regions and frequency of terror related crimes has a significant positive moderately strong association. However, the results of multivariate analyses examining the impact of all variables suggest that the relationship between the region variables and the distribution of terror related crimes is not significant. This finding is consistent with several previous studies that found that despite the clustered higher terror rates in these regions, geographical location is not a significant predictor of terror related crimes, controlling for other variables (Demirci & Suen, 2007; Koseli, 2007).

The second aspect of this study is to determine the impact of primary social disorganization theories on the prevalence of parochial control agencies, that is, the religious institutions and voluntary organizations. Social disorganization theory proposes that one of the most important reasons disorganized societies are disorganized is the dearth of an institutional base that is conducive to inadequate parochial control (Ross, 2000). As anticipated, this study found that family disruption has a diminishing affect on the prevalence of both religious institutions and voluntary associations. Consistent with the assumptions of social disorganization theory, it was found that the number of voluntary associations and religious institutions are lower in the cities where family disruption is more prevalent. While unemployment has a significant negative impact on the prevalence of religious institutions, this negative impact is not a significant predictor for the prevalence of voluntary associations. Conversely, poverty has a negative significant effect on the prevalence of voluntary associations though it is not a significant predictor of religious institutions. These findings are consistent

with the assumptions of social disorganization theory, that is, that voluntary associations are less prevalent in cities where poverty is more prevalent whereas the number of religious institutions is lower in cities where unemployment is more prevalent. These results are also consistent with the findings of several studies that highlight the vulnerability of the prevalence of voluntary associations compared to religious institutions (Ross, 2000; Stoll, 2001; Rankin & Quane, 2000). To be more specific, these results suggest that although the existence of religious institutions was not affected by the level of poverty in society, voluntary associations were. This is also the case for the relationship between region and the prevalence of voluntary associations. This study found that the number of voluntary associations is lower in the provinces located in Eastern and Southeastern Anatolia regions where structural problems (e.g. poverty and unemployment) are more prevalent. Based on these findings the following policy implications are suggested.

Policy Implications

One purpose of this study is to make suggestions regarding the policy implications for preventing or at least alleviating the occurrence of terror related crimes. In order to combat against terrorism effectively, policy implications should focus on two different dimensions of the problem; policies should be tough on terrorism and they should be tough on causes of terrorism (Bird, Blomberg, & Hess, 2008). The first group of policies, that is, *tough on terrorism* policies focus on the deterrence of terrorism. According to classical deterrence theory of crime, crime prevention programs will be effective only if punishment for crime is *severe, certain, and swift*. In order to deter the individuals committing crime, the punishment associated with the crime should fit the severity of crime, the probability of apprehension should be certain, and

the process should be swift. However, since the severity, certainty, and celerity of punishment may vary based on individuals' perceptions, deterrence measures may not work as expected. This may be the case for terror related crimes. Given that terrorists are usually dedicated to certain ideologies, the deterrence effects associated with conventional crimes may not work for terrorists. For example, although many countries –including Turkey- have very serious and severe legal sanctions against terror related crimes, they fail to deter occurrence of terror related crimes. To illustrate this point, being captured and sentenced may not be a deterrence factor for a suicide bomber who decided to end his life for his ideology. For this reason, along with the deterrence policies which focus on the process after attacks, policies which focus on prevention of attacks should be implemented. Intelligence based operations are one of the possible prevention and deterrence measures. Besides the traditional intelligence gathering methods such as surveillance and background investigation, community level policies which include the security forces and community partnerships may be beneficial. As mentioned in Chapter 2, because informal social control process and reinforcement of parochial level in the community, residents will be more aware of suspicious activities in their neighborhoods (Sampson & Groves, 1989; Bursik & Grasmick, 1993).

As mentioned in Chapter 2, the social control process operates in three dimensions: primary, parochial, and public level. Most of the current terrorism deterrence programs only operate in the public level (e.g. incarceration). Hence, in order to establish an effective terror prevention strategy, programs should consider the relationships between all levels of social control. For example, on the local level, these programs should include community leaders, resident groups, and even families. This will strengthen the society's ability to confront crime,

first by recognizing the problem as their problem and second, by taking responsibility for finding a solution (Rose & Clear, 1998). This does not mean that incarceration should be abolished; on the contrary, incarceration should be established and must be applied with severity. However, whenever this option is used it must be remembered that indiscriminate incarceration process or overreliance on this option may generate unintended consequences. For instance, behaving in a similar manner toward a “professional” terrorist and a sympathizer may make the latter a professional rather than rehabilitate. Put differently, rather than overreliance of the formal (public) control option, programs should employ parochial (local groups, religious institutions, voluntary associations, schools, and etc.) and primary (family, friend and coeval groups, and etc.) level control mechanisms together. The findings presented in previous chapters clearly suggest that just as the multidimensionality of the problem itself, the possible treatments must also be multidimensional. Deterrence or using police or military option as the only way of dealing with terrorism seems inadequate.

