



General Multilevel Opportunity and Crime

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Abstract: Since the 1960s, criminologists have tried to find the cause of crime in the opportunities for crime instead of in the characteristics of individuals. As a result, many opportunity theories emerged. Also, the opportunity theories were conceptualized and tested by much research. Most of the research focused on opportunity theories at single levels of analysis. However, recently there has been a trend in the field among some to move toward “multilevel” explanations. The remarkable thing among the trend is general multilevel opportunity theory. Noting that both the context surrounding an individual and the characteristics of the individual affect crime symbiotically, they tried to integrate opportunity theories and social disorganization theory to explain the phenomenon. This paper reviewed multilevel approach in conceptualizing and testing opportunity theory and the crime prevention implications according to multilevel criminal opportunity were suggested.

Keywords: Crime, Crime prevention, General multilevel opportunity, Opportunity theory, Social disorganization theory.

I Introduction

Since the 1960s, criminologists have tried to find the cause of crime in the opportunities for crime instead of in the characteristics of individuals. As a result, many opportunity theories emerged (i.e., routine activities theory, rational choice theory, offender search/crime pattern theory, defensible space/CPTED). Also, the opportunity theories were conceptualized and tested by much research. Most of the research focused on opportunity theories at single levels of analysis.

However, recently there has been a trend in the field among some to move toward “multilevel” explanations (e.g., Fisher, Sloan, Cullen, & Lu, 1998; Sampson & Wooldredge, 1987). The remarkable thing among the trend is general multilevel opportunity theory (Wilcox, Gialopsos, & Land, 2013; Wilcox, Land, & Hunt, 2003). Noting that both the context surrounding an individual and the characteristics of the individual affect crime symbiotically, they tried to integrate opportunity theories and social disorganization theory to explain the phenomenon.

II Multilevel Criminal Opportunity

The concept of multilevel criminal opportunity means that criminal opportunity structures exist at multiple levels of analysis. In other words, it reflects that criminal opportunity occurs at both micro-level (i.e., individuals) and macro-level (i.e., places, streets, areas) together. The concept of multilevel criminal opportunity has been implicit in crime prevention studies for a long time (Eck et al, 2005; Taylor, 1998; Taylor & Gottfredson, 1986) and Wilcox et al. (2003) provided the most formal statement of the idea.

According to the concept of multilevel criminal opportunity, both individual-level variables (i.e., individual-level motivated offender exposure, individual-level

target suitability, and individual-level guardianship) and aggregate-level variables (i.e., aggregate-level motivated offender exposure, aggregate-level target suitability, aggregate-level guardianship) influence crime or victimization together.

Basically, various levels of opportunity have additive effects. Additive effects can be divided into the following two cases (Wilcox et al., 2003). First, if all things are equal, individual-level motivated offender exposure, aggregate-level motivated offender exposure, individual-level target suitability, and aggregate-level target suitability have positive effects on criminal acts. That is, the increase of these factors increases criminal acts. Second, if all things are equal, individual-level guardianship and aggregate-level guardianship have negative effects on criminal acts. That is, the increase of these factors decreases criminal acts.

Various levels of opportunity may have interactive effects besides additive effects (Wilcox et al., 2003). Interactive effects can be divided into the following three cases (Wilcox et al., 2003). First, when we consider the positive effect of individual-level motivated offender exposure on criminal acts, aggregate-level motivated offender exposure and aggregate-level target suitability (i.e., target vulnerability, target antagonism, and target gratifiability) exacerbate the effect and aggregate-level guardianship (i.e., social ties and social control) tempers it. Second, when we consider the positive effect of individual-level target suitability on criminal acts, aggregate-level motivated offender exposure exacerbates the effect and aggregate-level target suitability and aggregate-level guardianship (i.e., social ties and social control) temper it. Third, when we consider the negative effect of individual-level guardianship on criminal acts, aggregate-level motivated offender exposure tempers the effect and aggregate-level target suitability and aggregate-level guardianship exacerbate it.

III Integration of Opportunity Theories and Social Disorganization Theory

Some scholars (e.g., Sherman, Gartin, & Bureger, 1989) argue that integration of opportunity theory and social disorganization theory does not make sense, because the levels of explanation by the two perspectives are different. However, opportunity theory and social disorganization theory can be integrated because place (e.g., street segment) in opportunity theory can be regarded as micro community like macro community in social disorganization theory ((Weisburd, Groff, & Yang, 2012). Hence, opportunity theories (e.g., routine activities theory) and social disorganization theory are connected with each other and compatible together. Then how they are connected and compatible? The way that they are connected and compatible is as follows.

Routine activities theory assumes that opportunity for crime is distributed differently depending on time and space. It implies that individual or social routine influences individual crime or social crime rate in time and spatial structure. In other words, from the perspective of routine activities theory, the distribution of individual and social routine activities affects individual crime and social crime rate through the influence on informal social control. Here informal social control is among guardianship in routine activities theory (Bursik, 1988). Whereas, in the perspective of social disorganization theory, weak informal social control causes opportunity for successful crime or victimization (Wilcox et al., 2003). Like this, routine activities theory and social disorganization are connected to each other and compatible.

