

Beyond the Social Production of Homicide Rates: Extending Social Disorganization Theory to Explain Homicide Case Outcomes

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This paper examines the intersection of social disorganization at a community level with responses to crime. In contrast to other works examining the impact of social disorganization on the production of crime rates, we examine the role of social disorganization theory in responses to crime rates (i.e. the arrest and conviction of perpetrators of crime). In an effort to examine these dynamics, we use law enforcement data from Cleveland, Ohio to explore the role of social disorganization in the ability of police and the courts to respond to homicide cases. Such an examination suggests not only how far the law extends in community responses to homicide but also reveals an extension of social disorganization theory beyond its established role in explaining the production of crime rates.

Keywords social disorganization; concentrated disadvantage; arrest; conviction; homicide

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Introduction

A vast literature exists within the field of criminology on homicide and violent crime. Within this literature, an important group of studies have sought to explain neighborhood-level variation in both homicide offending and victimization (e.g. Browning, Feinberg, & Dietz, 2004; Graif & Sampson, 2009; Hannon, 2005; Kubrin & Herting, 2003; Peterson, Krivo, & Harris, 2000; Stults, 2010). The social disorganization perspective has been found to be a useful theoretical framework for explaining this variation. For example, neighborhoods with higher levels of homicide and violence tend to be neighborhoods with high levels of concentrated disadvantage, and/or residential instability (Krivo & Peterson, 1996; Sampson, Raudenbush, & Earls, 1997). However, we know little about whether and how neighborhood context impacts what happens in the aftermath of these crimes. What role do neighborhoods play in the investigation of these violent incidents? Do neighborhood characteristics impact the likelihood that a suspect will be arrested and convicted? In this paper, we examine the extent to which social disorganization influences not the occurrence of crime but the responses to it at the neighborhood level.

Theoretical Perspective

The social disorganization perspective developed out of the University of Chicago during the 1920s. According to Shaw and McKay's (1942) work on urban communities, high levels of residential instability and poverty result in communities that are socially disorganized, in turn producing high rates of juvenile delinquency. Extensions and revisions of this theory have included more explicit discussions of the intervening processes between such structural factors as economic deprivation and residential instability and crime rates. In particular, these types of neighborhood conditions are believed to weaken social institutions and the ability of residents to exercise informal social control by regulating the behavior of individuals in the neighborhood, and to weaken "collective efficacy" (social cohesion and mutual trust) (Bursik & Grasmick, 1993; Kornhauser, 1978; Sampson, 2002; Sampson & Groves, 1989; Sampson et al., 1997; Simcha-Fagan & Schwartz, 1986; Sun, Triplett, & Gainey, 2004; Taylor, Gottfredson, & Brower, 1984; Warner, 2007).

These same neighborhood conditions that allow criminal activity to flourish may also interfere with the identification, apprehension, and prosecution of suspects in these cases. In particular, homicides occurring in communities where traditional informal social control mechanisms such as parents, neighbors, and community leaders are not present and residents are not invested in the neighborhood may pose obstacles to both the successful apprehension and the successful conviction of homicide suspects. With high levels of residential instability and mobility, residents may be less likely to know the identity of persons involved in murders in their neighborhoods. Their low commitment to

the neighborhood in which they temporarily reside and their unwillingness to intervene to regulate the behavior of others living in the area also contribute to an unwillingness to invest their time and risk their safety to cooperate with police in identifying suspects and testifying as witnesses at trial.

Neighborhood disadvantage also impedes the development of productive relationships with outside agencies like the police, contributing to a lack of confidence in police integrity (Reisig & Parks, 2000; Sampson & Jéglum-Bartusch, 1998; Warner, 2007). This is exacerbated by study findings which also show that structurally disadvantaged communities are more likely to experience problems with the police, including greater use of force by police, police misconduct, and abuse of authority (Kane, 2002, 2005; Skolnick & Fyfe, 1993; Smith, 1986; Websdale, 2001). Mistrust of police by members of such communities can result in individuals relying on either informal or alternative methods for resolving conflicts rather than seeking assistance from formal authorities (Anderson, 1999; Cooney, 2009; Kubrin & Weitzer, 2003).

This lack of legitimacy of police results not only in increased violence, but reduces the willingness of residents to cooperate with police (Kane, 2005; Riedel & Jarvis, 1998; Warner 2007), which in turn can impact the ability of police to successfully investigate violent crimes and the ability of prosecutors to put together strong enough cases to secure convictions. For example, as Kane (2005) argues, the estrangement from formal institutions felt by residents of extremely disadvantaged neighborhoods results in a sense of both futility and fear in eliciting assistance from the police in response to violence in the community.¹ This includes a fear of retaliation from members of the community who become aware they have cooperated with police (see Anderson, 1999). Still other studies provide some empirical basis for these beliefs, with findings indicating less vigorous enforcement of crime in more disadvantaged, crime-prone neighborhoods (e.g. Klinger, 1997; but also see Cooney, 2009), and informants being killed for sharing information with police (e.g. Kubrin & Weitzer, 2003).

In sum, there are multiple pathways through which social disorganization may impact not only the production of crime rates but also the production of the outcomes of those criminal incidents. These pathways are displayed in Figure 1. In particular, the neighborhood conditions of concentrated disadvantage and residential instability affect the production of arrests and convictions through a variety of mechanisms. Consistent with previous research, our model incorporates both direct and indirect effects of structural characteristics such as concentrated disadvantage on homicide outcomes (Morenoff, Sampson, & Raudenbush, 2001; Peterson et al., 2000; Sampson, Morenoff, & Gannon-Rowley, 2002). Three principal pathways are depicted here, highlighting the combined impact of structural and cultural forces on homicide outcomes.

1. While somewhat tangential to the arguments presented here, Cooney (2000, 2009) underscores this particular point in more anthropological or "pure sociological" treatments of the role of third parties in violence and other disputes, especially when considering killings that occur in varying social and anthropological contexts.

1. *Collective efficacy*. Neighborhoods suffering from high levels of concentrated disadvantage and residential instability lack the collective efficacy necessary to produce feelings of empowerment among neighborhood residents to address local crime problems, including cooperating with police to solve murders, instead generating mistrust and fear that make intervention for the public good unlikely (Sampson et al., 2002). Within these neighborhood contexts, residents are plagued by feelings of despair and alienation, which in turn reduce both the likelihood that residents will know the identity of suspects as well as their motivation to assist criminal justice officials with their investigation and prosecution of suspects.
2. *Street justice/self-help*. Neighborhoods suffering from high levels of concentrated disadvantage and residential instability are more likely to develop street codes that emphasize either taking justice into one's own hands or resorting to other mechanisms for informal social control. The importance of self-help within these contexts will cause residents to avoid the use of legal avenues for settling debts over violent encounters, creating a code of silence between themselves and legal officials which stresses the importance of not "ratting" people out (see especially Black, 1998; Cooney, 2009). Recognizing that both cultural and structural factors may be at work in producing violent behavior, scholars have argued that the cultural isolation resulting from concentrated poverty and residential instability can produce value systems in which crime is accepted or anticipated (Anderson, 1978; Sampson & Wilson, 1995). For example, in *Code of the Street*, Anderson (1999, pp. 32-33) discusses how social isolation among residents of poor inner-city communities produces a separate value system; "the despair is pervasive enough to have spawned an oppositional culture, that of 'the street,' whose norms are often consciously opposed to those of mainstream society." The ability to defend oneself and one's family rather than relying on the police and the criminal justice system becomes a respected quality among residents of such environments. In the drug trades, which have emerged in these communities, violence is used as a means of social control, where injury or death is frequently viewed as warranted, and a desire to bring the perpetrator(s) to official justice is lacking (Anderson, 1999, pp. 116-117).
3. *Fear of retaliation*. Residents of neighborhoods suffering from high levels of concentrated disadvantage and residential instability typically feel less protected by formal social control. Thus, even among those individuals who might otherwise like to cooperate with police and wish to see the offender brought to justice, their fear of being harmed by the suspect or the suspect's family and friends for sharing information in an investigation may keep them silent. This may be particularly the case in violence stemming from drugs and/or gangs (see Anderson, 1999).

