UNTANGLING OFFENDING AND VICTIMIZATION: A COMPARATIVE STUDY OF THE VICTIM-OFFENDER OVERLAP

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by

Chad Posick

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ABSTRACT OF DISSERTATION

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ABSTRACT

A growing body of research reveals that there is an overlap between offenders and victims. That is, they share similar demographic and individual-level characteristics, are often involved with both offending and victimization, and their experiences can adequately be predicted by the same set of variables. While this literature is growing, there is still little known about the generality of the victim-offender overlap. This dissertation uses data from the second International Self-Report Delinquency Study (ISRD-II), a large (over 50,000 cases) school-based sample of adolescents in grades 7-9, to investigate the generality of the overlap among offending and victimization. Using six clusters of countries representing different national contexts, the results indicate that the overlap between offenders and victims is a general phenomenon, existing in all of the national settings under examination in this dissertation. Regardless of national context, offenders and victims have higher mean levels of risk factors and lower mean levels of protective factors than non-offenders/non-victims, especially overlappers who experience both offending and victimization. There are some differences across national context regarding the strength of the overlap and the ability of theories to predict the overlap. However, these contingencies do not emerge in a consistent or clear manner and future research is needed to expand upon these findings. While the strength of the theft overlap was strongest in the market-oriented context this was not the case for violence. Also contrary to expectations, family bonding was a powerful predictor of the overlap across cultures and even emerges, in some cases, as a more powerful predictor in market-oriented cultures when compared to family-oriented cultures indicating the importance of the family in preventing harm in several disparate contexts. The existence of a victim-offender overlap has several implications for criminological theory as well

as public policy. Programs and policies that interrupt and intervene on violence and theft are likely to be among the most profitable in reducing offending and victimization.

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CHAPTER 1: INTRODUCTION

Culture appears to have as much to say about victims of crime as it does about the offender. Testimony from street youth illustrates this point. "We all claim each other as cousins and all just tight friends. We just feel like, that's my friend. I can't see him getting beat up… We just all stick together. If there is a bigger group than us, we'll take an ass whipping" (Harding, 2010: 73). This passage from David Harding's (2010) *Living the Drama* illustrates three qualities of youth street culture. First, youth are often obligated to come to the assistance of their friends in a violent encounter. Second, they may not back down from a physical challenge without a substantial loss of respect. Finally, they obtain respect from their peers through violence. Sometimes the encounter works out to the youth's advantage, whether by "winning" a fight or when the opponent backs down. Sometimes, as this Harding's young interviewee admits, the outcome is unfavorable and the boy and his friends return home bloodied and bruised. Time may yet present an opportunity for vengeance and regained respect, and today's victim becomes tomorrow's offender.

Violence of this nature is not unique to the Boston youth in Harding's (2010) study. A member of Chicago's Rat Pack recounts a story of a fight between two individuals in rival cliques which violently escalated when bystanders drew firearms. "I knew what he's going to do when he got close, he going to grab the gun. I didn't want to kill him so I shot him in the arm. I had to shoot him. You see, if I hadn't done it, he would have took my gun away from me" (Katz, 1988: 101). The initial perpetrators in this event quickly find themselves victims and the bystanders the aggressors. Even within a single incident, it is possible for offenders and victims to switch roles (see also Luckenbill, 1977).

Assault is not the only violent crime to be characterized by switching roles of offenders and victims. Anderson (1999) describes the elaborate act of the "stick up" where one individual has the role of the victim and one the role of the offender (robber). Often, robbers will "stick up" other robbers in their neighborhood. Harding (2010) also uncovered from an interview with a youth that robbery is also a mechanism of retaliation for stealing back money from debts that are owed.

The majority of the literature on the overlap between offending and victimization has been on violence. Much less attention has been paid to the reasons why an overlap would be expected among property offenders and victims or property offending and victimization. However, an overlap in property crime can be expected for very much the same reasons as violence. There might be something about becoming a property victim that leads someone to offend. For example, Van Dijk (1994) found that when a bike was stolen in the Netherlands, the victim often resorted to stealing someone else's bike. Since the Dutch rely heavily on bikes for transportation, being without one is very stressful and a near necessity for everyday life. It is not hard to extend this finding to other property such as clothing and electronics. This dissertation considers the overlap between theft offending and victimization which expands upon past research which tends to only investigate the violent overlap.

While research supports the generality of the victim-offender overlap, recent efforts to test this generalization across different social contexts produce conflicting images of the overlap. Berg and Loeber (2011) find that the overlap is weaker in middle-class neighborhoods while remaining strong in disadvantaged neighborhoods. Similarly, Berg et al. (2012) reveal that the victim-offender overlap is strong in neighborhoods characterized by a violent street culture but

almost non-existent in neighborhoods where a street culture is absent. This line of research suggests that the victim-offender overlap is not generalizable across social contexts.

The current picture that empirical research displays is somewhat contradictory. While there remain significant similarities among offenders and victims in terms of their characteristics and experiences, this relationship is not universal and may be contingent on social context. What is needed is a comparative study of the overlap using samples from several different social contexts (Jennings et al., 2012). In this dissertation I will expand on existing work exploring the victim-offender overlap by exploring the generalities and contingencies of the overlap and explanations of the overlap using self-report data from six country clusters (i.e., social contexts) consisting of 30 countries.

Why Study the Victim-Offender Overlap?

Traditionally, research on violence considers two separate groups of individuals: one group that harms others (offenders) and one group that is harmed by others (victims). More recently, research has focused on both components of the violent encounter. In fact, some have argued that it is difficult to understand offending or victimization without understanding both (Lauritsen et al., 1991). The current dissertation is in line with this assumption and considers offending and victimization as dually important; concepts that must be studied together. Focusing solely on offenders and offending ignores the fact that many offenders have also been victimized. Rehabilitation programs, policing initiatives, and punishment policies that ignore this connection risk failure in reducing crime. Similarly, overlooking victim involvement in offending misses important contributions of individuals to the outcome of the event. Victims programs which are aimed at understanding the victimization experience only, and crime prevention strategies which do not address the victimization offenders often confront, risk

overlooking half of the violence equation. Reducing crime through effective prevention and intervention programs requires a comprehensive approach to violence which considers the relationship between offending and victimization.

Violence imposes several costs to society making studies of its etiology and correlates imperative. First, there are profound monetary costs to violence; for offenders, victims, and society as a whole. Over the life-course, Macmillan (2000) conservatively estimates that the lifetime cost of victimization is $36,726 per victim. This estimate is in "real dollars" not accounting for the personal costs of diminished quality of life. Offending also carries its own economic and personal costs. Cohen (1998) estimates that a single career criminal costs society 1.3-1.5 million throughout his or her lifetime. Welsh et al. (2008) estimate that an early onset offender with a low-rate of delinquency costs society on average $224,000 over their lifetime while a chronic juvenile offender costs upwards of $861,000. Other research attempts to calculate the various costs of violence and while estimates vary, all report significant monetary costs to society.

Second, independent of direct costs of violence are the indirect costs such as imprisonment, injury, and death. Rose and Clear (1998) discuss the devastating costs of incarceration to communities. This includes monetary costs such as the loss of wages as well as severe personal costs such as the loss of parents from family homes. Violence also decreases feelings of safety and security which are essential needs for a healthy society. Those who have been injured by violence, have witnessed violence, or have heard of others' victimization are affected by those experiences. Fear for one's safety restricts prosocial activities such as getting a job or going to school in certain areas, associating with neighbors, and participating in community events (Skogan, 1990). In short, the cycle of violence costs society greatly and since

there is an overlap of victimization and offending, there is substantial cost to those dually affected by both phenomena.

The recent economic downturn experienced in the United States and throughout much of the world refocused criminology on the importance of the effect of economics on violence. Evidence is mixed on the importance of the economy as a factor in violent crime with some finding no relationship while others finding a negative relationship (see Cook, 2010). The relationship between the economy and violence might not be straightforward and the effects felt by individuals might vary by race, class, and gender. Lauritsen and Heimer (2010) find that economic declines adversely affect Black and Latinos – individuals more likely to be employed in low-skill jobs that are downsized or cut during economic depressions. The consequences of a failing economy potentially increase exposure to violence. For example, homelessness increases during economic recessions exposing those living primarily on the streets to violence (Hagan and McCarthy, 1997; Lee and Schreck, 2005). It will become increasingly important to account for the impact of macro-level economies as they relate to the changing nature of violence. While the analyses in this dissertation do not directly tests the impact of the economy on offending and victimization, I will compare the results of analyses from groups of countries that belong to different economic welfare regimes.

Offending and Victimization – An Overlapping Phenomenon

"Attack was the defense against attack, and the state of war between criminal and his victim made the sufferer a doer and converted criminals to victims."

Schafer (1968: 8)

Despite early neglect of the victim-offender overlap, the relationship between offending and victimization was of interest to at least a handful of researchers over the last century. The

major focal point of this early research was the role of the victim in the criminal event. This point concerns the extent to which the victim precipitated or facilitated the violent event. In what may be the first comprehensive effort to describe the relationship between offenders and victims, Hans von Hentig (1940) acknowledged in *Remarks on the Interaction of Perpetrator and Victim* that many crimes occur with "little or no contribution on part of the injured individual" (p. 303), but he also emphasized that there exists a real mutuality between the victim and offender. He offered many examples of victims who contribute, at least partially, to their injury such as the greedy-swindling individual who places himself in harm's way by meeting up with other delinquents in unsafe areas away from supervision. Here, victimization is common among people involved with crime and other risky behavior. These individuals have the tendency to put themselves at more risk than those who avoid antisocial behavior and risky situations.

In *Criminal Victimization in Eight American Cities*, a major contribution to the victimization literature, Michael J. Hindelang (1976) describes the victim-offender relationship from an historical perspective. He discusses how early systems of law and politics, such as the Code of Hammurabi and *lex talionis* – an eye for an eye and a tooth for a tooth – catalyzed a cycle of victimization and offending brought forth through retaliation. In some cultures, it was *required* that victims seek revenge for the wrongs committed against them or their families. It is evident in these situations that a person may be the victim of an attack one day and the perpetrator the next day. This cycle of violence is the underpinning of vendettas and "blood feuds" (see also Schafer, 1968). Today we do not use the same language to describe this behavior as we did in the past; yet the circumstances of violence have changed very little. Much of the retaliatory behavior and self-preservation through violence evident in today's society,

particularly inner-cities, shows that such this cycle is, unfortunately, alive and well (Anderson, 1999; Harding, 2010; Singer, 1981).

The dynamic interplay between would-be offenders and would-be victims was an interest to early victimization researchers such as von Hentig (1940; 1948) and continued to attract attention from others such as Luckenbill (1977) and Katz (1988) who are interested in interactive and situational aspects of violent offending and victimization. This line of research finds that who becomes an offender and who becomes a victim within a particular violent event is often based on the immediate social interaction. Many times the initial offender becomes the ultimate victim and vice-versa. Luckenbill (1977: 185) remarks that "murder is the outcome of a dynamic interchange between an offender, victim, and, in many cases, bystanders." His research shows that the line between offenders and victims is cloudy and that both parties escalate the violent situation by trying to save face through acting aggressively. Similarly, Katz (1988) writes about the "badass" who acts tough and resorts to violence if disrespected. However, there are many "badasses" on the street, and when there is conflict among one or more, there will be some winners (those who we may call offenders) and some losers (those who we may call victims). The next time the "badasses" meet their roles may be reversed. In sum, evidence suggests that violent victims and offenders may be more similar than they are different.

Given this early, mostly qualitative, evidence that victims often facilitate their own injury, researchers now view offenders and victims as similar groups of individuals involved in a cycle of violence. What criminology and victimology have uncovered thus far is that violent offending and victimization, and the risks of engaging in these behaviors, are not randomly distributed throughout the population but are clustered within certain areas and among certain people (Lauritsen et al., 1991; Miethe and Meier, 1994; Sparks, 1982). To date, research has

been concerned with defining this relationship, identifying the characteristics of offenders and victims, and developing strategies to decrease criminality and victimization. Research has also attempted to make distinctions between the correlates of those individuals who are offenders and those who are victims. Studies indicate that victims and offenders share similar characteristics (see Lauritsen et al., 1991). This has led researchers to extend theories and perspectives originally developed to explain only offending or only victimization to explain both of these phenomena (Schreck et al., 2008). Major theories of victimization such as lifestyles (Hindelang et al., 1978) and routine activity theory (Cohen and Felson, 1979) show these to be powerful explanations of offending at well (Miethe and Meier, 1994). This makes sense as these theories require an offender and a victim to meet in time and space. Similarly, prominent theories of delinquency and crime such as self-control (Gottfredson and Hirschi, 1990), strain (Agnew, 1992; 2002), and criminal subcultures (Anderson, 1999; Singer, 1981; Wolfgang and Ferricutti, 1967) also offer explanations of victimization. Although research indicates that theories of offending can be successfully extended to account for victimization, and vice-versa (see Schreck, 1999; Schreck et al., 2008), this literature is still nascent. Additional research is needed to support current explanations of crime and victimization using different samples of individuals in different social contexts. It is also necessary to begin to specify the causal mechanisms influencing offending and victimization.

Contemporary research supports the notion that victims and offenders "overlap." That is, not only do they share similar characteristics but also similar violent experiences as both perpetrators and recipients of violence. This overlap is most evident in interpersonal crimes (Lauritsen et al., 1991) which, not surprisingly, are those crimes that most often invite retaliation. However, most research finds that this overlap is general and holds across demographic groups

and various social contexts (Gottfredson and Hirschi, 1990; Hindelang, 1976; Hirschi and Gottfredson, 1995; Laub, 1990; Lauritsen et al., 1991). This literature also supports the generality of the victim-offender overlap using samples of youth of different ethnicities (see for example Klevens et al., 2002; Maldonado-Molina et al., 2010). Despite the support found for the generality of the victim-offender overlap, standardized studies using several social contexts within the same dataset are needed to sufficiently put this claim to test. In this dissertation, I will fill this gap by using a large international dataset to test the generalizability of the victim-offender overlap.

Advances in survey methodology have improved the theoretical development of theories and advances in statistical methodology have stimulated innovative research to explain the victim-offender overlap itself. Osgood and Schreck (2007) developed a multi-level, item-response theory approach to examine specialization. The basic idea of specialization would seem to have applicability to whether some individuals assume the role of an offender or victim as well. Schreck and colleagues (2008) used the IRT-based method to investigate whether specific characteristics and lifestyles can be used to explain why people adopt the role of an offender or victim. They found that while most individual-level characteristics predict both offending and victimization, there are variables (i.e., individual characteristics and lifestyle choices) that predict why someone becomes either an offender *or* a victim. This literature is important for attempting to unravel the relationship between offending and victimization by drilling down to the theoretical correlates of each phenomenon.

The current study builds upon the literature covered in the following chapters to fill the gap in knowledge concerning the generality of the victim-offender overlap. The purpose of this research is to extend the current knowledge-base on the victim-offender overlap to include

samples from different counties within the same dataset. In chapter 2, I begin with a review of the relevant literature on offending and victimization, as well as the victim-offender overlap. This literature focuses on the interaction between offenders and victims, the overlap of offending and victimization, and efforts to explain offending and victimization. In chapter 3, I review the importance of using a comparative perspective in studying offending and victimization as well as the victim-offender overlap. Next, in chapter 4, I present a theoretical framework for understanding the relationship between offending and victimization using country clusters representative of different welfare regimes (i.e., cultural contexts). This framework draws heavily upon current theories of crime and victimization as well as Esping-Andersen's (1990) social welfare state approach for justification of using country clusters. At the end of the chapter, I present and discuss the major hypotheses that will guide the analyses. These hypotheses are informed by the literature review and set the foundation for addressing important issues that remain understudied in violence research. In chapter 5, I describe the dataset used in the dissertation including the sampling strategy and measures to be used to explore the research questions and hypotheses. The chapter concludes with a discussion of the analytic strategy/statistical techniques utilized in the current study. Chapters 6, 7, and 8 present the analysis for each major research question separately. Finally, in chapter 9, I provide a discussion of the results from the analyses, implications for theory and policy, limitations of the study, and suggestions for future research on the victim-offender overlap.

CHAPTER 2: VICTIM-OFFENDER OVERLAP LITERATURE REVIEW

This chapter reviews current criminological and victimological literature concerned with the overlap between offenders and victims. I begin by reviewing the main tenets of criminology and victimology as distinct fields of study that, when brought together, provide valuable insight into understanding violence holistically. Next, I present contemporary research on the relationship between offending and victimization as well as recent work on explaining the victim-offender overlap.

Criminology and Victimology

Criminology as a specific field of study is relatively new when compared to older physical sciences such as astronomy and chemistry. However, the scientific study of criminals dates back to, at least, the 1800s. Arguably the first positivistic criminologist, Cesare Lomroso, created the field of criminal anthropology and methodically studied the brains and bodies of criminals. His efforts were among the first to systematize the study of criminals (Rafter, 2008). Despite the many flaws of Lombroso and followers in the tradition of criminal anthropology (see Gould, 1996), his pioneering approach to the study of criminals established a positivistic criminological science that continues over a century later.

Although Lombroso and other researchers in the biological tradition made their mark on criminology, one that has continued into the 20th century, harsh critiques were leveled against criminology in the early 1900s. The most devastating critique of the field of criminology was proffered by Jerome Michael and Mortimer Adler. In 1933, Michael and Adler published a report where they stated three major flaws of criminology: (1) criminological research has been futile; (2) the reason for the futility of research in criminology is the incompetence of criminologists in science; and (3) the current methods of criminological research should be abandoned and

scientists should be imported into criminology from other fields (as cited in – Laub, 2006: 237). After this report, there was certainly a need for someone to step forward in defense of the blossoming endeavor that was criminology.

Shortly after the release of the Michael and Adler (1933) report, Edwin Sutherland, the sociologist responsible for differential association theory, fired back at Michael and Adler arguing that criminology was a new field experiencing all the growing pains typical of emerging fields of study. As his own contribution, Sutherland offered a sociological perspective on criminology that became the guiding paradigm in criminology for much of the 20th century. Today, sociological explanations of crime and criminality remain prevalent, but efforts to integrate biological, psychological, and sociological theories have become increasingly popular, particularly in addressing the nature vs. nurture debate (see DeLisi et al., 2010).

Victimology has a much shorter history as a scientific field of study. In its earliest days it was still considered a branch of criminology (Fattah, 1979) and has remained largely couched within criminology. Some of the first academic work on victim-specific issues was written by Hans von Hentig. In 1940, he wrote *Remarks on the Interaction of Perpetrator and Victim* where he laid out the importance of understanding the interaction between victims and offenders. He closes this article by cautioning against the separation of offenders and victims and states that if we do that there would remain a "potential perpetrator without a victim and a potential victim without a partner to whom he or she could turn to be victimized" (pp. 309).

While von Hentig's work was certainly victim-centered, and he urged people to think specifically about victim issues, he did not suggest a separate domain to study victims (and cautioned against such separation). It was another individual from a legal background, Beniamin Mendelsohn, who advocated for a separate study of victims or "victimology." In the first volume

and first issue of the journal *Victimology*, Mendelsohn laid out the foundation for his vision for victimology in his article *Victimology and Contemporary Society's Trends*. In the first sentence he states "the essential goal of victimology is fewer victims in all sectors of society…" (Mendelsohn, 1976: 8). He acknowledged that research which could be considered victimological had been going on for decades but that these efforts had not gone "beyond secondary questions" (pp. 10). In other words, an in-depth and scientific study of victims had yet to come to fruition. Thus, this article is among the first to set the foundation for a separate study of victims using scientific methods.

A few years after *Victimology and Contemporary Society's Trends*, Fattah (1979:198) reviewed the state of victimology and concluded that it "is slowly coming of age" and that it is "one of the most promising branches of criminology." In the preface to the most recent edition of Karmen's (2009: xxiii) popular textbook *Crime Victims: An Introduction to Victimology,* he described the progression of the book from its earliest days (circa 1980) when "it was difficult to locate reliable social science data or even well-formed speculation" about victims issues to the most recent editions which now deal with sorting through the large volumes of literature on victimization and victims issues. It appears that Fattah was correct when he stated that victimology has become a popular and successful offshoot of criminology.

Victimology can now hold its own against criminology with its copious amount of data and writing on victim-specific issues. But what are we to gain by segregating these two fields of study? At least in the study of violence, it is far better to integrate the insights from criminology and victimology than to view them separately. While this integrated approach is increasingly being utilized, Farrall and Calverley (2006) caution that it is still typical to view offending and victimization separately and that academics need to continue to identify commonalities between

victims and offenders (see also Esbensen and Huzinga, 1991). Others additionally note that the two fields fail to communicate with one another (Stewart et al., 2004). In this dissertation, I combine perspectives from both fields (and whether or not they are truly distinct fields is not a primary concern here) to understand the commonalities and differences among offenders and victims across the globe. The next section reviews literature from these two fields that considers the relationship between offending and victimization and discusses some areas in which we still have much to learn.

Offenders and Victims: Shared Characteristics

The image of the criminal, or offender, has changed over the years. Perhaps the most dramatic shift in the perception of the offender occurred in the early 1900s. Prior to the 20th century, criminals were often viewed as inferior humans, lacking morals or sanity. Early theorists such as Lombroso considered criminals "throwbacks" to earlier humans. In other words, they were characterized more as primitive man than modern-day humans (Rafter, 2008). This perception shifted in the early 1900s with the advent of the Chicago school where criminals were viewed as normal people who were influenced by their environment toward offending (Lilly et al., 2011). While drastically different in their explanations of crime, both views saw criminals as generally poor, minority, and male.

The image of the victim has also been debated and has changed over time. Nils Christie (1986) portrayed the "ideal victim" as a middle-aged, white woman on her way to commit good deeds in the community. Here, the typical victim is blameless and vulnerable to the violent experience. The attacker of the ideal victim is a large male who randomly accosts the female stranger. This picture of the ideal victim is often portrayed in TV and most of the top news stories (Loeber et al., 2001). Others, such as Mendelsohn (1956) and von Hentig (1948), have

categorized typical victims into several categories such as the elderly, children, females, depressed, and mentally defective in an effort to describe the biological, psychological, and social factors associated with victims. In reality, this is far from the true nature of violence and the most victimized person (and contrary to some of their own insights).

Research shows that the victim as a meek old lady is not the typical case. In fact, research shows that offenders and victims share characteristics and neither category is dominated by middle-aged, white, females. Quite to the contrary of Christie's (1986) ideal victim, the typical victim is young, black, unmarried, and male; the same characteristics found in the typical offender (Lauritsen et al., 1991; Lauritsen and Laub, 2007). This trend is also found among repeat victims (Chang et al., 2003). This is an important empirical observation that has led the Office of Juvenile Justice and Delinquency Prevention (OJJDP) to suggest that an accurate picture of juvenile offending and victimization risk is integral to a strategy to decrease violence (Loeber et al., 2001). This is more in-line with a public health approach to violence prevention and intervention as opposed to a suppression or enforcement-based response to violence.

The similarities between offenders and victims became apparent in self-report surveys of victimization which gained popularity in the 1970s. The National Crime Survey (NCS) was one of the first scientifically rigorous self-report methods to capture victimization. The information garnered by this survey directed the theoretical development of victimization theories. Analysis of the NCS revealed that age, sex, race, and marital status were key demographic correlates of victimization. Young, black, males who were unmarried were found to be at most risk for victimization (Hindelang, 1976; Hindelang et al., 1978). Lifestyle and routine activity theories were formulated based on these findings. They argued that young and unmarried individuals

often spend time outside the home placing themselves and their property at risk of victimization (see Lauritsen et al., 1991).

The NCS was not the only survey to uncover these demographic correlates of victimization. Other surveys, in different countries, have provided similar data leading researchers to come to similar conclusions. Tests of routine activity and lifestyle theory have been conducted using data from the British Crime Survey (BCS). These tests revealed that lifestyle choices such as spending nights away from home, using public transportation, and drinking alcohol are related to victimization. These activities are mostly engaged in by young males (Gottfredson, 1984; Sampson and Lauritsen, 1990) providing at least partial explanations as to why they tend to be victimized more often than other groups. In his review of research, Richard Sparks (1982: 96) concluded that "there is abundant evidence that criminal victimization is not uniformly or randomly distributed among individuals within the population as a whole." He found, as other researchers had, regardless of which survey was employed, that young, minority, males are at greatest risk of victimization.

Recent research has continued to show the importance of demographic variables in relation to victimization. For example, males are more likely to be victimized even when controlling for other strong correlates of offending and victimization such as self-control (Schreck, 1999) and family and peer contexts (Esbensen et al., 1999; Schreck and Fisher, 2004). Stewart et al. (2004) found that younger individuals were more likely to be victimized than older individuals even after controlling for low self-control, lifestyles, and offending history. Cohen et al. (1981) found the same when controlling for several dimensions of social stratification. The last section of this chapter discusses in greater detail explanations of offending and victimization

but it is important to note here that many demographic predictors of violence are shared among offenders and victims and that these are often related to their violent experiences.

Although there is substantial support for shared characteristics between offenders and victims, and that these characteristics hold across demographics, there is little research on the generality of shared offender-victim characteristics across several disparate cultural contexts. The first research question this dissertation explores is whether or not offenders and victims share similar lifestyles and characteristics and whether there are variations in these characteristics/lifestyles within different cultural contexts. Even though there may be a generality in most of the demographic correlates of offending and victimization, there might be variations within disparate cultural contexts. Specific hypotheses regarding this issue are discussed in chapter four.

The Victim-Offender Overlap: Shared Experiences

An understanding of the victim-offender overlap requires revisiting the early work of Hans von Hentig and Beniamin Mendelsohn, the "Founding Fathers" of victimology (Rafter and Walklate, forthcoming). In 1948, von Hentig wrote a seminal book on the victim-offender relationship titled, *The Criminal and His Victim.* This was an early look into the offender and victim relationship that would focus future research on the subject. In this book, von Hentig suggested that the criminal and victim are related in such a way that the victim "molds" the criminal and shapes the outcome of events (von Hentig, 1948: 348). A victim might place him or herself in a risky situation or behave in a way that increases their likelihood of becoming a victim. For instance, a victim might carry around large sums of money making them attractive to robbers and thieves. Victims might themselves be offenders who abuse their children or other individuals who then become victims of retaliatory violence. The victim may also be dishonest

like the oft victims of con-games who themselves engage in deviant behavior with the "con-man" (von Hentig, 1940). Von Hentig saw these relationships between offender and victimizer as complex and dubbed the situation the "doer-sufferer entanglement" (von Hentig, 1948; 448). It should be noted that the bulk of von Hentig's theorizing about the similarity between victims and offenders is contrary to his typologies. For example, young and elderly females, typical victims in von Hentig's typologies, are not his typical offenders who tend to be swindlers and act wantonly.

Mendelsohn, a defense lawyer, noted that there were relationships among his clients (the "offenders") and their "victims." More often than not, he believed that the victims were not entirely blameless. For instance, he found that many "crimes of passion" could have been prevented if the victim would not have provoked the attacks of the offender. He saw offending and victimization as an intimate partnership that required the interrelated acts of two (or more) people. Thus, he named this relationship the "penal couple" (1956: 99). He also viewed the causes of victimization as diverse, stating that victim-producing phenomena are "by nature biological, psychological, sociological, mechanical, ecological, etc." (1976: 24). He continued that victimology must "adapt specific methods to every facet of each phenomenon" in an effort to address the causes of victimization and seek out solutions to stop people from being victimized (pp. 24). Mendelsohn's work is second to none in helping to developing a scientific field of study committed to victim's issues. It has also continued to influence the direction of research today. However, counter to the Mendelsohn's hope for a separate study of victims, research has revealed the importance of studying offenders and victims together.

The Cycle of Violence

Several perspectives link prior victimization to later offending and vice-versa. This has led some researchers to argue that "violence begets violence" (Curtis, 1963; Garbarino and Gilliam, 1980). Cathy Spatz Widom, one of the most prominent researchers on the effect of childhood trauma on later delinquency, calls the link between childhood maltreatment and later offending the "cycle of violence" (Widom, 1989a). Regardless of the term used by researchers, considerable evidence exists for a cycle whereby victimization, including trauma and vicarious victimization, leads to offending. This section reviews this research.

The cycle of violence is evident in abused children who grow up and become abusers themselves. To be sure, most individuals who are abused as children do not grow up to become offenders (Fagan, 2001). However, being abused as a child increases the likelihood of offending in adolescence and adulthood when compared to those who report no abuse. Also, many adult offenders report being abused as children (Stewart et al., 2008; Widom, 1989a; see also Herman, 1992). Abuse, neglect, and other traumatic events experienced by children often lead to behavioral problems as well as a host of other negative consequences such as school dropout, teen pregnancy, learning difficulties, and obesity later in life (Burke et al., 2011; Lansford et al., 2007). Sexually abused children are more likely to become abusers as adults and are more likely to suffer from other health related problems such as depression, suicide, and sexual promiscuity (Paolucci et al., 2001). Harsh physical punishment experienced by children is linked to later deviance and intimate partner violence (Swinford et al., 2000). In fact, research has uncovered that it is not only direct victimization that is related to deviant outcomes but witnessing violence or receiving traumatic news that is also associated with future offending (Agnew, 2002; Eitle and Turner, 2002). Research shows that there may be specific gendered pathways for abused children

where males are more likely to channel their emotions outward (harm others) while females are more likely to channel their emotion inward (harm oneself) (Herman, 1992; Stewart et al., 2008; Widom, 1989b). Regardless of the pathway, research shows that there is a cycle of violence, whether it is harming others or receiving harm, which needs further untangling if there are to be better programs and policies to counter this perpetuation.

Violence does not have to be experienced only in childhood for it to impact later delinquency. Chang et al. (2003) found that repeat victimization in later life is related to delinquency net controls for other risk factors such as drug and alcohol use. Interestingly, they found that repeat victimization experienced by seniors in high school led to delinquency even among youth who were previously non-delinquent (see also Mersky et al., 2011). This finding suggests that, contrary to many learning and control theories, victimization itself, regardless of timing in the lifecourse, can influence delinquent behavior.

A similar cycle has been found among individuals with mental health disorders. For instance, individuals with Autism Spectrum Disorders are more likely to come to the attention of law enforcement as both offenders and victims of crime (Bartley, 2006). The overlap between offending and victimization is also evident with other disorders. Silver (2002) sampled patients discharged from a hospital in Pittsburgh and found that when compared to a comparison group, individuals with mental disorders were more likely to be victimized. However, he also found that individuals with mental health disorders were more likely to be involved in conflicted relationships characterized by reciprocal violence. One of the best predictors of violence against a mental health patient was the patient's violence toward others (see also Felson, 1992; Hiday et al., 2001).

Experienced, vicarious, and anticipated strains are implicated as causes of offending and victimization (Agnew, 1992; 2002) and are used to account for the cycle of violence. General Strain Theory, as originally posited by Agnew (1985; 1992), proposed that strain produces negative emotions, such as anger, which lead to delinquent behavior. The magnitude of the strain is related to the outcome in that the greater the strain, the more likely anger will be produced resulting in offending. One of the greatest strains discussed by Agnew (2002) is being the victim of violence. A test of this assumption showed that prior victimization was strongly related to delinquency. Anticipated and vicarious victimization were also shown to be related to delinquency (Agnew, 2002).

The effect of emotions in the victimization to offending link is stressed by other researchers. For example, Manasse and Ganem (2009) investigate the path from strain (victimization) to offending through negative affect. They find that victimization is related to offending largely through depression. This effect is greater in males than in females suggesting that males who are victimized are likely to offend when the victimization is followed by negative (depressive) affect. Similarly, using anger as a mediating variable, Maschi et al. (2008) find that negative affect (anger) mediated the link between trauma and offending. Anger is also found to mediate the link between prior victimization and later offending net other controls (Hay and Evans, 2006). In line with this scientific evidence, Herman (1992: 104) states that, "feelings of rage and murderous revenge fantasies are normal responses to abusive treatment." This statement is illustrative of the influence of negative emotions in the cycle of violence. Negative emotions, such as depression and anger, may be powerful concepts in linking traumatic events and abuse to offending. The current literature on strain and offending/victimization provides impressive support for the reciprocity of violence implicit in the victim-offender overlap.

While Agnew's (1992; 2002) strain theory is perhaps the most widely used theory to explain victimization's impact on later offending, Felson (1992) offers a similar theory that attempts to explain the situational and interactional exchange between victim and offender. Felson's social interactionist theory (SI) states that interplay between the victim and offender is responsible for the escalation of violent behavior. Some individuals experience stress due to everyday experiences which lead them to violate norms and social rules that range from being mildly rude to being physically aggressive. Aggressive behavior is a mechanism for controlling the behavior of others in order to cope with stress or achieve "justice." Important to SI is the reciprocal relationship between the original aggressor and subsequent aggressor. As one person acts aggressively toward another person, this person experiences distress and copes by becoming aggressive toward the original culprit. This situation of escalation and retaliation is what produces violent encounters and perpetuates successive violent encounters.

SI has not been widely tested or utilized in studies of offending and victimization. The studies that do incorporate SI show some support for its major tenets. Schreck et al. (2007) used SI as a theoretical foundation for investigating the link between early puberty and victimization. Their results indicated that early puberty introduced distress into the lives of girls and boys who developed earlier than their classmates. In fact, distress fully mediated the relationship between early puberty and victimization in females and partially mediated the effect of early puberty on victimization for males. First, this suggests that SI offers a useful tool in understanding the link between distress and victimization. Second, SI may be able to account for differences between gender in outcomes by explicating the emotional response to distress for boys and girls.

Theories of victimization are often compatible or complimentary and do not necessarily have to compete with one another. For example, Silver et al. (2011) use a framework that builds

upon Felson's (1992) social interactionist theory of violence and Agnew's (1992) general strain theory to explain why there is increased risk of violence toward individuals with mental health issues and why these individuals are often violent toward others. Silver and colleagues suggest that sufferers of mental disorders introduce noxious stimuli by acting erratically or disrespectfully toward caregivers which necessitates the need to exercise social control over the disruptive individual. For example, persons with disorders often lack communication skills and other traits such as empathy to understand and share in others' emotions. This generally leads to erratic and antisocial behavior which must be controlled by others (see Mawson et al., 1985 for an illustrative case study on the behavior of an individual with Asperger's Syndrome). Complicating interactions between a caregiver and a person with mental illness is that mental health sufferers report that they often feel threatened by their caregivers and act violently as a mechanism of self-protection (see Silver, 2002). To be sure, the overlap of offending and victimization experienced by individuals who suffer from mental health disorders is complex and marked by reciprocal or mutual violence.

Research outside of the strain tradition also supports a victim-offender overlap using slightly different theoretical framework. Apel and Burrows (2011) argue that offending is a form of self-help – that is – a coping mechanism for emotions as a result of prior victimization. Joining gangs, carrying weapons, and acting aggressively is one way to "protect" oneself from future victimization. Despite the perception that gangs and acting violently may protect against victimization – research indicates otherwise (see Melde et al., 2009). In fact, Katz et al. (2011) find that victimization increases as involvement within the gang increases. In their study, central members were more likely to be victimized than gang associates while non-gang members had the lowest likelihood of victimization. Although youth often join gangs for protection, and even

report feeling safer in gangs, there is little evidence that gang members experience less victimization (Melde et al., 2009; Thornberry et al., 2003). This calls into question the protective function of delinquent groups.

The cycle of violence and the violence begets violence theses suggest that those who are victimized are at increased risk of acting violently later in life. Similarly, those who act violently increase their chances of being victimized by someone else either by retaliation or by creating grievances in others that are coped with through aggression. The first section of this literature review showed that offenders and victims share similar characteristics and lifestyles. This section suggested that one of the things that these individuals may share is their experiences with violence as both offenders and victims. In a sense, this implies that there is a causal relationship between prior victimization and later offending, and vice-versa. Some suggest that this 'dynamic causal' relationship is less important than time-stable characteristics, or individual heterogeneity, in the link between offending and victimization (see Ousey et al., 2011; Wittebrood and Nieuwbeerta, 2000). The analyses conducted in this dissertation are unable to account for the independent effects of dynamic causal factors and individual heterogeneity given the cross-sectional nature of the data. However, the main question investigated here is not the independent contributions of these two perspectives but rather if offending and victimization overlap generally. To be sure, both perspectives lead to similar conclusions: those who offend are more likely to experience victimization, and vice-versa, whether or not this relationship is due to dynamic causal events or individual-level heterogeneity.

The second research question addressed in this dissertation is whether the correlation between offending and victimization is consistent across social contexts. Additionally, whether this relationship holds after controlling for background factors is tested. The literature covered

here supports an offender-victim overlap and it is expected that this overlap is consistent across cultures. However, the strength of this overlap may be somewhat variable. Specific expectations are addressed at the end of chapter four.

Explaining Offending and Victimization

Work by Mendelsohn and von Hentig was descriptive and not informed by any explicit victimization theory. Given the contemporary support for a victim-offender overlap, researchers have become interested in theorizing about *why* victims and offenders are often the same people as opposed to wondering *if* they are they the same people. Gottfredson (1981) points out that victimization is not a random event and therefore, is not evenly distributed in the population (see also Sparks, 1982). Instead, characteristics of individuals are related to their risk of victimization. Because victimization and offending are not random, it is possible to develop theories that can explain the occurrence and clustering of each phenomenon. Further, if the two overlap, then it may be possible to explain offending and victimization using similar theoretical framework.

In fact, many efforts have extended theories of offending to account for victimization with empirical success. For example, self-control theory was originally developed to provide a general theory of offending (Gottfredson and Hirsch, 1990). However, extensions of the theory to account for victimization have shown promise (Schreck, 1999; Schreck et al., 2002; 2006; Stewart et al., 2004). Therefore, it is necessary to review such extensions of original criminological and victimological theories to explain both phenomena, if, in fact, victimization and offending are related to one another.

Theories often focus either on situational factors (such as activities and lifestyles) or individual characteristics of victims and offenders themselves (such as level of self-control, stressful events, and psychological disorders). These foci are called state-dependent theories and

individual heterogeneity theories, respectively. State dependence takes as important the impact of prior events on current behavior. For example, prior victimization may be important in explaining offending because the victimization experience caused the individual to become angry and cope with this negative emotion by victimizing others. Individual heterogeneity perspectives state that people themselves are different and thus it is their own predispositions, not prior events, which influence outcomes (Nagin and Paternoster, 2000). Self-control theory is an example of the individual heterogeneity perceptive and states that people differ in their levels of self-control and prior events do not matter to the extent that they don't impact levels of self-control. Research has emphasized the importance of combining these two perspectives as it is likely that they are interactional and that micro-, meso-, and macro-level variables influence offending and victimization (Miethe and Meier, 1994).

Some of the first empirical efforts to explain the relationship between offenders and victims came from macro-level theories; in particular, subcultural theories. During his research on homicide, Wolfgang (1957) found an overlap between homicide victims and their murderers. The murderers in his sample often reported being victimized in the past. Also, the victims who were killed were found to have had prior contacts with the police for criminal behavior antecedent to their murder. He was led to describe this as the "victim-offender relationship" (p. 1). Singer (1981) expanded this discussion by arguing that part of the overlap exists due to the fact that youth are in their peak offending years during adolescence, and youth are more likely to associate with one another during these years as well. Therefore, it is logical that, based on interaction during these years alone, youth will end up victimizing one another in reciprocal fashion. However, he also suggested that there is evidence that victims and offenders share similar characteristics other than age such as race, school-dropout rate, employment status,

relationship status, and offending history (see also Singer, 1986). Furthermore, individuals within a subculture of violence espouse retaliatory behavior and share in a normative belief that violence is an appropriate response to being victimized. This leads to alternating roles between aggressor and defender.