Opportunity theories and social disorganization theory, which are connected to each other can be integrated into multilevel theory based on the concept of multilevel criminal opportunity and can be tested by using multilevel analysis. Multilevel criminal opportunity theory assumes that both individual-level variables and aggregate-level variables affect crime or victimization together. Social disorganization in social disorganization theory can be analyzed and tested as an element of aggregate-level guardianship in multilevel criminal opportunity theory. The reason for this is as follows. Community-level poverty, ethnic heterogeneity, mobility, and family disruption

obstruct the role of community values, social ties, and informal social control in community and cause high crime rates (Wilcox et al., 2003). Thus, the above factors of social disorganization theory can be recognized as elements of aggregate-level guardianship.

IV Empirical Research

Offenders' decision-making shows that opportunity exists at multilevel. That is, offenders contemplate hierarchical decision-making processes where they consider area-level opportunity and then narrow that down to individual-level targets when they commit their actual crimes. For example, robbers and burglars select an area where they plan crimes at first and then find individual targets or places (Clarke & Cornish, 1985; Wright & Decker, 1994, 1997). Considering an area to commit crimes, robbers are likely to choose the areas where people with the same race and ethnic background as them live, so they blend in better (Bernasco & Block, 2009). Armed robbers are likely to choose vicinities with more crimes, because they think that the areas have weaker guardianship (Wright & Decker, 1997). Considering individual target, armed robbers are likely to select whites and females, because they are thought to be more compliable (Wright & Decker, 1997). Also, burglars are likely to select places to commit burglary with low risk and effort (Coupe & Blake, 2006; Rengert & Wasilchick, 2000; Wright & Decker, 1994).

Victimization

Sampson and Wooldredge (1987) examined lifestyle-routine activities theory by using 1982 British Crime Survey which surveyed 238 neighborhoods. In the study, the authors found that individual-level factors related to exposure and guardianship (e.g., living alone, and frequency of leaving a home unoccupied) significantly influence burglary victimization as routine activity theory assumed. The results also showed that

contextual-level factors (i.e., social cohesion, unemployment rate, single-person household rate, single-parent household rate and housing density) are directly related to burglary victimization.

Smith and Jarjoura (1989) examined burglary data that included 57 U.S. neighborhoods. The authors suggested that previous studies using the same individual-level variables (e.g., single parent, income, and age) reported inconsistent findings across studies, because they failed to consider context. They also found that both individual-level factors (household characteristics) related to exposure and guardianship and contextual variables (e.g., racial heterogeneity, residential mobility, and social cohesion) significantly influenced burglary victimization.

Kennedy and Forde (1990) analyzed data from the Canadian Urban Victimization Survey. Then they found that individual-level factors related to exposure and guardianship affected both property and violent crimes. They also found that the characteristics of the census metropolitan areas (e.g., unemployment rate, and low income families rate) influenced many kinds of victimization.

Miethe & McDowall (1993) extended previous research by looking at interaction effects. They used Seattle data which included 300 neighborhoods. They discovered that routine activity risk factors such as target attractiveness and guardianship measures did not significantly influence burglary victimization in socially-disorganized neighborhoods. For example, regardless of one's lifestyle and routine activities, individuals who live in socially disorganized areas have greater risk for burglary victimization. However, such routine activity risk factors are important predictors for burglary victimization in neighborhoods with high-SES and low mobility.

By using the same data, Wilcox Rountree et al. (1994) extended Miethe and McDowall's (1993) multilevel study by using hierarchical logistic models. They argued that traditional logistic regression methods were not appropriate for analyzing multilevel factors on victimization because the models violated the important

assumption (independence of errors). The authors found that neighborhood incivilities, ethnic heterogeneity, population density in a neighborhood significantly affected the risk of both violent and burglary victimization. Additionally, Wilcox Rountree et al. (1994) showed that neighborhood incivility and ethnic heterogeneity much more influenced burglary victimization across neighborhood unit compared to Miethe and McDowall's research (1993). They also found results that Miethe and McDowall (1993) did not find. That is, their findings showed that violent victimization risk differed significantly across the neighborhoods.

Smith et al. (2000) argued that the lack of interaction effects between social disorganization and routine activity variables in the past might be a function of the size of the unit of analysis. They use face blocks for macro-level unit of analysis. They analyzed 1993 street robberies in a mid-sized southeastern U.S. city. They found that five of twelve hypothesized interaction effects were significant. They concluded that research using larger units of analysis (e.g., block pairs from Seattle data) suffers from spatial heterogeneity and this explains why so few interaction effects were found in past research.

Outlaw, Ruback, and Britt (2002) found both individual-level and neighborhood-level target attractiveness influences repeat property victimization. For example, those with higher income are victimized more repeatedly. Also, neighborhoods with higher incivility have more risk for repeat property victimization. They also found that household-level safety precautions does not have significant crime reduction effects in busy places.