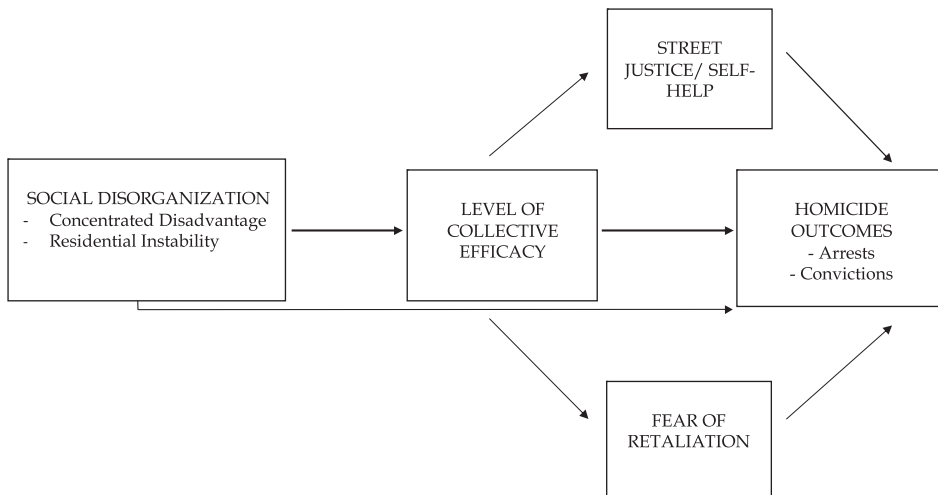


Figure 1 Theoretical model displaying mechanisms through which social disorganization impacts homicide outcomes.

In contrast to earlier works examining the production of crime rates, the current study examines whether neighborhood contextual factors such as concentrated disadvantage and residential instability influence the likelihood of arrests and convictions in homicide cases occurring over a five-year period in Cleveland, Ohio. This is primarily accomplished through the use of multilevel models, but we begin with a qualitative analysis of homicide narratives to determine whether the intervening mechanisms displayed in Figure 1 are evident in the descriptions of lethal encounters in our data and thus support our theoretical predictions. Although the case files from which the data were collected do not permit an exhaustive assessment of the intervening mechanisms, mostly due to information not always being present in the case narratives available for analysis (which also precluded the inclusion of such measures in the multilevel analyses), we believe an adequate proxy test is provided using these methods to reveal the extent to which these mechanisms are impacted by social disorganization, in turn influencing homicide outcomes.

In doing so, this paper seeks to bring together two separate bodies of literature: (1) research examining contributions of social disorganization theory and (2) prior research on homicide clearances and the more general literature on suspect convictions. In the next section, we review the existing literature on social disorganization theory and factors influencing homicide case outcomes.

Prior Research

Research Testing Social Disorganization Theory

A large body of literature exists seeking to test the utility of social disorganization theory for explaining geographical variation in rates of crime generally,

violent crime, and homicide. Overall, the results provide considerable support for the social disorganization model (Bernburg & Thorlindsson, 2007; Elliot et al., 1996; Morenoff et al., 2001; Rosenfeld, Messner, & Baumer, 2001; Sampson & Groves, 1989; Sampson et al., 1997; Smith & Jarjoura, 1988).

Studies using neighborhoods as the unit of analysis are particularly salient for evaluating this theory because the processes envisioned by the social disorganization perspective occur at the neighborhood level. For example, research by Peterson, Krivo and their colleagues of census tracts in Columbus, Ohio found social disorganization variables such as structural disadvantage to have a strong impact on reported rates of violent crime (Krivo & Peterson, 1996; Peterson et al., 2000). Using data on 7,622 neighborhoods from the National Neighborhood Crime Study, Krivo, Peterson, and Kuhn (2009) find higher rates of violent crime in more disadvantaged and residentially unstable neighborhoods. Other research on robbery and aggravated assault within the census tracts of the South Bureau Policing Area of the Los Angeles Police Department found support for the social disorganization perspective to the extent that areas neighboring census tracts undergoing racial/ethnic transition experienced increased disorder as evidenced by growing rates of both intragroup and intergroup violence (Hipp, Tita, & Boggs, 2009).

Research on Homicide Case Outcomes

In response to the increasing attention from both within and outside of the academic community on the issue of the substantial decline in the percentage of homicides cleared in the USA over the past four decades from 94% in the early 1960s to 64% in 2008 (Federal Bureau of Investigation [FBI] 2009), a growing body of literature has emerged examining the causes and correlates of homicide clearance. This research has shed much light on what types of homicide cases are more likely to be cleared with respect to incident, victim, and offender characteristics (see Regoeczi, Jarvis, & Riedel, 2008; Roberts, 2007).

Many of these studies on homicide case outcomes draw on the work of Black (1976, 1980) to predict and explain why demographic characteristics like victim race, age, and gender would impact the likelihood of an arrest in a homicide (e. g. Litwin, 2004). For example, if minority victims have lower clearance rates, some have suggested that this pattern reflects victim devaluing where police give less attention and effort to solving these crimes. In terms of homicide clearance, this is often expressed as victims from lower social strata receive less law (less clearances) than that of higher social strata (see Borg & Parker, 2001). However, there has been little discussion of the influence of neighborhood context and how it may impact these individual-level patterns. In particular, it is currently unknown whether these presumed patterns of low arrest and conviction in socially disorganized neighborhoods are consistent within and

across these aggregate contexts. It is also unknown whether individual attributes of these cases interact with neighborhood characteristics in influencing the likelihood that a suspect will be arrested and convicted in a given case.

Neighborhood Characteristics and Homicide Outcomes

Only a handful of studies have included neighborhood-level characteristics in their analyses of factors affecting homicide clearance. In our review, we emphasize findings related to the key theoretical factors of the social disorganization perspective: concentrated disadvantage and residential instability.

Concentrated disadvantage

It is conceivable that successful arrest and prosecution may be less likely for cases occurring in impoverished neighborhoods due to lower levels of satisfaction with police in these neighborhoods (Sampson & Jeglum-Bartusch, 1998), as well as reduced collective efficacy, including greater difficulty in putting pressure on the police to solve neighborhood crime problems (Paré, Felson, & Ouimet, 2007; Sampson et al., 1997). This argument is supported by the results of research by Silver and Miller (2004, p. 575) who, after reporting a strong positive relationship between satisfaction with police and neighborhood-level informal social control, conclude that "two important reasons why structurally disadvantaged neighborhoods exhibit lower levels of informal social control are that residents of these neighborhoods tend to have less confidence in the ability of police to be responsive to local needs and that residents of these neighborhoods are less committed to their neighborhoods as places to live."