The subcultural perspective views offending and victimization as part of the larger concept of a subculture of violence. Elijah Anderson, in his influential 1999 book *Code of the Street*, describes a cycle of violence in the inner-city where youth subscribe to certain levels of violence to obtain respect and status from their peers. Central to what he calls "campaigning for respect" is the need to retaliate when disrespected or victimized in order to uphold status and maintain social order (p. 68-69). The problem with this strategy to attain or maintain respect is readily apparent, if victimizing someone increases respect on the street, and victimization is to be met with revenge, then the campaign for respect will perpetuate the endless need to victimize one another.

Interestingly, despite the perpetuation inherent in Anderson's (1999) portrayal of acting tough and campaigning for respect, he concluded that adopting a street code would ultimately increase one's safety. However, he provided little empirical evidence to support this view. Stewart et al. (2006) tested whether the adoption of a street code protects against violent victimization. They found convincing evidence that adopting a street code actually increased victimization even when controlling for neighborhood disorganization (see also Brezina et al., 2004). This runs contrary to Anderson's claim that street codes are a protective factor for individuals living in disorganized communities. Harding (2010) illuminated the issues faced by youth living in inner-city communities and added some richness to the quantitative data provided by others. Similar to Stewart and colleagues, Harding collected substantive data that illustrated

that life on the street is characterized by offending and victimization. Using the terminology of his participants, Harding refers to such violence as "drama." Drama exists in the poor communities as conflicted relationships between individuals. Drama is often created when youth victimize others in order to gain respect, protect their image of toughness, and defend their territory.

Harding (2010) argues that disadvantaged neighborhoods are more likely to experience an overlap of offending and victimization. Through qualitative interviews, he found that individuals in disadvantaged communities are expected, and even encouraged, to victimize others to gain respect, enter into physical confrontation if neighborhood peers are involved in conflicts, and respond to any personal victimization with retaliation. Males interviewed in low poverty areas did not experience such encouragement to act violently. Recent quantitative analysis supports Harding's finding that context matters. Berg and Loeber (2011) and Berg et al. (2012) find that offending increases victimization in disadvantaged communities but has no effect in low poverty areas. These authors theorize that the culture of disadvantaged areas is substantively different from non-disadvantaged areas. That is, in disadvantaged communities youth are expected to retaliate for being victimized while their counterparts in non-poverty areas have few problems avoiding trouble by either ignoring conflicts or dealing with them through non-violent means.

Not all scholars hypothesize, or even find, that the overlap is more pronounced in disadvantaged neighborhoods. On the contrary, Zhang et al. (2001) hypothesize that deviant lifestyles – including crime – will lead to victimization only in low-crime neighborhoods. They believe that offending will be fully mediated in high-crime neighborhood by other variables such as proximity to crime and social disorder which will account for the majority of victimization. In

low-crime neighborhoods, deviant lifestyles will account for much of the association with victimization because there are few other factors to link to victimization. The results indicate that while they did find support for the hypothesis that deviant lifestyles lead to victimization to a greater extent in low-crime neighborhoods, the coefficient did not reach statistical significance.

Several other researchers have argued that toughness and retaliation are valued on the street. Almost half a century ago, Miller (1958: 9) suggested that toughness is one of the main tenets of street culture. Toughness, he says, is "the model for the 'tough-guy'- hard, fearless, undemonstrative, skilled in physical combat..." Evidence of a desire for toughness on the street is supported by the qualitative research of Tyler and Johnson (2004) who interviewed 40 homeless males and females and found that the majority of them reported being both offenders and victims. To a large extent, this overlap was due to a cycle of retaliation for past victimization experiences. Like Miller's toughness, these authors found that "invincibility" – the need to appear tough and not someone to be messed with – is a key characteristic that homeless youth believe they must acquire if they are to survive the perils of the street. The belief that one is invincible allows a person to place him or herself in situations that are risky with little fear of physical harm.

Retaliation, particularly among males, is not only seen in urban areas and it is not only a contemporary phenomenon. In fact, Boehm (2011) suggests that retaliation is prevalent throughout human prehistory among our closest ancestors; the apes. In systems where there exists a hierarchy of dominance, retaliation and "settling the score" is always one option for individuals who are victimized – thus, making individuals vulnerable to re-victimization. Anthropologist Jared Diamond (2008) argues that vengeance is innate in human nature and "among the strongest human emotions" (quoted in Karstedt et al., 2011: 5). Diamond uses the

clans of the New Guinea Highlands to illustrate vengeance through revenge killings. Clans who have members killed by rival clans will pursue those responsible for the murder and seek justice through vengeance (i.e., murder). The jury is still out on whether humans are naturally peaceful and cooperative or whether they are violent and selfish. The best evidence appears to suggest that we are a little bit of both. Criminology is uniquely positioned to address part of this issue by paying careful attention to the similarities and differences inherent in the victim-offender overlap and the cycle of violence.

Subcultural theories are useful in understanding offending and victimization; however, original subculture of violence theories are explanations of violent offending only. Two theories of victimization in the late 1970s followed traditional subcultural theories and provided the foundation for victimological research for decades to come. Lifestyle-exposure theory (Hindelang et al., 1978) and routine activity theory (Cohen and Felson, 1979) are the most prominent theories that attempt to explain victimization and are generally specified as important variables in research studies. Lifestyle-exposure and routine activity theories explain a person's exposure to violence by way of their vocational and leisure activities. The more time one spends away from prosocial activities and commitments choosing, rather, to adopt a risky lifestyle (particularly in the company of delinquent peers in unsupervised areas) the more likely this person will put him or herself at risk of becoming the victim of crime.

Routine activity theory suggests that three requirements are needed for victimization to occur. These include the bringing together of: (1) a motivated offender and (2) a suitable target (victim) in the same place at the same time without (3) adequate guardianship (Cohen and Felson, 1979). The more "attractive" the target and the less guardianship present, the more likely a crime will occur. Essentially, these perspectives argue that victimization is increased when

targets (individuals and possessions) are brought into contact with likely offenders. Risky lifestyles such as hanging around delinquent peers, associating in unsupervised areas, and abusing drugs and alcohol expose targets to victimization.

Research on lifestyles supports the notion that the activities that a person engages in are related to their victimization experiences. In one of the landmark studies on lifestyles and victimization, Jenson and Brownfield (1986) found support for many of the claims of lifestyles theory. First, activities that they label as "fun" such as going out in the evening, frequenting bars, and cruising around in cars were all related to increased risk of victimization. Involvement in delinquent activity increased victimization risk so that "the greater the involvement in criminal activity, the greater the victimization" (pp. 93). Another essential finding of this study was that lifestyles mediated the relationship between gender and crime. The gender gap in victimization was substantially reduced when the authors included measures of risky lifestyles. That is, most of the variation in violence that men experienced was due to their lifestyle choices and the difference in levels of victimization between males and females was mainly the result of risky lifestyles. Similar research by Bjarnason et al. (1999) supported this finding using a sample of youth from Iceland. They found that, while males experienced more violence when compared to females (as both offenders and victims), females who engaged in risky lifestyles reported similar experiences to those of men with risky lifestyles.

Several studies make the link between deviant lifestyles and victimization. Recognizing that lifestyles may change and that other individual-level factors may also impact victimization, researchers have modeled the effects of routine activities over time and controlled for the effects of individual factors such as self-control. Wittebrood and Nieuwbeerta (2000) investigated the effect of prior victimization on future victimization – state dependency – while controlling for

lifestyles – individual heterogeneity – in a sample of youth from the Netherlands. They found that while some of the explanation of future victimization is due to state dependency, the majority of variation in future victimization is due to individual heterogeneity. That is, most re-victimization is due to the lifestyle of the particular individual in the sample. This is consistent with other research on routine activities which suggests that most individuals who experience victimization are unable to simply modify their lifestyles in response to certain events such as victimization. Those who are most likely to be victimized are also those who are most disadvantaged and their lifestyles are largely determined by social structure. Therefore, routine activities are related to social obligations such as a job or school (Averdijk, 2010). For example, if a person relies on public transportation to get to and from a job late at night and cannot afford a car, this routine is not likely to change regardless of any victimization the person might experience on the way to or from work (see also Ousey et al., 2011).

Miethe and Meier (1994) saw that macro-level and micro-level theories offered important independent contributions to the overall study of victimization and proposed that they be integrated for a more holistic perspective of the violent encounter. Their model of victimization incorporates several contextual factors (e.g., residential mobility, ethnic heterogeneity), situational factors (e.g., lack of guardianship, exposure to crime), and individual-level (lifestyle) factors (e.g., nights out, dangerous activities) that increase criminal motivation. The multivariate, multilevel framework provided by Miethe and Meier goes a long way toward improving our understanding of victimization rates and individual victimization risk by including both structural and individual-level factors into a single theoretical model. Despite their recommendation to integrate levels of explanation, few studies integrate levels of analysis or

attempt to contextualize the results of individual-level analysis (although see Berg and Loeber, 2011; Sampson and Wooldridge, 1987; Schreck et al., 2002; Silver, 2000 for some exceptions).

While routine activity theory, lifestyle-exposure theory, and integrations of these theories provide a good framework for investigating victimization, they largely ignore other non-situational factors, that is, individual- and meso-level characteristics (e.g., self-control, social bonding) that may make a person vulnerable to victimization (see Schreck et al., 2002). This has led researchers to begin using models that incorporate both situational and non-situational variables in their analysis. Using a lifestyles and routine activity framework, Schreck and Fisher (2004) found that family bonds and peer contexts were important in predicting victimization through their influence on routine activities. Youths whose homes were characterized by warmth and acceptance were insulated against violent victimization whereas youths from homes characterized by emotional isolation were more vulnerable to violent victimization. Similarly, associating with delinquent peers is risky as it invites retaliation and exposes the individual to motivated offenders. These researchers interpret their finding as an indication that strong family bonds influence a person's routine activities and lifestyles so that they are less willing or able to put themselves into risky situations.

Recently, individual-level theories of crime and victimization have become increasingly popular and subject to empirical investigation. Schreck (1999) extended low self-control theory, one of the most empirically supported predictors of crime (Pratt and Cullen, 2000), to explain victimization. He concluded that low self-control makes individuals more vulnerable to victimization. Controlling for other variables, self-control remained a direct and significant predictor of victimization. Interestingly, self-control accounted for a portion of the gap between male and female victimization. Self-control remains a robust explanatory variable for

victimization in other research (Schreck et al., 2002) and has also been implicated as a conditioning variable in the path to delinquency (Hay and Evans, 2006). Piquero et al. (2005) found support for self-control in violent offending as well as fatal victimization. Self-control theory found partial support in a prison context, accounting for prison infractions and victimization. Impulsivity, one dimension of self-control, has even been used to explain victimization in the form of online victimization whereby impulsive shoppers fail to put into place the proper safeguards when buying online (Reisig et al., 2009). This evidence indicates the importance of individual-level (non-situational) factors in the explanation of both offending and victimization.

Self-control has not been the only criminological theory to be extended to explain victimization. Piquero and Hickman (2003) use Charles Tittle's (1995) control-balance theory to explain victimization. Originally, the theory suggests that offending is a mechanism to establish balance between control deficits and surpluses. Those who feel that they have little control (i.e., power, status, prestige) are likely to use violence to gain control. Individuals who have control surpluses may offend because they feel they have impunity against the law or retaliation. Acknowledging the victim-offender overlap, Piquero and Hickman argue that the same reasons a person may offend to gain control may expose them to victimization. They find that this hypothesis is supported by their data, both control surpluses and control deficits are significantly related to victimization. Although the authors cannot explain exactly why such deficits lead to victimization they speculate that those with control deficits may be vulnerable to crime and easy to take advantage of while those with control surpluses seek out exciting or risky activities that place them at risk of victimization.

Individual-level characteristics and lifestyles should not be viewed in isolation. Schreck et al. (2006) show that individuals with low self-control are unlikely to change their lifestyles regardless of their victimization experiences. Research on routine activities should incorporate measures at the individual-level to better understand what type of person may or may not change their lifestyle after victimization. This integration of levels strengthens the explanatory power of frameworks accounting for a victim-offender overlap. If victims, particularly those with low self-control, are likely to continue their risky lifestyles they are also more likely to continue to associate with delinquent peers in unsupervised areas that are conducive to participation in delinquent activity.

From a social control perspective, family and other types of social bonds are implicated as insulators from crime and, recently, victimization. Originally, Hirschi (1969) proposed a theory of crime that posited that social bonds between individuals and society restrained people from engaging in crime. Control theory has received much empirical support as a theory of offending (Junger-Tas et al., 2010). Theorists have also considered social bonding in the link to victimization. Esbensen et al. (1999) found that several family context variables such as lack of family involvement, parental monitoring, and attachment to parents were predicative of victimization. Schreck and Fisher (2004) similarly found that family climate insulated individuals from victimization. Social bonding, particularly to family, may be an important protective factor for both violent offending and victimization.

Life-course or longitudinal research allows for a unique perspective on the victim-offender overlap by providing a picture of violence over time. Finkelhor (1995) is one of several advocates for this perspective on offending and victimization. He suggests that victimization varies over the life-course and cross-sectional studies often miss the dynamic nature of violence.

For example, while the most common victim is a young, black, male who is involved with crime and delinquency, the victimization of the physically weak is prevalent as well but mostly among children and the elderly. Thus, the nature of victimization may change over time and research must identify these characteristics using data collected longitudinally (see also Finkelhor and Kendall-Tackett, 1997).

Life-course research sheds light on the impact of bonds on offending and victimization over time. Daigle et al. (2008) used a longitudinal sample of individuals revealing that some social bonds are related to desistance from offending and victimization. Employment status (i.e., having a job) was related to increased victimization contrary to social bonding theory but in-line with lifestyles/routine activity theory which predicts that time away from the home is positively related to victimization. Marriage, a predictor of desistence from offending (Sampson and Laub, 1993), was also found to be a predictor of desistence from victimization. This research supports the importance of studying changes in bonds over time to account for increases and decreases in individual victimization.

Longitudinal research reveals interesting relationships between desistence and persistence in offending and victimization. Farrall and Calverley (2006) find a relationship between offenders and victims (that offenders have higher victimization rates than those in the general population) but also find that desisting from offending doesn't necessarily mean "desisting" from victimization. In their sample, offenders who stopped committing crime did not experience a drop in victimization leading the authors to claim that "once an offender, always a victim" (pp. 158). One reason may be that crime desisters were still involved in lifestyles that promoted victimization such as drinking in pubs and associating with offenders. Farrall and Calverley suggest that offending and victimization both cut off an individual from prosocial opportunities

and that individuals involved in violence are often "socially caged" in areas with high rates of violence which are hard to escape.

Unconventional "family" bonds may also serve as a protective factor for youth at elevated risk of victimization. Homeless youth are one group at elevated risk of victimization given their social context (Hiday et al., 1999). McCarthy et al. (2002) conducted a study of homeless youth and found that those who developed strong bonds with other homeless individuals (called "street families") accumulated important social capital such as trust and physical protection which insulated them from violence. An excerpt from an interview with a homeless youth illustrates this street family bond:

> Interviewer: You mentioned a street family. What is a street family?
>
> Youth: Um, well, it's a bunch of friends that stick together. Like, they watch each other's back for you.
>
> Interviewer: Why is it important to be part of a street family?
>
> Youth: You wouldn't get beat up for being on the street.
>
> (McCarthy et al., 2002: 849)

Viewed along with the interviews presented by Tyler and Johnson (2004), the bonds between youth on the street can work as a protective factor against victimization (and here an example of theft victimization), as suggested in the excerpt above, or push youth toward crime as the following quote suggests:

> "Well, one time me and my friend gave this dude a half-ounce it was like $140 [and] he decided not to pay. So we [later went to this man's apartment and] broke the window and got his TV [and] sold his TV for $140."
>
> (Tyler and Johnson, 2004: 438)

These qualitative interviews illuminate the statistics produced by quantitative analysis on offending and victimization. Homeless youth, just as youth living in homes, experience a wide variety of violent experiences where they are both offenders and victims. It is also illustrative of the overlap between property and violent crime as many offenders steal goods to support a drug addiction or criminal lifestyle.

Control theory argues that bonds and self-control are important mediating mechanisms in the link between offending and victimization. For example, Hirschi (1995) claims that the link between parental abuse/neglect and subsequent delinquency is mediated by social bonds. That is, abuse and neglect by parents dissolves important bonds between the parent and child and it is the depletion of these relationships that leads to delinquency. Gottfredson and Hirschi (1990) similarly argue that poor parenting fails to instill self-control in the child and it is this lack of self-control, and not the abuse itself, which is related to delinquency. Although there is some theoretical support for these arguments, the evidence for the mediation of social bonds in the link between parental abuse and offending is equivocal (see Rebellon and Van Gundy, 2005).

Recently, biosocial explanations for delinquent behavior and vulnerability to violence have been proffered by researchers. Early puberty has been implicated in the link between offending and victimization. Moffitt's (1993) theory of adolescent-limited and life-course-persistent offending argues that early puberty creates a maturity gap that is filled by engaging in adult-like behaviors including drug use, property offending, and violence. Moffitt also suggests that early maturity has social costs. For example, prosocial youth tend to avoid individuals who display aggressive or delinquent behavior leaving these youth to associate with other delinquents. The life-course-persistent offender is disadvantaged by early maturity by affecting social relations across early adulthood.

Researchers have implicated early maturity as a mechanism to explain victimization as well. Using longitudinal data, Haynie and Piquero (2006) found that early puberty is associated with victimization for boys and girls. They also found that there are both direct and indirect effects of early puberty on victimization that vary by gender. Results showed that early puberty interacted with peer networks in the case of boys but not girls. Boys who had more female friends were less likely to be victimized. Peer networks did not mediate any effect for girls. The authors believe that a biosocial interaction may be prevalent in boys because they are more likely to associate with delinquent peers than females and that "there is something unique about early maturity … that opens opportunities for victimization experiences" (pp. 25).

A proliferating biosocial literature indicates that genetic explanations for violent behavior are similar to those for victimization. For example, the dopamine receptor D2 protein (DRD2) has been found to be associated with offending (DeLisi et al., 2009) and victimization (Beaver et al., 2007; 2009; 2011). DeLisi and colleagues (2009) found that the DRD2 gene interacts with having a criminal father using a sample of African American females from the National Longitudinal Study of Adolescent Health (Add Health). Interestingly, alone, neither factor predicted delinquency but having both the DRD2 polymorphism as well as a criminal father significantly predicted current and future delinquency.

Research on the DRD2 polymorphism also finds a link to victimization. Beaver et al. (2007) found that the DRD2 gene interacted with delinquent peers to heighten the risk of victimization. This interaction was only found in low-risk environments (i.e., in individuals who did not associate with delinquent peers) and not among high-risk environments suggesting that genes may be "overshadowed" by environmental factors (p. 635). In another study using data from Add Health, Beaver et al. (2011) found that DRD2 decreased resiliency to victimization

and increased victimization experiences. They also found that another gene, 5-HTTLPR, was associated with increased resiliency in the short- and long-term.

Another polymorphism, the monoamine oxidase A (MAOA) enzyme, has been shown to be a protective factor against delinquency. Caspi et al. (2002) investigated the "violence begets violence" concept by studying a group of males from birth to adulthood. The authors did find evidence that maltreatment in childhood increased the chances of violence in adulthood but that this relationship was mediated by levels of MAOA. Maltreated children who had high levels of the MAOA enzyme were less likely than those who had low levels of the enzyme to grow up and abuse others. This implies that genes may be an important, yet largely overlooked, factor for understanding the victim-offender overlap. To be sure, genetic research shows much promise in explaining both offending and victimization and thus far has supported the notion that offending and victimization share common sources.

Role Differentiation

So far, the literature reviewed in this chapter supports a strong empirical link between offending and victimization which is often explained using similar theories. However, not all offenders are victims and vice-versa. As important as it is to understand why there is an overlap between offenders and victims, it is also important to understand what variables may uniquely predict one over the other. In other words, what influences an individual to be an offender but not a victim and what makes someone vulnerable to victimization yet not influenced toward offending. This is also known as role differentiation (Schreck et al., 2008). This view suggests that people can gravitate toward being a victim or offender depending on their characteristics.

Research shows that some characteristics or lifestyles of an individual differentiate them into either victims or offenders. For instance, although the victim-offender overlap exists –

perhaps is even strongest – in violent crime, Broidy et al. (2006) find that age plays a significant role in differentiation among homicide offenders and victims. Older individuals are more likely to be victims and younger individuals are more likely to be perpetrators of lethal violence. Age is found to differentiate victims and offenders in a similar way by Schreck et al. (2008); older individuals are more likely to be victims than offenders. They also find that drinking behavior is more closely associated with offenders than victims.

The importance of decomposing offending and victimization groups is evident in recent typological analyses. Cuevas et al. (2007) show that considering groups of individuals who are offenders-only and victims-only apart from those who experience both offending and victimization is important. Individuals who experience violence as both offenders and victims tend to exhibit increased levels of psychological distress and mental health symptoms when compared to groups of individuals who only experience one or the other forms of violence. Furthermore, offender-only and victim-only groups indicate higher levels of distress and mental health symptoms when compared to non-offenders/non-victims.

To date, research has told us a lot about possible explanations of offending and victimization and has uncovered support for the explanatory power of theories to predict both offending and victimization. Further, innovative methods have allowed a more in-depth consideration of role differentiation. However, most of this work has been done in the US or with samples of individuals that are culturally homogeneous. Research has yet to put generality claims to test using samples from several different cultural contexts – thus leaving essential theoretical issues unexplored. The third research question addressed in this dissertation is related to the extent to which theories are capable of accounting for both offending and victimization. It is likely that, given past research, theoretical mechanisms, such as strain, peer delinquency, self-

control, and family bonding, will be related to offending and victimization in similar ways regardless of culture. There is also reason to believe, given the difference in cultural practices and values, that even though explanations of offending and victimization are generally similar cross-culturally, that specific differences might also be identified. These variations are hypothesized in chapter 4 in greater detail.

Overall, the literature reviewed in this chapter provides strong empirical support for the overlap between victims and offenders. First, they often share similar individual-level characteristics such as low levels of self-control as well as similar lifestyles such as hanging out in unsupervised areas. Second, offenders and victims tend to share in violent experiences as both victims and offenders. That is, individuals who are offenders tend to also experience victimization. Likewise, individuals who have been abused, assaulted, robbed, and offended against in other ways are more likely to have been involved with offending themselves. Third, theories of crime and victimization can often be substituted for one another given this strong overlap. Last, theories of crime and victimization have been shown to be useful in identifying when and to whom the overlap does not apply. In other words, these theories are also capable of identifying role differentiation of offenders and victims. This dissertation provides a more in-depth consideration of this overlap than previous studies by placing the results of analyses into comparative context. To do so, this dissertation will next review comparative criminological research on delinquency and victimization.

CHAPTER 3: COMPARATIVE CRIMINOLOGY LITERATURE REVIEW

The benefits of a comparative perspective have been long known to researchers. Perhaps sociology's most influential academic, Emile Durkheim, conducted one of the most well-known and earliest comparative research studies in his work *Suicide*. Durkheim (1951, [1897]) endeavored to show that rates of suicide were related to the macro-level social environments specific to the countries in his study. His claim was that suicide could be understood through a sociological perspective as opposed to a psychological (i.e., individual) perspective. To accomplish this goal, Durkheim used data from several European countries to study social contributors – "social facts" as they were to be known – to suicide. His contention was that only through a comparative lens can social facts – such as suicide – be fully understood because they are influenced by society. He encouraged researchers to think independently and not rely on common knowledge but to develop scientific facts (see Travers, 2008). Another social fact – the victim-offender overlap – should be examined comparatively, across several disparate contexts, if we are to fully understand the relationship between offending and victimization.[1]

There are several benefits to studying a phenomenon comparatively. Three of these benefits are outlined by Hartjen (2008: xiii) and include: (1) providing a global portrait of misbehavior and how societies respond to misbehavior, (2) advancing criminal knowledge by increasing the database and testing theories, and (3) casting light on international problems and providing knowledge on how to address those problems (see also Stamatel, 2009). Central to this dissertation, a comparative approach to studying the victim-offender overlap can provide additional evidence on: (1) the generality of the overlap (i.e., does it exists in all contexts under investigation), (2) the explanatory power of theories to account for both offending and

[1] As Howard et al. (2000) note, others such as Beccaria, Bentham, Voltaire, Helvetius, and Quetelet all used a comparative method of one form or another in their pioneering research

victimization in several disparate cultural contexts, and (3) the contextual factors that may help to specify the victim-offender overlap and aid in the response to the problems of violence. Much of what we currently know about the relationship between offending and victimization is confined to one country and although research has been conducted in countries other than the US (see Pauwels and Svensson, 2011; Regoeczi, 2000) and with ethnicities other than Caucasian (see Jennings et al., 2011; Maldonado-Molina et al., 2010) few studies have attempted to use multiple social contexts within the same study. Given the overwhelming support that the victim-offender overlap has received, it is time to put to test the generality of this finding by using international data from several similar and different social contexts.

Before discussing the theoretical approach utilized by the current study, it is necessary to review the comparative criminological research which has been conducted in recent years and relate this body of knowledge to the current study in order to identify where it fits into the literature and how it can advance our knowledge of the victim-offender overlap. The following literature review, while admittedly limited, draws upon the research covered by Hartjen (2008: chpt. 2) and Stamatel (2009) but is not limited to those studies.

Routine and Lifestyle Theories

Routine activity and other opportunity theories have been tested cross-nationally. Bjarnason et al. (1999) tested lifestyles theory using a sample from Iceland. Their results echoed those found in the US (for example Jensen and Brownfield, 1986). In their study, violent lifestyles were found to be the best predictors of violent victimization. Including lifestyles into statistical models also closed the victimization gap between males and females suggesting that lifestyle theory is capable of explaining the greater amount of victimization experienced by males.

Another study, conducted by Bennett (1991), used a sample of 52 countries over a period of 25 years and found strong support for routine activity theory in the explanation of victimization. Expectedly, more support for the theory was found for property crimes than violent crimes. Interestingly, different social structures (e.g., industrialization) moderated the effects of routine activity on property victimization suggesting the importance of cross-national samples in theory testing.

Despite research which suggests that routine activity theory is more suitable to explain property crime, support for the theory has been garnered for explaining violent crime as well. Using a sample from Canada, Kennedy and Forde (1990) found that routine activity theory did explain violent crime. Their results indicated that the activities of individuals, particularly young males, are important in predicting violence. Those who spent more time walking around and visiting bars were more likely to be victimized due to their exposure to potentially violent situations.

Learning Theories

Learning theories have also been subjected to cross-national tests. The main question international research seeks to answer about social learning theory is whether or not peers are as influential in criminal behavior or exposure to victimization in one culture as they are in another. The extant literature reveals that peers influence delinquency regardless of social context. For example, Hartjen and Priyadarsini (2003) applied social learning and social control models to explain delinquency in a sample of French youth. Measures of social learning were more reliable than social control measures suggesting that operationalization of the theory is consistent in other social contexts and social learning variables were significantly related to delinquency indicating validity in other social contexts.

Research on social learning theory in Japan supports the conclusion that delinquent peers influence antisocial behavior. Japan fosters a family-oriented culture which stresses the importance of family-bonding. Research finds that a weakening of this bond is associated with delinquency. For example, Fenwick (1983) concludes that the breakdown of the family bond in Japanese youth increases the likelihood that these youth associate with delinquent peers. This, in turn, increases delinquency among those individuals. Kobayashi et al. (1988) similarly finds that individuals associating with friends outside of school increases their likelihood of offending. Using samples of youth from India and the United States, Hartjen and Kethineni (1996) conclude that associating with delinquent peers is related to offending regardless of the country being examined.

Cross-national differences in social learning have also been uncovered. Researcher finds that socialization differs across countries which, subsequently, influences youth behavior. Arnett and Jensen (1994) use data from Denmark and the United States to compare socialization and risky behavior among a sample of youth. They find that American youth have fewer household rules and adults, beyond their immediate family, who assist in their socialization. Danish youth live in areas greater in community stabilization which is related to the development of positive individual characteristics such as self-control (see Sampson et al., 1999). American youth are more likely to be involved in minor criminal behavior such as shoplifting and vandalism than Danish youth. The authors suggest that the differences in risky behaviors of the two samples of youth are related to the individual's socialization. The comparative evidence on social learning theory provides partial support for its generalizability but also raises some questions about differential socialization between countries that may explain disparities in delinquency levels between cultures.

Strain and Anomie Theories

Strain and anomie theories have been tested in several different cultural contexts producing conflicting results. The reasons for testing anomie theories, such as Institutional Anomie Theory cross-nationally are fairly obvious. Mainly, this research tests the proposition that macro-level institutions and culture, such as capitalism, have an influence on criminal behavior. At the micro-level, General Strain Theory posits that objective and subjective strains drive a person to commit crime. This may be contingent on social context and what drives someone to act criminally in one cultural setting may not do so in another.

Institutional anomie theory (IAT) provides criminology with a relatively new theory within the anomie tradition that is particularly amenable to testing using international data. The main argument of IAT is that in countries where economic institutions dominate and overshadow other social institutions such as the family and school, there will be more crime (i.e., higher crime rates) (Messner and Rosenfeld, 2007). Messner and Rosenfeld (1997) tested IAT using homicide rates from 45 countries and a variable that represented decommodification (access to welfare benefits, income replacement value, and expansiveness of health coverage). The results of their analysis showed that decommodification was negatively related to homicide rates providing at least partial support for IAT. Other researchers who have tested IAT have come up with other results and at least one study claims that IAT is only applicable to advanced Western nations (Chamlin and Cochran, 2007). In either case, international studies have shed light on the importance of macro-level economies on crime.

General strain theory, a micro-level variant of anomie theory, has also been tested using data from countries other than the US. Baron (2004) used data from Vancouver, Canada to test whether or not strain is linked directly and indirectly to criminal behavior. Results from the study

indicated that strain has direct effects on criminal behavior as well as indirect effects through social learning (deviant peers) and social control (self-efficacy). Bao et al. (2004) used a non-Western sample of youth from the People's Republic of China to explore the mediation of anger in the link from strain to crime. Similar to results in the US (Mazerolle and Piquero, 1998), anger was shown to significantly mediate the relationship between strain and crime. The results of this study, and others from the US, provide evidence that strain is linked to delinquency and that strain often produces anger which mediates strain's relationship with crime.

Not all comparative studies support GST. Botchkovar et al. (2009) utilized data from Russia, Greece, and the Ukraine to test the relationship between subjective and objective strains and crime. Support for strain was only found in the Ukraine with little to no support in Russia or Greece. This study challenged the major propositions of general strain theory by suggesting that the impact of strain on crime may be contingent on contextual factors. Additional cross-national comparisons are necessary to confirm or disconfirm the positive relationship between strain and criminal behavior.

Control Theories

Social and self-control theories are among the most tested theories in the US and abroad (Junger-Tas et al., 2012). Self-control theory is also among the most supported theories of criminal behavior (Pratt and Cullen, 2000). Recently, cross-national data have been brought to bear on control theories. This research has tested major claims of the theories as well as the generality of their claims. This literature is generally supportive of social and self-control theories but comparative research has challenged some of the claims made by the theories.

Using a sample consisting of participants of four different ethnic backgrounds in the Netherlands, Junger and Marshall (1997) found that each component of social control theory

predicted delinquency and provided theoretical explanation for delinquent acts. In all four samples of youth, social control theory was substantially and significantly correlated with delinquent behavior and very few differences were found across ethnic backgrounds. However, the components taken together did not explain all the variation in delinquency and independent effects were found for components of learning theory as well (i.e., association with delinquent peers).

Collective efficacy, "defined as social cohesion among neighbors combined with their willingness to intervene on behalf of the common good" (Sampson et al., 1997: 918), has received attention in comparative criminology. Collective efficacy's ability to explain neighborhood variation in crime was tested using similar sampling procedures in the US and Stockholm, Sweden. Results from this analysis showed that collective efficacy was able to explain varying crime levels in both countries despite considerable cultural and environmental differences (Sampson, 2012). Mazerolle et al. (2010) compared results from their study in Brisbane, Australia to those from the US and Stockholm studies. They, too, found strong support for collective efficacies ability to explain neighborhood variation in crime.

Self-control theory is one of the most popular American theories of crime. Theorists Gottfredson and Hirschi (1990) presented the full framework for the theory in *A General Theory of Crime* which argued that low self-control was the cause of all delinquent behavior. One of the theory's main arguments is that low self-control is a general cause of crime found in all places at all times. They do not believe that macro-level structures directly impact criminal behavior and self-control should mediate any relationship between structure and criminal behavior. Comparative research has put this claim to test. Rebellon et al. (2008) used multi-level modeling to tease apart the contributions of social structure and self-control in explaining criminal

behavior in 32 countries. They found that self-control is internally consistent and reliable across countries and is positively related to criminal behavior. However, it did not fully mediate macro-level effects such as aggregate levels of parental neglect. Therefore, while self-control remained a general cause of crime it was not shown to be the *only* cause of crime.

Self-control theory also states that the mediating link between low self-control and crime is the inability to anticipate long-term outcomes. In other words, the concept of low-self-control states that people who lack self-control will act impulsively to address immediate concerns with little attention to the future costs of their actions (Gottfredson and Hirschi, 1990). Tittle and Botchkovar (2005) tested this conceptualization using data from Russia. They found support for the generality claims of self-control theory (i.e., self-control was negatively related to criminal behavior) but results did not support the claim that it is the inability to account for long-term consequences of behavior that links the concept of self-control with criminal behavior. This indicated that while the overarching conceptualization of self-control theory may not be culturally bound that perhaps certain components of the theory operate differently depending on social context. Similarly, Vazsonyi et al. (2001) found that different components of self-control explained different amounts of variation in offending using a sample consisting of participants from four different countries. Continued research using samples from several other countries is needed to understand the nuances and generality of self-control claims.

Results from the International Self-Report Delinquency Studies

Prior research using data from the first and second ISRD studies reveal a great deal about the extent to which theories predict behavior in different national contexts. While the first ISRD study did not include many variables that reflected criminological theories, it did include measures related to social control theory including attachment to parents and parental

supervision. Analyses showed that attachment to parents and parental supervision were correlated with several forms of delinquency such as property and violent crime as well as other deviance such as truancy and running away. Interestingly, high levels of supervision by fathers were a better protective factor against delinquency than supervision by mothers across nations (Junger-Tas et al., 2003).

The first ISRD study also included information on peer groups. Junger-Tas et al.'s (2003) analysis of the ISRD data revealed that respondents spend a good deal of time with their peers and that when that time is spent with a large group of peers, and when peer socializing takes precedent over time spend with family, delinquency was more likely. They also found that males spent more time with large groups of friends and were more likely to be delinquent than females. This finding was consistent across nations. These results support the idea that there are persistent gender gaps across nations in delinquency and that peer socializing holds some promise in explaining this gap.

Two books have been published presenting results from the ISRD-II. First, in *Juvenile Delinquency in Europe and Beyond: Results from the Second International Self-Report Delinquency Study*, several chapters present finding from different countries which support the generality of theories to explain behavior cross-nationally. Social disorganization, self-control, risky lifestyles, and delinquent peer association are related to delinquency regardless of the country under investigation. Also, analysis of the ISRD-II data showed that immigrants were more likely to be offenders in most countries (but certainly not in all countries or among all immigrant groups). Particularly relevant to this dissertation is the finding from several countries that those individuals who are involved with delinquency are also those who are most likely to be victimized (Junger-Tas et al., 2010).

The second publication, *The Many Faces of Youth Crime* (Junger-Tas et al., 2012), expands on the findings in the previously mentioned book with specific attention to the ability of theories to explain offending and victimization across national contexts. Similar to results in the first ISRD study, family bonding and parental control remain robust predictors of delinquent activity. Another control theory, self-control, was measured by items included in the ISRD-II study. Analysis showed that self-control predicts delinquency across national contexts and is also found to be related to weak bonds to the family. An interaction effect was present with opportunities to engage in crime but only in half of the country clusters indicating a need to test particular parts of theories cross-nationally. Attachment to school and school disorganization were found to predict delinquency among boys and girls. This held for both violent and property crime even after controlling for the effects of other individual-level characteristics and structural (e.g., employment rate) characteristics. Another social control theory, social disorganization, was measured by several items included in the study and found to positively predict delinquency increasing the odds of offending by approximately 32% (Junger-Tas et al., 2012).

Results related to lifestyles and associating with peers are in-line with the findings of the first study. Overall, youth spend a great deal of time associating with their peers. However, there are differences between clusters. For example, it is more common for youth to spend several nights a week out with friends in the Anglo-Saxon and Northern Europe clusters than in the Mediterranean cluster where it is more common for youth to spend time with family. Consistent across clusters is the finding that boys spend more time with peers than girls and that spending time with peers is related to an increase in the odds of offending (about a 20-50% increase in odds depending on context). Similarly, spending more time with family is associated with a decrease in the odds of offending (Junger-Tas et al., 2012).

In sum, as stated in the final chapter of *The Many Faces of Youth Crime* (Junger-Tas et al., 2012), previous analyses of the ISRD-II data set provide support for elements of self-control theory, social bonding theory, social disorganization theory as well as routine activities theory. These results apply to the entire sample - suggesting that these theories have general applicability- as well as for the individual clusters, albeit it with some variability and exceptions – suggesting the need to be sensitive to local specifications

Conclusion

This review of cross-national and comparative studies reveals several important elements in the study of violence. First, evidence suggests that theories of offending and victimization have achieved some success in understanding violence and theft across several social contexts. In other words, many criminological theories are general in their overall ability to explain crime and criminality. The major theories of victimization, lifestyles and routine activity theory, were shown to increase victimization in similar ways regardless of the national context (Bennett, 1991). Additionally, social control, social learning, and strain theories all provide adequate frameworks for explaining crime across national contexts (see Hartjen, 2008).

Second, despite the finding that theories do a fairly good job in explaining violence cross-nationally, research finds subtle differences between social contexts. While the major tenets of theories find support regardless of the sample under consideration, often supporting claims of generality, there are subtle differences found in the operationalization of these theories that are idiosyncratic to the particular social context. For example, Vazsonyi et al. (2001) found that separate components of self-control theory explain crime differently depending on national context and Botchkovar et al. (2009) found that GST only explained delinquency as expected in one country in their study but not the others. To date, little is known about these idiosyncrasies.

Third, the comparative literature on violence and property crime reveals that there is a dearth of cross-national research on explaining the victim-offender overlap, and victimization more broadly (see Jennings et al., 2012). The literature reviewed in chapter two suggests that there is substantial evidence of a victim-offender overlap and that theories of crime and victimization have the potential to explain each phenomenon. The literature reviewed here, in chapter three, suggests that the generality claims of many criminological theories tend to hold cross-nationally but that variation does exist in the operationalization of several components of these theories. It appears appropriate – and essential – to bring together these literatures to construct a framework for beginning to answer the remaining questions surrounding the generality of the victim-offender overlap. The next chapter, chapter four, develops the theoretical framework to be used in the dissertation by incorporating the insights from the extant literature on the victim-offender overlap and the cross-national research on criminological theory. This framework will inform the research questions and hypotheses presented at the end of the chapter.