Wilcox, Madensen, and Tillyer (2007) focused on examining interaction effects between household-level guardianship and neighborhood-level guardianship on burglary victimization by using Seattle data. They divided household-level guardianship into four types of guardianship (i.e., personal guardianship, physical guardianship, social guardianship, and natural guardianship). And they made four

types of neighborhood-level guardianship by aggregating each type of household-level guardianship. Then they found that the six of the sixteen interaction effects between each household-level guardianship and neighborhood-level guardianship were statistically significant. For example, individual-level target hardening reduced burglary in neighborhoods with a high degree of target hardening. Also, individual-level target hardening decreased burglary in neighborhoods with high degree of informal social control.

Wilcox Rountree and Land (2000) examined multilevel models of victimizations across three cities (Rochester, St. Louis, and Tampa-St. Petersburg) to generalize the models. After they found that the results had considerable consistency in the three cities, they concluded that multilevel opportunity models could be generalized. For example, average burglary victimization risk highly varied across neighborhoods in all three cities, but the influence of individual-level opportunity factors (e.g., living alone) on victimization did not vary across neighborhoods. Second, neighborhood-level factors (e.g., average income, heterogeneity, mobility, and social ties) explained much part in the variation of burglary victimization across neighborhoods in all three cities.

Fisher, Sloan, Cullen, and Lu (1998) extended multilevel criminal opportunity study at universities. They examined individual-, institution-, and census-level factors (i.e., exposure, proximity, target attractiveness, and guardianship) on theft and violent victimization in 3,000 college students from twelve institutions. They found that most of the important effects existed at the individual-level. However, they speculated that their findings that contextual-level variables did not affect victimization might be due to colleges as contextual-level or the fact that too small number of institutions were examined.

Then multilevel studies on students nested within high schools and middle schools have been conducted continuously. For example, through their multilevel study, Schreck, Miller, and Gibson (2003) found that students with more exposure to

motivated offenders and weaker social guardianship were more victimized at schools. They also found that school-level exposure to motivated offenders (e.g., students carrying weapons) increased violence at schools.

V Crime Prevention Implications

The multilevel approach gives an important implication for crime prevention. It implies that it is not sufficient to focus on either community-based interventions (e.g., community policing, and community-level hardening) or individual-level interventions (i.e., situational crime prevention efforts) to prevent crime (Wilcox et al., 2003). This is because community-level interventions and individual-level interventions have interaction effects as well as additive effects. I will give two examples to show why only single-level interventions are not sufficient to prevent crime.

The first example is community policing. If a community conducts community policing, informal social control (i.e., aggregate-level guardianship) of the community will increase due to the community policing. According to multilevel criminal opportunity, the increased contextual-level guardianship will moderate the effects of individual-level exposure to motivated offender and target suitability on criminal acts. Also it will exacerbate individual-level guardianship on criminal acts. Hence, high exposure to motivated offender (e.g., living in a corner of a neighborhood) or high target suitability (e.g., an expensive automobile) will have less victimization risk in a community where community policing is conducted compared to a community where community policing is not conducted when everything else is constant. Also, individual-level guardianship (e.g., locking doors) will have much more preventing effect on victimization risk in a community where community policing is conducted compared to a community where community policing is not conducted when everything else is constant.

The next example is the relationship between individual-level target hardening and neighborhood-level target hardening. People try to prevent burglary by various ways (e.g., locking door and implementing extra locks). However the individual target hardening does not provide the same level of prevention across all neighborhoods. The individual target hardening will have a good prevention effect in neighborhoods with a high level of target hardening whereas it will not have a good prevention effect in neighborhoods with low level of target hardening (Wilcox et al., 2007). Because interaction effects of the two examples above cannot be tested at a single level, it becomes an important reason why multilevel approach for crime prevention research is necessary.

VI Conclusion

Until now we reviewed multilevel approach in conceptualizing and testing opportunity theory. We explained the meaning of multilevel criminal opportunity and how opportunity theories and/or social disorganization theory can be integrated and tested using multilevel theory and analysis. Then we provided empirical research testing multilevel models of crime. Finally, we suggested the crime prevention implications according to multilevel criminal opportunity.

Micro-level scholars think that contextual-level variation is not important because contextual-level variation consists of 3-10% among the variation of crime, victimization, and fear of crime in appropriate statistics analysis using individual-level and contextual-level units (Wilcox et al., 2003). However, their claim does not consider that the change of contextual-level (e.g., community policing, neighborhood-level target hardening) moderate opportunity characteristics of individual-level but considers only direct effects of contextual-level (Wilcox et al., 2003). Indirect effects as well as direct effects caused by the change of contextual-level should be examined to make sure how

much the change of contextual-level influences on crime, victimization, and fear of crime. This is the answer to the question of why we should consider multidimensional effects when we examine the influence of opportunity structures on crime, victimization, and fear of crime.

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