However, the handful of studies examining the impact of neighborhood disadvantage on the ability of police to clear crimes has produced mixed results. In his study of Chicago, Litwin (2004) reports no significant relationship between homicide clearance and a community's median income, percent unemployed, or educational attainment. Similarly, research on homicide clearance in Columbus found census tract measures of income were not significantly related to homicide clearance (Puckett & Lundman, 2003).

However, a later study by Litwin and Xu (2007) raised some speculation about this relationship upon finding that community economic disadvantage was negatively related to clearance in one time period (1986-1995) but not two others (1966-1975 and 1976-1985).

The literature concerning the role of socioeconomic variables and their influence on the court processing of cases is similarly equivocal. On the one hand, cases occurring in more impoverished areas may have a greater likelihood of conviction to the extent that low-status offenders experience discrimination through harsher treatment by the criminal justice system (Chambliss & Seidman, 1982; Paré et al., 2007; Turk, 1969). Higher conviction rates in cases

from disadvantaged areas may also reflect differential charging practices, where cases involving lower status defendants are initially overcharged to encourage them to plead out to lesser charges. While there is not a large body of research examining the impact of economic status on the likelihood of conviction (due to an absence of data on the defendant's social class in most criminal justice data-sets), the studies that do examine the influence of an *individual's* economic status on the likelihood of conviction report higher conviction rates among more impoverished defendants, although economic factors appear to have greater influence on decisions of whether or not to incarcerate (e.g. Chiricos & Bales, 1991; Chiricos, Jackson, & Waldo, 1972). What is missing from this literature is an examination of the neighborhood context in which the investigation and subsequent prosecution of these cases occur. It is our argument that the social disorganization perspective can further our understanding of these neighborhood-level processes. Drawing on the arguments of social disorganization theorists, we suggest that social processes occurring in disadvantaged neighborhoods that thwart the development of mutual trust and social cohesion among neighborhood residents may lead to reduced cooperation by and among witnesses and the community more generally, resulting in weaker cases at the law enforcement and prosecutorial stages and thus fewer arrests and convictions.

Thus, our study tests the following hypothesis:

Hypothesis 1. Homicide cases occurring in neighborhoods with higher levels of concentrated disadvantage will be less likely to result in both the arrest and conviction of a suspect.

Residential instability

Neighborhoods characterized by few homeowners, significant population turnover, and a lack of long-term residents present obstacles to homicide investigations (or case outcomes) for a number of reasons. First, residents in such areas will have a lower stake in the neighborhood, which increases reluctance to get involved in police investigations (Keel, Jarvis, & Muirhead, 2009). Second, neighborhoods characterized by large population turnover will lack the consistency needed to develop effective working relationships with external agencies like the police (Warner, 2007). Third, residents may lack familiarity with many of the residents of the neighborhood, making it less likely they will prove helpful in identifying the perpetrator. Fourth, the lack of mutual trust in such communities may increase fear of retaliation for cooperating with police. Reflecting this, in his analysis of homicide clearances in Chicago, Litwin (2004) reports a significant positive effect of the percentage of homeowner residents on clearance rates.

Extending this notion, residential instability may also interfere with the successful prosecution of cases. For example, in communities that are relatively

transient and have a high population turnover, police and prosecutors may have a more difficult time locating witnesses by the time the case gets to trial.²

Reflecting these notions, we also test the following hypothesis:

Hypothesis 2. Homicide cases occurring in neighborhoods with higher levels of residential instability will be less likely to result in both the arrest and conviction of a suspect.

Individual-Level Characteristics

The existing literature on homicide clearances identifies a number of victim and incident characteristics that impact the likelihood that the case will be solved.

Victim characteristics

Among the more consistent findings in the literature on homicide clearances is the high likelihood of clearing cases involving child victims, and the greater difficulty of clearing cases involving the elderly (Addington, 2006; Cardarelli & Cavanagh, 1994; Lee, 2005; Litwin, 2004; Puckett & Lundman, 2003; Regoeczi, Kennedy, & Silverman, 2000; Riedel & Rinehart, 1996).

Studies that look at the impact of characteristics such as victim race and gender on homicide clearance, however, have produced more mixed results. Some research finds that female victim homicides are more likely to be solved (Lee, 2005; Regoeczi et al., 2000), while others find the opposite (Jiao, 2007; Litwin & Xu, 2007), or no gender differences (Addington, 2006; Litwin, 2004; Mouzos & Muller, 2001; Puckett & Lundman, 2003). Some studies report cases involving non-white victims have a higher likelihood of clearance (Mouzos & Muller, 2001; Regoeczi et al., 2000), but the opposite pattern has also been reported (Lee, 2005; Litwin & Xu, 2007).

A handful of studies have examined the impact of the victim's prior criminal record, producing mixed results. Some studies report a decreased likelihood of clearance for victims with a prior record (Jiao, 2007; Litwin & Xu, 2007), while others find no significant effect (Litwin, 2004; Wellford & Cronin, 1999).

Incident characteristics

With respect to homicide circumstances, a number of studies report finding that felony-related homicides have lower clearance rates than other types of homicides (Cardarelli & Cavanagh, 1994; Lee, 2005; Litwin, 2004; Mouzos

2. Spatial aspects of the homicides may play a tangential role here as well (see, e.g. Groff & McEwen, 2006; Tita & Griffiths, 2005; Wikström, 1985). Specifically, repeated instances of homicides in a given area or community may serve either to create more anomic social dynamics or serve as a catalyst for collective efficacy to emerge in response to such occurrences. We contend that whether the densities and/or spatial dynamics of these criminal incidents give rise to anomic or efficacious effects in a neighborhood is a product of the underlying mechanisms outlined and examined herein.

& Muller, 2001; Regoeczi et al., 2000; Riedel & Rinehart, 1996; Rinehart, 1994; Roberts, 2007), probably because they are more likely to involve strangers.

Research generally finds that homicides involving firearms are less likely to be cleared (Litwin, 2004; Litwin & Xu, 2007; Mouzos & Muller, 2001; Regoeczi et al., 2000; Rinehart, 1994), while killings committed with weapons that bring the victim and offender into contact with each other (such as fists, knives, or blunt instruments) increase the likelihood of clearing the case (Addington, 2006; Mouzos & Muller, 2001; Puckett & Lundman, 2003; Roberts, 2007).

The location of a homicide has been shown to influence the likelihood of clearing the case. In particular, killings occurring in homes are more likely to be cleared (Addington, 2006; Litwin, 2004; Litwin & Xu, 2007; Mouzos & Muller, 2001; Wellford & Cronin, 1999).

As a result of these findings, we account for the following victim and incident characteristics in our models: victim gender, victim race, victim age, victim's prior record, weapon, circumstances, and location of the offense.

Hypothesized conditional relationships

In our effort to further bridge the gap between research on the social disorganization perspective and studies examining factors influencing homicide case outcomes, we derive several specific predictions from the social disorganization perspective suggesting that the impact of some predictors of homicide clearance in existing research may actually be conditioned by neighborhood characteristics such as concentrated disadvantage and residential instability. For example, a handful of studies on homicide investigations has explicitly examined the impact of the presence of witnesses (third parties) on the likelihood of arresting a suspect (Riedel & Jarvis, 1998; Wellford & Cronin, 1999). We predict that the presence of third parties will increase the likelihood of a suspect arrest and a successful conviction. However, we expect that this impact will be greatest in neighborhoods with lower levels of concentrated disadvantage and residential instability.