The second group of policies, that is, the tough *on the causes of terrorism* policies includes alternative strategies which focus on diminishing the structural factors related to terrorism. First, the results obtained from OLS regression on the frequency of terror related crimes suggest that economic conditions must be improved in order to reduce terror related crimes. Through poverty alleviating policies, grievances and feelings of deprivation caused by poverty may be reduced. However, considering the results of the bivariate analyses and indirect positive effect of unemployment these programs directed towards reducing poverty should focus on *work-first* or *the hand up* programs rather than *the hand out* programs. In other words, beside the traditional (*the hand out*) poverty alleviating programs such as income

support and other welfare programs (e.g. health insurance programs for poor people) these policies should focus on responsibility and self sufficiency (*work-first* or *the hand up*) (Karoly, 2002; Scholz & Levine, 2002). The poverty alleviating programs may be operationalized through opening vocational schools and providing employment opportunities through stimulating private investments in the cities, especially in problematic provinces. This strategy also helps to alleviate residential mobility which is, according to results, another significant determinant of terror related crimes in Turkey. Along with other factors, unemployment was accepted as the major *push* factor for internal immigration, from rural to urban or from small cities to metropolises (Gökçe, 1996), in Turkey.

Another significant predictor of the distribution of terror related crimes is education. According to the results of OLS regression of the frequency of terror related crimes, education is the strongest predictor in the model. Thus, specific policies should be implemented to increase the number of schools in the provinces especially where the terror related crimes are more prevalent. Since education promotes more political and social engagement, it is one of the key elements for the establishment of social capital. The State is the agency responsible for building schools in Turkey. However, since public investments are constrained by budgetary limitations, voluntary associations may be alternative resources for schoolization process. Including local groups and different civil society agencies in this process should help to accelerate the process without burdening the budget.

The other significant finding of the study is the placatory effect of mediating variables, that is, religious institutions and voluntary associations on terror related crimes. As major parochial control agencies, religious institutions should be included in anti-terror programs.

Considering the role of religious institutions for promoting communality by integrating individuals into the community and by promoting normative behaviors by establishing positive social relations among residents, religious institutions should be considered an important source of informal social control and social capital (Rose, 2000; Evans et al., 1995). Another important role of religious institutions is providing tangible assistance to their communities, especially to the needy. Ordinance 2007 issued by the Presidency of Religious Affairs assigns many duties to mosque officials regarding community relations. For example, in addition to preaching and other religious services, mosque officials are responsible for being knowledgeable about their neighborhoods. They have to be aware of needy people living in that neighborhood and try to solve their problems by establishing connections to wealthy individuals. If needed, they have to contact related state and nonstate agencies to guide them. In order to protect the individuals, especially youth, from bad habits such as alcohol, drug addiction and gambling, they have to coordinate programs with families (PRA Ordinance 2007, article 33/4-5). Moreover, as Özcan argued (1994), the complete voluntary character of the mosque building process indicates the respect and the importance attributed to these places. Based on 2005 data, there are almost 80,000 mosques in the country. These institutions have been established in all segments of the society (i.e. rural, urban, rich, and poor). The findings of the study suggest that prevalence of these institutions has a negative impact on the distribution of terror related crimes. Hence, the Presidency of Religious Affairs should be more active and involved in anti-terror programs across the country because as results indicate, using these institutions for creating social capital and parochial control in society should help to reduce terror related crimes in provinces.