CHAPTER 4: THEORETICAL FRAMEWORK

This dissertation uses a comparative perspective to examine offending and victimization. First, it is necessary to clarify why this approach is more appropriate than a single site study and second to address some of the major critiques/pitfalls of the comparative method. I begin this chapter by reviewing the theoretical advantages for using a comparative framework to test criminological theory and address some of the major concerns with this methodological approach. I then present the theoretical framework for the dissertation followed by the specific research hypotheses to be investigated in the analyses.

Comparative criminologist James Sheptycki (2005: 79) defines the project of comparative criminology as "[the] attempt to comprehend similarities and differences in patterns of crime in different cultures and contexts." In Sheptycki's view, comparative criminology would benefit from quantitative and qualitative approaches to the study of crime particularly by placing the results of quantitative analyses within their social, cultural, and historical contexts. This type of empirical endeavor – placing quantitative analysis within its cultural context – requires that the line between relativism and positivistic empiricism be crossed; at least in their purist forms. Pure relativism (or total relativism) states that all knowledge is based on the views of particular cultures, societies, or groups of like-minded individuals. Therefore, knowledge is completely variable. Empirical positivism attempts to uncover the truth, which is viewed as the one and only "true" truth. Here, knowledge is general and applicable everywhere at all times. The current research, following the recommendations of Sheptycki, does not view relativism and positivism as opposite ends of a spectrum but rather "two ways among many of looking at the practices of social science generally and criminology in particular" (p. 70). While this dissertation does not seek to identify variability in laws or social practices, it does seek to

understand similarities and differences in the overlap of offenders and victims in different cultural contexts. Thus, it will employ quantitative methods to identify similarities and differences by interpreting the results within their cultural contexts. One of the major advantages of the comparative method is that knowledge of the context will help with interpretation of the data (Christie, 1970). It is hypothesized that there will both generalities and differences across cultures in the victim-offender overlap that can be untangled by looking at several groups of countries simultaneously.

In this dissertation, analyses are conducted separate by country clusters. This will allow for comparison between groups of countries in understanding similarities and differences in the victim-offender overlap. However, this presents a major challenge. For instance, David Nelken (2000) sheds light on the controversy between those who believe that culture explains behavior and those who believe that it is the behavior of citizens that explain the culture. In this sense the dissertation is more exploratory than explanatory. Of importance to this study is that similarities and differences can be identified across cultures by empirical research and that the findings from such an effort can set the foundation for an in-depth investigation into culture and behavior in the future.

Another caution to comparative researchers is presented and discussed by Travers (2008). He argues that comparative research needs to strike a balance between the positivistic and the interpretist models of investigation (see also Nelken, 2002; Roberts, 2002). The positivist model seeks to obtain scientific facts from society which explain behavior. The advantage of this approach is that it relies on empirical facts as opposed to common sense or gut-feelings. The interpretist approach critiques this method claiming that the model of natural science is inappropriate for studying human behavior because it neglects the individual who has free-will

and conscience. The study conducted here relies on the positivist tradition in that it uses quantitative analyses to identify differences and commonalities in the victim-offender overlap across several national contexts.

The Current Clustering Approach

The basis of the clustering approach used in the current research barrows largely from the welfare state regimes (WSR) discussed in Esping-Andersen's (1990) *The Three Worlds of Welfare Capitalism*. As the title implies, Esping-Andersen developed three major welfare regimes, or Keynesian welfare states, using a broad conceptualization of how macro-level economic conditions influence the configuration of state welfare. A basic definition for welfare state is given by Esping-Andersen (1990: 18), "…[the] state responsibility for securing some basic modicum of welfare for its citizens." The welfare state does more than demarcate social policies such as handing out food to the poor or housing the homeless that existed long before the 19th century (Esping-Andersen, 1999). Rather "it is a unique historical construction, an explicit redefinition of what the state is all about" (p. 34). Essentially, it is the involvement of the state in providing benefits to its citizens such as healthcare, financial resources, and personal freedom.

The state influences the extent to which citizens rely on mechanisms of social support. Three major mechanisms exist in every society which assist individuals in meeting the basic needs of liberty, equality, and solidarity: (1) the market, (2) the state, and (3) the family/civil society. The market is the mechanism by which people provide labor and human resources in exchange for income and other benefits. The state receives fiscal and civil contributions from its citizens in exchange for basic social and political rights. The family and civil society is characterized by mutual obligation and voluntary acts of symbiotic exchange among family

members and citizens. While most societies collectively try to meet the rights of liberty, equality, and solidarity using each of these mechanisms of support, over-reliance on any one mechanism leads to an imbalance of rights. For example, a strong valuation of liberty includes freedom of the market. Unrestricted market regulation and a hands-off approach from the state promotes liberty but also leads to inequality as not everyone is able to contribute to the market. As researchers illustrate, there is no perfect society and societies vary in their values. This, in turn, reflects their welfare regimes (Esping-Andersen, 1990; 1999). A list of countries in his analysis is presented in Appendix A along with two modified approaches and the current classification.

Esping-Andersen (1990) identified three major welfare regimes in his analysis: (1) the social democratic regime, (2) the liberal regime, and (3) the conservative regime. The social democratic regime is marked by universalism and de-commodification with a strong reliance on state welfare. The state minimizes any inequality in the labor market by providing universal health care and benefits for the family (e.g., parental leave and worker benefits). Critiques of this regime suggest that the reliance on the state reduces individual liberty in the marketplace (Saint-Arnaud and Bernard, 2003). Countries originally included in Esping-Andersen's social democratic regime are the Scandinavian countries along with the Netherlands. He did not include Iceland in his analysis.

The second regime identified by Esping-Andersen (1990) is the liberal cluster. These countries are characterized by "moderate universalism" (p. 26). Benefits are aimed at those who are not able to contribute to the marketplace, but these benefits are often modest, unlike those in the social democratic cluster. First and foremost, the state encourages participation in the market economy and avoids benefits that may interfere with market functioning. Benefits are limited and recipients of these expenditures are often socially stigmatized (e.g., referred to as lazy). Freedom

is the most important ideal in the liberal regime often at the expense of social equality (Saint-Arnaud and Bernard, 2003). Esping-Andersen identified Australia, Canada, Japan, Switzerland, and the US as belonging to the liberal cluster. He mentions that Ireland may fit in this cluster but he is not clear as to whether or not it belongs in any of his three classifications.

The last regime identified by Esping-Andersen (1990) is the conservative cluster, also referred to as 'corporatist' countries. In the corporatist countries, there is a synergetic relationship between social institutions and the government. In other words, the government supports social institutions such as the family, church, and education to meet the needs of citizens instead of providing direct governmental benefits (Cavadino and Dignan, 2006; Lappi-Seppälä, 2007). This regime also stresses the importance of work. The state will give benefits during and after contributions to the workforce. However, not contributing to the workforce often means exclusion from social benefits. Those who are unable to work often rely exclusively on the family to meet their needs. This produces a society that is heavily reliant on the male-breadwinner for national solidarity. In turn, there is less equality and a rigid class-based social system (Saint-Arnaud and Bernard, 2003). Esping-Andersen places Austria, Belgium, France, Germany, and Italy into this cluster. The ISRD clustering framework places Italy into the Mediterranean cluster in-line with the work of Lappi-Seppälä (2007).

While Esping-Andersen (1990) developed these three major welfare regimes, others have added clusters for countries excluded from his analysis, and some slight modifications have been made by others (e.g., Lappi-Seppälä, 2007; Saint-Arnaud and Bernard, 2003); these have also received empirical support. Important for the current study, Bonoli (1997) added a Latin cluster made up of Southern European countries (here referred to as the Mediterranean cluster). This regime is very similar to the conservative regime but stresses the importance of family to an even

greater extent. There are modest social expenditures but the state largely promotes the reliance on family to meet individual needs.

Analyses of the ISRD-II data typically has employed six country clusters (see Marshall and Enzmann, 2012): the Anglo-Saxon cluster (comparable to the liberal cluster), the Northern European cluster (comparable to the social-democratic cluster), the Western European cluster (comparable to the conservative cluster), the Mediterranean cluster (comparable to Bonoli's Latin cluster), plus two additional country clusters, the Post-Socialist cluster and the Latin-American cluster. The first five clusters are based on an adaptation of Esping-Andersen by Lappi-Seppälä (2007), the Post-socialist cluster was created on basis of their shared recent historical experiences, as well as relative close geographical location. One existing study shows that the ISRD-II converges with other sources of data such as the International Crime Victim Survey and the European Sourcebook and that there are meaningful differences between all six clusters (Enzmann et al., 2010). Therefore, there is theoretical and statistical evidence that supports the current clustering to be used in this dissertation.

Culture and Country Clusters

Culture represents the value system of a society marked by customs and traditions adhered to by a majority of citizens. A parsimonious operationalization of societal culture is given by House et al. (2004) as countries sharing a common experienced language, ideological belief system (religious and political), ethnic heritage, and history. Culture is said to account for at least 25% - 50% of a person's basic value system (Hofstede, 2001). Those values impact our thoughts, decisions, and behaviors. As the studies to be discussed indicate, whether country clusters are based on welfare states (Esping-Andersen, 1990), organizational leadership (House et al., 2004), physical climate (Hofstede, 1980), self-expression (Inglehart and Baker, 2000),

religion and language (Cattell, 1950), penal policy (Cavadino and Dignan, 2006), or capitalistic characteristics (Hall and Soskice, 2001), there is considerable consistency among studies in assigning countries to clusters representing a common societal culture. Of course, there are disagreements among researchers regarding the assignments of countries to cultural clusters as well. Further, many argue that globalization has decreased the disparity between countries, making distinctions more difficult to make. But, as others argue, globalization has also illuminated deeply ingrained cultural differences between countries such as the differences in decision-making processes between American and German countries (House et al., 2004; see also Cavadino and Dignan, 2006). Despite these criticisms of the clustering approach, the benefits outweigh the pitfalls. The use of clusters in comparative research also provides a solid theoretical foundation for examining the victim-offender overlap which will be discussed at the end of this section.

The studies mentioned in the last section each agree, to a large extent, on the assignment of certain countries to specific cultural clusters. As they relate to the present study, these clusters include a(n): 1) Anglo-Saxon cluster, 2) Northern Europe or Scandinavian cluster, 3) Western Europe cluster, 4) Mediterranean cluster, 5) Latin America cluster, and 6) Post-socialist cluster. The cultural representations of these cultures are discussed below. As an additional tool, Appendix B presents information gleaned from several different studies and sources that aid in the interpretation of the country clusters. Not all studies include the same countries in their analyses and there are missing data depending on the variable and study. However, the tables are not to be used to directly compare clusters or to do quantitative analysis. They are presented to show overall characteristics of clusters and begin to piece together the "culture" represented by

each of these clusters. The findings presented in these tables are incorporated into the cluster discussions below.

Anglo-Saxon Cluster

Anglo-Saxon culture has mainly been characterized by individualism and competition. For example, the GLOBE study describes Anglo-Saxon culture as high in performance orientation and low in in-group collectivism (House et al., 2004). In other words, these societies urge members of society to continually strive to improve performance (e.g., grades in school) while maintaining a strong focus on work-related success but do not necessarily value cohesiveness in work organizations or in their families. The culture of the United States, one country included in this cluster, has been likened to American football. Gannon and Pillai (2013: 249) state that, "if you don't understand U.S. football, you will have difficulty understanding U.S. culture." Football exemplifies U.S. culture because it values competitiveness, individual specialization, and a survival of the fittest attitude. Importantly, Gannon and Pillai don't ignore cooperation in U.S. culture (or in the Anglo-Saxon ethos, including football) – there are several examples in Anglo-Saxon culture of success through group collectivism; however, the backbone of this cooperation is to improve the self and to achieve individual goals. Cooperation exists to the extent that it furthers the individual.

Data from the ISRD show that when compared to the other country cluster the Anglo-Saxon cluster is marked by low self-control, a cultural perception that violence is acceptable, a relatively high number of negative life events, low family bonding, and high delinquent peer association. In fact, the respondents in this cluster reported the lowest scores on self-control and the highest scores on attitudes toward violence when compared to all other clusters. Interestingly,

the WVS indicates that the importance of family is among the highest in this cluster – once again illustrating disparate results that emerge from separate studies.

Economic data show that this cluster has a relatively low unemployment rate and a high national GDP. Citizens in this cluster tend to own their homes as opposed to rent. However, there is a large income gap leading to high income inequality. Anglo-Saxon culture values short-term thinking (often seen as successful in the marketplace) and while the cluster is quite strong economically, there exists a great deal of inequality.

Northern Europe Cluster

Northern Europe, or Scandinavia, is perhaps best-known for its vast mountains and serene landscapes. Northern European culture is somewhat a reflection of this landscape. House et al. (2004) report in their study that Northern (Nordic) Europe is characterized by high future orientation, gender egalitarianism, institutional collectivism, and uncertainty avoidance and low assertiveness, in-group collectivism, and power distance. While Nordic people value equality and cohesiveness among their social institutions they are still a solitary people, choosing to be individualistic and self-controlled. For example, Swedes tend to value alone-time and spend long vacations of up to several weeks alone for self-reflection. Denmark adheres to "interdependent individualism" where government social support is generous in order to promote individual expression. Northern European countries, in general, enjoy social support from the government in terms of child-care benefits, vacation time, and healthcare for the sick and elderly (Gannon and Pillai, 2013).

The ISRD data show that Northern Europeans report relatively low levels of neighborhood disorganization compared to other clusters. They also report the highest level of self-control which is directly in line with the House et al. (2004) results. Perhaps this is related to

the value their culture places on independence with a collectivist nature on social institutions. Respondents report higher levels of family bonding than the Anglo-Saxon cluster but not as high as the Western EU and Mediterranean EU, as expected. The ISRD data are very similar and reflective of the cultural representations made by others (Esping-Andersen, 1990; House et al., 2004). The cluster is individualistic and its citizens do not have close ties with others but citizens of these nations do show strong self-restraint and future orientation.

Economically, the Northern Europe cluster is very strong. They have the lowest unemployment rate and income equality when compared to other clusters. They also had the second highest national GDP, second only to the Anglo-Saxon cluster. Almost 60% of the population owns their own homes. Despite the solitude valued in Northern Europe, they have maintained a high level of equality (social and economic) and economic success.

Western Europe Cluster

Western Europe is often compared with other "Western" societies such as those in the Anglo-Saxon cluster, especially the US. Some suggest that Western Europe is becoming increasingly "Americanized." It is little surprise that House et al. (2004) found similar characteristics in this cluster as the Anglo-Saxon cluster such as high scores on performance orientation and assertiveness and low scores on humane orientation and both in-group and institutional collectivism. One major difference is that the Western Europe cluster scored high on future orientation. Also similar to Anglo-Saxon countries is that these nations value individualism and the free market. However, a stark contract is the welfare systems between Anglo-Saxon and Western European nations. Although the Western European nations value a free market, they also see the value in social welfare such as benefits for the sick, elderly, and

families. Therefore, social benefits such as these are much more generous in Western Europe than in Anglo-Saxon countries (Gannon and Pillai, 2013).

The Western EU cluster has relatively modest scores on the ISRD variables. This cluster does score fairly high on the family bonding scale. The cluster also has a relatively low score on the attitudes toward violence scale. Similar to House et al. (2004), this cluster does have a higher mean level of self-control than the Anglo-Saxon cluster but it remains lower than the Northern and Mediterranean EU clusters.

The economy in the Western EU cluster is comparable to the Anglo-Saxon and Northern EU clusters. They have a slightly higher unemployment rate but their income inequality is much lower than the Anglo-Saxon cluster (and just slightly higher than the Northern EU cluster). The national GDP is also similar to the Anglo-Saxon and Northern EU cluster (but lower) and remains considerably higher than the rest of the clusters. In sum, this cluster appears to be quite moderate in their overall scores on scales and doesn't fall on either side of the cultural extremes. While they share similar cultural values to the "West" they also maintain a type of European individualism coupled with social support.

Mediterranean Cluster

The Mediterranean cluster is known for the high value society places on the family in society. Gannon and Pillai (2013:368) describe the family in Italy as close and personal – "the greatest resource and protection from all troubles" (368). They describe the family in Spain as a "large and affectionate clan" (p. 523). House et al. (2004) find scores on cultural variables in this group of countries to be fairly moderate but do find that they tend to score low on humane orientation and institutional collectivism. This finding suggests that while individuals in this culture tend to value close ties within the family they are wary of outsiders, especially the

government and other societal institutions. Often this is related to the idea that problems should be handled within the family and not by outsiders (Gannon and Pillai, 2013).

The Mediterranean cluster shows some extreme scores using the variables in the ISRD dataset. For example, they have the highest mean level of family bonding and the second highest mean level of self-control. Additionally, they have the lowest mean level of attitudes toward violence, negative life events, and associating with delinquent peers. This is not surprising given the family-orientation of the Mediterranean EU cluster. A close relationship between family members is likely a contributor to the development of self-control and family bonds as well as a mechanism that prevents violent attitudes and association with delinquent peers.

When compared to the other clusters, the Mediterranean EU cluster ranks in the middle on most economic indicators. It has a higher income inequality score than its European counterparts, a fairly high unemployment rate, and a considerably lower national GDP when compared to the Northern and Western EU clusters and the Anglo-Saxon cluster. Given the evidence that the Mediterranean cluster is more family-oriented than market/work-oriented, and the family is the primary means of social support as opposed to the market or governments, it is not surprising that their economy lags behind many of the other clusters.

Latin America Cluster

The Latin America cluster is perhaps best characterized by "machismo." Machismo is the value that Latin American nations place on the male breadwinner who is portrayed as strong, authoritative, and someone who demands respect. Neapolitan (1994) states that "aggressive masculinity" pervades Latin American culture. The GLOBE study by House et al. (2004) supports this, showing that Latin American countries tend to score high on in-group collectivism and low on performance orientation, future orientation, and uncertainty avoidance. Like the

Mediterranean Europe (Latin Europe) cluster, Latin America values collectivism within the family and places less value on school/work performance. This cluster, overall, appears to be more impulsive showing little concern about the future or for uncertain situations.

Respondents in the Latin America cluster reported high levels of neighborhood disorganization and negative live events. Similar to House et al. (2004), the cluster scored low on self-control, suggesting low future orientation and had the lowest mean level of family bonding suggesting low in-group collectivism. Also not surprising, the cluster had a high mean level of attitudes toward violence in line with the machismo ethos in Latin American culture.

The Latin America cluster is among the weakest of the clusters in terms of their economy in this study. It has the highest unemployment rate and income inequality and the lowest national GDP. This might be related to the high levels of neighborhood disorganization found in the ISRD dataset. They also have the lowest trust in people and confidence in the police when compared to other clusters showing very little collectivism outside the family.

Post-Socialist Cluster

The Eastern European or Post-Socialist cluster contains many countries with complex histories. In their discussion of Eastern European culture, Gannon and Pillai (2013) group these countries together in a section called "torn national cultures." In other words, these countries have had to deal with a tumultuous history marked by many social and economic shifts. For example, within the past 100 years, Russia has experienced three major changes starting in 1917 when ruling by czars changed to communism. In 1992, Russia saw the fall of communism and a move toward capitalism. Currently, there is much uncertainty surrounding Russia's economic and political future as capitalism appears to be at least partially threatened by current ideology (Gannon and Pillai, 2013). Despite imbalance, the Post-Socialist cluster shows some consistency

in its cultural values and practices. House et al. (2004) find that Eastern European nations score high on in-group collectivism, assertiveness, and gender egalitarianism and low on performance orientation, future orientation, and uncertainty avoidance.

According to variables in the ISRD dataset, the Post-Socialist cluster has fairly modest mean levels on most indicators. Consistent with the findings of House et al. (2004), next to the Anglo-Saxon cluster, the Post-Socialist cluster has lowest mean level of self-control indicating low future orientation and uncertainty avoidance. Like the Latin America cluster, the Post-Socialist cluster has low score on trust in people and confidence in the police as indicated by the World Values Survey.

Economic indicators of the Post-Socialist cluster suggest that, like the Latin American cluster, the economy is relatively weak. Next to the Latin American cluster it has the highest unemployment rate and lowest national GDP. The income inequality is lower than the Anglo-Saxon and Latin American clusters but remains higher than the other European clusters (except that it is slightly lower than the Mediterranean EU cluster). Interestingly, home ownership is the norm in this cluster accounting for almost 72% of the population.

The Empirical Status of Country Clusters

The structure for testing the generality and contingencies of the victim-offender overlap relies on the comparative research strategy of country clustering. Combining countries together to form country clusters is not a new method in comparative research. In fact, it dates back several decades (at least) and is very popular in several disparate fields of study including economics, business, political science, and sociology (see for example Sethi, 1971). Researchers have also employed several different statistical and qualitative techniques to form clusters in their studies. This section discusses some of the reasons why researchers utilize country clusters

for comparative research, reviews some of the major criticism of current efforts to cluster countries, and finally justifies the use of the clustering approach used in the current analyses.

Researchers cluster countries for 1) practical, 2) theoretical, and 3) statistical reasons. In studies where there are a great number of countries, it is impractical to try to identify differences and similarities between every single country. Additionally, trying to explain these differences and similarities by drawing strong empirical and theoretical conclusions related to the data becomes obfuscated by the inclusion of a great number of countries, thus confusing readers. In previous ISRD-II analyses, the use of six clusters, instead of 30 individual countries, allows for clear and practical analysis of the data (see Junger-Tas et al., 2012).

Practicality is not the only reason to cluster countries. Theory also guides the decision to cluster countries by drawing on their similarities (as well as their differences). When countries are related on variables or a set of variables of interest, it may make sense to combine those countries. Relatedly, if clusters can be formed that differentiate themselves from other clusters in the study that would also be reason to group together similarly related countries. One of the main purposes of comparative research is to find differences between research subjects. If the subjects are too closely related it is very difficult to draw substantial conclusions. Often, countries that are divided only geography fail to differentiate themselves from their neighbors on indicators related to culture and economy. As well, there are often substantial differences between neighboring countries. Empirical analysis and theorizing are better ways to discover convergence and divergence among countries rather than artificial geographic boundaries. As such, it makes

theoretical sense to combine countries that have similar social, economic, or other contexts related to the research question (Junger-Tas et al., 2012).[2]

Finally, clustering countries can make statistical sense. First, combining countries increases the sample size of the groups under study. This increases the statistical power of the analysis. Combining countries also allows for a more rigorous statistical analysis of infrequent events by increasing their prevalence. For example, in the current study, robbery and assault are relatively uncommon among the sample. However, by combining countries, a sufficient number of cases can be obtained for the most rigorous statistical tests.

Despite the usefulness of country clustering in comparative research, scholars have criticized the current use of clusters on a couple of major grounds. One major critique of the clustering approach is related to the stability of clusters across time. For example, Ahlquist and Breunig (2009) did not find consistent clustering of countries in the Varieties of Capitalism (VOC) and Welfare State Research (WSR) projects across time using several different quantitative techniques such as hierarchical and relocation clustering methods and mixture modeling. Using moving average minimal length path modeling (MAMLP), Gligor and Ausloos (2008) investigate the clustering of 15 EU counties and find that although clusters emerge, they are affected by short-term economic booms or busts. Further, there is some evidence that differences are diminishing as a result of increasing globalization. However, Grein et al. (2008) use principle component analysis to cluster 39 countries from across the globe over three time periods on economic, cultural, technological, demographic, and quality of life variables. Their results reveal general stability across clusters over the three time periods. Similarly, using model-based cluster analysis, Jang and Hitchcock (2012) find stability in clustering countries (36

[2] It should not be ignored that there is much heterogeneity within countries/country clusters as well. Any time geographical units are clustered (i.e., combined), there will be differences within clusters. Clustering seeks to minimize heterogeneity within units and maximize heterogeneity between units.

countries clustered into four clusters using 10 variables) by democracy types across the full-time period (1945-1996) and recent time period (1971-1996).

A second major critique of the clustering approach is conflicting findings of cluster membership using different qualitative and quantitative techniques. The former approach is largely descriptive and forms clusters as heuristic tools. This is also called ethnological description which groups countries based on observations of social structures, artifacts, and cultural behaviors (see Lenartowicz and Roth, 1999). The latter approach uses quantitative techniques to form country clusters based on statistical information about the countries. The two major quantitative approaches include: 1) cluster analysis and 2) discriminant analysis. Cluster analysis is used when there is little or no *a priori* knowledge or hypothesizing about the clustering of countries. Therefore, this technique seeks to form country clusters using information about the counties in the analysis (e.g., GDP, crime rates, quality of life, etc.). Discriminant analysis begins with a structure to the data in which groups already exists. This technique allows for the identification of differences between country clusters to confirm the pre-existing structure of the data (i.e., country clusters). Despite the different starting points of these two quantitative strategies, many studies use a combination of these techniques to form and/or evaluate clusters.

Several examples of clustering analysis support the utility of this approach to comparative research. Fraley and Raftery (1998) use a mixture model to cluster individual units into smaller cluster units. The mixture approach views the data (countries) as pieces of larger units or clusters where each country has a probability attached to it belonging to each cluster. The Bayesian Information Criterion (BIC) is used to identify the best model or cluster structure (number of dimensions). They find that this method is superior to many other methods because it

compares several models of the data and evaluates them in combination to identify the best one. This eliminates some of the uncertainty surrounding the clustering of countries that could belong to more than one cluster.

Principal components analysis (PCA) can also be used to reduce the dimensions of the data or, in this case, reduce the number of countries into 'principal components' that maximize the similarities among the countries in the country clusters. Schroder (2008) uses PCA to combine the typologies of VOC (Hall and Soskice, 2001) and WSR (Esping-Andersen, 1990). His analysis reveals that there is statistical diversity in countries but clusters can be formed empirically that reflect several different original typologies. In other words, typologies that exist based upon dissimilar starting points (theoretical and empirical) might not be so different when additional analysis is conducted. This research also suggests that the VOC and WSR clusters are not incongruent and are supportive of one another to a large extent.

One of the most comprehensive approaches to cluster countries was taken on by House et el. (2004) in their Global Leadership and Organizational Behavior Effectiveness Research Program (GLOBE). The primary focus of this study was to cluster countries based on work leadership. However, they also measured culture by constructing nine quantitative dimensions including: 1) uncertainty avoidance, 2) power distance, 3) institutional collectivism, 4) in-group collectivism, 5) gender egalitarianism, 6) assertiveness, 7) future orientation, 8) performance orientation, and 9) humane orientation. Similar measures of culture were also used in Hofstede's (1980) seminal study on work-based values. Using factors including common language, geography, religion, and historical accounts, GLOBE countries were grouped into 10 clusters. These clusters were almost identical to those developed in previous studies (Esping-Andersen,

1990; Hall and Soskice, 2001; Hofstede, 1980). These clusters also shared similar scores on the nine cultural dimensions.

Despite statistical and theoretical advances in clustering, researchers have not unanimously supported the extant clustering efforts such as VOC and WSR. Taylor (2004) argues that most of the evidence provided by the VOC approach relies on the inclusion of the US as a liberal market economy (which is also the case for the WSR approach). According to Taylor, while the US clusters with this economic cluster it is a general outlier which skews the conclusions drawn from the data.

In terms of this dissertation, countries are grouped into six clusters to decrease cultural variability (by reducing the number of comparisons to between clusters as opposed to between countries) which allows for greater refinements and specification of theory (Elder, 1976). Further, it makes analysis manageable and eases the interpretation of results (Junger-Tas et al., 2012). Comparing analyses on six country clusters that are similar is much more theoretically rigorous than making 30 different comparisons between countries that likely do not differ greatly from one another. The framework for the country clusters is presented in Appendix A.

Recent efforts utilize quantitative and qualitative techniques to evaluate the validity of Esping-Andersen's (1990) country clustering. Smit et al. (2008) provide supporting evidence for the current study's clustering approach by using categorical principle components analysis. They find that countries cluster on several crime and victimization variables that are relevant to the study of the victim-offender overlap. Using a set of 18 active variables and 9 passive variables, Smit and colleagues largely confirmed the prior organizational framework developed by Esping-Andersen (1990) and Lappi-Seppälä (2007). Both of these frameworks are presented along with the current conceptualization in Appendix A. Of importance to the current study, countries were

found to cluster on victimization rate, recorded homicide rate, and juvenile offending. Thus, Esping-Andersen's (1990) clustering is supported using non-economic variables related to crime and victimization.

Similarly, a principal component analysis conducted by Schroder (2008) illustrated the adequacy of the SWR of Esping-Andersen (1990) by producing similar country clusters. The analysis also provided evidence that the SWR clustering approach could be combined with the VOC clusters based upon shared commonalities among variables. That is, the welfare approach taken by Esping-Andersen (1990) produces similar clusters as the production approach taken by VOC (Hall and Soskice, 2001). This research suggests that the SWR clustering method can converge with others, even when based upon different theoretical framework (see also Smit et al., 2008) lending credence to the SWR approach (particularly its validity).

Clustering is in some ways more of an art than a science. As Ahlquist and Breunig (2009) note, country clustering assumes similarity among countries which is not necessarily time-invariant. Countries change over time and those changes may affect their political and economic cultures. They also argue through quantitative analysis that several countries could fit into several different clusters and it remains up to the researcher to put them into a "tangeable" cluster; much of the time this designation is arbitrary. These authors state that clusters should not be subject to undue criticism but instead taken for what they are worth – theoretical representations of a culture based on current characteristics. While critics are sometimes eager to challenge current country clusters, few, if any, offer a better solution. Essentially, no clustering method is perfect but a strong methodological and statistical approach can achieve "ideal types" that are representative of cultural typologies.

In sum, in this dissertation I use a comparative approach to test themes in the offending/victimization literature. Kohn (1987) states that comparative criminology is a useful tool in developing and testing sociological theories. Nelken (2002) further suggests that comparative criminology is useful in testing and validating explanatory theories of crime by testing the generality of explanatory mechanisms and their relationship to social context (e.g., social control). Comparative criminology draws conclusions by paying careful attention to the similarities and differences between cultural contexts. To explore the generality of and variation in the victim-offender overlap, country clusters will be used to serve as units of cultural comparison for the dissertation. In theory, there are several ways in which countries can be combined to develop cohesive clusters related on one or more characteristics. For this dissertation, theoretical research on welfare regimes, and other cultural dimensions, is used to support the clustering strategy when comparing characteristics and explanations of the victim-offender overlap. Research on the validity of the clusters includes both qualitative and quantitative analysis (Bonoli, 1997; Esping-Andersen, 1990; Junger-Tas et al., 2010; Saint-Arnaud and Bernard, 2003; Smit et al., 2008). This research converges, and empirical support exists for the current organization of country clusters (see also Appendix A).

Country Clusters and the Family

This dissertation introduces an additional component to the theoretical basis of the clustering approach, that is, we propose that a primary distinction between country clusters is related to the family-orientation of the culture. Clusters are considered "family-oriented" if their culture places high value on the family unit as a means of emotional and instrumental support

and if the family is the primary "fabric" that holds society together.[3] Family is important if either the government views the family as an essential mechanism of emotional and instrumental support and/or if society itself places high value on the family as a system of social support. We stress the importance of considering culture in understanding the victim-offender overlap. For example, cultures that promote egalitarian and other-oriented behavior might be more reluctant to engage in retaliatory behavior. Further, those cultures that place high value on the family might be less inclined toward retaliatory behavior because family ties work as an inhibition to violence or the family might act as an intervening mechanism to prevent the overlap by quelling desire for revenge.

While this study utilizes six country clusters, we propose that they each fit within three larger categories for comparative purposes (focusing on the social institution of the family). First is the market-oriented cluster. This cluster is largely individualistic and places a high value on the market. This is not to suggest that the family has no value in this culture; only that individuals are more likely to be socialized to be independent and to strive for material success early on in life (Gannon and Pillai, 2013). Therefore, the family takes a backseat to more individual goals, independency, and success in the market. Social control in this cluster is primarily exclusionary and formal in nature. In the view of some, the family is undermined in favor of harsh penal policies and formal law enforcement (Cavadino and Dignan, 2006). However, it should be acknowledged that the WVS provides some evidence that the Anglo-Saxon cluster places a high value on the family and the lowest value on competition (see Appendix B). While this provides some contrary evidence to the idea that the Anglo-Saxon cluster is more market-oriented than family-oriented, the bulk of the literature on culture

[3] To be clear, all nations "value" the family and family support is part of every society. The reliance on and importance of the family is greater in some social contexts and these social contexts are considered separate from market-oriented societies that place similar "value" on the market economy.

suggests that the market is more important than the family (Esping-Andersen, 1990; House et al., 2004; Messner and Rosenfeld, 2007).

The second larger category is the family-oriented clusters. It is argued here that the cultures of the countries in these clusters place high value on the family. Here families are supported by social welfare (e.g., daycare, tax breaks, vacation time) or by citizens of these cultures (i.e., family as primary social support and caregiver). Thus, in these social contexts, the family unit holds society together and provides both instrumental and emotional support to its citizens. These clusters tend to favor inclusionary policies and informal social control in the forms of the family and religion (Cavadino and Dignan, 2006).

The third category combines "torn" nations which have suffered a major break from the core values of their culture (i.e., the Post-Socialist cluster) and a Latin American cluster. This third category may be considered an exploratory category. As such, specific hypotheses are not made about these clusters and they are included for empirical purposes. The major comparisons are made between market-oriented (i.e., Anglo-Saxon countries) and family-oriented countries (i.e., Northern, Mediterranean, and Western European countries). The following section discusses in more depth the cultural contexts that these clusters represent and how they may influence the victim-offender overlap.

As Esping-Andersen (1990) and Saint-Arnaud and Bernard (2003) discuss, conservative countries rely on the family as the primary means of social support. For example, the state in conservative countries supports those who can work (often a male breadwinner) but does not extend this support to those out of the workforce. Therefore, the family is the social institution that is relied upon in most circumstances (even if family members are employed). The conservative cluster includes the Netherlands, Belgium, Germany, France, Switzerland, and

Austria. Bonoli (1997) suggests that a Latin cluster of Southern European countries (here these countries are Portugal, Spain, Italy, and Cyprus) also rely heavily on the family. These countries receive less social support from the government than conservative countries and promote reliance on the family to a greater extent. Thus, for the analysis and interpretation of results in the current study, the conservative and Mediterranean (Southern European countries) clusters will be considered family-oriented clusters.

The social democratic regime described by Esping-Andersen (1990) and Saint-Arnaud and Bernard (2003) is also considered a family-oriented cluster in the study. This cluster consists of Finland, Iceland, Norway, Sweden, and Denmark. Although the state is more heavily involved in these societies, they provide benefits that directly assist families (such as universal healthcare, daycare, and worker leave). Therefore, it is hypothesized that parents are better able to supervise, monitor, support, and provide an emotional outlet for children. The family is a very "important" and is likely to be valued in this cluster as well. These family-oriented clusters are found to have higher mean values of family bonding using the ISRD-II data as well. For these reasons, this cluster is also contrasted with the liberal cluster (i.e., the Anglo-Saxon cluster) and considered a family-oriented cluster.

In contrast, the liberal regime (here represented by the Anglo-Saxon cluster made up of the United States and Ireland), relies more on the individual to support him or herself. The state only provides modest support and instead encourages its citizens to rely on the marketplace. In these countries, other institutions, such as the family, are undervalued while economic roles penetrate and consume other dimensions of social life (Messner and Rosenfeld, 2007; Messner, 2012). In this study, the Anglo-Saxon cluster is compared to the conservative, Mediterranean, and social-democratic clusters when examining the victim-offender overlap. As will be

discussed, hypothesis 2 suggests that the individualistic tendencies in the liberal cluster will promote the overlap as the market encourages one to think in a "utility-maximizing" fashion. Messner (2012: 15) states that "economic dominance makes crime more likely in part by stretching the mesh of the moral filter." This encourages not only primary offending but also the retaliatory response if one is victimized. The overlap is expected to be weaker in the family-oriented clusters where the family can act as a mediator creating an inhibition against retaliation.

It is hypothesized later that a breakdown in the family will affect youth greater in family-oriented clusters because this is the primary source of social support and the family is the most valued social institution (or among the most valued). Thus, poor family bonding will promote crime to a greater extent in these clusters as compared to the liberal cluster. On the other hand, family bonding in family-oriented clusters should insulate against victimization in these clusters to a greater extent than the liberal cluster for the same reasons. Less research has been conducted using the Post-Socialist and Latin America clusters; particularly criminological research. Therefore, the inclusion of these clusters is more for exploratory purposes. There are no a priori hypotheses about these clusters. However, the results will be interpreted taking into consideration characteristics of the countries comprising these clusters.

Justification for hypothesizing that the family will be a factor in the victim-offender overlap comes from prior academic research. Family bonding, at the individual-level, has been shown to be a protective factor for offending and victimization risk (Hirschi, 1969; Schreck and Fisher, 2004). Gorman-Smith and colleagues (2004) found that the family also protected against exposure to violence. Individuals with poor family bonding were more likely to be exposed to violence as both offenders and victims. Individuals with strong family bonds, when exposed to violence, were less likely to engage in violence themselves. This is strong evidence that family

matters.

Welfare regimes that are characterized as conservative rely heavily on the family to offer social support – especially among individuals who cannot contribute to the marketplace. In the Western Europe and Mediterranean clusters the family is a centerpiece to social support. Individuals who are unable to rely on their family for support are unlikely to be able to seek this support elsewhere in conservative clusters. Therefore, they are more likely to adopt crime as an alternative to achieve goals. This dissertation focuses on one facet of control theory, family bonding, as one possible variable that may influence the victim-offender overlap.

How the culture views the family and how the state promotes family function may also matter. If the family is not valued by society, bonding with the family may be less important as a factor in crime and victimization. If the family is valued, it is likely to play a larger part in inhibiting poor behavior. For example, Hirschi (2004) claims that family bonding is the major inhibition that an individual has when deciding to commit a delinquent act. However, this inhibition is unlikely to be activated (or at least be the major inhibitory factor) if there is little value placed on the family. For example, if an individual values and is supported by their family, then not retaliating against victimization or stealing from someone else after someone stole from you is more likely because the family bond will be considered (and be an inhibitor). Thus, culture may matter in promoting the importance of family bonds (i.e., act as a moderator). This study can only take the first step in specifying this relationship. There are no quantitative data that indicate the *importance* of the family to individuals, only the bond between the respondent and his/her family. Initial analysis finds that there are higher mean levels of family bonding in the family-oriented clusters, but this does not indicate whether or not those bonds mean anything to the individual reporting them.