Extending findings from earlier studies devoted to explaining the production of crime rates (see Black, 1980; Cooney, 2009; Sampson et al., 1997) to the notion that these factors may also play a role in responses to crime rates (arrest and conviction), we suggest that to the extent that neighborhoods are characterized by higher levels of collective efficacy, witnesses should be more willing to become involved in police investigations, be less fearful of retaliation from other residents, have a greater investment in the outcome of the investigation to the extent they are planning to remain in the neighborhood, and be easier to locate for later testimony in court proceedings.

Hypothesis 3. The impact of third parties on the arrest and conviction of a suspect will be greater for neighborhoods with lower levels of concentrated disadvantage and residential instability.

Consistent with previous homicide clearance research, we expect to find that felony-related homicides are less likely to be solved (Cardarelli & Cavanaugh, 1994; Mouzos & Muller, 2001; Regoeczi et al., 2000; Riedel & Rinehart, 1996; Rinehart, 1994; Roberts, 2007). However, it is possible that the negative impact of felony circumstances on arresting and convicting a suspect will be stronger in neighborhoods with higher levels of concentrated disadvantage and residential instability. In such communities, residents and witnesses may be especially reluctant to cooperate with an investigation out of fear of retaliation from the suspect (see Riedel & Jarvis, 1998). Cultural norms about "minding one's own business" should also be more prevalent in areas where residents lack strong ties to each other and to the neighborhood.

Hypothesis 4. The negative impact of felony-related circumstances on the likelihood of both arrest and conviction will be greater for neighborhoods with higher levels of concentrated disadvantage and residential instability.

A number of studies have included victim race as a predictor of the likelihood that the case will be solved and/or result in the conviction of a suspect (e.g. Litwin & Xu, 2007; Mouzos & Muller, 2001; Regoeczi et al., 2000). That the victim's race has been found in some studies to have a statistically significant effect on the likelihood of clearing the case has raised some speculations and debate regarding an underlying explanation for this apparent relationship. In cases where minority victims have lower clearance rates, some have suggested that this pattern reflects victim devaluing where police give less attention and effort to solving these crimes. This notion, most often attributed to Black (1976, 1980), highlights an interpretation suggesting that police devalue victims of certain demographic backgrounds when investigating criminal complaints. In other words, victims from lower social strata are viewed as receiving less law (in the form of a reduced likelihood of their assailant being arrested) than victims of higher social strata (Borg & Parker, 2001).

In contrast, not all studies have concluded that cases involving minority victims are less likely to be cleared. These differences may be the result, at least in part, of prior research failing to take into account the neighborhood context within which these killings occur. That is, there is the possibility that individual attributes (victim race in this case) may interact with neighborhood contextual factors to impact the case outcome for a given crime. Recent work by Keel et al. (2009) examining homicide solvability lends some insight into this argument. They suggest that findings of differential case outcomes by race may not be solely due to victim devaluing by the police but may also be impacted by police devaluing in the community by surviving victims and potential witnesses (see Keel et al., 2009). Considering this notion, we include interactions of victim race with the neighborhood contextual factors of concentrated disadvantage and residential instability to examine these effects on case outcomes. This yields the final hypothesis:

Hypothesis 5. The impact of victim race on arrest and conviction will be greater for incidents occurring in neighborhoods with higher levels of concentrated disadvantage and residential instability.

In summary, this study extends the theoretical value of social disorganization in three important ways: (1) by applying the theory to individual case outcomes rather than the production of crime rates; (2) by examining an extension of the importance of social disorganization theory in this context; and (3) by examining interactions of neighborhood characteristics and individual attributes to better explain the dynamics of homicide case outcomes.

Methodology

Detailed incident reports derived from the Homicide Unit of the Cleveland Police Department are the primary data used in the current study. Detailed information was coded for each homicide file between 1998 and 2002 ($N = 414$), including many victim, offender, and event characteristics not present in publicly available homicide data-sets such as the FBI Supplementary Homicide Reports. A narrative for each homicide was constructed describing the events leading up to the homicide, including any verbal exchanges between the victim and offender (if known). This data collection effort took 16 months to complete.

These 414 victims were killed by 534 homicide suspects. This included 20 justifiable homicides committed by police; these were eliminated for the purposes of the analyses described here. In addition, there were 16 cases committed by 23 suspects where the actual offense occurred prior to 1998 even though the death occurred between 1998 and 2002. These cases were also dropped, resulting in a final data-set of 495 offenders. Thus, the sample size in the analyses is based on the number of suspected homicide offenders during that five-year period. We selected offenders as the unit of analysis since the entire set of models predicting convictions necessitated the inclusion of offender characteristics such as gender, age, race, and perhaps most importantly, prior criminal history, to properly control for other factors influencing the likelihood of conviction.

The case narratives formed the basis of the qualitative analysis. For the quantitative analysis, the individual-level case data were merged with 2000 census data on 34 identifiable neighborhoods within the city of Cleveland.³ This

3. The neighborhood-level data for Cleveland were generously provided by the Northeast Ohio Community and Neighborhood Data for Organizing (NEO CANDO), housed at Case Western Reserve University's Mandel School of Applied Social Sciences. The authors are grateful for their assistance. Although there are 36 identifiable neighborhoods in Cleveland, two of them contained no homicides during the five-year period examined here (they are largely industrial areas with no residences) and thus were not included in the analyses.

match of individual cases with neighborhoods formed the basis for our multi-level analysis. The neighborhoods are "geographic areas that were defined by the City of Cleveland Planning Commission in conjunction with community organizations and residents." They are combinations of contiguous census tracts that were "defined based on generally accepted neighborhood boundaries within each area and compatibility with census tract boundaries" (<http://neocando.case.edu/cando/index.jsp?tPage=geog>). For example, the percentage of homicides in the neighborhoods that were felony-related ranged from 0 to 41.7%, argument homicides ranged from 0 to 50%, and retaliatory killings ranged from 0 to 40%.

The average number of residents across the 34 neighborhoods is 13,463. The median household income ranges from a low of \$8,657 to a high of \$40,391. The average percentage of renter-occupied housing units is 56%, extending anywhere from 15 to 97%. The mean percentage of black residents across the neighborhoods is 53% and ranges from 2.7 to 98.5%.

The neighborhoods and their characteristics reflect the location of the homicide incident itself. While an attempt was made to collect information on the residential address of offenders, this proved to be a difficult task. Many of the offenders appeared to lack a permanent residential address and changed addresses frequently as they moved from staying with one family member or friend to another. Although it would be ideal to run all of the analyses using both the incident address and the offender's address, the level of missing data for the latter was too high. However, research on the spatial distribution of homicide generally finds that any distances traveled by offenders to the location of the homicide incident are typically short (e.g. under 3 miles) (see, e.g. Bullock, 1955; Groff & McEwen, 2006; Groff, Wartell, & McEwen, 2001). Thus, many of the homicides likely occurred in the offender's own neighborhood.

Dependent Variables

Two dependent variables were used in the analyses. The first homicide outcome is whether or not the case is cleared (1=cleared; 0=uncleared). The second outcome is whether or not the arrested suspect is convicted of the offense (1=convicted; 0=not convicted).

Level-1 Predictors

Drawing on prior studies examining factors influencing the likelihood of an arrest in homicide cases, we include the following victim and incident characteristics as predictors of whether the case is cleared. Victim characteristics include gender (1=female; 0=male), race (1=white victim; 0=non-white victim), age (victim under 10 years of age, victim aged 65 and over, and

victim aged 11-64 as the reference category), victim has a prior record for a violent crime (1=prior record for murder, attempted murder, aggravated assault, sexual assault, assault, or robbery; 0=no record for such offenses), and victim has a prior record for a non-violent crime (1=prior record for any property or drug offense [traffic offenses are excluded]; 0=no record for such offenses). Incident characteristics include weapon (contact weapon, other weapon, and firearm as the reference category), circumstances (felony-related, revenge/retaliation, other circumstances, unknown circumstances, and argument as the reference category), and location (other indoor location, outdoor location, and residence as the reference category). We also include a measure of the availability of witnesses using the variable of whether or not a third party was present at the time of the incident (some-one other than the suspect or victim).