Finally, the findings of the study suggest the number of terror related crimes tends to be lower in cities where there are more voluntary associations per capita. As discussed in sections above, voluntary associations are instrumental in developing social capital, collective efficacy, and social control, all important community properties for fighting crime. In a similar manner, voluntary associations are instrumental for reducing terror related crimes in a number of ways. First, as mentioned above, voluntary associations play an instrumental role in poverty alleviation programs, schoolization programs and other social welfare programs by playing a mediating role between the state and the society (Koseli, 2007; Rosenstone & Hensen, 1993; Verba, Schlozman & Brady, 1995). Second, by creating social interactions among the residents, voluntary associations promote community action and establish parochial control. Finally, voluntary associations offer opportunities for dissenters to express their grievances and claim social changes without using violence. As discussed in Chapter 3, civic participation increases the political capability of citizens to change policies, and for terrorist organizations it will be more difficult to recruit new members from a society where grievances are minimized. Freedom of association is one of the constitutional rights in Turkey, and associability process has been a rising trend since the 1950s (Kalaycıoğlu, 2002). According to data obtained from the Department of Associations and General Directorate of Foundations, there are more than 80,000 active voluntary associations in Turkey today. Activities of these associations involve various issues ranging from regional solidarity (*hemsehrilik*), human rights, cultural and charity issues to meta issues such as westernization, Atatürkism, nationalism and Islamization (Keyman & Icdıygu, 2003). The results indicate that prevalence of these voluntary associations has a significant negative impact on the distribution of terror related crimes in Turkey. Therefore,

rather than reliance only on the public or formal control agencies such as military, police, and courts, voluntary associations should be encouraged to participate in the prevention of terror related crimes in the country.

Limitations of the Study and Recommendations for Future Research

This study is the first quantitative study (of which I am aware) that examines the impact of religious institutions and voluntary associations on the spatial distribution of terror related crimes in Turkey. Although several previous studies investigated the social dimensions of terrorism in the country, many of those studies did not go beyond investigating the impacts of the traditional structural factors such as poverty, inequality, and education on terrorism. This study goes a step further by adding the mediating factors between those primary social disorganization variables and terror related crimes. Moreover, this study also makes a contribution to the social disorganization literature by testing the applicability of the theory on the special case of crime motivated by terrorism. As explained previously, social disorganization theory is one of the most influential traditions that has been used to explain the spatial distribution of crime in general. Although the research context is different, this study attempted to shed light on the applicability of the theory to terror related crimes.

The majority of the findings of this study are consistent with theoretical expectations, findings of several previous studies, and specified hypotheses. However, a number of methodological limitations have to be noted. First, given that this study examined only the primary social disorganization variables, it is plausible that had important omitted variables been included, the models would have been more feasible, and analyses would have yielded more accurate results and measurements. The unavailability of more appropriate

measurements of some of the independent variables is the second major limitation of the study. For example, had more proper data been used for primary social disorganization variables such as poverty, unemployment, and residential mobility, the measurements would have been more precise. Third, since this study is retrospective and cross sectional research, it is not possible to specify causality and the temporal order of the variables. For instance, it is not easy to examine the reciprocal relationship between the variables. Namely, the possible reciprocal relationship between dependent variable (the frequency of terror related crimes) and independent variables (e.g. residential mobility) cannot be examined without repeated and reversal studies. Fourth, since the sample of the study is limited to terror related crimes in Turkey, the findings of this study may not be appropriate to be generalized to other countries. Fifth, although the communities and crime literature is replete with the studies using larger level study samples such as municipalities, cities, counties, states, and countries, originally the theory proposes that the real variation of social control operates at the community level (Shaw & McKay, 1942; Sampson & Groves, 1989; Bursik & Grasmick, 1993; Sampson, 2002). Thus, future research should focus on the examination of relationships between neighborhood level determinants of social disorganization/social control such as friendship networks, unsupervised youth groups, trust, norms, and collective efficacy and terror related crimes. Sixth, as previously mentioned, since terrorism is a multidimensional crime in nature, rather than claiming that variables used in this study are the only predictors of terror related crimes, it would be appropriate to claim that these variables have significant relationships with terror related crimes beside many possible variables such as ideology and individual characteristics. Seventh, the data used in this study were obtained from different government agencies. Reliability and

validity of the data are contingent upon the accuracy of official statistics collected by these agencies. Therefore, for future studies using alternative measurement methods may help to increase the reliability and validity of the data. Eighth, partial correlation analysis between the number of religious institutions and the number of voluntary association indicates that there is a significant partial correlation between these two variables ($r=0.326$, $p<0.05$). This result suggests that using Structural Equation Modeling (SEM) would be appropriate to obtain more accurate measurements in this study. However, since the sample size of the study is relatively small for SEM analysis (Hoyle, 1995; Hox & Bechger, 1998), OLS regression method has been used in the study. Finally, this study used the frequency of terror related incidents in each province as dependent variable. Thus, although it gives important hints, it not possible to give accurate predictions regarding the factors that affect the recruitment process of the new members to the terrorist organizations. Had some different measurements of terrorism, such as the background information of the captured terrorists (e.g. where they were born, where they first meet the organization, and socioeconomic background) been used in the study, it would have given more precise results about the recruitment process by shedding light on the flourishing structural and individual factors.

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