Research Hypotheses

The first hypothesis, discussed briefly in chapter 2, focuses on the generality of the finding that offenders and victims share similar characteristics. This question considers population heterogeneity, where offenders and victims are different from non-offenders/non-victims based upon individual-level characteristics. This argues that although these groups are expected to share characteristics, it is not because they are necessarily the same people. The state dependent argument, that there is something about offending and victimization which influences the likelihood of the other occurring is considered in hypothesis 2. Given the literature on offending and victimization, this study expects to find a great deal of overlap and similarity between these two groups. It also hypothesizes, following Cuevas et al. (2007), that "overlappers" (individuals who are both offenders and victims) are the most at-risk group. The first hypothesis (and sub-hypotheses) is as follows:

Hypothesis 1 – Offenders and victims (using measures of violence, theft, and general offending/victimization) will share similar characteristics including demographics and individual-level attributes

Hypothesis 1a – Offenders and victims will significantly differ from non-offenders and non-victims on individual-level characteristics in each country cluster

Hypothesis 1b – Individuals who are both offenders and victims will significantly differ on individual-level characteristics from individuals who are offenders/victims-only and non-offenders/non-victims in each country cluster

Given the strong evidence in the literature for a victim-offender overlap, the hypotheses all suggest a certain extent of generality in the overlap regardless of social context. However,

there is reason to believe that there will be differences between clusters in the overlap and in the explanatory power of certain theories to predict offending and victimization. Research is beginning to uncover contexts in which this overlap is weaker or non-existent. For example, the overlap between offenders and victims is much weaker in affluent neighborhoods than disadvantaged neighborhoods (Berg and Loeber, 2011) as well as in areas where a street-code is prominent (Berg et al., 2012). The authors of these studies posit that it is retaliation and the need to respond violently to any act of aggression or disrespect in areas that are characterized by street codes. Hypothesis 2 states that there should be a generality of an overlap between offenders and victims in their experiences as both offenders and victims. However, this overlap is expected to be weaker in clusters that are family-oriented. The family can serve as one insulator for retaliation and, thus, an intervening mechanism to prevent the victim-offender overlap. Hypothesis 2 is as follows:

Hypothesis 2 – Offenders and victims will overlap in their experiences with violence, theft, and general offending/victimization measures in each country cluster

Hypothesis 2a – There will be a greater number of individuals who are both offenders and victims than would be expected by chance in each country cluster

Hypothesis 2b – Offending and victimization will be positively correlated in each country cluster

Hypothesis 2c – The overlap will be weaker in conservative welfare regimes that are characterized as family-oriented and stronger in market-oriented clusters where market values predominate

Hypothesis 2d – Offending will predict victimization after controlling for individual-level characteristics

Hypothesis 2e – Victimization will predict offending after controlling for individual-level characteristics

Hypothesis 3, and sub-hypotheses, relates to the effort to extend theories of crime to explain victimization. Given evidence of the overlap, it is expected that theories developed to account for offending will be able to account for victimization in each cluster. That is, theories will be able to predict crime and victimization in each cluster in similar ways. However, as the previous discussion on the impact of family in different clusters illustrates, some theories might have differential explanatory power for offending and victimization given their social welfare regime. Additionally, theories of crime should be better equipped to explain variation in offending when compared with victimization (Schreck et al., 2008).

Hypothesis 3 – Low levels of family bonding will be associated with higher probabilities of offending and victimization (violence, theft, general) in each country cluster after controlling for several other demographic and theoretical variables

Hypothesis 3a – Family bonding will have a greater effect on offending in family-oriented contexts than in market-oriented contexts

Hypothesis 3b – Family bonding will be a greater protective factor against victimization in family-oriented welfare regimes than market-oriented contexts welfare regimes

Hypothesis 3c – Variables reflecting theories of crime will have a greater effect on offending than victimization in each cluster

CHAPTER 5: METHODS, MEASURES, AND ANALYTIC STRATEGY

Comparative research is confronted by several inherent challenges. One major obstacle is comparing crime and delinquency across locations that define and record crime and delinquency differently. Results from comparative analysis are likely to be biased if there are substantial differences between definitions of crime and methods of data collection. This challenge is certainly exacerbated in international research when comparing across different nations with drastically different cultures.

The self-report method addresses some of the above concerns but there are also inherent problems with the self-report method in general. Self-report surveys require a willing participant who answers questions related to personal feelings and behaviors. Therefore, self-report studies are restricted to the answers provided by those who participate who may not be representative of the intended population under study (Junger-Tas and Marshall, 1999). Research using adolescent samples often require parental permission, again presenting problems because those who do not obtain permission are often those who are involved with delinquent activity (Kivivuori, 2007) and often the need for parental consent varies cross-nationally making complete comparativeness across samples challenging (see Marshall, 2010).

In delinquency research, school-based samples often under-estimate the true prevalence of delinquency. Kivivuori (2007) identified three major problems associated with the school-based sampling design: (1) some youth may not be present in school because they are completely out of the school system including individuals who are homeless (i.e., living on the street), incarcerated, or not registered to attend school; (2) some youth are placed in special learning classrooms because of learning disabilities or behavioral problems which generally are not included in sampling strategies; and (3) some youth are absent on the day of the survey

administration due to sickness, vacations, or truancy. Often, those students who are most involved with violence are those who contribute to these sampling problems. Therefore, classroom-based samples typically underestimate delinquency.

This dissertation relies on self-reports of victimization, offending, and individual perceptions of personal situations. While self-report surveys have their own flaws discussed above, they avoid some of the major pitfalls of relying on official data such as different definitions of violence and reporting procedures across countries. They also illuminate the dark-figure of crime and remove some of the reporting bias in official data sources (Junger-Tas and Marshall, 1999; Krohn et al., 2010). Self-report surveys have also been the recommended method to study criminological theory because of the focus on individual perception and behaviors (Hindelang et al., 1981; Krohn et al., 2010). Research has also shown that self-report methods often overlap with both official offending records and victimization surveys for serious crimes (Hindelang et al., 1979). Further, Howard et al. (2000) recommend the self-report method as the primary avenue for exploring criminological theory in a comparative context with its focus on specific individuals and their experiences. As others have noted (see Junger-Tas and Marshall, 1999; Junger-Tas et al., 2010), the self-report method has moved past its initial shortcomings and has become a rigorous tool for investigating the causes and correlates of crime and delinquency.

Sample and Data

The data for this dissertation come from the second International Self-Report Delinquency Study (ISRD-II). For more information on the ISRD-II design, please see Junger-Tas et al., 2010 and Junger-Tas et al., 2012, in particular Chapter 2 by Marshall and Enzmann. The goal of ISRD-II was to standardize survey instruments, sampling plans, and data entry for

the most methodologically rigorous sampling of participants. Naturally, this was difficult given that 31 different countries participated in the study. Therefore, the ISRD-II used a "flexible" standardization method using a modular approach (see Junger-Tas et al., 2010; 2012 for a complete description of the sampling design and methodology). All countries used a standardized questionnaire containing the same information as every other country but were allowed to add questions if they wanted (additional modules). All data entry was completed using Epidata software (Lauritsen, 2006).

The flexible standardization used by the ISRD team ensured that the most scientifically rigorous strategy was used at each step while still allowing for each nation to participate regardless of their unique situation (see Junger-Tas et al., 2010). The additional benefit of this approach is that the samples of each nation are relatively large allowing for powerful statistical modeling at several levels of analysis (i.e., country, city, school). Large-scale international research has often suffered from small sample sizes making multilevel and other estimation analyses difficult because of the lack of statistical power. The ISRD-II data, due to the sampling strategy, allow for a unique opportunity to test theories in several different contexts without loss of statistical power.

The ISRD-II uses a school-based sample of youth grades 7-9 who responded to a self-report questionnaire developed by the ISRD steering committee. The major purposes of the study are to produce estimates of the prevalence and frequency of delinquent activities and to test criminological theories cross-nationally. A total of 30 countries and 67,883 individuals are included in the sample for the final dataset available for analysis[4]. Countries are included based upon the willingness of the country to participate in the study but, for manageability, the focus is primarily on European countries, with extra effort made to include countries that are from

[4] Excludes Canada and grades 10-12.

Central and Eastern Europe. Therefore, the "sampling" of countries is based on convenience but a conscious effort was put forth to obtain a combination of alike and dissimilar nations for comparative purposes (Junger-Tas et al., 2012).

The ISRD-II study uses a city-based sampling design which offers several advantages over nation-wide sampling including the ability to compare similar sampling units, use multilevel modeling techniques, evaluate the effects of city-wide policies, and reduces the costs associated with large-scale national sampling efforts (Junger-Tas et al., 2010: 6-7). While the ISRD protocol expected randomization at the school and classroom levels and indicated that each country should include small, medium, and large sized cities with a total of at least 2,600 cases (Enzmann et al., 2010; Junger-Tas et al., 2010; 2012), the main objective was not *national* representativeness but rather the collection of data collected in a random fashion from schools in small, medium, and large cities. The primary objective of the ISRD-II was to test theories related to offending and victimization, rather than providing national estimates of offending and victimization. Because the primary purpose of the research is theoretical, the fact that most of the data are based on random samples collected in a few cities in each country, rather than on nationally representative samples, results will not suffer from the lack of a representative national sample for all countries (Junger-Tas et al., 2012). The ISRD does measure offending and victimization rates (incidents) across countries (see Enzmann et al., 2010), but any comparative analysis of estimates of victimization and offending are based on medium and large city-based samples only. Representativeness of the sample is of secondary importance in theory testing (Maxfield and Babbie, 2010). Primary importance is given to the theoretical measures included in the analysis.

Nationally-representative samples were obtained by countries that wanted to estimate prevalence and frequency rates of behaviors or were small enough to make it possible. Bosnia and Herzegovina, Czech Republic, Estonia, France, Hungary, Portugal, Spain, Suriname, and Switzerland obtained nationally-representative samples and oversampled at least one major city to make comparisons on the city level possible across countries.[5] The rest of the countries obtained city-based samples (Junger-Tas et al., 2010; 2012). Norway, Sweden, and Finland obtained mostly large-city samples.

A total of 31 countries were involved with the ISRD-II but, as previously mentioned, Canada did not provide their data for analysis in the complete dataset. A total of 30 countries are used in this dissertation. It is possible to compare results across nations using countries as the unit of analysis. However, as mentioned in Chapter 4, it often makes sense to combine countries to simplify analyses and maximize homogeneity within and heterogeneity between the units of analysis (Junger-Tas et al., 2012). Therefore, six country clusters are utilized in previous work using the ISRD-II data as well as in this dissertation including a: (1) Anglo-Saxon (US and Ireland); (2) Western EU (Netherlands, Austria, Germany, Switzerland, France, and Belgium); (3) Latin America (Netherland Antilles, Aruba, Suriname, and Venezuela); (4) Northern Europe (Finland, Sweden, and Denmark); (5) Mediterranean (Portugal, Spain, Italy, and Cyprus; and (6) Eastern/Central Europe (Estonia, Lithuania, Poland, Czech Republic, Hungary, Slovenia, Bosnia-Herzegovina, Russia, and Armenia) cluster. The sample size will vary depending on missing cases in the analysis but the total sample size is presented in Appendix A.

[5] Spain is the one exception.

City and Town Selection

The ideal sampling design was one that urged each country to select at least five cities and towns based on their size, degree of urbanization, and economic/demographic information. In the end, each country would have three subpopulations which included a large metropolitan area that served as an economic center (population of 300,000 or greater), a mid-size city (100,000 – 299,999 inhabitants), and two small cities or townships (10,000 – 99,999 inhabitants). Each subpopulation would have a total sample size of at least 700 students. The cities and towns were selected non-randomly but were expected to be reasonably representative of other similarly sized areas within the country. They were also expected to be somewhat comparable to similarly sized areas in other countries in the overall sample. Most countries included a large or medium-sized city as required (except Aruba) but the selection of these cities was based more on convenience than on representativeness of the country or comparability to other cities from other countries. In the end, the total sample included 36 large-sized cities, 32 medium-sized cities, and 60 small townships.[6]

Classroom Selection

The ISRD-II is a school-based sample where classrooms are the primary sampling units. The sampling strategy required that each country randomly select 7th, 8th, and 9th grade classrooms in each selected city.[7] A stratified, multistage procedure was used by each country. First, a listing of all schools in the research cities was created that included all 7th, 8th, and 9th grade classrooms. Second, classrooms were randomly drawn from the original list of classrooms containing 7th – 9th graders. Public, private, vocational, technical, and academic schools were included in the sample.

[6] Includes 16 clusters of 2-9 small towns

[7] Iceland only sampled 8th graders. In Norway the nominal grade was decreased by one and in Poland it was increased by one to be more comparable in terms of age of students with other countries.

There were four major challenges to obtaining a random sample at the classroom level. These are outlined by Junger-Tas (2012: 17) as: (1) lack of availability of sampling frame (i.e. listing of 7th, 8th and 9th grade classrooms); (2) lack of cooperation of selected schools; (3) obstacles provided by the requirement to having active parental consent; (4) ambiguity about how to define 7th, 8th and 9th grade (resulting in disproportionate age groups in some countries). Because of these challenges, the participating countries did have to make use of the "flexible standardized design" and make their best effort to ensure the best possible sample.

To expand on the issue of randomization at the classroom level it is important to understand that international research is complicated by the inclusion of countries that differ in their geography, administrative/political structure, language, and culture. Randomization of the sample was difficult at the classroom level in some countries such as the United States where there are greater restrictions and barriers on obtaining participants. For example, in the United States, passive participant consent was adequate in the small towns and medium-sized city but active consent was required at the large site. This scenario made randomization impossible in that location. Participation of schools in general was very difficult in the Anglo-Saxon nations of the United States and Ireland leading to lower response rates. Other counties such as Suriname and Netherlands Antilles in Latin America had almost 100 percent participation (Marshall, 2010). These differences in socio-political context between countries made total standardization difficult. In the end, a total of 67,883 individuals were sampled from 1,536 schools and 3,339 classrooms using this multistage sampling design.[8]

[8] Some countries sampled 10-12 graders as well – these cases are removed from all analysis for this study and are not counted in the total sample

Measures

The ISRD-II survey instrument is standardized and all core questions are included in each country's questionnaire. Countries were allowed to add questions if they wished, but they were not allowed to drop any of the core items. The sequencing of questions, the question phrasing, and the response options were the same in each countries questionnaire.[9] Most countries administered the survey in a classroom setting using paper and pencil while some opted for a computerized version. Research shows that there are no substantial differences between methods of administering the questionnaire (Lucia et al., 2007).

The following section discusses the variables to be used in the current study. The dependent variables are outcomes related to offending and victimization. They reflect violent, theft, and general offending and victimization and are used as outcome measures in each of the statistical models to be developed. The independent variables include measures of important theoretical concepts that contribute to our understanding of offending and/or victimization along with controls. Scales are created to measure specific latent concepts or traits important to explaining violent and theft outcomes. The control variables are demographic and background measures found to be correlated with offending and victimization that must be accounted for (specified) in statistical analysis. A complete list of items for the latent (theoretical) constructs is listed in Appendix C.

Dependent Variables

Measures of violent (personal) offending and victimization are developed as dependent variables for violence. These measures are dichotomous tapping whether the respondent has experienced being a victim of personal victimization or has participated in personal offending (0=no; 1=yes). The victimization variable includes being a victim of robbery and/or assault. The

[9] Ireland was an exceptions to the ordering of questions but included all the same questions

offending variable includes the same two measures of robbery and/or assault and is coded as (0) if the individual has not experienced victimization or (1) if the individual experienced one or both measures of victimization.

The dependent variables are a summation of two violent offenses (for the offending variable) and two violent victimizations (for the victimization variable). The decision to sum these variables was based on three major factors. First, the sample size for those scoring a 1 is low for robbery and assault. By combining the items, the sample size for those scoring a 1 is increased, allowing for more rigorous statistical analyses. Second, the prevalence of robbery and assault are correlated at $p < .001$ in each country cluster suggesting that they may measure an underlying propensity for violent offending and violent victimization. Third, these two offenses and victimizations are likely to invite retaliation or influence coping through aggression (see for example Agnew, 2002). Therefore, they are variables important in the victim-offender overlap. Previous research has used very similar measures and confirmed their adequacy as indicators of violent offending and victimization (Berg and Loeber, 2011).

This study also explores the overlap using a variable for one type of property crime: theft. Empirical analysis of the overlap among theft offending and victimization is understudied and little is known about this particular phenomenon. To address this gap in knowledge, a theft variable for offending/victimization is included measuring whether or not the respondent took part in any of 5 offenses: 1) snatching from someone, 2) stealing something from a car, 3) stealing a car or motorbike, 4) stealing a bicycle, and 5) stealing something from a store. The theft variable for victimization uses one item from the survey that asks the respondent if they had something stolen from them in the past 12-months. The theft variables are coded as 0=No and 1=Yes for any of the items measuring theft offending or victimization.

A third measure is used to represent a variety of offenses and victimizations. This is referred to as *general* or *variety* in the following sections. The general measure includes a total of 11 items for offending and three for victimization. The 11 items for offending include the previous measures for violence and theft along with four additional measures: 1) vandalism, 2) burglary, 3) carrying a weapon, and 4) gang fighting. The victimization measure includes the two previous items for violence and the item for theft. In the main analysis, the variety score is dichotomized so that 0 indicates no prevalence of any type of offending/victimization and 1=prevalence of any type of offending/victimization.

The main analysis is based on prevalence measure. I use a dichotomous measure of the dependent variable to examine the odds or probability of offending/victimization. This is a very common outcome measure in criminology, particularly when the research question is concerned with the presence or absence of an outcome. This addresses a different research question than one focusing on frequency, necessitating continuous or count measures of offending and victimization. However, it is recognized that there are pitfalls to using a dichotomous outcome measure. Sweeten (2011) points out that dichotomous measures contain the least amount of information and do not account for frequency or seriousness of the behaviors. Additional analyses are conducted to explore issues related to the measurement of outcomes and discussed later in the dissertation.

Independent Variables

The independent variables used in the analyses include several control and theoretical variables. Measures of neighborhood disorganization, self-control, attitudes towards violence, negative life events, family bonding, and delinquent peer association are modeled as theoretical variables of offending and victimization (and will be considered "theoretical variables" of

offending and victimization). The scientific significance of theory is only as strong as its ability to explain the phenomena it intends to explain in all contexts including in different cultural settings (Hartjen, 2008). Therefore, variables representing several of the most prominent criminological theories are modeled in this study.

Many of the scales that represent theoretical constructs are converted using the percent of maximum possible score or POMP. The POMP technique produces a score out of 100 for each individual on a particular measure. The equation is given by (Cohen et al., 1999: 323):

$$POMP = [(observed - minimum)/(maximum - minimum)] \times 100$$

Where: **observed** = the observed score for a single case,

minimum = the minimum possible score on the scale, and

maximum = the maximum possible score on the scale.

POMP is a linear transformation which permits significance tests to produce identical test statistics to untransformed scales. The advantage of POMP scores is that they allow for easy comparisons across scales with different numbers of items and response categories because each score ranges from 0 to 100 (Cohen et al., 1999). Comparisons between means and levels of several different theoretical variables will be made between single individuals, groups of individuals, and groups of countries. Therefore, a standardized presentation of the scores and mean scores will allow for more direct comparisons without changing the results of significance tests. However, putting variables on a scale from 0-100 stretches the measure which often results in the significance of very small (and hard to interpret) coefficients. Therefore, the POMP score is divided by 10 in the multivariate analysis to adjust for this issue.[10] Missing data are dealt with using listwise deletion. Therefore, all scales include individuals with full information on each

[10] The score is thus 0-10 instead of 0-100 – since this is a linear transformation significance tests are unchanged

item. The theoretical and control variables used in this research are discussed next and a complete list of items constructing the measures can be found in Appendix C.

Perceptions of Neighborhood Disorganization. Neighborhood disorganization as originally developed by Shaw and McKay (1942) showed strong support for the hypothesis that communities marked by social disorganization had higher rates of crime and disorder. It is reasonable to theorize that youth living in disorganized communities are more likely to become involved with gang activity or join delinquent peer groups. It is also consistent to hypothesize that these individuals are more likely to become the victim of crime given their immediate social environment. However, following Fox et al. (2010), it is hypothesized that perceptions of neighborhood disorganization will be more closely related to offending than victimization. Perceptions of neighborhood disorganization was measured by 5 items on a 4-point scale from (1) Fully Agree to (4) Fully Disagree and included items on crime, fighting, drug selling, empty buildings, and graffiti in the neighborhood. These were reversed coded so that higher scores indicate higher levels of perceptions of neighborhood disorganization, summed, and then converted to POMP scores.

Self-Control. Self-control theory has dominated criminology in recent years and has garnered much empirical support (Pratt and Cullen, 2000). The self-control approach to crime and analogous acts views crime as the product of low self-control. Human behavior is assumed to be naturally oriented toward self-interested acts (which are often criminal) and not the product of social learning. Self-control is also assumed to be antecedent to all other variables that are likely to be associated with crime (Gottfredson and Hirschi, 1990). Self-control has also been found to be linked to victimization (Schreck, 1999; Schreck et al., 2006; Stewart et al., 2004) by increasing exposure and vulnerability to violent offending. Therefore, self-control is expected to

be related to both victimization and offending across clusters. It is measured here by a modified Grasmick et al. (1993) scale which includes 12-items from the original scale covering temperament, self-centeredness, risk-seeking, and impulsivity. The scale ranges from (1) Fully Agree – (4) Fully Disagree. A POMP score scale is created for this variable. Higher scores represent higher levels of self-control.

Violent Attitudes. The latent variable "violent attitudes" reflects the individual's acceptance of using violence to solve problems, gain respect, and produce excitement. Katz (1988) reveals such attitudes when he described the "badass" who obtains respect through violence. Anderson (1999) likewise suggests that a "street code" where violence plays a major role in retaliation and a campaign for respect is responsible for violence in low-income neighborhoods. Theoretically, those who espouse more favorable attitudes towards violence will be more likely to engage in violent offending to achieve goals of retaliation/respect. Further, those with more positive attitudes towards violence will also be more likely to experience victimization as a result of the perpetuation of violent retaliation to resolve conflict (Harding, 2010; Stewart et al., 2006).

Living in an environment where violence is a normative solution to everyday problems provides opportunity for offending roles as well as victimization roles. Furthermore, theorists such as Singer (1981) and Harding (2010) posit that individuals involved with subcultures that espouse violent attitudes to address social problems will also be those who expose themselves to violence through retaliation and interpersonal conflict. It is expected that violent attitudes will be related to both offending and victimization. Violent attitudes are measured by 5-items ranging from (1) Fully Agree – (4) Fully Disagree. Items included perception of violence as fun, necessary for respect, retaliation, and a part of growing up (see Wilmers et al., 2002). These

items are reverse scored so that higher scores corresponded to more violent attitudes, summed, and then converted to POMP scores.

Negative Life Events. Life events (negative life events) are a measure for strain or stressful events. Agnew (1992) argues that there are several sources of stress/strain that have adverse effects on individuals. This survey employs several measures of negative/stressful live events that represent the removal of positive stimuli (i.e., loss of a sibling or parent, divorce, long term illness of self or parent, etc.) These negative life events are those that are likely producers of negative emotionality and are likely related to juvenile delinquency (Agnew, 2001). Negative life events may also make a person vulnerable to violence. This has been an understudied issue in criminological and victimization research. Given the support for the relationship between strain and offending it is hypothesized that negative life events will be positively related to offending and victimization. Negative life events are measured by 8 items related to deaths in the family, long-term or serious illness of family members and oneself, and family conflict/parental separation. Each item is dichotomous (1) No and (2) Yes. These were recoded as (0) = No and (1) = Yes, summed, and then converted to POMP scores.

Family Bonding. Social control theory as an explanation of delinquency was articulated by Hirschi (1969) to account for offending. He posited that people are predisposed to crime through their natural tendency to satisfy their own goals. A close bond, measured here by family bonds, acts as a restraint against offending. It is likely that those with weak bonds are more likely to offend but it also may be the case that they are more likely to be victims due to the fact that those with poor bonds are likely to have less supervision increasing risky activity (Schreck and Fisher, 2004). This research will include a family bonding measure in models for offending and victimization and it is hypothesized here that family bonding is a risk factor for offending and a

protective function against victimization. The family bonding variable is constructed using 4 items measuring closeness to mother and father, leisure time with the family, and having dinner with the family. Each item was summed and transformed into a POMP score to create the family bonding scale.

Peer Delinquency. Participants in the survey were asked about the delinquent activity of their peers. Association with delinquent peers has been a stable predictor of individual delinquency and is a key component of differential association and social learning theories (Akers, 1985; Sutherland and Cressey, 1947; Warr, 2002). Delinquent peer association has also been consistent in explaining delinquency cross-culturally (Hartjen and Priyadarsini, 2003; Hwang and Akers, 2003; Junger-Tas, 1992). It has been extended to explain victimization as well (Schreck et al., 2004). Participants were asked about the delinquent activities of their friends including 5 different behaviors such as drug use, stealing, burglary, and assault. These are dichotomous items coded as (0) = No and (1) = Yes. These items were summed to create a scale ranging from 0-5. A higher score indicates a greater number of delinquent acts by friends.

It should be noted that the delinquent peers variable is derived from the individual's perceptions of their friends' delinquent activities. The criminological literature cautions researchers on interpreting this type of measure because respondents have the tendency to project their own behavior on that of their peers (Haynie, 2001; 2002; Haynie and Osgood, 2005). Recently, Boman et al. (2011) concluded that projection is problematic mostly among low-frequency behaviors (e.g., hard drug use) and less so among relatively normative behaviors (e.g., marijuana use). The items that comprise the measure of delinquent peers used in this study are fairly non-serious but do tend to be low-frequency behaviors.

Control Variables

Sex, grade, and immigrant status will be included in the analysis as additional control variables. These variables have been identified as the major correlates of crime that must be incorporated into models testing theories of crime (Braithwaite, 1989; Hindelang et al., 1978). *Male* is a dichotomous variable (0 = female; 1 = male). Sex has been considered an important control variable in previous research given the overwhelming evidence that males are more likely to be involved in delinquency and be the victims of personal victimization (Broidy and Agnew, 1997; Chesney-Lind and Sheldon, 1998; Sampson and Lauritsen, 1990). *Grade* is a proxy for age and will be added into each model (grade 9 is left out as the reference category). Grade is often used as opposed to age in school-based samples because it more adequately reflects social age. This is also a better statistical measure because repeating a grade has been found to be correlated with socioeconomic status and the problem behavior of students, thus confounding their relationship with age – but not grade (Junger-Tas et al., 2012). *Non-Native* is a dichotomous variable (0=native; 1=non-native) indicating immigration status. The pioneering research on social disorganization concluded that areas with high immigration were those that were also high in violence (Shaw and McKay, 1942). This would suggest that immigrants are likely to be the victims of violence and may be overrepresented as offenders as well. Recent research, however, suggests otherwise. Stowell et al. (2009) show that locations densely populated with immigrants tend to have lower levels of violence and that immigrants themselves tend to be less involved with violent crime. Work by Sampson (2008) supports these conclusions and suggests that recent immigration has benefited neighborhoods and has contributed to the lower violence and victimization rates experienced in most US cities.

Drug and Alcohol Use. Drug and alcohol use is linked to offending (Wright and Decker, 1997) and victimization (Berg and Loeber, 2011; Taylor et al., 2007). Alcohol use has also been found to differentiate between offenders and victims (Schreck et al., 2008). A measure of drug and alcohol use is used in this research which is a count of how many times in the past month (4-weeks) the respondent has used alcohol (beer, wine, breezers, or spirits) and drugs (marijuana).

Time with Friends. Some of the earliest theoretical correlates of victimization were informed by lifestyle (Hindelang, 1976; Hindelang et al., 1978) and routine activity theories (Cohen and Felson, 1979). These theories have largely stood the test of time, predicting victimization above and beyond control variables and other theoretical covariates (Piquero and Hickman, 2003; Schreck et al., 2002; 2004). Lifestyles have explained victimization in longitudinal data that control for dynamic causal factors (Wittebrood and Nieuwbeerta, 2000). To account for the link between lifestyles and victimization one item from the survey is used that asks the respondent how often they spend time outside of their home with friends. Responses range from 0 – 7 (daily) times a week. Since this variable only contains one item from the survey it is considered a statistical control and not a variable that represents lifestyles theory.

Analytic Strategy

The analysis uses several different quantitative methods to describe the data and test the central hypotheses. The following discussion will also offer interpretation of the results by making comparisons between cultural contexts. Qualitative data is important for uncovering individual perceptions and details of social processes (see Harding, 2010). Unfortunately, this type of qualitative analysis is not possible with the current data. Therefore, while this dissertation has both quantitative and descriptive components, the bulk of analysis will be quantitative

leaving in-depth qualitative analysis that probes deeper into the influence of context and culture to future research.

Country Clusters

As a first step, the data are divided into country clusters described in Chapter 4. These country clusters include a set of countries that share similar characteristics. By using clusters, instead of individual countries, statistical power is increased (i.e., sample size is greater) and complexity is reduced by focusing on a set of countries as opposed to 30 individual countries. Results are also more meaningful because country appointment to clusters is determined by theory as opposed to national boundaries alone (see Esping-Andersen, 1990; Saint-Arnaud and Bernard, 2003). A total of six country clusters are developed from the 30 countries in the dataset. Each set of analyses will be run separately in each country cluster as well as on the total sample. The results will be compared across clusters. The analyses will address the major research questions posed in Chapter 1 and will test the specific hypotheses presented in Chapter 4.

Statistical Techniques

To address the first hypothesis, that offenders and victims will share characteristics regardless of culture, several descriptive statistical analyses are conducted. To begin, mean values (or levels) of certain individual-level characteristics representing theoretical constructs and controls are calculated for offenders-only, victims-only, both offenders and victims, and non-offenders/non-victims in each country cluster. Next, to identify any statistically significant differences between groups of offenders/victims and non-offenders/non-victims, analysis of variance (ANOVA) and Tukey's Honestly Significant Differences for differences between multiple means are calculated in each country cluster. In the first analysis, non-offenders/non-

victims are the comparison group (to test hypothesis 1a) and in the second analysis overlappers are the comparison group (to test hypothesis 1b).

Second, to identify any overlap between victims and offenders in experiences (hypothesis 2), frequencies are calculated for the total of offenders-only, victims-only, non-offenders/non-victims, and offender and victim groups. Next, chi-square tests examine whether the expected number of individuals are both offenders and victims. If there are more individuals who experience offending and victimization (as well as no offending or victimization) than expected there is partial support for a victim-offender overlap (hypothesis 2a). Correlations will also be calculated using phi (Cohen's W) as the measure of association, between offending and victimization. This is the appropriate measure of association when both variables are dichotomous measures and is calculated by taking the square root of the chi-square statistical divided by the sample size. Significant correlations indicate a relationship between offending and victimization at the bivariate level (hypothesis 2b). To determine significant differences between the clusters in the strength of the correlations, Fisher's r-to-z scores are calculated. This test converts the correlation to a z-score using the original correlation and sample size (n). Significant differences indicate that the slope, or correlation coefficient, is statistically different between two country clusters (hypothesis 2c).

Multivariate logistic regression is used to test hypotheses 2d and 2e. The regression models include offending and victimization as independent variables (along with control variables) to predict one another. This will reveal any relationship between offending and victimization after partialing out background (control) variables. If there is an overlap of experiences, the relationship between offending and victimization should hold after controlling for other known correlates.

To address the third hypothesis, that family bonding will be related to both offending and victimization in each country cluster, bivariate probit regression is utilized. This statistical technique allows the use of two dependent variables within the same model. When two variables are correlated, and could theoretically measure an underlying latent construct, their error terms are also correlated. The bivariate model allows for this correlation and adjusts the standard errors accordingly. In this analysis, an initial bivariate probit model is developed for the full sample. The importance of social contexts is assessed by including a dummy variable for each country cluster (using Anglo-Saxon as the reference category). This analysis shows in each case that context does matter (indicated by significant coefficients for the dummy variables representing country clusters), therefore, bivariate probit models will be run separately in each country cluster.

The full model also includes an interaction of country cluster and family bonding. This examines whether or not the effect of family bonding varies by cluster (i.e., is dependent on country cluster). If a significant interaction effect is found, this would lend further evidence that context matters. Differences in the effects for family bonding are assessed across clusters to test hypotheses 3a and 3b. This is accomplished by calculating predicted probabilities for family bonding in each cluster for each outcome. Last, hypothesis 3c is tested by comparing the coefficients of theoretical variables across models in each country cluster using Wald tests for the equality of coefficients. This tests whether the coefficient (i.e., slope) for offending is equal to the coefficient for victimization for each theoretical variable. The results determine whether or not there are differential effects depending on the variable of interest.

CHAPTER 6: OFFENDERS AND VICTIMS: SHARED CHARACTERISTICS

The early work of von Hentig (1940; 1948) described offenders and victims as sharing similar qualities such as being sneaky and wanton. He also suggested that they both find themselves in risky situations such as meeting in dangerous places away from supervision. Early research on offending and victimization confirmed some of von Hentig's presumptions that offender and victims shared similar demographics and individual-level characteristics. Hindelang et al. (1978) revealed that victim demographics mirrored those of offenders (for example, young, single, minority males). Later empirical research indicated that it is not only these demographic variables that offenders and victims share but other characteristics such as low self-control (Schreck, 1999; Stewart et al., 2004) and poor family bonding (Schreck and Fisher, 2004). Although these findings are robust across studies, most investigations of the similarities between offenders and victims are isolated to one country, or, limited to official data. To-date, there is a dearth of comparative studies that attempt to identify the similarities and differences in levels of various theoretical measures such as self-control, family bonding, attitudes toward violence, strain, and delinquent peer association among offenders and victims.

This chapter addresses questions about the similarities and differences among offenders and victims. First, descriptive statistics of the sample are presented. Second, offenders and victims are contrasted to non-victims/non-offenders. It is hypothesized that offenders and victims will be different than non-offenders/non-victims on all characteristics. Third, relying on previous research (see Cuevas et al., 2007; Sabina et al., 2012), "overlappers" (individuals who experience both offending and victimization) are compared to non-offenders/non-victims, offenders-only, and victims-only groups and it is hypothesized that this is the most at-risk group, differentiating it from all other groups on characteristics related to delinquency and victimization. There is little

reason to expect there to be major differences across social context in shared characteristics. Thus, this analysis will explore the generality of previous claims that offenders and victims are different from those who have not experienced offending or victimization and, further, that overlappers are the most at-risk group.

Table 1 presents descriptive statistics for the full sample. The total sample size for each variable is presented in the first column. The total sample size (no missing data) is 67,883. The main analyses to follow use listwise deletion. Analysis using multiple imputations by chained equations (Royston, 2009) produced almost identical results suggesting that missing data do not likely present a major problem (results not shown). There are almost an equal number of males and females in the sample. Each grade contains about a third of the sample. About 8% of the sample is non-native (not born in the country in which they currently reside).

In terms of the other variables, drug use is generally low (mean=1.13) and the respondents spend a good deal of their time with friends (mean of 4.21 or 5 times per week). The sample reports fairly low levels of neighborhood disorganization (mean=21.42), violent attitudes (mean=33.72), negative life events (mean=19.08), and association with delinquent peers (mean=.79). Overall, levels of self-control (mean=60.93) and family bonding (81.04) were high.

[Insert Table 1 About Here]

Six main dependent variables are used in the following analysis. Two variables measure the prevalence of violent offending and violent victimization, two variables measure theft offending and theft victimization, and two measure general offending and general victimization. About 2% of the sample reported engaging in violent offending and 7% reported being the victim of a violent crime. A larger proportion of the sample had experience with theft. Eight percent of the sample reported stealing (offending) and 20% reported having something stolen

from them. The general measure reports that 20% of the sample offended and 18% of the sample were victims.

Table 2, Table 3, and Table 4 display the distribution of respondents falling in each category of violence, theft, and general, respectively. The rank ordering of violence and theft categories, in terms of sample size, is consistent across country clusters. Non-victims/offenders is the largest group, followed by victims-only, offenders-only, and overlappers. For the general variable, a similar ranking is found except that in the Anglo-Saxon and all European clusters there is a larger prevalence of offending than victimization. Although there is a general consistency in the size of the groups across clusters there are some clear differences, particularly for theft. For example, percentages of theft offending and victimization are much higher in the Anglo-Saxon and European clusters when compared to the Latin America and Post-Socialist clusters. There is also a greater overlap in the Anglo-Saxon and European clusters when considering theft offending and victimization.

[Insert Table 2 About Here]

[Insert Table 3 About Here]

[Insert Table 4 About Here]

Figures 1-3 display the proportion of the sample experiencing violence, theft, and general, respectively. These bar charts allow for a visual comparison between country clusters. However, random sampling was not achieved at the cluster or country levels so these comparisons should be considered with that fact in mind. To assist in this interpretation, Wilson intervals for binomial proportions, a conservative estimation of the 95% confidence interval, are used (Brown et al., 2001). Despite the large sample size, even within clusters, the Wilson's

interval is a conservative estimate of confidence and any emerging differences would represent substantial differences in prevalence of offending or victimization.

Figure 1 illustrates the prevalence of violence across clusters for offending and victimization. It is clear when looking at the errors bars (representing the 95% confidence interval using Wilson's interval for binomial proportions) that prevalence for violent offending is greatest in the Anglo-Saxon and Western Europe clusters. The other clusters are much lower and do not appear to substantively differ from one another. A similar pattern in rank ordering is noticed for the prevalence of victimization. However, the Latin America and Post Socialist clusters report much more victimization than offending. Their victimization rates are among the highest of all the clusters except for the Anglo-Saxon cluster. The Northern EU cluster reports the lowest prevalence of victimization and appears to be significantly lower than all clusters accept the Mediterranean EU cluster.

[Insert Figure 1 About Here]

Figure 2 shows the prevalence of theft offending and victimization by cluster. The rank ordering is very similar to that for violence as seen in Figure 1. The Anglo-Saxon cluster reports the highest prevalence of both theft offending and victimization. The Northern and Western EU clusters report very similar levels of offending and victimization. The other clusters report very low levels of theft offending but, as was the case for violence, report much higher levels of victimization. For instance, the Latin America and Post Socialist clusters report much higher levels of victimization than offending. While their levels of offending are among the lowest, they report similar victimization prevalence as that of the Northern and Western EU clusters.

[Insert Figure 2 About Here]

Finally, Figure 3 presents the results from the general offending and victimization prevalence analysis. Again, rank ordering is consistent with prior results. The Anglo-Saxon cluster is the highest for both general offending and victimization. This is followed clearly by the Western EU cluster for general offending and by Western EU, Latin America, and Post Socialist clusters for victimization. Also consistent is the greater reporting of victimization in the Latin America and Post Socialist clusters in relation to offending. Latin America has the lowest reported offending prevalence but similar victimization prevalence as that of the Western EU and Post Socialist clusters.

[Insert Figure 3 About Here]

Taken as a whole, the prevalence tables and figures show some consistency in the rank ordering of prevalence. It also appears that those clusters high in offending prevalence are also high in victimization prevalence in support of the idea of an overlap between the two. The exceptions are the Latin America and Post Socialist clusters which report much more victimization than offending. The Anglo-Saxon cluster is usually the stand-out cluster as having the highest prevalence of both offending and victimization for each dependent variable and is usually followed by the Western EU cluster. This is in line with the idea that market societies (here the Anglo-Saxon cluster) are more criminogenic and likely promote an overlap between offending and victimization at a macro-level. Next, on an individual-level, characteristics of offenders and victims are examined within the clusters just described.

Tables 5, 6, and 7 address Hypothesis 1 presented in Chapter 4. Offenders and victims are expected to differ from non-offenders/non-victims on several individual-level characteristics. Further, overlappers are expected to be significantly different from other groups in terms of their

individual characteristics. This is hypothesized to be the same for violence, theft, and general offending/victimization.