We did not include any offender-related characteristics in our model predicting the arrest of a suspect, since this information was lacking for many of the uncleared cases and we believe the presence of offender information is largely a function of the clearance status of the case (in other words, when the case is cleared, offender information is present and for uncleared cases offender information is typically missing). We did, however, include several offender characteristics in our models predicting whether the suspect would be convicted, including demographic characteristics such as offender gender (1=female; 0=male), race (1=white offender; 0=non-white offender), age (continuous variable), multiple offenders (1=yes; 0=no), offender has a prior record for a violent crime (1=prior record for murder, attempted murder, aggravated assault, sexual assault, assault, or robbery; 0=no record for such offenses), offender has a prior record for a non-violent crime (1=prior record for any property or drug offense [traffic offenses are excluded]; 0=no record for such offenses), and victim-offender relationship (family, friend/acquaintance, stranger, and intimate partner as the reference category).

Table 1 Principal components analysis of Cleveland neighborhood 2000 census variables after varimax rotation

Variables	Component	
	1	2
Percent of female-headed households with children	0.921	-0.004
Percent below poverty line	0.874	0.354
Unemployment rate	0.935	0.251
Percent of renter-occupied units	0.660	0.712
Percent of age five and over who moved in the past five years	0.071	0.984
Percent variance explained	58.5%	33.2%

Level-2 Predictors

Our key neighborhood measures of interest are concentrated disadvantage and residential instability. To create a composite measure of the concepts, we conducted a factor analysis using varimax rotation on five neighborhood-level variables measured using 2000 census data: percent of female-headed households with children, percent of renter-occupied housing units, percent of individuals below the poverty line, percent aged five years and over who moved in the past five years, and the unemployment rate. These five variables clearly loaded onto two separate factors (see Table 1). The female-headed households, poverty, and unemployment measures load onto one factor, which we labeled *concentrated disadvantage*. Rental housing units and mobility loaded on a separate factor, which we labeled *residential instability*. Contrary to our expectations, there was a low correlation across neighborhoods between concentrated disadvantage and residential instability ($r=0.06$).

To test for multicollinearity between either of the neighborhood-level measures and victim race, we created a neighborhood measure of the percent of homicides involving non-white victims. The percentages ranged anywhere from 0 to 100%, with a mean of 62% and a median of 61%. Although the percentage of non-white victims tended to be higher in more disadvantaged neighborhoods, the correlation between the two was lower than we had anticipated ($r=0.60$). The correlation between the percent of non-white victims and residential instability was -0.19 .

Cross-Level Interactions

In order to test some of the hypotheses outlined above, it was necessary to create several cross-level interactions between level-1 and level-2 predictors. Among the interactions included in the models were interactions between both neighborhood-level factors (concentrated disadvantage and residential instability) and each of the following: presence of third parties, victim race, and felony-related circumstances.

Analysis

We use multilevel analyses to examine the impact of victim, incident, and neighborhood-level factors on the likelihood that a suspect will be arrested and convicted in the homicide. For each dependent variable, three models were run. Model 1 includes only the individual-level predictors. Since all of the individual-level variables were dichotomous, no centering was used. Model 2 adds the neighborhood-level variables as direct effects. Both neighborhood predictors were centered around their grand mean. Finally, Model 3 tests for

cross-level interactions between several of the level-1 and level-2 predictors described above.

Results

Descriptive Statistics of the Sample

Between 1998 and 2002, the average homicide victimization rate in Cleveland was 16.26 per 100,000 residents (compared to 5.74 for the USA as a whole). The majority of victims were male (74.6%), black (69.7%), between the ages of 18-39 years (58.4%), with a prior criminal record (64.4%). Homicide suspects were overwhelmingly male (90.4%), most were black (76.7%), half were between the ages of 18 and 25 years, and 77.9% had a prior criminal record. Most commonly, victims and offenders were friends or acquaintances (46.2%). Homicides most often occurred in residences (34.5%) and public outdoor locations (33.4%), were committed with a firearm (62.5%), involved an argument (32.4%) or concomitant felony (21.6%), and occurred in the presence of witnesses/third parties (56%). For those variables available in the FBI's Supplementary Homicide Reports, the patterns in the Cleveland data are similar to national data with the exception of race; nationally the percent of black homicide victims and black persons arrested for murder or manslaughter is closer to 50%.

Regarding homicide case outcomes, 74.3% of homicides were cleared by arrest, 1.5% were exceptionally cleared,⁴ while 24.2% remained uncleared. Of those cases that resulted in arrest, 80% resulted in a conviction. The majority of these convictions were due to suspects pleading guilty (54.4%). Another 22.4% were found guilty by a jury.

Qualitative Analysis of Homicide Narratives

While every homicide incident had a corresponding narrative describing the events leading up to the homicide, many of the narratives lacked information about the investigative aspects of the case. Nevertheless, we were still able to analyze the narratives to determine if evidence exists supporting the intervening mechanisms depicted in our theoretical model (Figure 1).

4. The term *Exceptional Clearance* refers to "a clearance in which some element beyond law enforcement control prevents filing of formal charges against the offender" (FBI, 2004). For example, exceptional clearances can result from offenders committing suicide at the time of the offense, offenders who are killed while being apprehended by police, deathbed confessions, or suspects fleeing to another country to avoid arrest.

Lack of collective efficacy

We proposed that despair, alienation, and a lack of mutual trust among neighborhood residents would reduce both the likelihood that residents will know the identity of suspects as well as their motivation to assist legal authorities with their pursuit of suspects. In examining the narratives, we discovered that this type of information was particularly difficult to detect. However, we noted five cases that showed evidence of these processes, and further that all but one occurred in disadvantaged neighborhoods. In one case, the victim was chased by the suspect out in the street. Multiple shots were fired before the victim was hit. The victim's death was not immediately reported to police and interviews with neighbors indicated that "none of the neighbors called the police after hearing gunshots during the night because gunshots are a regular thing and not much was thought of it" (case 2000-62). In another case, all leads pointed to the same suspect, but no one had learned the person's real identity, referring to him by a single letter in the alphabet (case 2002-73). The case was left unsolved, in spite of the presence of witnesses.

Street justice/self-help

As displayed in Figure 1, we argue that neighborhood context influences the extent of reliance among residents on street justice and self-help as alternatives to providing assistance to official social control agents such as police and prosecutors. We found support for these processes in a number of narratives, including the following examples.

The victim and a friend were sitting inside a vehicle drinking beer and rapping. The suspect approached the passenger side door of the vehicle and fired several shots in the passenger side window, striking the victim. The victim attempted to crawl between the front seats as he was being shot. The victim has a reputation for "loud talking" and liked to intimidate people. He was known not to get along with other males in the area and had been involved in a confrontation with one earlier on the day of this incident. (Case 2002-87)

The 19-year-old male was shot with a handgun outdoors in the early morning hours. A small bag of marijuana was found in his pocket. The victim was known to sell drugs and have a temper. The victim also had a reputation for violence and was believed to have been involved in a homicide. He was described as having a number of enemies, leading to a substantial number of suspects in this case. The police were unable to develop any solid leads in the case in spite of a number of plausible suspects and possible witnesses to the shooting. (Case 1999-47)

These cases provide evidence of street justice on the part of the suspect replacing official justice by criminal justice agencies and an acceptance of street justice among neighborhood residents to the extent that it functions to reduce local crime problems, thus alleviating the need for official justice.