Table 5 presents the differences in mean levels for victim-only, offender-only, and overlapper groups as compared to non-offenders/non-victims for personal violence (obtained by subtracting the non-offenders/non-victims group means from the other group means). In each cluster, those exposed to violence (either as offenders or victims) are different from those not exposed to violence in the expected direction. That is, offenders and victims have lower mean levels of self-control and family bonding (as indicated by the minus sign) and higher levels of all other variables. In most cases, the difference of means reached statistical significance. It is notable that overlappers were statistically significantly different than non-offenders/non-victims (at $p<.05$) in each cluster for every variable in the expected direction. Where the means do not differ statistically it is generally the case that victims do not differ from non-offenders/non-victims. It appears that non-offenders/non-victims are more closely related to victims-only than to offenders-only and overlapper groups. This makes theoretical sense in that, although victims do share much with offenders, those who refrain from retaliation will be less likely to share characteristics with violent offenders.

[Insert Table 5 About Here]

The results for theft are presented in Table 6. As seen for violence, offenders and victims are consistently different from non-offenders/non-victims. Almost all of these differences are statistically significant. Again, where statistical significance is not reached, it is in the case of the victim group not differing from the non-offenders/non-victims group. Also consistent with the results from violence, overlappers are significantly different than non-offenders/non-victims in each cluster in all but one case (for % male in the Post-Socialist cluster).

[Insert Table 6 About Here]

Table 7 displays the results using the general dependent variable. Overall, the results are very similar to those in the violence and theft analysis. In most cases, offenders and victims are significantly different than non-offenders/non-victims. Victims do not differ from non-offenders/non-victims in many clusters for attitudes toward violence, % male, nights out with friends, and drug/alcohol use.

[Insert Table 7 About Here]

It appears that the hypothesis 1a – that offenders and victims share similar characteristics, and that they are significantly different than non-offenders/non-victims – is supported. However, it is also important to note that while offenders and victims tend to differ consistently from non-offenders/non-victims, they often differ from one another as well. This suggests that there is utility in deconstructing groups into the four categories presented here and not necessarily considering those exposed to any violence (as offenders or victims) as a single group.

Hypothesis 1b states that overlappers will be significantly different from those not exposed to any violence as well as offenders-only and victims-only groups. The previous three tables partially supported this hypothesis by illustrating the difference between the non-offenders/non-victims group and the overlapper group. It was always the case that these two groups differed from one another and that this difference was statistically significant. To complete the exploration of hypothesis 1b, the following three tables compare the overlapper group with the three other groups by obtaining mean differences between the groups (subtracting the overlapper group means from each of the other group means).

Table 8 presents the results from an analysis that compared the overlapper group to the three other groups for personal violence. Overlappers are different than the non-exposed group

(as the previous results show) but they are also different than the offenders-only and victims-only groups in many instances in the expected direction. When statistical significance is not reached it is mostly when comparing the overlapper group to the offenders-only group. This suggests that overlappers are more similar to offender than victim groups. The overlapper group does not differ statistically with the victim-only group only in a few instances. For example, they do not differ in their mean levels of negative life events in the Post-Socialist cluster, family bonding in the Mediterranean EU cluster, % male in all clusters except for Western EU, and nights out with friends in the Mediterranean EU and Latin America clusters. On the whole, overlappers tend to exhibit higher levels of risky characteristics than all other groups. This supports hypothesis 1b which states that overlappers are the most at-risk because they are the most entrenched in the cycle of violence.

[Insert Table 8 About Here]

Table 9 compares overlappers with the other three groups for theft. This analysis examines whether the results presented in Table 8 above hold for theft. The results are almost identical to those for violence. Overlappers differ from non-offenders/non-victims in almost all cases. They also differ from offenders-only and victims-only groups for most characteristics across clusters. Overlappers, again, are shown to be more similar to offenders than victims. This finding appears to be the case even more so for theft than for violence. This is not surprising as theft is a more common occurrence and a more normative behavior for adolescents than violent crime. Overlappers and victims differ less for theft (as indicated by fewer differences in means between characteristics) than for violence. Overall, there is mostly support for the extension of hypothesis 1b to theft.

[Insert Table 9 About Here]

Finally, Table 10 compares overlappers to each other group for the general offending and victimization. Most of the comparisons indicate that overlappers are significantly different than other groups. When the group comparisons are not different, they are usually between offenders-only and overlapper groups. This is congruent with the findings in the previous analyses.

[Insert Table 10 About Here]

While this dissertation is primarily concerned with prevalence of offending and victimization, it is important to briefly examine frequency as well. The analyses presented so far neglects the difference between repeat offenders and repeat victims such that the person committing one offense is treated the same as the person committing 30 offenses. To address this issue, offending and victimization groups were formed so that one offense/victimization constructed the "low" frequency group, 2-3 formed the "medium" frequency group, and 4 and over formed the "high" frequency group (results not shown). As expected, the high frequency group had the most at-risk mean levels of theoretical variables followed by the medium and low frequency groups across all contexts. This finding suggests that offenders and victims do share characteristics but that those who offend and are victimized to a greater extent also have the most at-risk characteristics.

Taken together, these analyses uphold previous findings that the overlap between offenders and victims is a general phenomenon. The overlap is robust across social contexts for violence, property crime, and a variety of offenses and victimizations. The results also indicate that it is important to decompose groups of offenders and victims into separate groups (and into different groups based on frequency). For instance, the largest differences in means were found between non-offenders/non-victims and overlappers – however, many differences were also found between overlappers and other groups that experienced offending or victimization only.

The next chapter continues the exploration of the similarities among offenders and victims by considering the correlation between the two phenomena and the ability to predict one another in multivariate models controlling for other key variables. Essentially, this chapter showed that offenders and victims share characteristics, but this does not mean that this is due to the fact that they are the same people. Perhaps offenders and victims exhibit similar demographics and personalities but do not overlap in their experiences as both offenders and victims. The next chapter addresses this issue.

CHAPTER 7: OFFENDERS AND VICTIMS: SHARED EXPERIENCES

"I'm coming back harder and I'm coming back even a little bit stronger… cutting it off before it becomes worse." (Jacobs and Wright, 2010: 1747)

As previously mentioned, it was over half a century ago that scholars such as von Hentig (1940; 1948) and Mendolsohn (1956) described offenders and victims as exhibiting similar characteristics. Often they used non-scientific terms such as wanton or sneaky and provided little more than anecdotes to support their claims. Later, researchers empirically revealed that victims and offenders did share demographic (Hindelang et al., 1978; Sparks, 1982) and individual-level characteristics (Schreck, 1999; Schreck et al., 2008). The analyses in chapter 6 supported prior research by revealing higher levels of drug/alcohol use, time with friends, neighborhood disorganization, violent attitudes, negative life events, and delinquent peers among offenders and victims. Offenders and victims also had lower mean levels of self-control and family bonding. They also tend to be more frequently male. However, the question remains as to whether this is because they are the same people. Offending and victimization could be largely uncorrelated and any overlap in characteristics due primarily similar personalities/social situations, not experiences.

In this chapter, it is suggested that offending and victimization may co-occur so that offenders are more likely to be victims and vice-versa; that is, there is a correlation among offending and victimization and that offenders and victims overlap in their violent experiences as well as their individual-level characteristics (Hypothesis 2a). There is also expected to be a greater number of individuals who overlap than differentiate into offender-only and victim-only groups (Hypothesis 2b). This is expected across social contexts. As the quote to begin this

chapter exemplifies, there is often a cycle of retaliation and escalation of violent incidences that promote the overlap.

However, Hypothesis 2c predicts differences in the strength of the correlation across social contexts. Family-oriented clusters that rely on the family unit as a primary source of social support (welfare) and emotional support are expected to have weaker correlations between offending and victimization because the family acts as a buffer to prevent such an overlap. Capitalist (or liberal-market) economies are expected to have the strongest correlations given the social emphasis on the market in these clusters. A focus on the market promotes short-term thinking and risky solutions to problems (as they are seen as successful strategies in the market). It also emphasizes an "any means necessary" approach to obtain individualistic goals. Therefore, violence, theft, and other delinquency are more likely to be conceived of as solutions in market economies where these values are strongly espoused. This would increase the risk of both offending and victimization. Hypotheses 2d and 2e partially test the state dependency argument (using a cross-sectional design that cannot test temporal ordering) that offending will predict victimization (2d) and that victimization will predict offending (2e).

Table 11 presents the results for violence. The first column indicates the sample size for each cluster. The next two columns (O and E, respectively) indicate the observed number of overlappers and the expected number of overlappers. Chi-square tests were conducted to calculate the expected number of overlappers. In each cluster it is clear that there is more overlap than would be expected given the data. For example, for the sample as a whole, there is an expected overlap of 104.10 individuals while the data show that there are 372 individuals who overlap (over 3 times the number expected). This supports hypothesis 2a which states that there will be a greater number of overlappers in each cluster than would be expected. Cohen's W,

presented in the 4th column, is a correlation statistic for dichotomous (nominal) data (i.e., the four-point biserial correlation or phi). In each cluster violent offending is correlated with violent victimization at $p<.001$. This supports Hypothesis 2b which states that violent offending and violent victimization will be correlated in each cluster. However, these correlations are not very substantial ranging from a low of .07 to a high of .15.

To test Hypothesis 2c, that the strength of the correlations will be weaker in some clusters (family-oriented clusters) and stronger in other clusters (liberal-market clusters), tests of differences between two correlations are conducted. To test for these differences, Fisher's Z transformations are used to detect differences of each correlation against all others. This is best presented in a matrix which is to be read like any other matrix (particularly a correlation matrix) but instead of presenting the correlation between clusters the z-score for the difference between the correlations is presented. The formula used to transform correlations to Z-scores is presented below (Preacher, 2002: May):

$$zr = (1/2)[\log_e(1+r) - \log_e(1-r)]$$

The left-hand side of the equation, zr, represents the z-score of the difference between two correlation coefficients. The standard error of the z-score (used for significance testing) is calculated by incorporating information on the sample size (right-hand side of the equation) and the z-score calculated above (left-hand side of the equation). This equation is given below (Cohen and Cohen, 1983; Preacher, 2002: May):

$$SEzr = 1/\text{sqrt}[n-3]$$

Table 11 illustrates that there are significant differences between clusters in the strength of the correlation between offending and victimization. The correlations between the Mediterranean and the Post-Socialist clusters are significantly weaker when compared to all

other clusters (but are not significantly different from one another). This partially supports hypothesis 2c which states that the overlap is weakest in family-oriented clusters (Mediterranean cluster). While the Anglo-Saxon (liberal market cluster) is expected to have the highest correlation between violent offending and violent victimization, it is only stronger than the two weakest clusters. Therefore, it does not appear that the liberal market economy differentiates itself in terms of strength of the overlap from other family-oriented clusters besides the Mediterranean cluster.

[Insert Table 11 About Here]

Table 12 extends this analysis by considering the overlap of theft offending and theft victimization in each country cluster. Hypothesis 2c still applies to this analysis. Risk-taking and short-term decision-making are expected to be correlated with theft in the same way that it is with violence. Also, theft, often described as an instrumental crime as it generally has an economic benefit, is expected to be higher in market economies. Additionally, it makes theoretical sense to predict that having something stolen from you in a market culture introduces an incentive to take back stolen property by stealing from someone else – even if it is not from the original culprit (see also Cochran and Bjerregaard, 2011).

Results from this analysis show that the overlap exists for theft much as it did for violence. In each cluster, there are a greater number of observed overlappers than expected. The overall sample illustrates this overlap as there are expected to be 927.90 overlappers but the sample actually has 1,630 who overlapped (almost twice as many). This is not as strong as the overlap shown for violence. Violence is likely to be more exclusive and more likely to be concentrated within the same individuals. Most prior research confirms that the overlap is strongest in violent crime (Lauritsen et al., 1991). However, prior research also finds a

correlation between property theft and property victimization (see Lauritsen and Laub, 1991) which is supported by these results.

Theft offending and theft victimization are correlated in each cluster. This correlation is statistically significant in each cluster at $p<.001$. Again, the correlations are not substantial ranging from a low of .09 to a high of .15 suggesting further that, while there is a significant overlap, far from all individuals experience both offending and victimization.

The Fisher's Z matrix indicates that there are differences in the strength of the overlap across clusters. The Anglo-Saxon and Northern EU clusters have stronger correlations than the rest of the clusters (no significant difference between each other and between Anglo-Saxon and Latin America). This provides support for Hypothesis 2c. The correlation between theft offending and theft victimization is strongest in the liberal market cluster. It is also the cluster with the highest prevalence of theft offending and victimization (see Table 3).

[Insert Table 12 About Here]

As a final analysis for the overlap in experiences between offenders and victims, the general variable is used as the outcome of interest in Table 13. As in the previous analyses, offending and victimization are correlated at $p<.001$ in the overall sample and in each country cluster. This suggests that the overlap between offending and victimization is not only robust across several social contexts but is also not dependent on the measurement of the outcome variable. These findings support the conclusion that the overlap is a general phenomenon which exists for crime/deviance and victimization across social contexts.

Table 13, like the previous two tables, indicates that there are differences in the strength of the correlations across country clusters. The strongest correlations are in the Northern Europe and Latin American clusters and weakest in the Anglo-Saxon and Post-Socialist clusters,

contrary to expectations. This is an interesting finding but it should be interpreted with caution. This scale combines several types of items including those that reflect violence, theft, and other deviant acts. Dichotomizing the variety scale, which includes high frequency items (such as minor crimes) and low frequency items (violent crimes), could distort conclusions. High frequency items tend to dominate the scale and increase prevalence. These measures also treat equally the individual who may have vandalized property once with the individual who has robbed someone and committed gang fighting several times (Sweeten, 2011).

[Insert Table 13 About Here]

The next series of tables (14-19) present the results of logistic regression models using the three measures of offending and victimization separately along with background/control variables. The purpose of these regression models is to assess the ability of offending and victimization to explain one another above and beyond traditional correlates. If offending and victimization do have a substantial relationship, statistically significant relationships should remain beyond bivariate correlations. Changes in predicted probabilities (discrete change) are also calculated and discussed but the results are not presented in the tables.

Tables 14 and 15 present the results for violent offending and victimization. Sex (being male), drug/alcohol use, and time spent with friends are consistent and stable predictors across type of violence and social context. Grade is only significant in a few models for offending and victimization with no clear pattern. The non-native variable is also significant in some models and, when the variable is significant, it appears that immigrants are associated with an increase in odds of offending and victimization.

Violent victimization is associated with an increase in odds of offending and vice-versa. In both tables, these variables are associated with the highest increase in odds. However, odds

ratios are not directly comparable across models. Therefore, changes in predicted probability were calculated. Victimization increased the probability of offending by an average of .03 and offending increased the probability of victimization by an average of .12 holding other variables at their means. In line with a lifestyle, or state-dependent, explanation, this was the greatest change in probability found among the variables included in the analysis and illustrates the ability of offending and victimization to predict one another across social contexts.

[Insert Table 14 About Here]

[Insert Table 15 About Here]

Tables 16 and 17 present the results using the theft dependent variables. The results are very similar to the violence results. Being male, using alcohol/drugs, and spending more time with friends are associated with an increase in offending and victimization for theft. Surprisingly, males are not more likely than females to be the victims of theft in Northern EU and Post-Socialist countries. Also, drug/alcohol use is not associated with being a victim of theft in Anglo-Saxon and Mediterranean countries. Grade and nativity status appear to be sporadically associated with theft offending/victimization. When nativity status is significant, results indicate that being an immigrant increases the odds of being an offender or victim of theft (as it did in the violence results).

Once again, victimization increases the odds of offending by the greatest amount and offending does the same to victimization. Offending increases the probability of victimization by an average of .05 across the clusters. Victimization increases the probability of offending by an average of .14. This is very similar to the violence results, but, surprisingly, the probabilities are larger for theft than violence suggesting that the overlap for theft is just as strong (or stronger) than for violence (at least in this sample).

[Insert Table 16 About Here]

[Insert Table 17 About Here]

As a last test of the influence of offending and victimization on one another, the general measure is used as the dependent variable in the analysis. Results are presented in Tables 18 and 19 and are much more mixed than the results from the violence and theft analysis. For offending, being male, using drugs/alcohol, and spending time with friends are again positively associated with offending. However, for victimization, there are few consistent findings. It appears that lower grades (7^{th} and 8^{th}) are associated with greater odds of victimization than 9^{th} graders. While males are more likely to be victimized, significance is only reached in half of the country clusters.

The only consistent finding is that victimization increases the odds of offending and that offending increases the odds of victimization. Once again, this is consistent across clusters. Offending remains the best predictor of victimization, increasing the predicted probability of victimization by the greatest amount (.10). However, for offending, victimization is no longer associated with the largest change in predicted probability. While victimization does increase the predicted probability of offending by an average of .10, males, on average, are associated with an increase of .13. Overall, it does not appear that the story changes much with the measurement of the dependent variable; offending predicts victimization and victimization predicts offending above and beyond control variables.

[Insert Table 18 About Here]

[Insert Table 19 About Here]

In conclusion, the overlap of the prevalence of offending and victimization is shown here by exploring violence, theft, and a variety of offending/victimization items. There is much more

overlap than expected in the data supporting hypothesis 2a. It also appears that offenders are often victims and vice-versa as evidenced by correlations between offending and victimization supporting hypothesis 2b. However, while correlations are highly statistically significant, they are not very substantial. This shows that while the overlap exists, hardly all offenders are victims and all victims offenders. The strength of correlations varied by country cluster but not in a consistent way, lending only partial support to hypothesis 2c. The Anglo-Saxon cluster was highly correlated for violence and theft but was actually the weakest for general delinquency and victimization. The multivariate analysis indicates that offending and victimization are key predictors of one another, even when controlling for other variables shown to be associated with violence, theft, and other measures of offending/victimization supporting hypotheses 2d and 2e. Taken together, the results presented in this chapter on the overlap of experiences of offenders and victims, and those of the previous chapters on characteristics of offenders and victims, provide evidence that there is a strong victim-offender overlap.[11]

The issue that remains to this point is the explanation of the overlap. It should be the case that theories of crime can be extended to explain victimization. Additionally, among those theories that explain both phenomena, there may be differential effects depending on the outcome (offending vs. victimization). In other words, the theory may be a better (more powerful) explanation of one phenomenon than the other. Similarly, these effects may be different given the social context. Chapter 8 addresses these questions by constructing several statistical models for offending and victimization for violence, theft, and general offending/victimization.

[11] Supplemental correlation analyses also shows that violent offending is correlated with theft offending at .22, violent victimization with theft victimization at .19, violent offending with theft victimization at .06, and violent victimization with theft offending at .08; all at $p<.001$. Similarly, variety and count measures of each outcome are correlated with each other at $p<.001$ illustrating overlap among all types of offending and victimization.

CHAPTER 8: EXPLAINING OFFENDING AND VICTIMIZATION

If there is an overlap between offending and victimization, and empirical research reveals that there is, then it should be the case that theories originally developed to explain offending can be extended to explain victimization (Schreck et al., 2008). In addition, the ability of general theories of crime/victimization should not be culturally bound due to the emphasis surrounding these theories as general explanations of behavior as opposed to contextually contingent. That is, they should have similar effects on outcomes regardless of cultural setting. Theories that are not explicitly "general" are still often expected to function similarly across social contexts. This chapter introduces several statistical models that explore whether theoretical variables related to offending (along with controls) account for variation in victimization. It also tests whether the effects of these theoretical variables differ depending on the specific outcome under investigation and cultural context.

The first set of analyses utilizes bivariate probit regression in each country cluster. This provides an important advantage over other models by using two dependent variables (thus bivariate) in the same model. In the present case, the dependent variables are offending and victimization. The bivariate probit model controls for the correlation of the error terms of offending and victimization. Given that offending and victimization are theoretically and statistically related, they may measure a more general underlying latent trait (i.e., violence or deviance). The likelihood ratio test of rho, which is a measure of the correlation between the error terms of the dependent variables, is significant in all but one instance (the Anglo-Saxon cluster for general offending/victimization).[12] A significant likelihood ratio test indicates that the bivariate model is more appropriate and offers an advantage over two separate probit models for

[12] The bivariate probit model for variety in the Anglo-Saxon cluster is still used in this instance for comparability. The results are not substantially different running two probit models for offending and victimization separately.

estimating the effects on the dependent variables by considering their probabilities jointly as opposed to independently. Therefore, models that account for the shared variance of these variables will be used throughout this chapter. The log likelihood for the general biprobit equation is given below (Greene, 1997: 906-909):

$Y^{*}_{1i} = \beta_1 X_{1i} + \varepsilon_{1i}$ $\quad Y_{1i} = 1$ if $Y^{*}_{1j} > 0$, $\quad Y_{1j} = 0$, otherwise

$Y^{*}_{2i} = \beta_2 X_{2i} + \varepsilon_{2i}$ $\quad Y_{2i} = 1$ if $Y^{*}_{2j} > 0$, $\quad Y_{2j} = 0$, otherwise

In the bivariate probit model, i = the individual and Y = the outcome variable (Y_1 = offending and Y_2 = victimization). The first equation estimates the probability of being an offender to being a non-offender and the second equation estimates the probability of being a victim to being a non-victim. The Xs represent the independent variables in each equation which are the same for each equation. The disturbance terms are captured in each equation by ε. If the correlation between ε_1 and ε_2 equals zero, and are thus independent, then two separate probit models are appropriate (and more efficient). If the correlation between the error terms is not equal to zero and thus not independent, this must be accounted for using a simultaneous equation – here the bivariate probit model. In other words, the probability of being an offender is conditioned (i.e., partially dependent) on the probability of being a victim.

First, bivariate probit regression is conducted in each cluster (and for the full sample) for the violence, theft, and general dependent variables. The decision to run a model in each cluster was based on the results from an initial model that included dummy variables representing each cluster. In this model, each cluster was compared to a reference category (the Anglo-Saxon cluster). The results indicated that the dummy variable for several clusters was statistically significant suggesting that there are important differences in explaining offending and victimization by cluster. This was further demonstrated by including a country by theoretical

variable interaction term. These multiplicative terms revealed that many interactions were statistically significant suggesting that theories operate differently (or have differential effects) depending on social context (results not shown). Initial models were developed for violence, theft, and general offending/victimization, each indicating that there are significant differences by cluster. Thus, separate models are run in each cluster.[13]

Table 20 presents the results from the bivariate probit regression by country cluster for violence. The first column reports the results from analyzing the full sample (I will often put the beta coefficients of this model in parenthesis when discussing effects). In the full sample analysis, standard errors were adjusted accounting for clustering (using country clusters as the clustering variable) resulting in a conservative estimate of the standard errors. This adjustment is also done for the theft and general analyses. The full sample analysis shows that most variables included in the regression model are statistically significant (large sample size in addition to effect size likely to produce statistically significant results for many variables). The predictors of offending appear to be similar to those for victimization (coefficients significant and in the same direction). However, two major differences do emerge from the results. First, violent attitudes are a substantial and significant ($p<.001$) predictor of offending but they do not reach statistical significance for victimization. Second, family bonding is substantial and significant ($p<.001$) for victimization but is not significant for offending. These variables appear to have different effects depending on the outcome variable. To examine this further, the same analysis is run separately in each cluster.

[13] Random effects models were also run as an additional set of analyses to check the utility of running multiple models. Since family bonding is the key theoretical variable for this dissertation, the effect of family bonding was allowed to vary across social context. This was compared to a fixed effects model to examine whether or not allowing the effect to vary provided a better model fit. In many instances this was the case. However, there are only six clusters and the between cluster variance is difficult to estimate with so few clusters leading to poor estimation of standard errors (Rabe-Hesketh and Skrondal, 2012). Therefore, this analysis was only used as a compliment to the main analysis.

Overall, the models show consistency in the direction and significance of the study variables. This supports the findings from previous studies that theories of offending can be successfully extended to account for victimization. There is also some support for the generality of theories to explain offending and victimization across social contexts. For example, demographics appear to work similarly across outcome and context. Males (*b*=.35) are at greater risk than females in being offenders and victims of violent crime in almost all social contexts (except for the Anglo-Saxon cluster – but this was significant in previous models suggesting that it is the addition of theoretical variables that renders this relationship non-significant). Grade is generally not significant. When it is, it appears that 7th and 8th graders are more likely than 9th graders to be offenders and victims (at least in the past 12 months). Nativity status is generally not significant but when it is, non-natives are at greater risk than natives for both offending and victimization. Two other controls, drug/alcohol use (*b*=.03) and time spent with friends (*b*=.06), are significant in a few clusters. Alcohol/drug use is shown to predict offending more often than victimization. Time with friends appears to be important in Western and Mediterranean Europe but not in other clusters (except for offending in the Post-Socialist cluster).

Violent attitudes (*b*=.09) and delinquent peers (*b*=.21) are the most consistent predictors of violent offending in the models. Delinquent peers (*b*=.09) remain significant for victimization as well but violent attitudes do not reach significance in any cluster accept for the Post-Socialist cluster where it is actually negative. Self-control (*b*=-.10) and perceptions of neighborhood disorganization (*b*=.03) are also stable predictors in all but one cluster (Northern Europe) for offending. For victimization these variables are also significant, particularly neighborhood disorganization (*b*=.05) which is significant in each cluster. Self-control (*b*=-.04) predicts victimization in all but the Northern and Mediterranean Europe clusters. Negative life events and

family bonding are only significant in a couple of clusters for offending but both variables are significant in each cluster for victimization (accept for family bonding in the Latin America cluster).

This model reveals some important information about the explanation of offending and victimization. First, neighborhood disorganization, self-control, and delinquent peers are powerful predictors of both violent offending and violent victimization. Violent attitudes are significantly related to offending but not related to victimization (and appear to be negatively related to victimization when they are). Family bonding and negative life events are rarely related to offending but consistently related to victimization. This is interesting as family bonding and strain theories are traditionally theories of crime. It seems that these theories are somehow related to victimization as well.

[Insert Table 20 About Here]

Table 21 presents the results for theft. The directions of the coefficients are consistent with the violence analysis. Males are more likely than females to be offenders (*b*=.12) and victims (*b*=.09) of theft. Grade appears to be mostly non-significant but in instances where it is, younger individuals are more likely to be both offenders and victims when compared to the older individuals in grade 9. This is particularly the case in the Western European cluster as well as the Northern European cluster. Nativity status is a better predictor of theft victimization than theft offending where it is only significant in the Post-Socialist cluster. For victimization, non-natives are much more likely to have possessions stolen than natives. Drug/alcohol use is a poor predictor of theft victimization but a very good predictor of offending (*b*=.03). Drug/alcohol use is positively related to theft offending. Time with friends is positively related with offending and

victimization with no real pattern among clusters – although it does seem to predict theft well in the Northern European cluster.

Theoretical variables do well in their ability to predict theft offending and victimization. Neighborhood disorganization is a good predictor of offending in the Anglo-Saxon, Mediterranean Europe, and Post Socialist clusters but not in the others. For victimization, neighborhood disorganization only reaches significance in the Mediterranean and Post-Socialist clusters. Self-control does equally well explaining theft offending (*b*=-.08) and victimization (*b*=-.03). It is significant in each cluster, in a negative direction, except for the Northern European cluster for offending and the Anglo-Saxon cluster for victimization. Violent attitudes are significantly and positively associated with violent offending (*b*=.04) but they are only related to theft victimization in the Anglo-Saxon and Post-Socialist clusters. Negative life events predict victimization (*b*=.10) well (significant in each cluster) but only reach significance in three clusters for offending. Family bonding is a strong inhibitor of offending (*b*=.-.04) and in half of the clusters for victimization (*b*=-.03). Similar to the results for violence, delinquent peers is significantly and substantially related to offending (*b*=.34) and victimization (*b*=.15) for theft across all clusters.

The variables effective in explaining theft offending and victimization are fairly consistent across clusters and theft categories. However, it does appear that some theories may be better for predicting one form of theft over the other. For example, violent attitudes do well as explanatory variables for offending but less so for victimization. On the other hand, negative life events is a strong predictor of victimization but less so for offending. Self-control and delinquent peers predict both phenomena but their effect sizes are quite different for offending and victimization.

[Insert Table 21 About Here]

Finally, a model is estimated using a variety variable for general offending and victimization. Results are presented in Table 22. The main purpose for using this variable is to understand how well variables can explain general offending and victimization as well as to uncover any differences in the results that may be tied to the measurement of the dependent variable. One standout characteristic of this model is that many more variables are significant for offending and victimization across clusters. This suggests that certain theories might be better suited to explain the overlap depending on the outcome of interest; a finding counter to a more general approach to criminology. However, some theories, such as delinquent peers and self-control, remain fairly consistent explanatory variables of each outcome.

Consistent with prior results, males are more often the offenders (*b*=.48) and victims (*b*=.15) of delinquent activity as well as younger individuals. Nativity status is not related to general offending (accept in the Western Europe cluster where non-natives are less likely to offend) but non-natives do appear to be the more likely to be victimized. Drug/alcohol use is positively related to offending (*b*=.04) in all clusters but is not related to victimization in any cluster. Time with friends increases general offending (*b*=.08) but, interestingly, decreases victimization in many clusters. Almost all of the theoretical variables are related to offending and victimization for each cluster. One exception is that violent attitudes are not related to victimization in several clusters. In sum, these results support prior research efforts to expand theories to account for offending and victimization. It also suggests that theories operate similarly across social contexts for general offending and victimization. However, there may be some nuances when trying to understand the effect of criminological theories in explaining victimization across social contexts. This is examined next.

[Insert Table 22 About Here]

The next set of figures explores how family bonding is related to offending and victimization across social context. This is accomplished by plotting the predicted probabilities for offending and victimization for each country cluster and outcome. The probabilities are calculated from the bivariate probit regressions. It is expected, according to hypotheses 3a and 3b, that family bonding will be related to outcomes to a greater extent in family-oriented clusters than the Anglo-Saxon cluster which reflects a market economy.

Figure 4 illustrates that there are some differential effects of family bonding on violent offending across clusters. The only statistically significant probability curve is for the Northern Europe cluster which shows that family bonding markedly decreases the probability of being a violent offender with a predicted probability of .017 for violent offending at the lowest end of family bonding and only a .004 probability at the highest score on family bonding. The Western EU cluster also shows a large decrease in predicted probability but not as substantial as the Northern EU cluster. Family bonding slightly decreases the probability of offending in the Latin America cluster and has virtually no effect in the Post-Socialist cluster. In contrast, family bonding shows an increase (only slightly) in the probability of offending in the Anglo-Saxon and Mediterranean clusters (not significant in the regression analysis).

[Insert Figure 4 About Here]

The probability curves in Figure 5 present the predicted probabilities of family bonding on violent victimization. While the effect of family bonding on violent offending was more inconsistent across clusters, the effect for violent victimization is much more consistent. Family bonding decreases the probability of violent victimization in each cluster to relatively the same extent. The bivariate probit model indicates that family bonding is a much more stable predictor

of victimization than for offending and it appears that the effect for victimization is also stable regardless of social context. At the low end of the family bonding scale, predicted probabilities range from .070 to .110 with probabilities ranging from .020 to .060 at the high end of family bonding.

Together with the results for violent offending, there seems to be little support for the hypothesis that family bonding will have substantially different effects across clusters on offending (3a) and victimization (3b). However, the decreases seen for the Northern EU and Western EU clusters for violent offending indicate that low family bonding results in the highest probability of offending compared to other clusters and high family bonding results in relatively low probabilities of offending (particularly in the Northern EU). The Mediterranean EU probability curve for violent victimization shows that low levels of family bonding result in the highest probability of violent victimization compared to all other clusters and high levels of family bonding result in one of the lowest probabilities of violent victimization among the clusters. Essentially, while large, consistent differences did not emerge in this analysis, there does appear to be some differential effects contingent on social context in the manner hypothesized which warrant further investigation.

[Insert Figure 5 About Here]

Figures 6 and 7 present the probabilities using theft offending and victimization as the outcomes. Figure 6 suggests that the effect of family bonding on theft offending is quite similar across social contexts. Interestingly, while low family bonding corresponds to the highest probability of theft offending in the Anglo-Saxon cluster (a predicted probability of approximately .170, high levels of family bonding corresponds to the same probability of offending as the Northern and Western EU clusters (a predicted probability around .050). This is

opposite of the hypothesized effect. There is a substantial decrease in offending probabilities for the Mediterranean EU cluster (.080 at the low end of family bonding and .030 at high levels of family bonding) as expected but there is very little change in predicted probabilities for the Latin America and Post-Socialist clusters.

[Insert Figure 6 About Here]

Figure 7 examines the effect of family bonding on theft victimization across clusters. Again contrary to expectations, the protective effect of family bonding on theft victimization is among the highest in the Anglo-Saxon cluster (a predicted probability of .300 at the lowest levels of family bonding and .150 at high levels of family bonding). It is also a substantial protective factor in the Western EU cluster and to an extent in the Post-Socialist cluster. However, family bonding had little effect on victimization in the other clusters. Similar to the results of the violence analysis, family bonding did not emerge as a greater protective factor in family-oriented clusters relative to market-oriented clusters. Even though there was a consistent decrease in the probability of offending and victimization, there were some differences in the extent of this decrease across clusters. In the case of theft, family bonding was actually a greater protective factor in market-oriented clusters, contrary to hypotheses 3a and 3b.

[Insert Figure 7 About Here]

The last set of analyses extends the analysis to the general delinquency/victimization outcomes. Figure 8 displays the results for the effect of family bonding on general offending. While low family bonding results in the highest probability of offending in the Anglo-Saxon cluster (a predicted probability of .325), a high level of family bonding corresponds to the same predicted probability as in the Western EU cluster (a predicted probability of .175). Additionally, while low levels of family bonding result in similar probabilities for the Northern and Western

EU clusters, the curve decreases sharply for Northern EU such that high levels of family bonding correspond to similar probabilities in the Mediterranean EU cluster. Family bonding on offending has a minor effect in the Post-Socialist cluster but almost no effect in the Latin America cluster.

[Insert Figure 8 About Here]

Finally, Figure 9 presents the results of family bonding on general victimization. The predicted probability curves are similar across social context and family bonding insulates against victimization in each country cluster. At high levels of family bonding, all clusters have a predicted probability somewhere between .100 and .200 while there is a wider range at the low end ranging from .200 to .425. Surprisingly, but consistent with prior results, the effect of family bonding appears greatest in the Anglo-Saxon and Western EU clusters where low levels correspond to the highest probabilities of victimization and high levels of bonding match the lower probabilities of victimization seen in the other clusters. There is also a substantial decrease in predicted probability in the Post-Socialist cluster which has not been witnessed up until this point.

[Insert Figure 9 About Here]

In sum, the predicted probability figures showed that there is not a consistent pattern across social context in terms of the effect of family bonding on offending and victimization. Further, little evidence was revealed to support hypotheses 3a and 3b which state that family bonding would have the greatest protective effect in family-oriented clusters. In some cases, just the opposite was found whereby the Anglo-Saxon cluster showed the greatest protective effect of family bonding. Still, evidence did emerge to show that family bonding was important in family-oriented clusters. Regardless of the particulars, social context matters, and that was the most

consistent finding. Continued research is needed to further unravel the effect of context on the ability of theory to account for variation in outcomes.

These analyses were replicated using a count measure of the dependent variable (results not shown). While this is not a focal point of the current dissertation as counts measure frequency or repeat offending/victimization and not prevalence, it is still important to compare the results to identify any differences that may be due to the measurement of the dependent variable (and thus point to any differences in explaining prevalence and frequency). To accomplish this comparison, zero-inflated negative binomial regression was used for violent and theft offending/victimization (due to excess 0s in the data) and overdispersed binomial regression was used for the variety score measuring general offending/victimization (due to a variance that exceeds the mean). Overwhelmingly, the significant variables in the probit analysis remained significant in this supplementary analysis. One noticeable and stable difference was the substantial and significant coefficient for sex (being male) across models. The sex effect was much stronger in the count analysis suggesting that being male was a stronger predictor of repeat offending/victimization than of prevalence. This effect was also seen when including offending and victimization in the models predicting one another. Being male was associated with a greater risk of repeat offending and victimization even above and beyond previous offending/victimization. There is some evidence that the predictors of repeat offending/victimization might vary slightly in their effects between prevalence and frequency.

These analyses illustrate that theories of delinquency/crime can be adequately extended to explain victimization. However, when taken with the previous two models, some theories appear to be better at predicting violence and others victimization. A remaining question is whether or not some theories are better at explaining offending than others. Each of the theories

included in the full models are theories of crime and delinquency. Therefore, they should be better suited to explain offending than victimization. This is explored next.

Tables 23-25 consider the effects of theoretical variables on the outcomes of violence, theft, and general offending/victimization, respectively. Wald-tests for differences in regression coefficients were performed for each variable in each cluster. These tests are based on the coefficients from the bivariate probit models used above. Therefore, the nonlinear test is used and is based on the Wald formula below (as specified by [Greene, 2012: 528)]:

$$W = \{R(b) - q\}'(\mathrm{GVG}')^{-1}\{\mathrm{R(b)} - \mathrm{q}\}$$

W conforms to the chi-square distribution and is the test statistic. The model includes *b* which is the 1 x *k* vector and V is the *k* x *k* covariance matrix. *R* is the *j* x 1 vector and G is the matrix that results from R(b) [which is equivalent to q]. The significant differences (at $p<.05$) in slopes between offending and victimization are presented in bold in each table.

The results for violence are presented in Table 23. Besides neighborhood disorganization and family bonding, it appears that theoretical variables do have differential effects on outcomes for violent offending and violent victimization. Violent attitudes are clearly a much better predictor of offending than victimization and delinquent peers are a better predictor of offending in all but the Mediterranean cluster. Self-control appears to do a somewhat better job of explaining offending than victimization, although it does a good job for victimization as well. Negative life events emerge as better predictors of victimization than offending in the instances where the coefficients do differ. However, the directionality of the coefficient is different among clusters. More research on this variable is needed to fully understand its effect on offending and victimization.

[Insert Table 23 About Here]

Table 24 shows that there are few differences compared to the violence results when using theft as the outcome of interest. Self-control, violent attitudes, and delinquent peers are stronger predictors of offending than victimization. Negative life events are stronger predictors of victimization than offending. There are few differential effects of neighborhood disorganization and family bonding. Table 25 presents the results for general offending and victimization. Again, the results are largely unchanged. Neighborhood disorganization does appear to be a better explanation of offending in the Anglo-Saxon cluster for theft and general delinquency.

[Insert Table 24 About Here]

[Insert Table 25 About Here]

In sum, hypothesis 3c received mixed support. For instance, self-control, violent attitudes, and delinquent peers are better at predicting offending than victimization but they predict victimization in most instances as well (especially delinquent peers and self-control). Negative life events, a measure of strain, appear to be better at predicting victimization than offending – although, again, negative life events do prove to be a suitable explanation for some types of offending as well (in particular general offending). The next chapter discusses the results, subsequent theoretical and policy implications related to the results, and limitations of the research. It closes with a section about the future of scholarly research on the victim-offender overlap.

CHAPTER 9: DISCUSSION AND CONCLUSION

This purpose of this dissertation was to explore the generality of the victim-offender overlap using a comparative framework and international data. It sought to uncover whether offenders and victims overlap in their characteristics as well as their experiences. Additionally, it also explored whether theories of crime could be extended to account for victimization. It was hypothesized that, while an overlap is to be expected, family-oriented social contexts would attenuate the victim-offender overlap. This was expected because it was hypothesized that the family could act as a mechanism to interrupt retaliation and de-escalate conflict by providing social support to offenders and victims.

This study revealed a great deal about the generality of the victim-offender overlap as well as a set of contingencies that may be related to social context. In terms of prevalence, the Anglo-Saxon cluster showed to be the most criminogenic in support of the idea that a market-economy promotes high-levels of both offending and victimization. This finding suggests that it may be fruitful to further delve into the importance of social context on the relationship between offending and victimization.

The analysis of individual characteristics revealed that offenders and victims do share similar characteristics in the directions hypothesized. Specifically, individuals who reported no involvement in violence, theft, or general offending/victimization had higher levels of protective factors such as self-control and family bonding and lower levels of risk factors such as violent attitudes and delinquent friends. Further, individuals who reported being both offenders and victims reported the lowest levels of protective factors and the greatest levels of risk factors. Analyses using counts or variety scores show that the greater the individual's frequency of offending and victimization the greater the risk factors and the fewer the protective factors

present for the individuals. This lends additional support for the idea that those with few protective factors and many risk-factors are those who are most enmeshed in a cycle of violence or deviance.

One position taken by researchers is that population heterogeneity, or differences in individual demographics and characteristics, account for the overlap between victimization and offending. In other words, the overlap does not occur because offending leads to victimization or vice-versa, but rather because people with certain qualities (such as low-self-control and family bonding) place themselves in similar risky situations (Cohen et al., 1981; Gottfredson, 1984; Hindelang, 1978). The current analysis showed that characteristics conducive to both offending and victimization are shared by certain groups of individuals. However, it cannot fully test the population heterogeneity vs. state dependency arguments that still need to be adequately addressed in the literature.

The analysis showed that not only do characteristics between offenders and victims overlap (that they are significantly different than non-offenders/non-victims) but that they also more likely to be both offenders and victims of violence and theft. This is shown by calculating correlation coefficients and expected frequencies. In every case, and within each cluster, there were a higher number of individuals who were non-offenders/non-victims or both offenders and victims than those who were only offenders or victims. The main analysis and supplementary analyses showed that regardless of the measure of offending and victimization (prevalence, count, or variety score) and the type of offending/victimization (violence, theft, or general) there was a significant correlation between offending and victimization.

While a correlation between offending and victimization was expected in each county cluster, the correlation was expected to be weaker in family-oriented clusters because the family

can act as an inhibitor to the overlap. While the correlation was, in fact, weakest in the Mediterranean cluster (where the family is the most relied upon by society), the overlap was not strongest in the Anglo-Saxon cluster and was stronger in the Northern and Western Europe clusters (but not significantly so). This is perhaps due to the idea that troubles are dealt with by the family in the Mediterranean cluster so the family is consulted more often than in the more isolated cultures of Northern and Western Europe. Further, although the government provides social welfare that benefits the family in these clusters, this might not translate to a protective factor against violence because it doesn't increase the inhibitory function of families. For theft, the overlap is strongest in the Anglo-Saxon cluster and Northern European cluster. Again, this strong correlation in the Northern European cluster may be due to their value of independence and want to deal with problems individualistically as opposed to seeking the help of others. The same goes for the Anglo-Saxon cluster and it is also plausible that given the high value placed upon material possessions in the Anglo-Saxon cluster that those who are victims of theft would want to replace their goods by stealing from someone else.

Analysis of the Latin America and Post-Socialist clusters produced interesting results. First, it can be seen that both clusters reported far more victimization than offending – a trend not as prevalent in other clusters. This may reflect reality or it may be that individuals in these clusters are more apprehensive to report that they offended than that they were victimized. Despite this discrepancy in prevalence, violent offending and victimization were correlated at .12 and .09 respectively. The correlation for Latin America was only stronger than the Mediterranean cluster while the correlation in the Post-Socialist cluster was weaker than all other clusters aside from the Mediterranean cluster. This suggests that, in terms of violence, the Post-

Socialist cluster may be more aligned with the family-oriented Mediterranean cluster than the market-oriented cluster when focusing on the violent overlap.

For theft, both the Latin America and Post-Socialist clusters show comparatively weak correlations between offending and victimization. The correlations for these clusters are significantly weaker than the Northern Europe cluster and the correlation for the Post-Socialist cluster is also significantly weaker than the Anglo-Saxon cluster. The Post-Socialist cluster reveals that the overlap is relatively weaker there than in other clusters. Future research should seek to answer whether this finding is related to actual differences in offending and victimization or related to reporting differences.

Multivariate analyses indicated that offending was the most powerful predictor of victimization and victimization was the most powerful predictor of offending above and beyond control variables suggesting that the correlation between the two is robust even after controlling for (partialing out) the effects of background variables. These analyses support the idea that not only do offenders and victims share characteristics but that they are also at-risk for both offending and victimization.

The state dependency arguments that exist in the literature suggest that offending leads to victimization and vice-versa. Several theories (discussed more thoroughly in the literature review) have been proffered to explain this overlap. Certain routine activities promote both risks for engaging in offending and becoming the victim of crime (Jensen and Brownfield, 1986). Offending is shown to be related to subsequent victimization through retaliation by initial victims (Singer, 1986). Victimization, a powerful strain on the individual, is shown to be causally related to subsequent offending (Agnew, 2002). The current analyses revealed, even after controlling for background factors, that offending is predicative of victimization and vice-

versa (see also Schreck et al., 2006; Singer, 1986). This is supportive of the idea that there is a relationship, beyond merely sharing similar characteristics, between offending and victimization. Along with the conclusions of Berg et al. (2012), the results also suggest that the relationship between offending with victimization, and vice-versa, could be the outcome of retaliation.[14]

Finally, this dissertation showed that there are several theories of crime that are profitable as explanations of victimization as well. The theoretical framework and subsequent analytic strategy for this analysis suggests that offending and victimization may be the outcomes of similar processes (Gottfredson, 1984). Control theories (self-control and family bonding) and differential association/learning theories were shown to predict both offending and victimization. Association with deviant peers is among the strongest of these correlates which is in line with previous research (Berg and Loeber, 2011; Schreck et al., 2006). Negative life events, a measure of strain, was a strong predictor of victimization but also adequately accounted for offending in some instances. Similar effects were seen for neighborhood disorganization. The significance and direction of the effects of theories on the outcomes are quite stable across clusters. There appears to be much utility in extending theories of crime to account for victimization.

Differences in the effect of theories across social context did not appear to be consistent. This was the case with family bonding which was hypothesized to be a better protective factor (and lack of family bonding a great risk factor) in family-oriented clusters. While this hypothesis received limited support, the finding was not consistent. Contrary to the hypotheses, family bonding emerged as a powerful predictor of offending and victimization in some instances for the Anglo-Saxon (market-oriented) cluster, particularly for theft offending. The specific mechanism that leads to theft offending cannot be identified but the finding that family bonding

[14] However, the data do not lend themselves to an adequate test causal ordering. This conclusion is based solely on the evidence of the bidirectional relationship between offending and victimization that exists after controlling for background variables.

is an important inhibitor stands. It may be the case that the importance of family in the Anglo-Saxon cluster was underestimated in this dissertation. As the table in Appendix B shows, the World Value Survey indicates a fairly high score for the Anglo-Saxon cluster in terms of the importance of the family.

It might also be the case that the family plays an important role in preventing the overlap because it offsets the influence of the market in the Anglo-Saxon cluster especially in the instance of theft where there is a valuation of material goods. In the absence of family bonding, the individual is freed to engage in activities related to risky and impulsive behavior advocated for in market economies. In some clusters, such as the Northern Europe cluster where there is high institutional collectivism, the individual might be able to rely on other mechanisms of support that interrupt the overlap. One potential source of support may be the police; the WVS indicates that individuals in this cluster have high levels of confidence in the police.

Multivariate analysis on the exploratory clusters shows that there are varying effects of family bonding on offending and victimization. There is a slight decrease in the probability of offending for the Latin America cluster but a negligible effect for the Post-Socialist cluster and both clusters show that family bonding has weak effects for victimization (particularly when compared to the other clusters). Similar patterns are found for theft and in many instances the effect is weaker. Family bonding does not appear to be a strong protective factor in these clusters. In the Latin America cluster this could be attributed to the over-riding machismo ethos where the family fails to inhibit poor behavior because the individual must act aggressively when slighted. In the Post-Socialist cluster, individuals might be able to find support from other institutions when the family fails – such as the church which is highly valued in these cultures.

The inhibitory effects of religion and the church as a social institution are not well understood and future research should explore this more thoroughly.

Essentially, further research is needed to understand exactly how social context affects the ability of theory to account for offending and victimization. This research endeavor is gaining ground but the role of social context on the victim-offender overlap is still not well understood (See Berg and Loeber, 2011). This dissertation identified several differences across social contexts but was unable to discern with clarity the pattern of these differential effects.

It should be noted that these findings do not imply that all offenders are absolved of their responsibility because they have all been victims of violence or theft. Nor does it blame victims for what happened to them because they are all offenders. It does suggest that there is a cycle of phenomenon where particular individuals are caught up in being victimized and victimizing others. Research must continue to examine this phenomenon to address this situation and, as Mendelsohn suggests, reduce the number of victims in society.

Theoretical Implications

This research perhaps raises more questions about theory than it answers. However, this is part of social science and this study sets the stage for future theorizing on the victim-offender overlap. While the explanations of offending and victimization appear to hold generally across social contexts, it is still unclear how variables extracted from major theories are directly and indirectly related to offending and victimization. Further, it was not possible to untangle the temporal ordering in this cross-sectional study. These issues are expanded upon in this section.

First, this dissertation supports the finding that offending and victimization are correlated and perhaps measure an underlying phenomenon. This is in line with research on the generality of offending and victimization. A preponderance of criminological scholarship shows that

offenders tend to be quite general in their offending. In other words, offenders usually commit a variety of offenses and do not specialize in any one type (Blumstein, 1988; Britt, 2000). Research is beginning to show that individuals experience a variety of victimization types (violence and theft) as well (Schreck et al., 2012). Given the evidence of a victim-offender overlap and generalization in terms of types of offending and victimization, the overlap itself is likely quite general such that involvement in any type of violence or theft offending/victimization will be related to one another. The correlation matrix in Appendix D illustrates the relationship between different types of offending and victimization. As can be seen, all correlations are significant at $p<.001$. This supports the idea that involvement in violence as either a violent offender or victim increases the likelihood of committing theft or being the victim of theft. While each correlation is significant, they are not substantively large. So while a correlation does exist between all forms of offending and victimization, hardly everyone is involved with all types of offending/victimization. Further, research shows that specialization is more prevalent among older individuals (Britt, 2000) and more serious offenders (Sullivan et al., 2006) who are not well represented in this datatset. Research should continue to build upon this finding, particularly using different samples.

Some criminological theories, such as subculture of violence theories, are particularly suited to explain victimization because there is a direct application of the theory (such as retaliation). Others, however, are less clear. For example, how does family bonding or self-control relate to offending behavior? Control theories in general are an explanation of delinquent behavior. Bonds or self-control are inhibitors of delinquency - controlling a person naturally inclined to act in self-interest. What future research should seek to uncover is how the weakening of bonds or inhibitors influence victimogenic factors such as routine activities or retaliatory

violence. Additional measures could increase the understanding of how certain concepts mediate the link between theoretical variables and outcomes. The data lack measures on emotions which could add value to the association between strain and outcomes. If the measure of strain used here produced anger, this could function much differently than strain that produced depression.

This research put to test the ability of crime and victimization theories to explain both phenomena across different cultural contexts. Overall, it appears that theories are capable of explaining both phenomena across social contexts. However, while the data were suited for cross-national comparisons they were not able to explore temporal aspects of the theories. For example, strain was associated with victimization. However, it is not possible to identify whether strain increased after victimization as opposed to before victimization. Similarly, poor family bonding can lead to offending or victimization but offending and victimization can also weaken existing bonds. There is no way to tell which comes first in the current data. Moreover, theories might differ cross-nationally in their ability to explain violence over time with macro-level changes. Future research should collect data cross-nationally and longitudinally. This is a tough task to be sure – but an important one for the future of crime and victimization theory.

A recent (or re-emergent) discussion in criminology is linking micro- and macro-level theories, or, multi-level theorizing. Criminologist Steven Messner (2012) laid out his vision for such a theoretical focus in his 2011 presidential address to the American Society of Criminology. He focused his address on how one macro-level theory – Institutional Anomie Theory (IAT) and one micro-level theory – Situational Action Theory (SAT) could be integrated to account for both individual crime (motivation) and crime rates. Messner argues that Wikstrom dismisses macro-level variables as "causes of causes" and believes them to be largely irrelevant to individual motivation when there might be significant contributions of these causes to how SAT

operates given differences of social context (i.e., macro-level variables such as the economy). Especially relevant to the current dissertation, Messner outlines how IAT could clarify SAT by examining how social context influences theory.

This dissertation hypothesized that liberal economies would experience a greater overlap in violence and theft because of their reliance on the market and market values as opposed to the institution of family. This hypothesis was partially supported by the data, suggesting that, indeed, social context is important. However, the liberal economic cluster was not differentiated entirely from all other social contexts – even those that were family-oriented. Similarly, theories were hypothesized to be differentially related to offending and victimization given social context. Again, social context was found to matter when measuring the adequacy of theories to explain violence, theft, and general offending and victimization. To be sure, this dissertation does not go into the required depth to conclude with certainly that it is, in fact, the family-oriented context that interrupts the victim offender overlap or that influences the relationship between offending and victimization. However, it does, at least, illuminate the potential of cultural context to play a part in theorizing about offending and victimization as well as violence and theft.

Policy Implications

This research shows that offenders and victims share similar characteristics and experience similar violent situations regardless of social context. This finding has implications for primary prevention, intervention, and rehabilitation. This section discusses the importance of accounting for the victim-offender overlap in these three programmatic/policy areas.

In terms of primary prevention, at-risk individuals can be identified early on in their life-course by focusing on their bonds to their family, impulsivity and temperament (self-control), attitudes (particularly violent attitudes), and involvement with delinquent or aggressive peers.

This research shows that offenders and victims display similar risk factors related to offending and victimization and, given the sample, the presence of both phenomena emerge relatively early in life. Early intervention is among the most profitable crime prevention strategies (Farrington and Welsh, 2007; Welsh, 2012) and appears to hold promise in preventing not only offending but victimization as well.

There are obvious policy implications for intervention that emerge from the current study. Offending was shown to be related to victimization, and victimization to offending. While it is possible that a respondent experienced both in the same incident (e.g., mutual fighting) it is much more likely that there was some lag-time, particularly in the case of theft and more general delinquency. This offers an opportunity for intervention programs to interrupt the victim-offender overlap. As Schreck and Stewart (2011) point out, the juvenile court can play an integral role in identifying and providing services to children who are involved in delinquency and are the victims of abuse, neglect, and other maltreatment. Juvenile courts have the ability to remove children from unsafe places where they experience harm or learn from the deviant behavior of others. They can also play a role in linking juveniles to important programs and social resources through ties to the community and governmentally-funded organizations. Unfortunately, the juvenile court system appears to be moving toward the model of adult courts – assigning blame instead of social support.

The police might also provide an intervening mechanism in the victim-offender overlap. Insight into the relationship between offending and victimization equips police officers with the ability to probe deeper into the background factors of delinquents and those whom they encounter on the street. An aggressive or delinquent adolescent may be acting out as a result of being victimized by their family or peers. Information on this issue would allow the police to

address some of the other factors related to a person's delinquency (which might be the root of this delinquency as well).

For similar reasons, street outreach could provide additional benefits – being able to interrupt the overlap by intervening in conflicts. Much like family bonding was hypothesized to interrupt the overlap in this dissertation, street outreach workers could provide a similar mechanism, especially among youth who spend most of their time away from their families and other supervisory figures. Violence is often the result of previous or ongoing conflicts (Jacobs and Wright, 2010). In fact, policies already in place, such as Chicago Ceasefire, were implemented for specifically this reason (see Papachristos, 2011). If street workers, or other similar interventionists, were able to identify these situations and quell any desire for retaliation or "beef," this could prove to be a very effective approach to dealing with the victim-offender overlap.

Efforts aimed at offender rehabilitation would also benefit from knowledge about the victim-offender overlap. Cognitive behavioral therapy (CBT), and other risk-responsivity models, is one of the most effective rehabilitation methods cited in the literature (Andrews and Bonta, 2010). This approach is focused on offering offenders new ways of thinking about coping with and responding to adversity. Recent research shows that the overlap is related to a certain way of thinking where retaliation and aggression is an appropriate response to adversity (Berg and Loeber, 2011; Berg et al., 2012). CBT is one approach to rehabilitation that can retrain individuals and offer them new ways to think about and respond to adversity, particularly display or perceived disrespect and victimization.

Limitations

This dissertation advances the literature on offending and victimization by testing some of the generality assumptions made by current research and identifying some potential intervening mechanisms in the victim-offender overlap. However, the analyses here are limited by the nature of the data but offer areas in which future research can improve and expand. While this study revealed that offending and victimization co-occur, are correlated, and can be explained by similar theories, the dynamics of offending and victimization cannot be fully understood within this study. As Singer (2002) asserts, crime is a complex event. The interactionist approach popularized by Wolfgang (1958) and Luckenbill (1977) suggests that the overlap is a complex web which is influenced by individual emotion, the dynamics of the event, and plain luck. This study does not capture the emotions during or after a violent event nor characteristics of the event to account for these phenomena such as the influence of bystanders. Clearly there continues to be a need to collect international data on these variables to fully understand the relationship between offending and victimization.

The sample, while large, does not contain a large number of offenders, victims, and overlappers relative to the overall size of the sample. One reason that this may be the case is related to the age of the respondents. The sample includes students from grades 7-9. This is just before the peak violent offending years of the late teens. Cuevas et al. (2007) point out that the overlap generally occurs later in adolescence during the late teen years (see also Smith and Ecob, 2007). The sample, therefore, probably underestimates some of the correlation between offending and victimization. Regardless of the amount of offending and victimization in the data, a sufficient number of cases exist in all categories to make sound statistical analysis possible.

The dependent variables for offending and victimization are somewhat limited. Only robbery and offending could be used to form the scale of violent offending and violent victimization. Several other offending and victimization variables might have improved the psychometric properties of the scale. Further, as Hindelang (1976) points out, the prevalence of robbery and assault vary across demographics – specifically race. Considering these two variables separately may have produced different results. However, as discussed in the methodology chapter, robbery and assault were highly correlated in each country cluster (as well as the overall sample) and theoretically capture violent offending and victimization. Similar measures have also been used in recent research (for example see Berg and Loeber, 2011). While it is generally advantageous to disaggregate when possible, the results presented here are interpreted with confidence using the constructs representing violent offending and violent victimization.

Missing data are problematic in the social sciences. This study does not escape the need to account for systematic bias of the results due to missing information. Missing data is a very important problem in social science because it can potentially reduce the validity of key measures (Best, 2004) and bias estimates and standard errors. It is particularly problematic in self-report delinquency research when sensitive questions are asked, thus increasing the chance that participants will choose not to answer questions that will reflect poorly upon them. The multivariate analyses were replicated using imputation by chained equations for missing data (results not presented). This assumes that data were missing at random which is not guaranteed. The results vary little and there were few reasons to expect that missing data were severely biased leading to misrepresentation of results.

The ISRD project and this dissertation use methods and analyses that make every effort to ensure that the conclusions drawn are accurate and theoretically plausible. However, there are limitations to this type of research that should be acknowledged to better understand the analyses and in an effort to guide future policy and research. Most countries used a city-based sampling strategy while only a few used nationally-representative samples. Thus, direct comparisons across country clusters should be interpreted with caution as these rely on samples that might not be completely representative of the countries in the analysis. However, while there are some comparisons between countries in this dissertation, the focus is on the ability of theoretical concepts to explain offending and victimization in different settings which does not require nationally-representative samples (see Maxfield and Babbie, 2010). Further, research using the ISRD-II sample concluded that the prevalence rates of victimization and offending, as well as the representativeness of the country samples, were comparable to other data sources such as the International Crime Victim Survey (ICVS) and the European Sourcebook (Enzmann et al., 2010) along with several other self-report methods (Junger-Tas et al., 2010; 2012) adding confidence in the strength of the samples.

The validity of theoretical measures in social science is of paramount importance (Farrington et al., 1996). The items that comprise the scales used in this study have been used in prior research and have been validated in previous analyses. Regardless, issues remain in the conceptualization of the abstract concepts in this research. For example, the self-control scale used here contains only 12 of the original 24 measures used by Grasmick et al. (1993). However, these items cover the domains that have shown the highest internal consistency (Gibson, 2005; Gibson et al., 2010; Longshore et al., 1998; Piquero and Rosay, 1998) and are shown to be the domains most related to criminal behavior, including risk-taking and impulsivity (Hirschi, 2004).

While some scales such as the self-control measure and family bonding measure, had to be abbreviated due to survey length or have their wording modified to make sense cross-culturally, they are all borrowed from previously validated scales used in delinquency research. This increases confidence in the reliability and validity of the scales used in this dissertation.

In the current study, there are likely other ways to cluster the countries. However, because this dissertation focuses on the impact of family on the victim-offender overlap, the current clustering structure is warranted and supported both empirically and theoretically. The research hypotheses posit some generality in the victim-offender overlap as well as some contingencies. The contingencies are related to the influence of family in disrupting the victim-offender overlap. Therefore, cultures that rely on the family as the primary system of social support should offer a strong mechanism of informal social control to inhibit the victim-offender overlap. Clusters that have social support systems organized around the market economy should have a stronger culture of succeeding at "any means necessary" including retaliation. These clusters should have the greatest overlap between offending and victimization. Given these hypotheses, clustering countries based upon the social welfare model provided by Esping-Andersen (1993) and extended by others (Junger-Tas et al., 2012; Saint-Arnaud and Bernard, 2003) was appropriate for this type of investigation.

Future Research

This is an exciting period for research on the overlap among offending and victimization. It appears to have outgrown its simplistic explorations of similarities between offenders and victims and moved on to in-depth qualitative analysis of personal accounts and quantitative analyses of intricate datasets including observations across time and place. However, there is much room for expanding research on the overlap. One research area still in its infancy is large

scale, cross-national comparisons of the overlap. This is the gap addressed in the current dissertation. There remains plenty of room to expand on what has been done in the current study and a few of those ideas are discussed next.

Given the increased interest in context, whether at the neighborhood, school, or country-level, future research on the overlap should continue to identify where and under what circumstances the overlap between offending and victimization occurs and the extent of that overlap. As this dissertation and recent research shows (Berg et al., 2012; Berg and Loeber, 2011), the overlap is not the same everywhere. Following the call by Jennings et al. (2012) research should continue to address the issue of the overlap in context.

Second, there have been few studies that explore the overlap over time (see Schreck, 2008 for an exception). To the extent that longitudinal datasets incorporate measures of offending and victimization, there will continue to be an interest in unraveling temporal effects of offending on victimization and vice-versa. Additionally, extending work by Widom (1989) and Finklehor (1995), research using samples from individuals at different life stages (e.g., children, adolescents, adults) is required. With a move toward longitudinal analysis in criminology, this issue will likely continue to receive attention.

Similarly, as seen in this dissertation and current scholarly work (Schreck, 2008), theories of crime and victimization are often compatible and complimentary. Theory and research have yet to adequately explore why this is the case. For example, family bonding was a strong predictor of victimization here, and elsewhere (Schreck and Fisher, 2004), but the reasons why lack of family bonding increases victimization is still not well understood. This understanding can be improved through path analysis and mediation analysis (particularly using panel data) which illuminate the route from certain theoretical variables to outcomes.

Finally, there is likely to be increased attention to a wider range of explanatory variables that are theoretically related to a victim-offender overlap. For instance, emotional responses to victimization such as anger and frustration are likely to influence whether or not someone retaliates after being victimized (see Agnew, 2002). Emotional reactions such as depression may temper the overlap by reducing a desire to retaliate by directing frustrations inward. Also, research has only begun to incorporate genetic and other biological factors into analyses aimed at explaining offending and victimization (Beaver et al., 2007; 2009; 2011) and fewer have applied these factors explicitly to the overlap (but see Barnes and Beaver, 2012). For example, a certain gene or biological factor may insulate a person who is victimized from becoming an offender (for example see Caspi et al., 2002). Likewise, there are likely to be factors that also aggravate the individual and facilitate a desire to retaliate. To-date, there is little research exploring these issues.

This dissertation addressed some of the issues on the generality of the victim-offender overlap. Results indicate that the overlap is a fairly stable and general phenomenon. However, it did find differences across social contexts. It has, in some instances, raised more questions than it answers. To this extent, it has pointed the direction for future research to answer these questions. It is indeed an exciting time for research on offending and victimization and their overlap.

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Table 1: Descriptive Statistics (Full Sample)

	N	Mean	SD	Range
Male	67,716	.49	.50	0-1
Grade 7	67,883	.33	.47	0-1
Grade 8	67,883	.33	.47	0-1
Grade 9	67,883	.34	.47	0-1
Non-Native	67,516	.08	.27	0-1
Drug-Alc	61,901	1.13	3.44	0-75
Time w/ Friends	65,882	4.21	1.65	1-6
Neighborhood Disorganization	66,359	21.42	23.80	0-100
Self-Control	66,764	60.93	20.22	0-100
Violent Attitudes	66,473	33.72	22.26	0-100
Negative Life Events	66,388	19.08	15.36	0-100
Family Bonding	67,145	81.04	17.01	0-100
Delinquent Peers	64,312	.79	1.19	0-5
Violent Offending	65,793	.02	.15	0-1
Violent Victimization	64,249	.07	.26	0-1
Theft Offending	65,006	.08	.26	0-1
Theft Victimization	64,638	.20	.40	0-1
General Offending	63,416	.20	.40	0-1
General Victimization	63,835	.18	.39	0-1

Table 2: Sample Size by Violence Category

	Full Sample	Anglo-Saxon	Northern EU	Western EU	Mediterranean EU	Latin America	Post-Socialist
	Frequency (%)	Frequency (%)	Frequency (%)	Frequency (%)	Frequency (%)	Frequency (%)	Frequency (%)
No Violence	56,999 (91.22)	3,130 (89.68)	6,303 (93.52)	14,796 (91.02)	10,115 (92.96)	5,519 (89.35)	17,136 (90.48)
Victim-Only	3,995 (6.39)	228 (6.53)	301 (4.47)	869 (5.35)	562 (5.16)	532 (8.61)	1,503 (7.94)
Offender-Only	1,118 (1.79)	101 (2.89)	100 (1.48)	445 (2.74)	168 (1.54)	84 (1.36)	220 (1.16)
Overlap	372 (.60)	31 (.89)	36 (.53)	146 (.90)	36 (.33)	42 (.68)	81 (.43)

Table 3: Sample Size by Theft Category

	Full Sample	Anglo-Saxon	Northern EU	Western EU	Mediterranean EU	Latin America	Post-Socialist
	Frequency (%)	Frequency (%)	Frequency (%)	Frequency (%)	Frequency (%)	Frequency (%)	Frequency (%)
No Theft	46,823 (75.35)	2,215 (63.69)	4,858 (72.75)	11,330 (70.76)	8,834 (81.22)	4,557 (73.58)	15,029 (79.50)
Victim-Only	10,608 (15.63)	747 (21.48)	1,132 (16.95)	2,941 (18.37)	1,334 (12.26)	1,339 (21.62)	3,115 (16.48)
Offender-Only	3,082 (4.54)	293 (8.42)	421 (6.30)	1,181 (7.38)	517 (4.75)	168 (2.71)	502 (2.66)
Overlap	1,630 (2.40)	223 (5.63)	267 (4.00)	561 (3.50)	192 (1.77)	129 (2.08)	258 (1.36)

Table 4: Sample Size by General Category

	Full Sample	Anglo-Saxon	Northern EU	Western EU	Mediterranean EU	Latin America	Post-Socialist
	Frequency (%)	Frequency (%)	Frequency (%)	Frequency (%)	Frequency (%)	Frequency (%)	Frequency (%)
No Offense	40,157 (66.92)	1,891 (56.43)	4,579 (70.15)	9,699 (62.91)	7,433 (70.68)	4,141 (71.76)	12,414 (67.38)
Victim-Only	7,651 (12.75)	498 (14.86)	673 (10.31)	1,877 (12.17)	1,090 (10.36)	787 (13.64)	2,726 (14.80)
Offender-Only	8,972 (14.94)	690 (20.59)	953 (14.60)	2,836 (18.39)	1,536 (14.60)	581 (10.07)	2,376 (12.90)
Overlap	3,227 (5.38)	272 (8.12)	322 (4.93)	1,006 (6.52)	458 (4.35)	262 (4.54)	907 (4.92)

Table 5: Differences in Means by Cluster for Violence (Compared to Non-offenders/non-victims)

	Anglo-Saxon			N. Europe			W. Europe		
	V	O	OL	V	O	OL	V	O	OL
% Male	0.19*	0.27*	0.27*	0.19*	0.21*	0.20*	0.15*	0.26*	0.27*
Drug/Alcohol Use	0.78	2.94*	3.46*	1.62*	3.55*	7.04*	1.23*	4.80*	6.04*
Time with Friends	0.19	1.07*	0.92*	0.42	0.74*	1.05*	0.38*	1.06*	1.04*
Neighborhood Disorganization	13.32*	30.20*	35.90*	14.32*	21.41*	38.60*	11.23*	23.05*	28.03*
Self-Control	-11.16*	-22.56*	-30.13*	-11.77*	-26.36*	-34.27*	-6.92*	-22.41*	-26.42*
Violent Attitudes	9.48*	28.04*	29.51*	12.18*	29.70*	40.65*	6.33*	26.53*	31.87*
Negative Life Events	9.60*	7.57*	15.72*	9.07*	7.62*	15.50*	7.27*	5.11*	10.71*
Family Bonding	-7.88*	-4.65	-20.04*	-8.22*	-10.64*	-23.64*	-6.16*	-8.69*	-13.79*
Delinquent Peers	0.84*	2.03*	2.58*	1.14*	2.23*	3.10*	0.57*	1.76*	2.06*

*p<.05; V = Victims-Only; O = Offenders-Only; OL = Overlappers

Table 5. Differences in Means by Cluster for Violence (Compared to Non-offenders/non-victims)

	Med. Europe			Latin America			Post-Socialist		
	V	O	OL	V	O	OL	V	O	OL
% Male	0.24*	0.30*	0.26*	0.16	0.26*	0.22*	0.23*	0.33*	0.34*
Drug/Alcohol Use	0.49	5.18*	5.99*	0.52	1.67*	3.19*	0.69	3.36*	3.78*
Time with Friends	0.32	0.83*	0.80*	0.38	0.96*	0.99*	0.20	0.60*	0.94*
Neighborhood Disorganization	11.01*	28.19*	24.29*	6.02	17.63*	29.55*	9.18*	18.84*	30.68*
Self-Control	-7.56*	-26.20*	-26.90*	-5.40	-19.14*	-23.56*	-5.79*	-21.71*	-22.33*
Violent Attitudes	7.78*	30.93*	33.83*	4.94	22.88*	23.61*	5.43*	26.47*	26.30*
Negative Life Events	5.75*	7.51*	17.32*	5.99*	1.83	14.67*	4.94*	4.66*	8.01*
Family Bonding	-4.83	-4.58	-7.92*	-5.06	-6.00	-15.24*	-3.31	-6.39*	-11.74*
Delinquent Peers	0.46*	1.54*	2.05*	0.51*	1.64*	2.66*	0.39*	1.48*	2.08*

*p<.05; V = Victims-Only; O = Offenders-Only; OL = Overlappers

Table 6: Differences in Means by Cluster for Theft (Compared to Non-offenders/non-victims)

	Anglo-Saxon			N. Europe			W. Europe		
	V	O	OL	V	O	OL	V	O	OL
% Male	0.07	0.14*	0.14*	0.01	0.10*	0.11*	0.03	0.08*	0.11*
Drug/Alcohol Use	0.13	2.69*	2.69*	0.34	1.70*	2.90*	0.60*	2.98*	4.12*
Time with Friends	0.18	0.83*	0.69*	0.25*	0.68*	0.76*	0.30*	0.82*	0.88*
Neighborhood Disorganization	3.91	24.74*	20.61*	4.14	12.28*	17.09*	3.68*	15.50*	14.23*
Self-Control	-6.84*	-21.22*	-22.51*	-4.83*	-18.74*	-23.10*	-4.16*	-17.07*	-17.90*
Violent Attitudes	7.40*	24.32*	24.03*	3.99*	18.25*	20.07*	3.42*	16.78*	16.97*
Negative Life Events	6.36*	4.56*	10.79*	4.72*	5.33*	9.03*	4.38*	5.47*	8.96*
Family Bonding	-5.02*	-9.39*	-13.84*	-2.51*	-6.53*	-13.50*	-3.62*	-8.40*	-12.17*
Delinquent Peers	0.48*	1.72*	2.03*	0.46*	1.50*	2.12*	0.37*	1.54*	1.74*

*p<.05; V = Victims-Only; O = Offenders-Only; OL = Overlappers

Table 6. Differences in Means by Cluster for Theft (Compared to Non-offenders/non-victims)

	Med. Europe			Latin America			Post-Socialist		
	V	O	OL	V	O	OL	V	O	OL
% Male	0.05	0.13*	0.09*	0.07	0.24*	0.19*	0.01	0.19*	0.06
Drug/Alcohol Use	0.28	3.29*	3.61*	0.22	1.39*	2.58*	0.39	2.75*	3.20*
Time with Friends	0.10	0.67*	0.75*	0.46*	1.00*	1.18*	0.22	0.55*	0.43*
Neighborhood Disorganization	4.90*	21.87*	19.05*	3.48	12.75*	11.99*	5.44*	16.37*	17.71*
Self-Control	-4.27*	-18.39*	-19.31*	-4.21	-15.15*	-16.14*	-4.04*	-14.93*	-18.09*
Violent Attitudes	2.90	20.60*	21.20*	2.47	18.11*	16.19*	1.75	17.38*	17.00*
Negative Life Events	5.21*	5.72*	12.38*	4.50*	4.31*	10.63*	4.75*	4.63*	9.79*
Family Bonding	-1.87	-7.37*	-9.32*	-1.87	-9.78*	-9.88*	-3.39*	-9.80*	-12.31*
Delinquent Peers	0.27*	1.46*	1.77*	0.37*	1.96*	1.99*	0.36*	1.36*	1.64*

*p<.05; V = Victims-Only; O = Offenders-Only; OL = Overlappers

Table 7: Differences in Means by Cluster for General (Compared to Non-offenders/non-victims)

	Anglo-Saxon			N. Europe			W. Europe		
	V	O	OL	V	O	OL	V	O	OL
% Male	0.02	0.21*	0.19*	0.04	0.19*	0.14*	0.02	0.21*	0.18*
Drug/Alcohol Use	0.11	2.23*	1.88*	0.11	1.49*	2.60*	0.12	2.55*	2.88*
Time with Friends	-0.01	0.81*	0.73*	0.06	0.60*	0.60*	-0.08	0.81*	0.74*
Neighborhood Disorganization	4.33*	20.36*	21.39*	4.42*	11.65*	21.12*	4.01*	13.58*	17.25*
Self-Control	-5.74*	-20.69*	-22.01*	-6.04*	-17.60*	-23.65*	-2.96*	-16.91*	-19.22*
Violent Attitudes	3.57*	24.28*	22.79*	3.62*	18.60*	22.67*	1.05	18.22*	18.27*
Negative Life Events	6.89*	4.54*	11.28*	6.21*	4.63*	12.12*	6.23*	4.48*	10.33*
Family Bonding	-5.92*	-8.28*	-13.44*	-3.87*	-7.42*	-13.72*	-4.63*	-6.81*	-11.52*
Delinquent Peers	0.27*	1.55*	1.86*	0.30*	1.35*	1.84*	0.24*	1.24*	1.43*

*p<.05; V = Victims-Only; O = Offenders-Only; OL = Overlappers

Table 7. Differences in Means by Cluster for General (Compared to Non-offenders/non-victims)

	Med. Europe			Latin America			Post-Socialist		
	V	O	OL	V	O	OL	V	O	OL
% Male	0.07*	0.19*	0.20*	0.06	0.25*	0.21*	0.07*	0.31*	0.26*
Drug/Alcohol Use	0.03	2.46*	2.20*	0.10	1.44*	1.63*	0.17	1.79*	2.00*
Time with Friends	-0.10	0.74*	0.52*	0.20	1.15*	0.95*	0.00	0.57*	0.57*
Neighborhood Disorganization	4.37*	15.84*	17.51*	1.92	6.19*	10.53*	3.97*	11.96*	18.24*
Self-Control	-3.19*	-17.99*	-19.27*	-4.01*	-12.45*	-17.10*	-3.22*	-14.12*	-16.29*
Violent Attitudes	1.94	20.94*	19.02*	2.49	13.09*	16.09*	1.27	17.23*	16.58*
Negative Life Events	5.33*	4.94*	11.63*	5.43*	3.89*	11.05*	5.51*	3.45*	9.37*
Family Bonding	-2.25*	-4.51*	-8.09*	-5.14*	-4.99*	-9.57	-4.30*	-4.82*	-10.06*
Delinquent Peers	0.17*	1.04*	1.10*	0.24*	1.19*	1.57*	0.20*	0.85*	1.24*

*p<.05; V = Victims-Only; O = Offenders-Only; OL = Overlappers

Table 8: Differences in Means by Cluster for Violence (Compared to Overlappers)

	Anglo-Saxon			N. Europe			W. Europe		
	None	V	O	None	V	O	None	V	O
% Male	-0.27*	-0.08	0.00	-0.20*	-0.01	0.01	-0.27*	-0.12*	-0.01
Drug/Alcohol Use	-3.46*	-2.68*	-0.52	-7.04*	-5.42*	-3.49	-6.04*	-4.81*	-1.24*
Time with Friends	-0.92*	-0.73*	0.15	-1.05*	-0.63*	-0.31	-1.04*	-0.66*	0.02
Neighborhood Disorganization	-35.90*	-22.58*	-5.70	-38.60*	-24.28*	-17.19*	-28.03*	-16.80*	-4.98*
Self-Control	30.13*	18.97*	7.57	34.27*	22.50*	7.91*	26.42*	19.50*	4.01*
Violent Attitudes	-29.51*	-20.03*	-1.47	-40.65*	-28.47*	-10.95*	-31.87*	-25.54*	-5.34*
Negative Life Events	-15.72*	-6.12	-8.15*	-15.50*	-6.43*	-7.88*	-10.71*	-3.44*	-5.60*
Family Bonding	20.04*	12.16*	15.39*	23.64*	15.42*	13.00*	13.79*	7.63*	5.10*
Delinquent Peers	-2.58*	-1.74*	-0.55	-3.10*	-1.96*	-0.87*	-2.06*	-1.49*	-0.30*

*p<.05; V = Victims-Only; O = Offenders-Only

Table 8. Differences in Means by Cluster for Violence (Compared to Overlappers)

	Med. Europe			Latin America			Post-Socialist		
	None	V	O	None	V	O	None	V	O
% Male	-0.26*	-0.02	0.04	-0.22*	-0.06	0.04	-0.34*	-0.11	-0.01
Drug/Alcohol Use	-5.99*	-5.50*	-0.81	-3.19*	-2.67*	-1.52*	-3.78*	-3.09*	-0.42
Time with Friends	-0.80*	-0.48	0.03	-0.99*	-0.61	-0.03	-0.94*	-0.74*	-0.34
Neighborhood Disorganization	-24.29*	-13.28*	3.90	-29.55*	-23.53*	-11.92*	-30.68*	-21.50*	-11.84*
Self-Control	26.90*	19.34*	0.70	23.56*	18.16*	4.42	22.33*	16.54*	0.62
Violent Attitudes	-33.83*	-26.05*	-2.90	-23.61*	-18.67*	-0.73	-26.30*	-20.87*	0.17
Negative Life Events	-17.32*	-11.57*	-9.81*	-14.67*	-8.68*	-12.84*	-8.01*	-3.07	-3.35
Family Bonding	7.92*	3.09	3.34	15.24*	10.18*	9.24*	11.74*	8.43*	5.35*
Delinquent Peers	-2.05*	-1.59*	-0.51*	-2.66*	-2.15*	-1.02*	-2.08*	-1.69*	-0.60*