Fear of retaliation

Residents of neighborhoods suffering from high levels of concentrated disadvantage and residential instability typically feel less protected by formal social control, increasing the likelihood that fear of being harmed by the suspect or the suspect's family and friends for sharing information will prevent them from assisting in a homicide investigation. Our examination of the narratives revealed that, among the narratives for which investigative information was provided, evidence of fear of retaliation was the most common obstacle to successful homicide outcomes, including the following examples.

The victim was found nude without his head, both arms and both legs severed from the knees. The victim was reportedly having major problems with the drug dealers on the street. He was believed to owe money to some dealers. Further, he was thought to have ratted out another male to the police, and was possibly being sought in retaliation for doing so. The nature of the crime (i.e. decapitation) generated considerable fear among residents. (Case 2000-44)

A number of people were outside a housing complex hanging out and drinking beer. Several activities were taking place, including a dice game. At approximately 3:15 a.m. the dice players took a break and walked over to the courtyard area. The suspect is heard to yell some profanity from the bushes and a shot rings out, striking a male in his right shoulder. The pellet grazes the male (W1) and strikes the victim. Earlier on the day in question, the male (W1) was shooting craps with several others, including the suspect. The suspect was "losing big" and proceeded to start a fight with the male, accusing him of cheating. The male told the suspect he was going to leave if she kept arguing. The suspect responded with "not with my money" and tells him she will call the police if he leaves. The male responds by telling her "do what you have to do." The suspect then yells at him "I'll shoot you" and "I'm going to get you." The suspect proceeds to chase the male while carrying something made of metal. The suspect had reportedly been looking for the male since this happened and been telling everyone she was going to shoot him as soon as she saw him. It appears that the suspect was attempting to shoot the male when the bullet hit the victim. Although the suspect was arrested for the homicide, she was found not guilty by a jury on all counts. She was picked out of a lineup by several eye witnesses to the shooting. However, she intimidated witnesses in the case to the point of affecting the testimony in the court proceedings. (Case 2002-61)

The latter case is particularly interesting since it exemplifies how fear can interfere with successfully convicting a suspect even once an arrest has been made. Examining the neighborhood characteristics of the narratives for which evidence of fear of retaliation was present, concentrated disadvantage was a common feature but residential instability was not. To some extent, this supports the results of the multilevel analysis (reported below), which finds that the two neighborhood characteristics impact homicide outcomes differently. It

is also consistent with the work of Browning (2009) on the *negotiated coexistence* reached by conventional and criminal residents, which enhances the social capital of the latter and ultimately provides protection for them in urban neighborhoods. In Cleveland, such coexistence may be more likely to be reached in residentially stable neighborhoods. Disadvantaged yet stable neighborhoods may also produce the type of local social ties described by Pattillo (1998) that would discourage reaching out to police in situations where the suspect is a relative or friend of another neighborhood resident.

Quantitative Analyses Predicting Arrest and Conviction

Predicting arrest

We began by analyzing models that assess the importance of victim and incident characteristics on arresting a suspect in the case. We treated all of the variables as having fixed effects.⁵ Several of the standard predictors of arrest clearance from the literature have similar effects for Cleveland homicides (see Model 1 in Table 2). For example, compared to homicides involving arguments, homicides in which the circumstances are revenge,⁶ felony-related, or unknown are less likely to result in the arrest of a suspect. Relative to homicides occurring in residences, killings that occur in other indoor locations or outdoor locations are less likely to be cleared. For other variables we do not find the same patterns seen in other studies. In particular, victim gender, race, age, and prior record do not significantly impact the likelihood that a suspect will be arrested in the crime.

Next, we examined whether the likelihood of clearing the case varies significantly across neighborhoods by running an unconditional HLM model. The results indicate that significant variation does exist ($p=0.009$). Adding the neighborhood variables of concentrated disadvantage and residential instability to the model including all level-1 predictors revealed no significant effects for either concentrated disadvantage or residential instability (Model 2). Thus, we find no support for Hypotheses 1 and 2.

Finally, we tested for interactions between neighborhood characteristics and third parties (a proxy for witnesses), victim race, and felony-related circumstances. The interactions between concentrated disadvantage and race, as well as interactions between both neighborhood-level variables and felony-related circumstances (Hypothesis 4) were not significant so they were not retained in the model. The final model is displayed in the final two columns of Table 2 (Model 3). The results in the final model indicate that the presence of third parties in general increases the likelihood of clearing the case. In neigh-

5. We tested for random effects for the third party and race variables but neither were significant.

6. Circumstance codes were developed on the basis of the narratives for each case. Circumstances coded as "revenge" include ongoing battles between individuals where the homicide is in response to a specific act committed by the offending party. In one such example, the homicide was committed in retaliation for the victim setting the suspect's car on fire.

Table 2 Individual- and neighborhood-level predictors of arrest in homicide cases in Cleveland, Ohio, 1998-2002 (N = 434)

Characteristic	Model 1		Model 2		Model 3	
	Odds ratio	Std. error	Odds ratio	Std. error	Odds ratio	Std. error
Female victim	1.443	0.487	1.448	0.484	1.541	0.271
White victim	1.856	0.649	1.904	0.669	1.797	0.331
Victim under 10 years	0.144	1.622	0.151	1.569	0.764	0.663
Victim 65 and over	0.700	0.586	0.752	0.583	0.882	0.347
Victim prior record violent crime	1.520	0.410	1.576	0.404	1.903**	0.239
Victim prior record non-violent crime	1.252	0.299	1.263	0.297	1.327	0.185
Contact weapon	0.714	0.495	0.727	0.481	0.863	0.265
Other weapon	1.357	1.402	1.312	1.330	0.839	0.480
Felony-related	0.120**	0.632	0.122**	0.623	0.250**	0.389
Revenge/retaliation	0.245*	0.640	0.250*	0.633	0.422*	0.422
Other circumstances	0.833	0.624	0.841	0.603	0.845	0.286
Unknown circumstances	0.012**	0.715	0.013**	0.694	0.027**	0.480
Other indoor location	0.068**	0.659	0.069**	0.652	0.173**	0.487
Outdoor location	0.174**	0.457	0.177**	0.447	0.312	0.193
Third parties present	0.871	0.448	0.862	0.443	1.843*	0.264
Concentrated disadvantage	-	-	1.025	0.199	1.349	0.179
Residential instability	-	-	0.904	0.167	0.688	0.198
Third party × disadvantage	-	-	-	-	0.657*	0.166
Third party × residential instability	-	-	-	-	1.145	0.229
White victim × residential instability	-	-	-	-	1.957**	0.205

* $p < 0.05$; ** $p < 0.01$.

borhoods with higher levels of concentrated disadvantage, the presence of third parties reduces the positive impact of third parties on the likelihood of clearing the case. In other words, having witnesses to the homicide is less helpful in solving the case if the homicide occurred in a disadvantaged neighborhood. Thus, Hypothesis 3 is partially supported. Cases involving non-white victims are less likely to be cleared. The lower likelihood of clearing cases involving non-white victims decreases even further in neighborhoods with higher levels of residential instability. In other words, the difference in the odds of a suspect being arrested in the case for non-white vs. white victims is greater in neighborhoods that are unstable, providing some support for Hypothesis 5.