*p<.05; V = Victims-Only; O = Offenders-Only

Table 9: Differences in Means by Cluster for Theft (Compared to Overlappers)

	Anglo-Saxon			N. Europe			W. Europe		
	None	V	O	None	V	O	None	V	O
% Male	-0.14*	-0.07	0.00	-0.11*	-0.10*	-0.01	-0.11*	-0.08*	-0.03
Drug/Alcohol Use	-2.69*	-2.56*	0.00	-2.90*	-2.56*	-1.20*	-4.12*	-3.52*	-1.14*
Time with Friends	-0.69*	-0.51*	0.14	-0.76*	-0.51*	-0.08	-0.88*	-0.58*	-0.06
Neighborhood Disorganization	-20.61*	-16.70*	4.13	-17.09*	-12.95*	-4.81*	-14.23*	-10.55*	1.27
Self-Control	22.51*	15.67*	1.29	23.10*	18.27*	4.36*	17.90*	13.74*	0.83
Violent Attitudes	-24.03*	-16.63*	0.29	-20.07*	-16.08*	-1.82	-16.97*	-13.55*	-0.19
Negative Life Events	-10.79*	-4.43*	-6.23*	-9.03*	-4.31*	-3.70*	-8.96*	-4.58*	-3.49*
Family Bonding	13.84*	8.82*	4.45*	13.50*	10.99*	6.97*	12.17*	8.55*	3.77*
Delinquent Peers	-2.03*	-1.55*	-0.31*	-2.12*	-1.66*	-0.62*	-1.74*	-1.37*	-0.20*

*p<.05; V = Victims-Only; O = Offenders-Only

Table 9. Differences in Means by Cluster for Theft (Compared to Overlappers)

	Med. Europe			Latin America			Post-Socialist		
	None	V	O	None	V	O	None	V	O
% Male	-0.09*	-0.04	0.04	-0.19*	-0.12*	0.05	-0.06	-0.05	0.13*
Drug/Alcohol Use	-3.61*	-3.33*	-0.32	-2.58*	-2.36*	-1.19*	-3.20*	-2.81*	-0.45
Time with Friends	-0.75*	-0.65*	-0.08	-1.18*	-0.72*	-0.18	-0.43	-0.21	0.12*
Neighborhood Disorganization	-19.05*	-14.15*	2.82	-11.99*	-8.51*	0.76	-17.71*	-12.27*	-1.34
Self-Control	19.31*	15.04*	0.92	16.14*	11.93*	0.99	18.09*	14.05*	3.16*
Violent Attitudes	-21.20*	-18.30*	-0.60	-16.19*	-13.72*	1.92	-17.00*	-15.25*	0.38
Negative Life Events	-12.38*	-7.17*	-6.66*	-10.63*	-6.13*	-6.32*	-9.79*	-5.04*	-5.16*
Family Bonding	9.32*	7.45*	1.95	9.88*	8.01*	0.10	12.31*	8.92*	2.51*
Delinquent Peers	-1.77*	-1.50*	-0.31*	-1.99*	-1.62*	-0.03	-1.64*	-1.28*	-0.28*

*p<.05; V = Victims-Only; O = Offenders-Only

Table 10: Differences in Means by Cluster for General (Compared to Overlappers)

	Anglo-Saxon			N. Europe			W. Europe		
	None	V	O	None	V	O	None	V	O
% Male	-0.19*	-0.17*	0.02	-0.14*	-0.10*	0.05	-0.18*	-0.16*	0.03
Drug/Alcohol Use	-1.88*	-1.77*	0.35	-2.60*	-2.49*	-1.11*	-2.88*	-2.76*	-0.33
Time with Friends	-0.73*	-0.74*	0.08	-0.60*	-0.54*	0.00	-0.74*	-0.82*	0.07
Neighborhood Disorganization	-21.39*	-17.06*	-1.03	-21.12*	-16.70*	-9.47*	-17.25*	-13.24*	-3.67*
Self-Control	22.01*	16.27*	1.32*	23.65*	17.61*	6.05*	19.22*	16.26*	2.31*
Violent Attitudes	-22.79*	-19.22*	1.49	-22.67*	-19.05*	-4.07*	-18.27*	-17.22*	-0.05
Negative Life Events	-11.28*	-4.39*	-6.74*	-12.12*	-5.91*	-7.49*	-10.33*	-4.10*	-5.85*
Family Bonding	13.44*	7.52*	5.16*	13.72*	9.85*	6.30*	11.52*	6.89*	4.71*
Delinquent Peers	-1.86*	-1.59*	-0.31*	-1.84*	-1.54*	-0.49*	-1.43*	-1.19*	-0.19*

*p<.05; V = Victims-Only; O = Offenders-Only

Table 10. Differences in Means by Cluster for General (Compared to Overlappers)

	Med. Europe			Latin America			Post-Socialist		
	None	V	O	None	V	O	None	V	O
% Male	-0.20*	-0.13*	-0.01	-0.21*	-0.15*	0.04	-0.26*	-0.19*	0.05*
Drug/Alcohol Use	-2.20*	-2.17*	0.26	-1.63*	-1.53*	-0.19	-2.00*	-1.83*	-0.21
Time with Friends	-0.52*	-0.62*	0.22*	-0.95*	-0.75*	0.20	-0.57*	-0.57*	0.00
Neighborhood Disorganization	-17.51*	-13.14*	-1.67	-10.53*	-8.61*	-4.34*	-18.24*	-14.27*	-6.28*
Self-Control	19.27*	16.08*	1.28	17.10*	13.09*	4.65*	16.29*	13.07*	2.17*
Violent Attitudes	-19.02*	-17.08*	1.92	-16.09*	-13.60*	-3.00	-16.58*	-15.31*	0.65
Negative Life Events	-11.63*	-6.30*	-6.69*	-11.05*	-5.62*	-7.16*	-9.37*	-3.86*	-5.92*
Family Bonding	8.09*	5.84*	3.58*	9.57*	4.43*	4.58*	10.06*	5.76*	5.24*
Delinquent Peers	-1.10*	-0.93*	-0.06	-1.57*	-1.33*	-0.38*	-1.24*	-1.04*	-0.39*

*p<.05; V = Victims-Only; O = Offenders-Only

Table 11: Correlation and Fisher's Z Matrix for Differences Between Two Correlation Coefficients for Violence

	N	O	E	Cohen's W	(1)	(2)	(3)	(4)	(5)	(6)
Full Sample	62,484	372	104.10	.11***						
(1) Anglo-Saxon	3,490	31	9.80	.12***	1					
(2) N. Europe	6,740	36	6.80	.14***	.97	1				
(3) W. Europe	16,256	146	36.90	.15***	1.46	.48	1			
(4) Med. Europe	10,881	36	11.20	.07***	2.48*	4.42***	6.09***	1		
(5) Latin America	6,177	42	11.70	.12***	.10	1.26	1.95	2.90**	1	
(6) Post-Socialist	18,940	81	25.20	.09***	2.00*	4.02***	5.98***	.95	2.37*	1

*p<.05; **p<.01; ***p<.001; N=Sample Size; O=Observed; E=Expected

Table 12: Correlation and Fisher's Z Matrix for Differences Between Two Correlation Coefficients for Theft

	N	O	E	Cohen's W	(1)	(2)	(3)	(4)	(5)	(6)
Full Sample	62,143	1,630	927.90	.11***						
(1) Anglo-Saxon	3,478	223	143.90	.14***	1					
(2) N. Europe	6,678	267	144.10	.15***	.29	1				
(3) W. Europe	16,013	561	381.00	.09***	3.00**	4.28***	1			
(4) Med. Europe	10,877	192	99.50	.10***	2.27*	3.23**	.97	1		
(5) Latin America	6,193	129	70.40	.10***	1.85	2.57*	1.13	.31	1	
(6) Post-Socialist	18,904	258	135.60	.09***	3.11**	4.46***	.11	1.10	1.24	1

*p<.05; **p<.01; ***p<.001; N=Sample Size; O=Observed; E=Expected

Table 13: Correlation and Fisher's Z Matrix for Differences Between Two Correlation Coefficients for General

	N	O	E	Cohen's W	(1)	(2)	(3)	(4)	(5)	(6)
Full Sample	60,007	3,227	2,211.40	.11***						
(1) Anglo-Saxon	3,351	272	221.10	.08***	1					
(2) N. Europe	6,527	322	197.40	.14***	2.73**	1				
(3) W. Europe	15,418	1,006	718.40	.11***	1.62	1.83	1			
(4) Med. Europe	10,517	458	293.50	.11***	1.66	1.59	.16	1		
(5) Latin America	5,771	262	153.20	.14***	2.73**	.07	1.83	1.60	1	
(6) Post-Socialist	18,423	907	647.40	.09***	.68	3.14**	1.68	1.66	3.08**	1

*p<.05; **p<.01; ***p<.001; N=Sample Size; O=Observed; E=Expected

Table 14: Logistic Regression for Violent Offending

	Full Sample	Anglo-Saxon	Northern EU	Western EU	Mediterranean EU	Latin America	Post-Socialist
	OR (SE)	OR (SE)	OR (SE)	OR (SE)	OR (SE)	OR (SE)	OR (SE)
Male	2.68 (.18)***	1.93 (.43)**	2.59 (.55)***	2.69 (.29)***	2.92 (.54)***	1.83 (.41)**	3.82 (.63)***
Grade 7	.90 (.07)	1.02 (.27)	1.30(.37)	.90 (.11)	.58 (.13)*	.93 (.25)	1.12 (.19)
Grade 8	1.13 (.08)	.99 (.25)	1.65 (.41)*	1.22 (.14)	.99 (.18)	1.21 (.30)	1.09 (.18)
Non-Native	1.42 (.14)***	.63 (.33)	2.14 (.64)*	1.28 (.18)	1.60 (.41)	1.05 (.32)	.80 (.29)
Drug/Alcohol	1.09 (.00)***	1.09 (.02)***	1.13 (.02)***	1.08 (.01)***	1.11 (.01)***	1.10 (.02)***	1.09 (.01)***
Time w/ Friends	1.39 (.03)***	1.40 (.10)***	1.42 (.12)***	1.46 (.05)***	1.39 (.09)***	1.20 (.07)**	1.34 (.07)***
Violent Victimization	3.51 (.25)***	3.74 (.95)***	4.56 (1.08)***	4.05 (.47)***	2.98 (.63)***	3.89 (.89)***	3.01 (.47)***
Constant	.00 (.00)***	.00 (.01)***	.00 (.00)***	.00 (.00)***	.00 (.00)***	.00 (.00)***	.00 (.00)***
N	56,440	3,179	6,061	14,974	9,920	5,299	17,007
Pseudo R^2	.13	.11	.16	.15	.15	.09	.11

*p<.05; **p<.01; ***p<.001; OR=Odds Ratio; SE=Standard Error of OR using se(ORb) = exp(b)*se(b)

Table 15: Logistic Regression for Violent Victimization

	Full Sample	Anglo-Saxon	Northern EU	Western EU	Mediterranean EU	Latin America	Post-Socialist
	OR (SE)	OR (SE)	OR (SE)	OR (SE)	OR (SE)	OR (SE)	OR (SE)
Male	2.05 (.07)***	1.48 (.21)**	2.28 (.30)***	1.71 (.12)***	2.61 (.25)***	1.73 (.17)***	2.41 (.15)***
Grade 7	1.13 (.05)**	.63 (.12)*	.65(.11)**	1.09 (.09)	1.00 (.11)	1.43 (.17)**	1.38 (.10)***
Grade 8	1.07 (.04)	.88 (.14)	.85 (.12)	1.03 (.09)	.92 (.10)	1.29 (.16)*	1.26 (.09)**
Non-Native	1.36 (.08)***	1.19 (.32)	.93 (.22)	1.24 (.13)*	1.42 (.22)*	1.70 (.22)***	1.60 (.20)***
Drug/Alcohol	1.04 (.00)***	1.04 (.01)*	1.10 (.02)***	1.03 (.01)***	1.02 (01)	1.06 (.02)***	1.04 (.01)***
Time w/ Friends	1.10 (.01)***	1.07 (.04)	1.19 (.05)***	1.12 (.02)***	1.17 (.04)***	1.09 (.03)**	1.08 (.02)***
Violent Offending	3.27 (.24)***	3.54 (.90)***	4.14 (1.00)***	3.86 (.45)***	2.66 (.57)***	3.70 (.86)***	2.83 (.44)***
Constant	.03 (.00)***	.05 (.01)***	.01 (.00)***	.02 (.00)***	.02 (.00)***	.04 (.01)***	.03 (.00)***
N	56,440	3,179	6,061	14,794	9,920	5,299	17,007
Pseudo R^2	.04	.03	.08	.05	.04	.04	.04

*p<.05; **p<.01; ***p<.001; OR=Odds Ratio; SE=Standard Error of OR using se(ORb) = exp(b)*se(b)

Table 16: Logistic Regression for Theft Offending

	Full Sample	Anglo-Saxon	Northern EU	Western EU	Mediterranean EU	Latin America	Post-Socialist
	OR (SE)	OR (SE)	OR (SE)	OR (SE)	OR (SE)	OR (SE)	OR (SE)
Male	1.47 (.05)***	1.64 (.19)***	1.68 (.16)***	1.23 (.07)***	1.47 (.13)***	1.99 (.28)***	1.67 (.14)***
Grade 7	.79 (.03)***	.88 (.13)	1.27 (.16)	.88 (.06)	.53 (.06)***	.92 (.16)	.70 (.07)**
Grade 8	1.03 (.04)	1.20 (.16)	1.54 (.18)***	1.17 (.08)*	.74 (.07)***	1.17 (.19)	.80 (.08)*
Non-Native	1.11 (.07)	.72 (.18)	1.06 (.19)	.84 (.08)	.98 (.16)	1.61 (.28)**	1.45 (.28)
Drug/Alcohol	1.11 (.00)***	1.18 (.02)***	1.19 (.02)***	1.09 (.01)***	1.13 (.01)***	1.13 (.02)***	1.11 (.01)***
Time w/ Friends	1.25 (.01)***	1.24 (.04)***	1.26 (.04)***	1.29 (.02)***	1.25 (.04)***	1.27 (.05)***	1.15 (.03)***
Theft Victimization	2.10 (.08)***	2.12 (.24)***	2.48 (.24)***	1.55 (.10)***	2.34 (.23)***	2.18 (.30)***	2.26 (.20)***
Constant	.02 (.00)***	.03 (.01)***	.01 (.00)***	.02 (.00)***	.02 (.00)***	.01 (.00)***	.01 (.00)***
N	56,239	3,175	6,014	14,772	9,940	5,323	17,015
Pseudo R^2	.09	.11	.10	.08	.10	.10	.08

*p<.05; **p<.01; ***p<.001; OR=Odds Ratio; SE=Standard Error of OR using se(ORb) = exp(b)*se(b)

Table 17: Logistic Regression for Theft Victimization

	Full Sample	Anglo-Saxon	Northern EU	Western EU	Mediterranean EU	Latin America	Post-Socialist
	OR (SE)	OR (SE)	OR (SE)	OR (SE)	OR (SE)	OR (SE)	OR (SE)
Male	1.11 (.02)***	1.31 (.11)**	1.10 (.07)	1.09 (.04)*	1.19 (.07)**	1.27 (.08)***	.99 (.04)
Grade 7	1.03 (.03)	.74 (.08)**	.99 (.08)	1.04 (.05)	.89 (.07)	.97 (.08)	1.31 (.07)***
Grade 8	1.01 (.03)	.84 (.08)	.92 (.07)	1.06 (.05)	.96 (.07)	1.09 (.09)	1.11 (.06)*
Non-Native	1.42 (.05)***	1.08 (.18)	1.19 (.14)	1.20 (.08)**	1.94 (.18)***	1.67 (.16)***	1.23 (.12)*
Drug/Alcohol	1.03 (.00)***	1.00 (.01)	1.05 (.01)***	1.03 (.00)***	1.02 (.01)	1.04 (.01)**	1.04 (.01)***
Time w/ Friends	1.07 (.01)***	1.06 (.03)*	1.10 (.02)***	1.09 (.01)***	1.05 (.02)*	1.12 (.02)***	1.07 (.01)***
Theft Offending	2.04 (.07)***	2.09 (.24)***	2.40 (.23)***	1.52 (.09)***	2.24 (.23)***	2.09 (.28)***	2.17 (.20)***
Constant	.15 (.01)***	.27 (.03)***	.14 (.02)***	.16 (.01)***	.11 (.01)***	.16 (.01)***	.13 (.01)***
N	56,239	3,175	6,014	14,772	9,940	5,323	17,015
Pseudo R^2	.02	.02	.03	.01	.02	.03	.01

*p<.05; **p<.01; ***p<.001; OR=Odds Ratio; SE=Standard Error of OR using se(ORb) = exp(b)*se(b)

Table 18: Logistic Regression for General Offending

	Full Sample	Anglo-Saxon	Northern EU	Western EU	Mediterranean EU	Latin America	Post-Socialist
	OR (SE)	OR (SE)	OR (SE)	OR (SE)	OR (SE)	OR (SE)	OR (SE)
Male	2.48 (.06)***	2.72 (.25)***	2.37 (.17)***	2.16 (.09)***	2.08 (.12)***	2.34 (.21)***	3.38 (.16)***
Grade 7	.79 (.02)***	.93 (.11)	.95 (.09)	.91 (.05)	.61 (.05)***	.79 (.09)*	.79 (.04)***
Grade 8	.98 (.03)	1.20 (.13)	1.15 (.10)	1.08 (.06)	.80 (.05)**	.79 (.09)	.97 (.05)
Non-Native	1.11 (.05)*	.79 (.15)	1.00 (.14)	.95 (.07)	1.10 (.12)	1.67 (.20)***	1.02 (.12)
Drug/Alcohol	1.18 (.00)***	1.31 (.03)***	1.26 (.02)***	1.14 (.01)***	1.25 (.02)***	1.24 (.03)***	1.15 (.01)***
Time w/ Friends	1.28 (.01)***	1.28 (.04)***	1.23 (.03)***	1.31 (.02)***	1.32 (.03)***	1.29 (.03)***	1.26 (.02)***
General Victimization	1.84 (.05)***	1.47 (.15)***	2.02 (.18)***	1.84 (.09)***	2.20 (.16)***	2.19 (.21)***	1.62 (.08)***
Constant	.04 (.00)***	.05 (.01)***	.04 (.01)***	.05 (.00)***	.04 (.00)***	.03 (.00)***	.03 (.00)***
N	54,590	3,065	5,910	14,288	9,659	5,013	16,655
Pseudo R^2	.12	.14	.11	.12	.14	.13	.11

*p<.05; **p<.01; ***p<.001; OR=Odds Ratio; SE=Standard Error of OR using se(ORb) = exp(b)*se(b)

Table 19: Logistic Regression for General Victimization

	Full Sample	Anglo-Saxon	Northern EU	Western EU	Mediterranean EU	Latin America	Post-Socialist
	OR (SE)	OR (SE)	OR (SE)	OR (SE)	OR (SE)	OR (SE)	OR (SE)
Male	1.11 (.03)***	1.11 (.10)	1.10 (.08)	.97 (.04)	1.22 (.07)**	1.21 (.09)*	1.16 (.05)***
Grade 7	1.39 (.04)***	1.07 (.12)	1.25 (.12)*	1.43 (.08)***	1.41 (.11)***	1.35 (.12)**	1.53 (.08)***
Grade 8	1.19 (.03)***	1.15 (.12)	.94 (.09)	1.26 (.07)***	1.38 (.10)***	1.30 (.12)**	1.20 (.06)***
Non-Native	1.21 (.05)***	1.30 (.21)	1.12 (.15)	.99 (.07)	1.63 (.16)***	1.62 (.17)***	1.15 (.12)
Drug/Alcohol	1.02 (.00)***	1.00 (.03)	1.04 (.01)***	1.02 (.00)***	1.00 (.01)	1.02 (.01)	1.02 (.01)
Time w/ Friends	.98 (.01)**	.99 (.03)	1.00 (.02)	.96 (.01)**	.96 (.02)*	1.03 (.02)	.99 (.01)
General Offending	1.85 (.05)***	1.51 (.15)***	2.06 (.18)***	1.86 (.09)***	2.23 (.16)***	2.15 (.21)***	1.61 (.08)***
Constant	.16 (.01)***	.25 (.03)***	.13 (.02)***	.18 (.01)***	.12 (.01)***	.13 (.01)***	.17 (.01)***
N	54,590	3,065	5,910	14,288	9,659	5,013	16,655
Pseudo R^2	.02	.01	.02	.02	.03	.03	.01

*p<.05; **p<.01; ***p<.001; OR=Odds Ratio; SE=Standard Error of OR using se(ORb) = exp(b)*se(b)

Table 20: Bivariate Probit Regression for Violence

	Full Sample	Anglo-Saxon	Northern EU	Western EU	Mediterranean EU	Latin America	Post-Socialist
Violent Offending	*b* (SE)	*b* (SE)	*b* (SE)	*b* (SE)	*b* (SE)	*b* (SE)	*b* (SE)
Male	.35 (.05)***	.16 (.12)	.29 (.11)*	.33 (.06)***	.33 (.09)***	.25 (.11)*	.56 (.08)***
Grade 7	.10 (.05)	.00 (.15)	.25 (.14)	.10 (.07)	-.19 (.11)	.15 (.14)	.19 (.08)*
Grade 8	.10 (.03)**	-.01 (.13)	.19 (.13)	.12 (.06)*	-.00 (.09)	.23 (.12)	.10 (.08)
Non-Native	.15 (.06)*	-.11 (.26)	.37 (.15)*	.11 (.07)	.11 (.14)	-.15 (.16)	.05 (.16)
Drug/Alcohol	.03 (.00)***	.02 (.01)*	.02 (.01)	.02 (.00)***	.03 (.01)***	.03 (.01)*	.02 (.01)**
Time w/ Friends	.06 (.01)***	.04 (.04)	.04 (.04)	.09 (.02)***	.07 (.03)*	.01 (.03)	.06 (.02)*
Neighborhood Dis.	.03 (.00)***	.04 (.02)*	.04 (.02)	.03 (.01)***	.03 (.02)*	.05 (.02)*	.03 (.01)*
Self-Control	-.10 (.01)***	-.09 (.04)*	-.04 (.03)	-.08 (.02)***	-.09 (.03)**	-.13 (.03)***	-.12 (.02)***
Violent Attitudes	.09 (.01)***	.07 (.03)*	.13 (.03)***	.11 (.01)***	.12 (.02)***	.07 (.03)**	.06 (.02)***
Negative Life Events	.04 (.02)*	.05 (.03)	.01 (.03)	.02 (.02)	.11 (.03)***	.01 (.03)	.06 (.02)**
Family Bonding	-.00 (.01)	.02 (.03)	-.06 (.03)*	-.03 (.01)	.04 (.03)	-.03 (.02)	.00 (.02)
Delinquent Peers	.21 (.02)***	.23 (.04)***	.24 (.04)***	.22 (.02)***	.15 (.03)***	.19 (.03)***	.22 (.03)***
Constant	-2.98 (.14)***	-3.04 (.42)***	-3.11 (.41)***	-2.88 (.20)***	-3.50 (.36)***	-2.32 (.35)***	-3.14 (.25)***
Violent Victimization							
Male	.39 (.04)***	.29 (.08)***	.42 (.07)***	.31 (.04)***	.51 (.05)***	.31 (.06)***	.46 (.03)***
Grade 7	.13 (.05)*	-.16 (.10)	-.15 (.09)	.09 (.04)	.11 (.06)	.26 (.07)***	.23 (.04)***
Grade 8	.07 (.04)	-.04 (.09)	-.12 (.08)	.04 (.04)	.01 (.06)	.17 (.07)*	.17 (.04)***
Non-Native	.12 (.05)*	.16 (.14)	-.10 (.13)	.05 (.06)	.07 (.09)	.23 (.08)**	.26 (.07)***
Drug/Alcohol	.01 (.00)***	-.00 (.01)	.02 (.01)*	.01 (.00)*	-.00 (.01)	.02 (.01)*	.01 (.00)
Time w/ Friends	.02 (.01)***	-.03 (.02)	.04 (.02)	.04 (.01)**	.04 (.02)*	.02 (.02)	.02 (.01)
Neighborhood Dis.	.05 (.00)***	.06 (.01)***	.06 (.01)***	.04 (.01)***	.04 (.01)***	.03 (.01)*	.06 (.01)***
Self-Control	-.04 (.00)***	-.05 (.02)*	-.00 (.02)	-.03 (.01)*	-.03 (.02)	-.05 (.02)**	-.03 (.01)**
Violent Attitudes	-.01 (.01)	-.02 (.02)	.03 (.02)	.00 (.01)	-.01 (.01)	-.01 (.01)	-.02 (.01)*
Negative Life Events	.10 (.01)***	.13 (.02)***	.10 (.02)**	.10 (.01)***	.12 (.02)***	.11 (.02)***	.09 (.01)***

Family Bonding	-.04 (.01)***	-.05 (.02)*	-.05 (.02)**	-.05 (.01)***	-.07 (.02)***	-.02 (.01)	-.03 (.01)**
Delinquent Peers	.09 (.01)***	.10 (.03)**	.15 (.03)***	.09 (.02)***	.10 (.03)***	.09 (.02)***	.09 (.02)***
Constant	-1.71 (.04)***	-1.38 (.28)***	-2.31 (.26)***	-1.79 (.14)***	-1.78 (.21)***	-1.76 (.19)***	-1.83 (.12)***
N	52,242	2,977	5,715	14,242	8,903	4,671	15,734
Wald Chi^2	-	295.74***	553.51***	1,388.76***	626.23***	356.15***	948.99***
LRT Rho	81.03***	6.56*	5.02*	38.75***	8.34**	14.87***	9.18**

*p<.05; **p<.01; ***p<.001; SE=Standard Error

Note: Standard errors for the full sample adjusted for clustering (by country cluster)

Table 21: Bivariate Probit Regression for Theft

	Full Sample	Anglo-Saxon	Northern EU	Western EU	Mediterranean EU	Latin America	Post-Socialist
Theft Offending	*b* (SE)	*b* (SE)	*b* (SE)	*b* (SE)	*b* (SE)	*b* (SE)	*b* (SE)
Male	.12 (.04)**	.18 (.07)*	.14 (.06)*	.04 (.03)	.06 (.05)	.30 (.08)***	.18 (.05)***
Grade 7	.08 (.06)	.04 (.09)	.29 (.07)***	.13 (.04)**	-.12 (.07)	.07 (.10)	.05 (.05)
Grade 8	.10 (.06)	.17 (.08)*	.30 (.07)***	.15 (.04)***	-.06 (.06)	.20 (.09)*	-.02 (.05)
Non-Native	-.02 (.10)	-.08 (.15)	-.02 (.10)	-.20 (.06)**	-.06 (.10)	.05 (.11)	.25 (.10)*
Drug/Alcohol	.03 (.00)***	.04 (.01)***	.03 (.01)**	.02 (.00)***	.03 (.01)***	.03 (.01)**	.02 (.00)***
Time w/ Friends	.05 (.01)***	.01 (.02)	.03 (.02)	.07 (.01)***	.03 (.02)	.07 (.02)**	.02 (.01)
Neighborhood Dis.	.01 (.01)	.05 (.01)***	-.00 (.01)	.01 (.01)	.04 (.01)***	.02 (.02)	.03 (.01)**
Self-Control	-.08 (.01)***	-.09 (.02)***	-.11 (.02)***	-.10 (.01)***	-.06 (.02)***	-.06 (.02)*	-.08 (.01)***
Violent Attitudes	.04 (.01)***	.06 (.02)**	.04 (.02)*	.03 (.01)***	.07 (.01)***	.04 (.02)*	.04 (.01)***
Negative Life Events	.03 (.01)***	-.02 (.02)	.01 (.02)	.03 (.01)**	.06 (.02)***	.02 (.02)	.03 (.01)*
Family Bonding	-.04 (.00)***	-.07 (.02)***	-.04 (.02)*	-.05 (.01)***	-.06 (.02)***	-.03 (.02)	-.06 (.01)***
Delinquent Peers	.34 (.01)***	.29 (.03)***	.33 (.02)***	.35 (.01)***	.35 (.02)***	.31 (.03)***	.28 (.02)***
Constant	-1.80 (.18)***	-1.29 (.26)***	-1.42 (.21)***	-1.43 (.13)***	-1.63 (.21)***	-2.39 (.27)***	-1.80 (.16)***
Theft Victimization							
Male	.09 (.02)***	.17 (.05)**	.06 (.04)	.08 (.03)**	.12 (.04)**	.20 (.04)***	.04 (.03)
Grade 7	.09 (.05)	-.07 (.07)	.09 (.05)	.08 (.03)*	.01 (.04)	.01 (.05)	.25 (.03)***
Grade 8	.05 (.02)*	-.02 (.06)	.02 (.05)	.06 (.03)*	.02 (.04)	.04 (.05)	.11 (.03)***
Non-Native	.18 (.05)***	.09 (.10)	.07 (.07)	.09 (.04)*	.34 (.06)***	.25 (.06)***	.13 (.06)*
Drug/Alcohol	.00 (.00)	-.01 (.01)	.00 (.01)	.01 (.00)*	-.00 (.01)	.01 (.01)	-.00 (.00)
Time w/ Friends	.02 (.01)**	-.00 (.02)	.03 (.01)**	.04 (.01)***	.01 (.01)	.05 (.01)***	.02 (.01)*
Neighborhood Dis.	.01 (.01)	-.01 (.01)	.01 (.01)	-.00 (.01)	.02 (.01)**	.01 (.01)	.03 (.01)***
Self-Control	-.03 (.00)***	-.03 (.02)	-.03 (.01)**	-.02 (.01)**	-.03 (.01)**	-.04 (.01)**	-.04 (.01)***
Violent Attitudes	-.01 (.01)	.04 (.02)*	.00 (.01)	-.01 (.01)	-.02 (.01)	-.02 (.01)	-.03 (.01)***
Negative Life Events	.10 (.01)***	.12 (.02)***	.07 (.01)***	.08 (.01)***	.12 (.01)***	.10 (.01)***	.09 (.01)***
Family Bonding	-.03 (.00)***	-.05 (.02)**	-.02 (.01)	-.04 (.01)***	-.02 (.01)	-.01 (.01)	-.03 (.01)***

Delinquent Peers		.15 (.02)***	.10 (.02)***	.17 (.02)***	.11 (.01)***	.15 (.02)***	.09 (.02)***	.16 (.01)***
Constant		-.92 (.05)***	-.62 (.20)**	-1.02 (.16)***	-.82 (.10)***	-1.12 (.15)***	-1.01 (.15)***	-.96 (.10)***
	N	52,059	2,976	5,679	14,050	8,924	4,687	15,743
	Wald Chi^2	-	693.36***	975.64***	2,302.00***	1,211.49***	594.90***	1,441.74***
	LRT Rho	16.17***	9.26**	24.99***	5.10*	16.58***	8.09**	25.48***

*p<.05; **p<.01; ***p<.001; SE=Standard Error

Note: Standard errors for the full sample adjusted for clustering (by country cluster)

Table 22: Bivariate Probit Regression for General Offending/Victimization

	Full Sample	Anglo-Saxon	Northern EU	Western EU	Mediterranean EU	Latin America	Post-Socialist
General Offending	*b* (SE)	*b* (SE)	*b* (SE)	*b* (SE)	*b* (SE)	*b* (SE)	*b* (SE)
Male	.48 (.07)***	.55 (.06)***	.35 (.05)***	.41 (.03)***	.33 (.04)***	.47 (.06)***	.66 (.03)***
Grade 7	.04 (.06)	.16 (.08)*	.12 (.06)	.12 (.04)**	-.13 (.05)**	.01 (.07)	.02 (.03)
Grade 8	.06 (.03)	.23 (.07)***	.13 (.06)*	.09 (.03)*	-.04 (.04)	.09 (.06)	.05 (.03)
Non-Native	.00 (.06)	-.07 (.13)	-.14 (.09)	-.15 (.05)**	.04 (.07)	.13 (.08)	.08 (.08)
Drug/Alcohol	.04 (.01)***	.07 (.01)***	.04 (.01)***	.03 (.00)***	.07 (.01)***	.07 (.01)***	.03 (.00)***
Time w/ Friends	.08 (.01)***	.04 (.02)*	.03 (.02)*	.09 (.01)***	.09 (.01)***	.10 (.02)***	.08 (.01)***
Neighborhood Dis.	.03 (.01)***	.06 (.01)***	.04 (.01)***	.03 (.01)***	.03 (.01)***	-.00 (.01)	.05 (.01)***
Self-Control	-.11 (.01)***	-.09 (.02)***	-.10 (.01)***	-.13 (.01)***	-.11 (.01)***	-.10 (.02)***	-.11 (.01)***
Violent Attitudes	.08 (.01)***	.11 (.02)***	.11 (.01)***	.09 (.01)***	.11 (.01)***	.04 (.01)**	.08 (.01)***
Negative Life Events	.05 (.01)***	-.00 (.02)	.03 (.01)*	.05 (.01)***	.10 (.01)***	.06 (.02)**	.06 (.01)***
Family Bonding	-.02 (.01)*	-.05 (.02)**	-.07 (.01)***	-.04 (.01)***	-.03 (.01)***	-.01 (.01)	-.02 (.01)*
Delinquent Peers	.32 (.02)***	.30 (.02)***	.31 (.02)***	.35 (.01)***	.33 (.02)***	.27 (.02)***	.27 (.01)***
Constant	-1.51 (.17)***	-1.43 (.23)***	-1.08 (.18)***	-1.15 (.11)***	-1.47 (.16)***	-1.69 (.19)***	-1.74 (.11)***
General Victimization							
Male	.15 (.03)***	.16 (.06)**	.10 (.04)*	.07 (.03)**	.19 (.04)***	.20 (.05)***	.19 (.03)***
Grade 7	.27 (.03)***	.16 (.07)*	.18 (.06)**	.28 (.03)***	.25 (.04)***	.26 (.06)***	.34 (.03)***
Grade 8	.15 (.03)***	.17 (.06)*	-.05 (.05)	.17 (.03)***	.23 (.04)***	.20 (.06)***	.16 (.03)***
Non-Native	.09 (.07)	.20 (.10)*	.01 (.08)	-.06 (.04)	.23 (.06)***	.26 (.07)***	.14 (.06)*
Drug/Alcohol	-.00 (.00)	-.01 (.01)	-.00 (.01)	-.00 (.00)	-.00 (.01)	.01 (.01)	-.01 (.00)
Time w/ Friends	-.02 (.01)***	-.04 (.02)*	-.02 (.01)	-.03 (.01)***	-.03 (.01)**	-.00 (.01)	-.02 (.01)*
Neighborhood Dis.	.02 (.01)*	.01 (.01)	.04 (.01)***	.02 (.01)**	.02 (.01)**	-.01 (.01)	.04 (.01)***
Self-Control	-.05 (.01)***	-.05 (.02)**	-.06 (.01)***	-.04 (.01)***	-.04 (.01)***	-.06 (.01)***	-.04 (.01)***
Violent Attitudes	-.02 (.00)***	-.03 (.02)	.00 (.01)	-.02 (.01)*	-.02 (.01)	.00 (.01)	-.03 (.01)***
Negative Life Events	.13 (.01)***	.13 (.02)***	.12 (.01)***	.12 (.01)***	.15 (.01)***	.13 (.01)***	.12 (.01)***

Family Bonding	-.06 (.01)***	-.08 (.02)***	-.04 (.01)**	-.08 (.01)***	-.05 (.01)***	-.03 (.01)**	-.06 (.01)***
Delinquent Peers	.09 (.01)***	.06 (.02)**	.09 (.02)***	.09 (.01)***	.10 (.02)***	.08 (.02)***	.11 (.01)***
Constant	-.57 (.09)***	-.15 (.21)	-.83 (.18)***	-.40 (.11)***	-.83 (.15)***	-.91 (.16)***	-.63 (.09)***
N	50,669	2,879	5,588	13,617	8,685	4,452	15,448
Wald Chi^2	-	911.76***	1,383.22***	3,688.78***	1,964.12***	873.65***	3,198.97***
LRT Rho	23.82***	1.04	8.32**	21.26***	31.15***	17.72***	7.39**

*p<.05; **p<.01; ***p<.001; SE=Standard Error

Note: Standard errors for the full sample adjusted for clustering (by country cluster)

Table 23: Coefficient Comparison Tests of Theories by Violence Type (from Bivariate Probit Regression)

	Neighborhood Disorg.		Self-Control		Violent Attitudes	
	Offending	Victimization	Offending	Victimization	Offending	Victimization
Country Cluster	*b* (SE)	*b* (SE)	*b* (SE)	*b* (SE)	*b* (SE)	*b* (SE)
Full Sample	**.03 (.00)*** **	.05 (.00)***	**-.10 (.01)*** **	-.04 (.00)***	**.09 (.01)*** **	-.01 (.01)
Anglo-Saxon	.04 (.02)*	.06 (.01)***	-.09 (.04)*	-.05 (.02)*	**.07 (.03)***	-.02 (.02)
N. Europe	.04 (.02)	.06 (.01)***	-.04 (.03)	-.00 (.02)	**.13 (.03)*** **	.03 (.02)
W. Europe	.03 (.01)***	.04 (.01)***	**-.08 (.02)*** **	-.03 (.01)*	**.11 (.01)*** **	.00 (.01)
Med. Europe	.03 (.02)*	.04 (.01)***	**-.09 (.03)** **	-.03 (.02)	**.12 (.02)*** **	-.01 (.01)
Latin America	.05 (.02)*	.03 (.01)*	**-.13 (.03)*** **	-.05 (.02)**	**.07 (.03)** **	-.01 (.01)
Post-Socialist	.03 (.01)*	.03 (.01)*	**-.12 (.02)*** **	-.03 (.01)**	**.06 (.02)*** **	-.02 (.01)*

*p<.05; **p<.01; ***p<.001; SE=Standard Error; Bold coefficients different at p<.05

	Neg. Life Events		Family Bonding		Delinquent Peers	
	Offending	Victimization	Offending	Victimization	Offending	Victimization
Country Cluster	*b* (SE)	*b* (SE)	*b* (SE)	*b* (SE)	*b* (SE)	*b* (SE)
Full Sample	.04 (.02)*	**.10 (.01)*** **	-.00 (.01)	**-.04 (.01)*** **	**.21 (.02)*** **	.09 (.01)***
Anglo-Saxon	.05 (.03)	**.13 (.02)*** **	.02 (.03)	**-.05 (.02)***	**.23 (.04)*** **	.10 (.03)**
N. Europe	.01 (.03)	**.10 (.02)** **	-.06 (.03)*	-.05 (.02)**	**.24 (.04)*** **	.15 (.03)***
W. Europe	.02 (.02)	**.10 (.01)*** **	.02 (.02)	-.05 (.01)***	**.22 (.02)*** **	.09 (.02)***
Med. Europe	.11 (.03)***	.12 (.02)***	.11 (.03)***	**-.07 (.02)*** **	.15 (.03)***	.10 (.03)***
Latin America	.01 (.03)	**.11 (.02)*** **	.01 (.03)	-.02 (.01)	**.19 (.03)*** **	.09 (.02)***
Post-Socialist	.06 (.02)**	.09 (.01)***	.06 (.02)**	-.03 (.01)**	**.22 (.03)*** **	.09 (.02)***

*p<.05; **p<.01; ***p<.001; SE=Standard Error; Bold coefficients different at p<.05

Table 24: Coefficient Comparison Tests of Theories by Theft Type (from Bivariate Probit Regression)

	Neighborhood Disorg.		Self-Control		Violent Attitudes	
	Offending	Victimization	Offending	Victimization	Offending	Victimization
Country Cluster	*b* (SE)	*b* (SE)	*b* (SE)	*b* (SE)	*b* (SE)	*b* (SE)
Full Sample	.01 (.01)	.01 (.01)	**-.08 (.01)*** **	-.03 (.00)***	**.04 (.01)*** **	-.01 (.01)
Anglo-Saxon	**.05 (.01)*** **	-.01 (.01)	**-.09 (.02)*** **	-.03 (.02)	.06 (.02)**	.04 (.02)*
N. Europe	-.00 (.01)	.01 (.01)	**-.11 (.02)*** **	-.03 (.01)**	**.04 (.02)***	.00 (.01)
W. Europe	.01 (.01)	-.00 (.01)	**-.10 (.01)*** **	-.02 (.01)**	**.03 (.01)*** **	-.01 (.01)
Med. Europe	.04 (.01)***	.02 (.01)**	-.06 (.02)***	-.03 (.01)**	**.07 (.01)*** **	-.02 (.01)
Latin America	.02 (.02)	.01 (.01)	-.06 (.02)*	-.04 (.01)**	**.04 (.02)***	-.02 (.01)
Post-Socialist	.03 (.01)**	.01 (.01)	**-.08 (.01)*** **	-.04 (.01)***	**.04 (.01)*** **	-.03 (.01)***

*p<.05; **p<.01; ***p<.001; SE=Standard Error; Bold coefficients different at p<.05

	Neg. Life Events		Family Bonding		Delinquent Peers	
	Offending	Victimization	Offending	Victimization	Offending	Victimization
Country Cluster	*b* (SE)	*b* (SE)	*b* (SE)	*b* (SE)	*b* (SE)	*b* (SE)
Full Sample	.03 (.01)***	**.10 (.01)*** **	-.04 (.00)***	-.03 (.00)***	**.34 (.01)*** **	.15 (.02)***
Anglo-Saxon	-.02 (.02)	**.12 (.02)*** **	-.07 (.02)***	-.05 (.02)**	**.29 (.03)*** **	.10 (.02)***
N. Europe	.01 (.02)	**.07 (.01)*** **	-.04 (.02)*	-.02 (.01)	**.33 (.02)*** **	.17 (.02)***
W. Europe	.03 (.01)**	**.08 (.01)*** **	.03 (.01)**	-.04 (.01)***	**.35 (.01)*** **	.11 (.01)***
Med. Europe	.06 (.02)***	**.12 (.01)*** **	.06 (.02)***	**-.02 (.01)**	**.35 (.02)*** **	.15 (.02)***
Latin America	.02 (.02)	**.10 (.01)*** **	.02 (.02)	-.01 (.01)	**.31 (.03)*** **	.09 (.02)***
Post-Socialist	.03 (.01)*	**.09 (.01)*** **	.03 (.01)*	**-.03 (.01)*** **	**.28 (.02)*** **	.16 (.01)***

*p<.05; **p<.01; ***p<.001; SE=Standard Error; Bold coefficients different at p<.05

Table 25: Coefficient Comparison Tests of Theories by General Type (from Bivariate Probit Regression)

	Neighborhood Disorg.		Self-Control		Violent Attitudes	
	Offending	Victimization	Offending	Victimization	Offending	Victimization
Country Cluster	*b* (SE)	*b* (SE)	*b* (SE)	*b* (SE)	*b* (SE)	*b* (SE)
Full Sample	.03 (.01)***	.02 (.01)*	**-.11 (.01)*** **	-.05 (.01)***	**.08 (.01)*** **	-.02 (.00)***
Anglo-Saxon	**.06 (.01)*** **	.01 (.01)	-.09 (.02)***	-.05 (.02)**	**.11 (.02)*** **	-.03 (.02)
N. Europe	.04 (.01)***	.04 (.01)***	**-.10 (.01)*** **	-.06 (.01)***	**.11 (.01)*** **	.00 (.01)
W. Europe	.03 (.01)***	.02 (.01)**	**-.13 (.01)*** **	-.04 (.01)***	**.09 (.01)*** **	-.02 (.01)*
Med. Europe	.03 (.01)***	.02 (.01)**	**-.11 (.01)*** **	-.04 (.01)***	**.11 (.01)*** **	-.02 (.01)
Latin America	-.00 (.01)	-.01 (.01)	-.10 (.02)***	-.06 (.01)***	**.04 (.01)** **	.00 (.01)
Post-Socialist	.05 (.01)***	-.01 (.01)	**-.11 (.01)*** **	-.04 (.01)***	**.08 (.01)*** **	-.03 (.01)***

*p<.05; **p<.01; ***p<.001; SE=Standard Error; Bold coefficients different at p<.05

	Neg. Life Events		Family Bonding		Delinquent Peers	
	Offending	Victimization	Offending	Victimization	Offending	Victimization
Country Cluster	*b* (SE)	*b* (SE)	*b* (SE)	*b* (SE)	*b* (SE)	*b* (SE)
Full Sample	.05 (.01)***	**.13 (.01)*** **	-.02 (.01)*	**-.06 (.01)*** **	**.32 (.02)*** **	.09 (.01)***
Anglo-Saxon	-.00 (.02)	**.13 (.02)*** **	-.05 (.02)**	-.08 (.02)***	**.30 (.02)*** **	.06 (.02)**
N. Europe	.03 (.01)*	**.12 (.01)*** **	-.07 (.01)***	-.04 (.01)**	**.31 (.02)*** **	.09 (.02)***
W. Europe	.05 (.01)***	**.12 (.01)*** **	.05 (.01)***	**-.08 (.01)*** **	**.35 (.01)*** **	.09 (.01)***
Med. Europe	.10 (.01)***	**.15 (.01)*** **	.10 (.01)***	-.05 (.01)***	**.33 (.02)*** **	.10 (.02)***
Latin America	.06 (.02)**	**.13 (.01)*** **	.06 (.02)**	-.03 (.01)**	**.27 (.02)*** **	.08 (.02)***
Post-Socialist	.06 (.01)***	**.12 (.01)*** **	.06 (.01)***	**-.06 (.01)*** **	**.27 (.01)*** **	.11 (.01)***

*p<.05; **p<.01; ***p<.001; SE=Standard Error; Bold coefficients different at p<.05

Figure 1: Proportion of Sample Experiencing Violence by Country Cluster

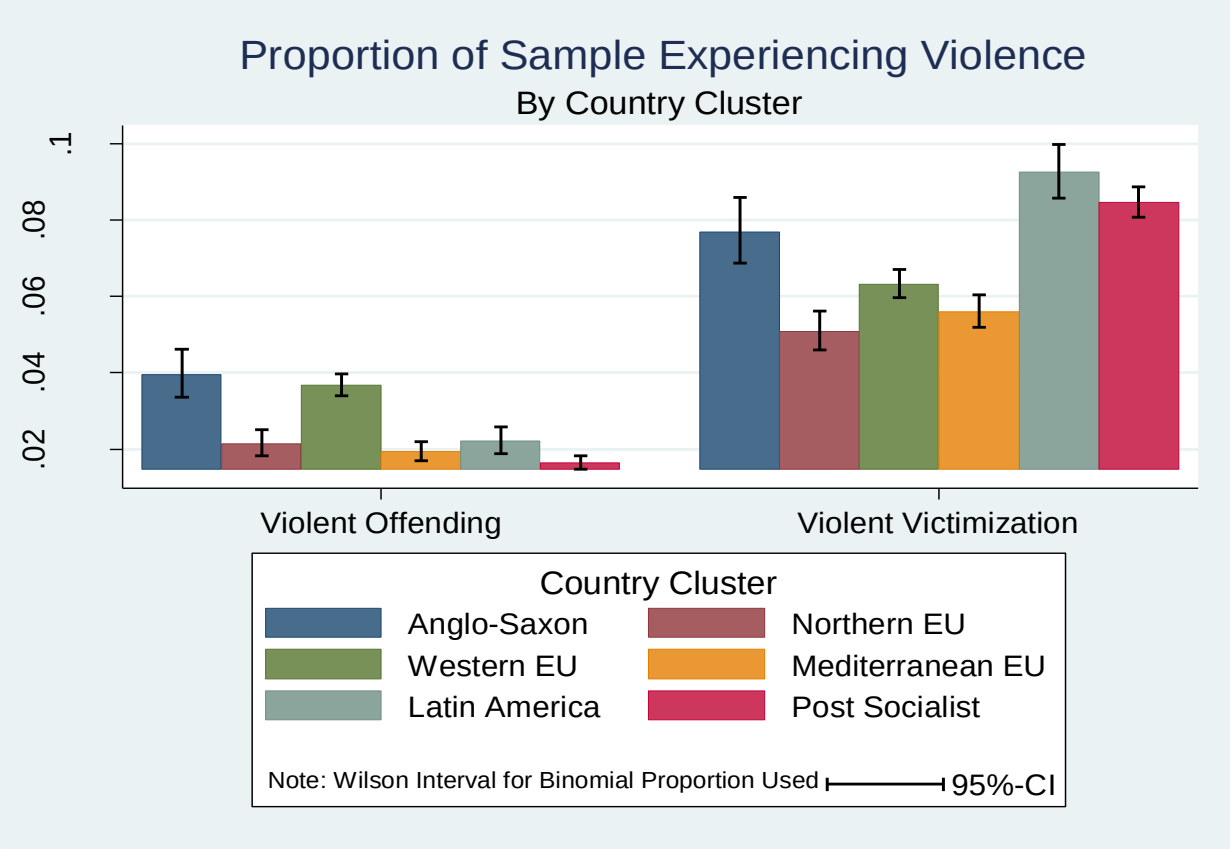


Figure 2: Proportion of Sample Experiencing Theft by Country Cluster

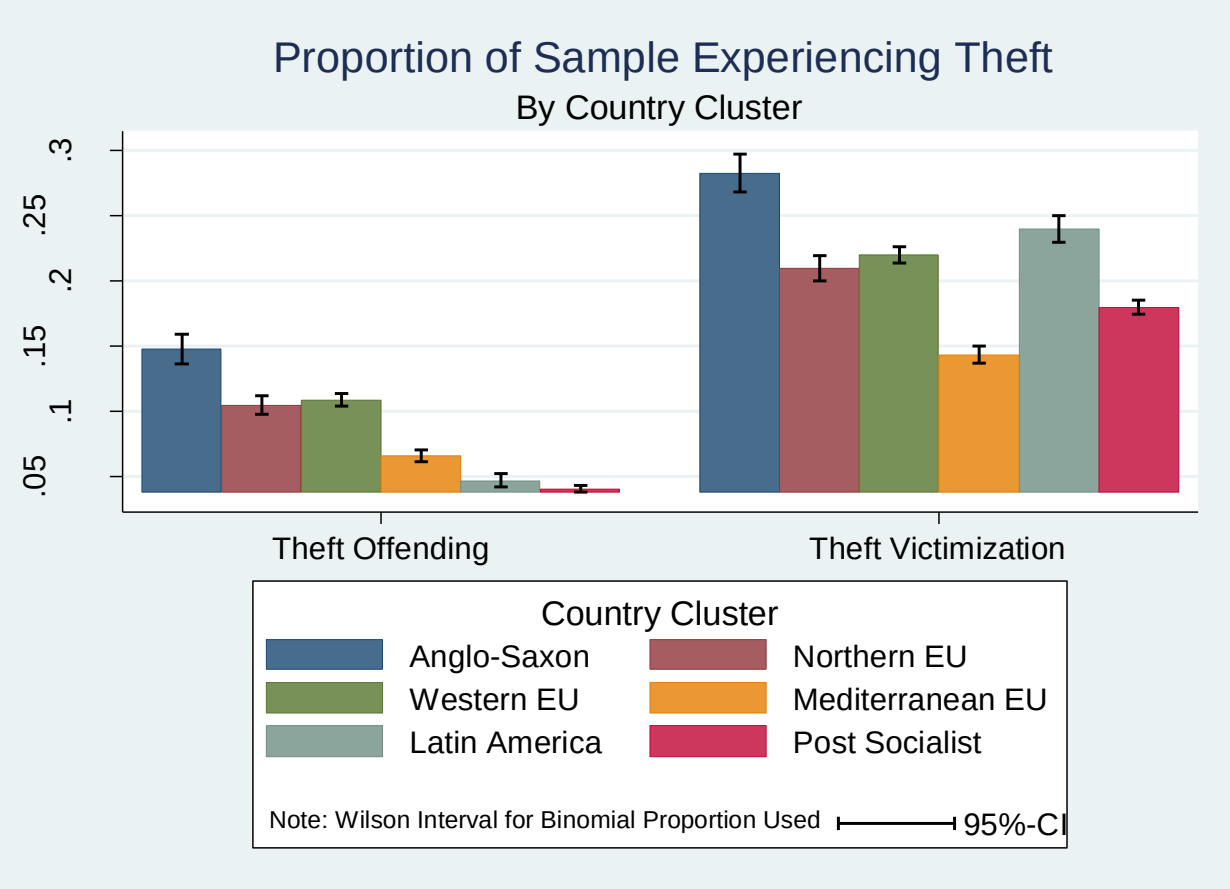


Figure 3: Proportion of Sample Experiencing General Offending/Victimization by Country Cluster

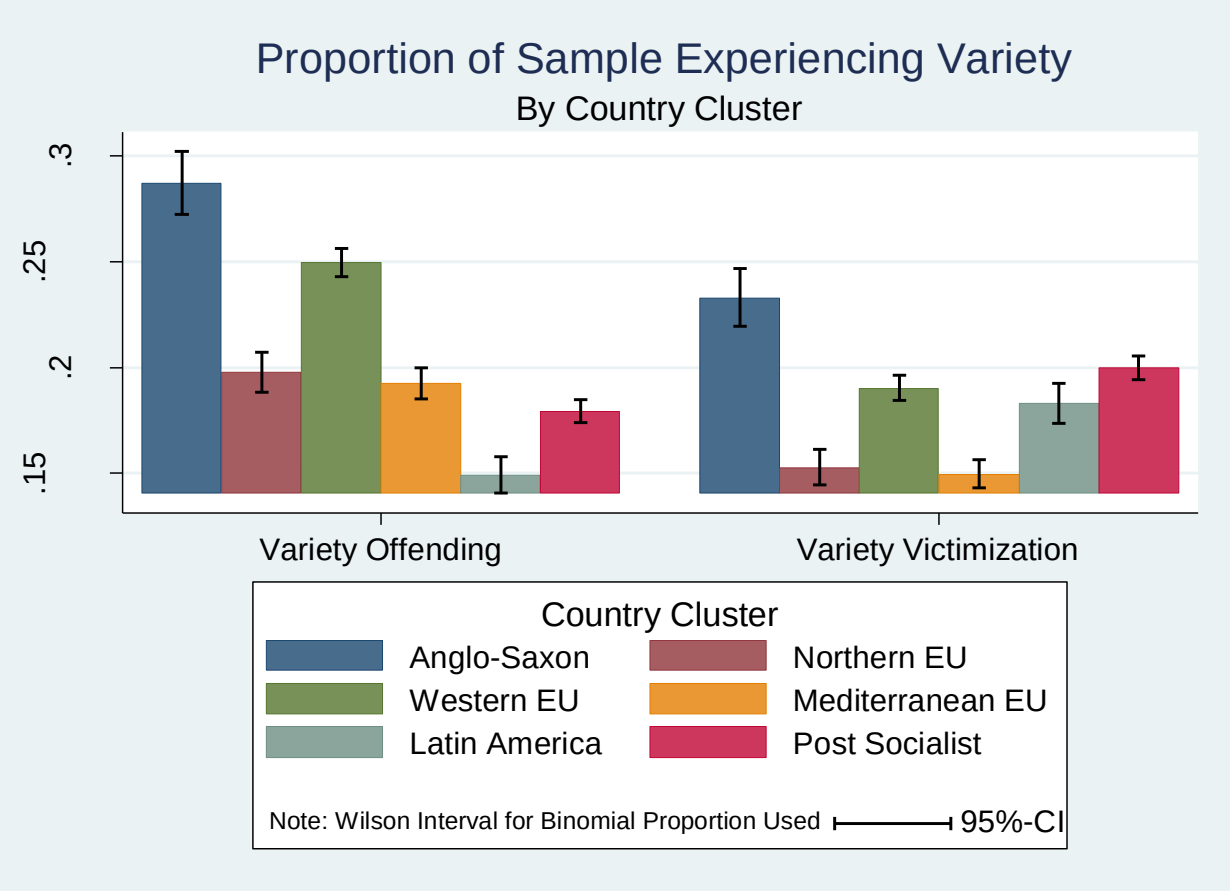


Figure 4: Predicted Probabilities of Family Bonding on Violent Offending

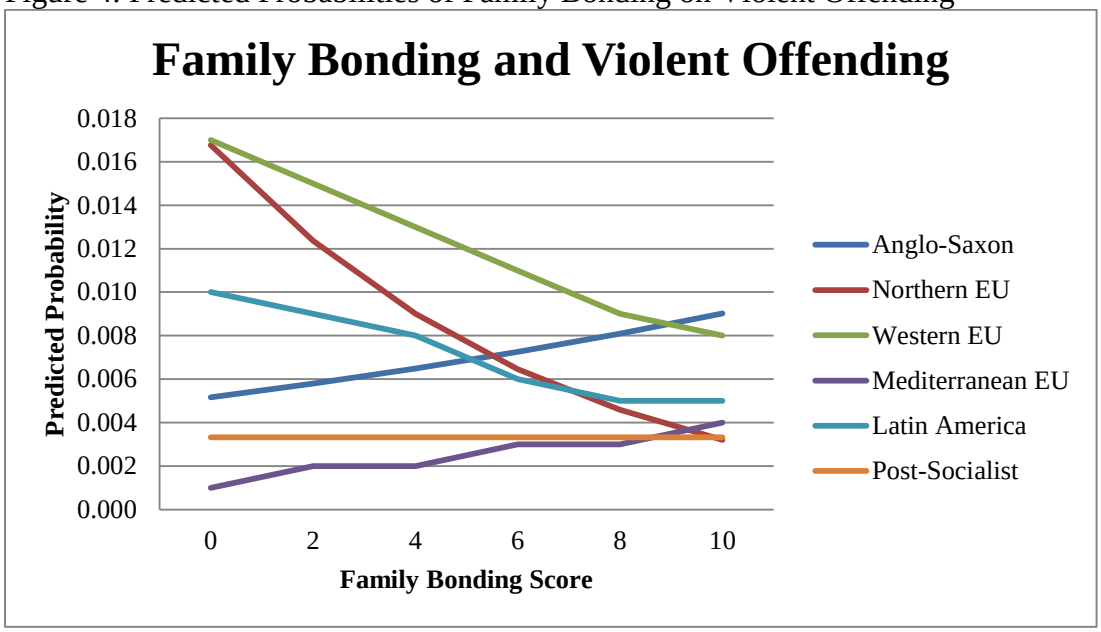


Figure 5: Predicted Probabilities of Family Bonding on Violent Victimization

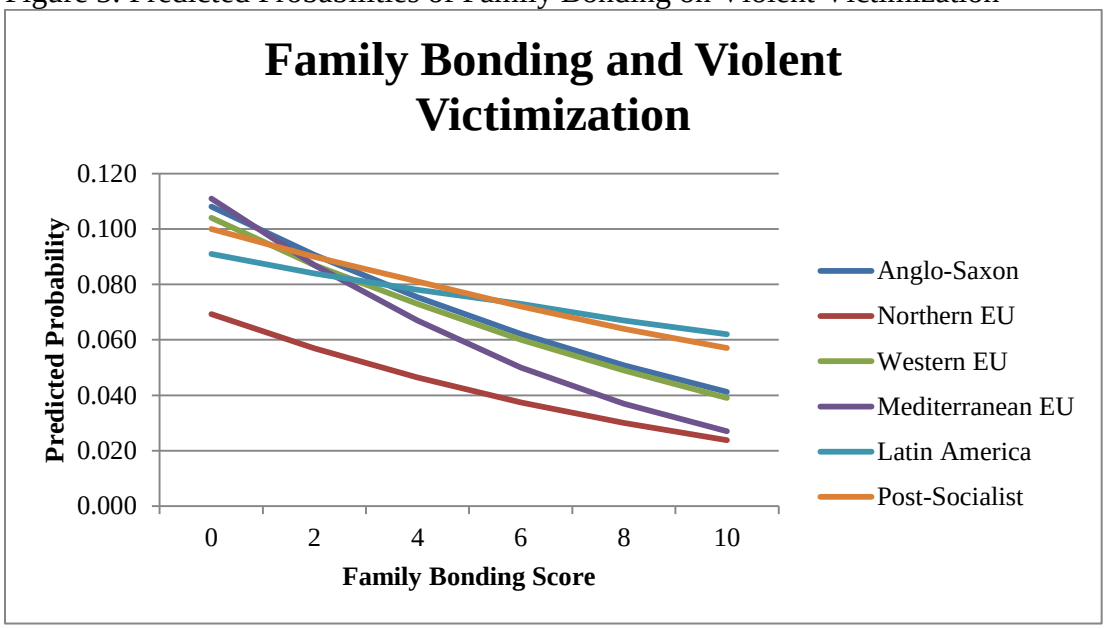


Figure 6: Predicted Probabilities of Family Bonding on Theft Offending

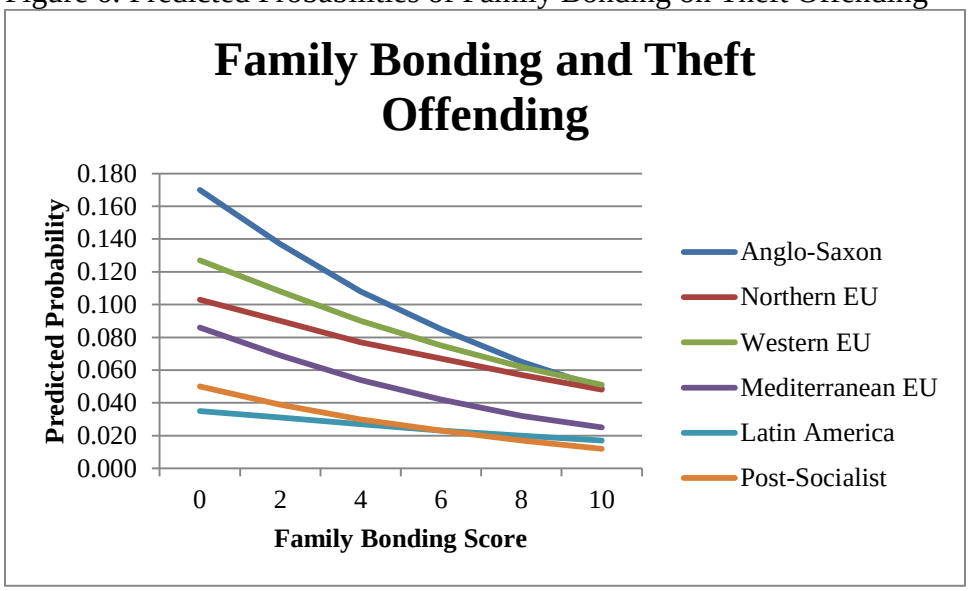


Figure 7: Predicted Probabilities of Family Bonding on Theft Victimization

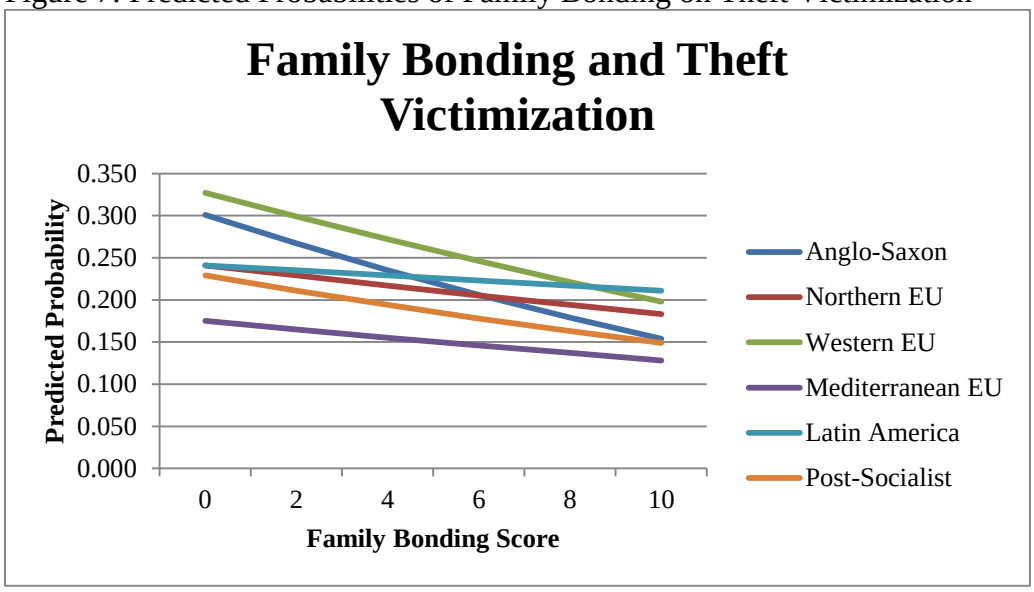


Figure 8: Predicted Probabilities of Family Bonding on General Offending

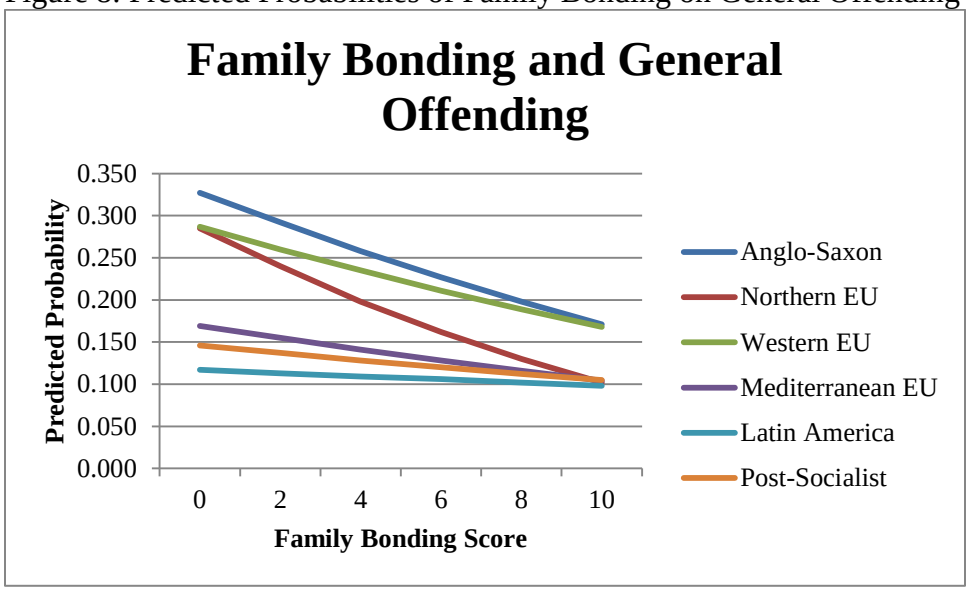
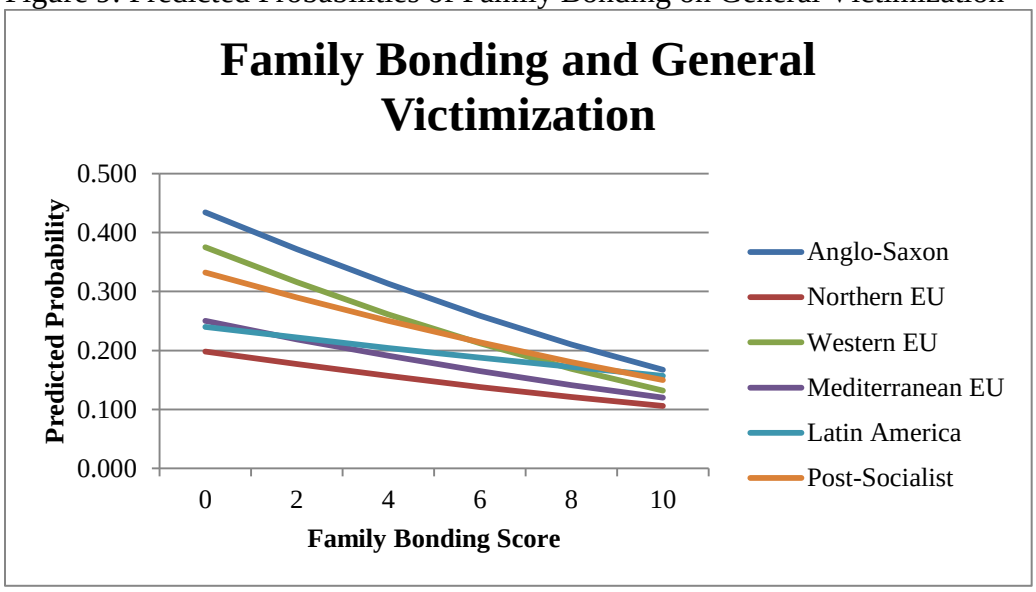


Figure 9: Predicted Probabilities of Family Bonding on General Victimization



APPENDIX A: CLUSTERING APPROACHES

Esping-Andersen Cluster	Country	Lappi-Seppälä Cluster	Country	ISRD Cluster	Countries	Total N	Current Conceptualization
Anglo-Saxon (Liberal)	Australia	Anglo-Saxon (Liberal)	Canada	Anglo-Saxon (Liberal)	Ireland	1,563	Market-Oriented
	Canada		England/Wales		United States	2,400	
	Japan		Ireland				
	Switzerland		Scotland				
	United States		United States				
Northern Europe (Social-Democratic)	Denmark	Northern Europe	Denmark	Northern Europe (Social-Democratic)	Denmark	1,376	Family-Oriented
	Finland		Finland		Finland	1,364	
	Netherlands		Iceland		Iceland	591	
	Norway		Norway		Norway	1,694	
	Sweden		Sweden		Sweden	2,282	
Western Europe (Conservative)	Austria	Western Europe (Conservative)	Austria	Western Europe (Conservative)	Austria	2,994	
	Belgium		Belgium		Belgium	2,308	
	France		France		France	2,398	
	Germany		Germany		Germany	3,478	
	Italy		Luxembourg		Netherlands	2,330	
			Netherlands		Switzerland	3,643	
			Switzerland				
		Mediterranean Europe	Cyprus	Mediterranean	Cyprus	2,310	
			Greece		Italy	7,178	
			Holy Sea		Portugal	2,616	
			Italy		Spain	4,144	
			Malta				

		Monaco			
		Portugal			
		Spain			
		Turkey			
			Latin America (Latin America)	Aruba	705
				Netherlands-Antilles	1,722
				Surinam	2,399
				Venezuela	2,322
	Eastern Europe	Albania	Eastern and Central Europe (Post-Socialist)	Armenia	2,044
		Armenia		Bosnia-Herzegovina	2,017
		Azerbaijan		Czech Republic	3,245
		Belarus		Estonia	2,611
		Bulgaria		Hungary	2,203
		Czech Repub.		Lithuania	2,175
		Croatia		Poland	2,114
		Georgia		Russia	2,313
		Hungary		Slovenia	2,233
		Kazakhstan			
		Kyrgyzstan			
		Moldova			
		Poland			
		Romania			
		Russia			
		Slovakia			
		Slovenia			
		Ukraine			

APPENDIX B: COUNTRY CLUSTER INDICATORS

Cultural Indicators from Three International Studies by Country Cluster

	Anglo-Saxon	Northern EU	Western EU	Mediterranean EU	Latin America	Post-Socialist
ISRD						
Neighborhood Dis.	21.42	16.83	18.20	23.00	29.11	22.20
Self-Control	57.40	66.20	61.60	63.53	59.87	57.99
Violent Attitudes	42.88	34.31	31.11	30.96	36.19	34.75
Negative Life Events	23.51	20.49	18.99	16.86	21.16	18.39
Family Bonding	78.62	81.99	82.29	83.74	76.39	80.15
Delinquent Peers	1.34	1.01	.97	.46	.67	.68
GLOBE *						
Future Orientedness	5.33 (4.08)	4.76 (4.36)	5.01 (4.40)	5.33 (3.68)	5.75 (3.54)	5.38 (3.38)
Gender Egalitarianism	4.91 (3.40)	4.82 (3.71)	4.91 (3.14)	4.77 (3.36)	4.77 (3.41)	4.46 (3.84)
Assertiveness	3.89 (4.14)	3.56 (3.66)	3.07 (4.55)	3.72 (3.99)	3.54 (4.15)	3.78 (4.33)
Institutional Collectivism	4.32 (4.46)	4.08 (4.88)	4.69 (4.03)	4.84 (4.01)	5.32 (3.86)	4.34 (4.10)
In-Group Collectivism	5.84 (4.30)	5.65 (3.75)	5.16 (4.21)	5.66 (4.80)	6.06 (5.52)	5.57 (5.53)
Power Distance	3.31 (4.23)	3.50 (3.63)	3.06 (3.47)	3.48 (3.86)	3.18 (3.74)	3.74 (4.22)
Performance Orientation	6.03 (4.37)	5.84 (3.92)	5.90 (4.41)	5.94 (3.94)	6.24 (3.85)	5.82 (3.73)
Uncertainty Avoidance	4.09 (4.42)	3.76 (5.19)	3.46 (5.12)	4.36 (4.18)	4.98 (3.62)	4.94 (3.56)
Human Orientation	4.97 (4.38)	5.12 (4.68)	4.73 (4.36)	5.10 (4.00)	5.02 (4.31)	4.72 (4.28)
WVS						
Importance Family	97.41	95.15	93.45	95.06	99.19	93.25
Importance Work	78.77	79.88	80.81	83.98	96.52	83.24
Importance Politics	45.50	43.87	42.88	33.60	36.76	37.55
Importance Competition	28.76	28.88	34.05	36.65	31.52	30.64
Trust in People	36.83	59.44	37.05	26.30	15.93	22.02
Confidence Police	66.46	68.35	57.91	56.27	40.80	44.18

Confidence in Civil Service	52.68	49.46	44.74	44.79	38.89	39.64

* Societal Values Score – what should be (Societal Practice Score – what is)

Economic Indicators by Country Cluster (Year = 2000)

	Anglo-Saxon	Northern EU	Western EU	Mediterranean EU	Latin America	Post-Socialist
Unemployment Rate	5.13	5.01	6.66	7.01	10.09	8.66
Income Inequality	34.33	25.80	27.83	33.50	40.00	31.61
National GDP	$40,492.00	$37,952.00	$34,334.50	$26,179.50	$9,191.50	$15,514.78
Competition Index	14.33	7.00	12.17	37.50	94.00	49.89
Percent Own Home	65.62	59.62	46.20	69.67	64.43	71.97

APPENDIX C: ITEMS USED TO CONSTRUCT STUDY SCALES

Drug-Alcohol Use (3 items)

1) Did you ever drink beer, breezers or wine - # times during the last 4 weeks.
2) Did you ever drink strong spirits (gin, rum, vodka, whiskey) - # times during the last 4 weeks.
3) Did you ever use weed, marijuana or hash - # times during the last 4 weeks.

Neighborhood Disorganization (5 items; alpha = .82)

How strongly do you agree or disagree with the following statements about your neighborhood? (4-point scale; Fully agree – Fully disagree)

1) There is a lot of crime in my neighborhood.
2) There is a lot of drug selling.
3) There is a lot of fighting.
4) There are a lot of abandon and empty buildings.
5) There is a lot of graffiti.

Self-Control (12 items; alpha = .83)

How strongly do you agree or disagree with the following statements? (4-point scale; Fully agree – Fully disagree)

1) I act on the spur of the moment without stopping to think.
2) I do whatever brings me pleasure here and now, even at the cost of some distant goal.
3) I'm more concerned with what happens to me in the short run than in the long run.
4) I like to test myself every now and then by doing something a little risky.
5) Sometimes I will take a risk just for the fun of it.
6) Excitement and adventure are more important to me than security.
7) I try to look out for myself first, even if it means making things difficult for other people.
8) If things I do upset people, it's their problem not mine.
9) I will try to get the things I want even when I know it's causing problems for other people.
10) I lose my temper pretty easily.
11) When I'm really angry, other people better stay away from me.
12) When I have a serious disagreement with someone, it's usually hard for me to talk calmly about it without getting upset.

Violent Attitudes (5 items; alpha = .71)

How strongly do you agree or disagree with the following statements of violent behavior done by young people? (4-point scale; Fully agree – Fully disagree)

1) A bit of violence is part of the fun.
2) One needs to make use of force to be respected.
3) If someone attacks me, I will hit him/her back.
4) Without violence everything would be much more boring.
5) It is completely normal that boys want to prove themselves in physical fights with others.

Negative Life Events (8 items)

Have you ever experienced any of the following serious events? (No or Yes)

1) Death of a brother/sister.
2) Death of your father or mother.*
3) Death of someone else you love.
4) Long or serious illness of yourself.
5) Long or serious illness of one of your parents or of someone close to you.*
6) Problems of one of your parents with alcohol or drugs.*
7) Repeated serious conflicts or physical fights between your parents.*
8) Separation/divorce of your parents.*

*by parents we also mean step- or adoptive parents

Family Bonding (4 items; alpha = .55)

1) How do you usually get along with the man you live with (father, stepfather…) (4-point scale; I get along just fine – I don't get along at all)
2) How do you usually get along with the woman you live with (your mother or stepmother) (4-point scale; I get along just fine – I don't get along at all)
3) How often do you and your parents (or the adults you live with) do something together, such as going to the movies, going for a walk or hike, visiting relatives, attending a sporting event, and things like that? (6-point scale; More than once a week – Almost never)
4) How many days a week do you usually eat the evening meal with (one of) your parents (or the adults you live with)? (8-point scale; Never – Daily)

Delinquent Peer Activity (5 items; alpha = .70)

Young people sometimes engage in illegal activities. How many friends do you know who have done something of the following? (No or Yes)

1) I have friends who used soft or hard drugs like weed, hash, XTC, speed, heroin or coke.
2) I have friends who did steal something from a shop or department store.
3) I have friends that entered a building with the purpose to steal something.
4) I have friends who did threaten somebody with a weapon or to beat him up, just to get money or other things from him.
5) I have friends who did beat someone up or hurt someone badly with something like a stick or a knife.

APPENDIX D: CORRELATION MATRIX FOR OFFENDING AND VICTIMIZATION

Correlations between Violence and Theft for Offending and Victimization

	Violent Offending	Violent Victimization	Theft Offending	Theft Victimization
Violent Offending	1	.11	.22	.06
Violent Victimization		1	.08	.19
Theft Offending			1	.11
Theft Victimization				1

Note: All correlations significant at $p<.001$