Predicting conviction

The initial model examines the importance of victim, offender, and incident characteristics on the likelihood of a conviction in the homicide.⁷ The results are surprising as they suggest that to a certain extent, victim characteristics (e.g. victim gender and prior record) and case characteristics (circumstances, location, presence of third parties) have a stronger influence on convictions than offender characteristics (see Model 1 in Table 3). The odds of a conviction are reduced in cases where the victim has a prior record for a violent crime, there are other circumstances involved (relative to arguments), and the homicide occurs in an indoor location that is not a residence. The likelihood of a conviction is higher in cases involving female victims, third parties present at the homicide, incidents involving multiple offenders, and an offender with a prior criminal record for violent crimes. These findings provide an interesting contrast to results reported by Baumer, Messner, and Felson (2000). While their analysis of the impact of victim characteristics on the disposition of homicide cases in 33 US counties showed significant effects for several victim characteristics, including gender, on convictions, the victim having a prior criminal record did not significantly influence any of the legal outcomes they examined (including indictment and trial outcomes).

Next, we examined whether the likelihood of achieving a conviction varies significantly across neighborhoods by running an unconditional HLM model and found marginally significant variation does exist ($p=0.09$). Adding the key measures of social disorganization theory—concentrated disadvantage and residential instability—to the model including all level-1 predictors reveals that the main effects of concentrated disadvantage and residential instability are both significant (Model 2 in Table 3). Concentrated disadvantage has a positive effect, indicating that cases occurring in neighborhoods that are higher in concentrated disadvantage are more likely to result in convictions (contradicting Hypothesis 1) while residential instability has a negative effect, supporting

7. All effects were treated as fixed initially. We also tested for random effects for the variables of the presence of third parties, offender race, and victim race. The random effect for offender race is significant and is retained in the model. The significance of the effect indicates that the impact of offender race on the likelihood of conviction varies significantly across neighborhoods.

Table 3 Individual- and neighborhood-level predictors of conviction in homicide cases in Cleveland, Ohio, 1998-2002

Characteristic	Model 1		Model 2		Model 3	
	Odds ratio	Std. error	Odds ratio	Std. error	Odds ratio	Std. error
Female victim	2.250**	0.255	2.393**	0.275	2.487**	0.251
White victim	1.814	0.374	2.538	0.466	3.926**	0.397
Victim age	0.993	0.009	0.992	0.009	0.996	0.008
Victim prior record violent crime	0.439*	0.371	0.410*	0.398	0.423*	0.377
Victim prior record non-violent crime	0.866	0.314	0.848	0.341	0.743	0.318
Felony-related	0.999	0.346	0.962	0.400	1.451	0.416
Revenge/retaliation	1.257	0.335	1.283	0.368	1.325	0.347
Other circumstances	0.260**	0.267	0.238**	0.281	0.246**	0.282
Unknown circumstances	0.423	0.495	0.434	0.522	0.441	0.508
Other indoor location	0.250*	0.750	0.235	0.783	0.165*	0.779
Outdoor location	0.670	0.347	0.618	0.376	0.634	0.351
Third parties present	2.328**	0.266	2.470**	0.283	2.520**	0.267
Female offender	1.517	0.385	1.583	0.418	1.585	0.384
White offender	0.685	0.391	0.759	0.445	0.740	0.408
Offender age	0.976	0.013	0.976	0.013	0.976	0.013
Multiple offenders	1.815*	0.252	1.823*	0.274	1.721*	0.265
Offender prior record violent crime	2.998**	0.310	3.091**	0.314	2.851**	0.291
Offender prior record non-violent crime	1.695	0.301	1.652	0.319	1.462	0.295
Other family	2.187	0.467	2.247	0.484	2.402*	0.445
Friend/acquaintance	1.543	0.358	1.700	0.384	1.752	0.341
Stranger	1.326	0.466	1.450	0.512	1.679	0.480
Unknown relationship	0.766	0.487	0.832	0.510	0.957	0.468

Concentrated disadvantage	-	-	1.304*	0.125	1.145	0.160
Residential instability	-	-	0.784*	0.122	0.825	0.135
White victim x disadvantage	-	-	-	-	2.699**	0.298
White victim x residential instability	-	-	-	-	0.453**	0.250
Felony-related x disadvantage	-	-	-	-	0.587*	0.216

* $p < 0.05$; ** $p < 0.01$.

Hypothesis 2 (i.e. cases occurring in neighborhoods that are higher in residential instability are less likely to result in convictions).

Finally, we tested for interactions between both neighborhood characteristics and the presence of third parties (a proxy for witnesses), victim race, and felony-related circumstances. No significant interactions were found between the presence of third parties and either concentrated disadvantage or residential instability (Hypothesis 3) or felony-related circumstances and residential instability so these interactions were not retained in the model. The results of the final model are displayed in the last two columns of Table 3. They reveal that while cases involving white victims are more likely to result in conviction, this likelihood is heightened in neighborhoods with higher levels of concentrated disadvantage but diminishes in neighborhoods with higher levels of residential instability. Thus, taking into account the results from both Tables 2 and 3, we find that three of the four possible interactions predicted in Hypothesis 5 are significant. The significant interaction between felony-related circumstances and concentrated disadvantage indicates that while felony-related homicides are more likely to result in conviction compared to argument homicides, these odds are lessened in neighborhoods with higher levels of disadvantage, providing partial support for Hypothesis 4.

Discussion

While a growing number of studies have started examining the problem of low clearance rates for homicide in recent years and what factors impact the likelihood of clearing the case, there is very little research on the role of neighborhood context in the outcome of homicide investigations. The current study seeks to address this gap by applying social disorganization theory to homicide outcomes across neighborhoods in Cleveland, Ohio. We develop and test a number of hypotheses derived from the existing literature on social disorganization, homicide clearance, and dispositions in homicide cases.

Our multilevel models indicate that significant variation exists across neighborhoods in the city in terms of both the likelihood of clearing the case and obtaining a conviction for a suspect. In trying to explain this variation, we did not find that concentrated disadvantage or residential instability directly impacted the likelihood of clearing the case. However, our results indicate that neighborhood context does impact homicide investigations by conditioning the influence of the presence of third parties and victim race on arresting a suspect.

For example, we found that the presence of witnesses at a homicide increases the likelihood the police will arrest a suspect, but this positive impact is largely limited to neighborhoods with low levels of disadvantage. Witnesses have much less of an impact on clearing the case in disadvantaged

neighborhoods, which is consistent with our hypothesis. These neighborhoods can be expected to have lower levels of collective efficacy, in turn reducing the willingness of witnesses to become involved in police investigations and increasing fear of retaliation from other residents for getting involved.

The likelihood of cases involving minority victims being cleared by the arrest of a suspect also varies across neighborhoods. In particular, those cases that are least likely to be cleared are cases involving minority victims killed in residentially unstable neighborhoods. This pattern is consistent with the notion of victim devaluing suggested by Keel et al. (2009), where killings of young, minority males in neighborhoods with high population turnover generate little concern among community members. Instead, these deaths may be viewed by neighborhood residents as acts of "street justice," eliminating the need for "official justice" in the case.

Looking at the conviction stage of homicide outcomes, our results provide mixed support for social disorganization theory. We had predicted that homicide cases occurring in neighborhoods with higher levels of concentrated disadvantage and residential instability would be less likely to result in the conviction of a suspect. The latter hypothesis is supported; residential instability does have a significant, negative impact on the odds of obtaining a conviction in the case. As was clearly evident in reading the homicide case files themselves, communities characterized by high population turnover and sizeable numbers of transient residents posed difficulties for police and prosecutors in terms of locating witnesses to testify at trials taking place months after the homicide had occurred.

Our finding that homicides taking place in neighborhoods characterized by high concentrated disadvantage were more likely to result in convictions, even after controlling for characteristics of the victim, offender, and incident, was opposite to what we had predicted based on the social disorganization perspective. In this case, concentrated disadvantage may be functioning as a proxy for the socioeconomic status of the offender, where more impoverished defendants are more likely to be represented by court appointed legal counsel, increasingly the likelihood that the suspect will take a plea bargain (see Reiman, 2006). More generally, this pattern fits with the arguments of conflict theorists who view the criminal justice system as discriminatory through its harsher treatment of low-status offenders (e.g. Chambliss & Seidman, 1982; Turk, 1969). Thus, the socioeconomic status of offenders may overpower the impact of neighborhood socioeconomic characteristics at the courtroom stage.

In assessing the conditioning influence of neighborhood characteristics on several predictors of a conviction in the case, we found that neighborhood context impacts the influence of the victim's race on the likelihood that a suspect is convicted of the homicide. Specifically, our results show homicides involving white victims are particularly likely to produce a conviction if they occur in highly disadvantaged neighborhoods. This finding was unexpected. To further develop our understanding of it, we examined the detailed narratives

for all of the cases involving white victims where the suspect was both arrested and convicted and the homicide occurred in a highly disadvantaged neighborhood.⁸ There were only 10 such cases, but inspecting the descriptions of these cases revealed an interesting pattern. In almost all of these cases, the victim's death would likely have been viewed as particularly tragic and thus may have warranted more investigative effort by police and greater cooperation by witnesses and the community more generally. For example, one case involved a police officer shot in the line of duty. Another involved the death of a seven-week-old baby girl, and three others involved males killed during the course of their occupational duties (e.g. lethal robberies of a cab driver and the owner of a gas station). Under such circumstances, the social processes operating in disadvantaged communities that prevent crimes from being solved may become less salient in the face of competing media reaction and coverage that accompanies such cases. This is consistent with Davies' (2007) findings supporting the notion that factors such as media coverage and political concerns sometimes dilute the impact of other social factors that typically influence case outcomes.

We also find that residential instability negatively impacts the influence of victim race on achieving a conviction. While the killing of a white victim increases the odds the suspect will be convicted, this is more so the case if the homicide occurs in a residentially stable neighborhood. Thus, for homicides occurring in unstable neighborhoods, the race of the victim is less influential on whether a suspect is ultimately convicted of a crime. It is possible that the difficulties posed by low home ownership and high population turnover in unstable neighborhoods, including problems locating witnesses when cases go to trial, interfere with the successful prosecution of homicide cases regardless of the background characteristics of the victim. In contrast, the victim's race has greater influence on the likelihood of conviction in neighborhoods where these types of obstacles are less likely to exist, such as those with large numbers of long-term, homeowner residents. In these areas we find a pattern that is consistent with the arguments of Black (1976) and others (e.g. Hawkins, 1987), where more law is accorded to those from high-status groups (i.e. whites).

Finally, we find that neighborhood context influences the relationship between felony-related circumstances and the likelihood of conviction. Homicides committed during the commission of a felony are more likely to result in conviction. This is opposite to our prediction. The penalties for felony-related homicides are high because in Ohio these are classified as aggravated murders and can carry a penalty up to life in prison or result in the death penalty. Thus, suspects charged in felony-related murders may be more likely to accept a plea bargain involving reduced charges. However, felony-related homicides occurring in disadvantaged neighborhoods have lower odds of conviction com-

8. We defined "high disadvantage" as any neighborhood with a disadvantage score in the 66th percentile or above.

pared to those occurring in more advantaged neighborhoods. This is consistent with our prediction that felony-related homicides would be particularly likely to pose problems for convicting suspects in neighborhoods characterized by high levels of disadvantage. We reasoned that in these neighborhoods, residents and witnesses may be especially reluctant to cooperate with an investigation out of fear of retaliation from the suspect.

Another interesting finding of the current study is the significant effect of the victim's prior record on the likelihood of conviction, which is inconsistent with results reported by Baumer et al. (2000). The difference between our results and theirs may reflect the differing samples used (all cases for a single city versus a probability sample of cases from 33 US counties). It may also be the result of differences in the measures used. In our data, we distinguished between prior criminal records for violent and non-violent crimes and found that only a prior record for a violent crime had a significant effect on the likelihood of conviction. Baumer et al. use a straight dichotomous measure of whether the victim had been previously convicted of a crime. Our results suggest that the nature of the prior criminal history of both victims and offenders may be more important than the simple presence or absence of a prior record in influencing the criminal justice processing of homicide cases.

Conclusion

Drawing upon social disorganization theory that typically has been used to explain crime causation, this study has shown that social disorganization theory can also be extended to explain homicide case outcomes from the criminal justice system. Drawing upon neighborhood-level data from a single city, residential instability and concentrated disadvantage were found to play complex, yet differing, significant roles in explaining arrest and conviction outcomes. Specifically, in the case of clearances by arrest, these social disorganization variables (concentrated disadvantage and residential instability) had no direct impact but were shown to have significant interactions with the availability of witnesses (third parties) and the race of victim, respectively. In contrast, when examining homicide case outcomes resulting in a conviction, these social disorganization variables were found to both have direct effects and to interact in a more complex fashion with victim and incident attributes. In examining these specific interaction effects, concentrated disadvantage interacted with race of victim to significantly increase the likelihood of conviction whereas the interaction with the occurrence of other felony-related murder decreased the odds of conviction. While the mechanisms of social disorganization appear to work through interactions with other variables in these cases, it is clear that this pattern of results supports contentions that social disorganization at the neighborhood level not only may be a precursor for criminal behavior but may also exacerbate the

criminal justice response when homicides occur. That is, social disorganization may be a double liability for neighborhoods. As previous work has shown, social disorganization may not only foster criminal behavior but it may also diminish the likelihood of formal actions (arrests and convictions) by the criminal justice system to affect case outcomes.

The results suggest some important implications. First, social disorganization plays an important role not only in the production of crime rates but also in the management of case outcomes as these incidents are processed through the criminal justice system. Second, the converse is also true. For neighborhoods that experience less concentrated disadvantage and residential instability, the more likely that collective efficacy (see previous work by Sampson et al. (1997) and others) serves to mediate criminal occurrences and may also insulate these communities from more serious actions by the criminal justice system that has the potential to further exacerbate already socially disorganized communities. Fourth, the impacts of social disorganization variables on case outcomes, albeit complex, may have import for explaining why police sometimes have difficulty making arrests and providing a sense of deterrence to neighborhood residents. In this particular vein, the results found here have importance for notions of case clearances being hampered by perceptions of mistrust of both residents and police and fear of retaliation from criminal elements in the neighborhood if police cooperation is observed.

These findings highlight a number of significant avenues for further research that would extend both the theoretical framework proposed here as well other theories positing justice system outcome differences. For example, additional case outcomes that would be important to examine include charging (Reiman, 2006), pretrial detention (Reiman, 2006), plea bargaining (Chambliss & Seidman, 1982; Reiman, 2006), and jury decisions (Chambliss & Seidman, 1982). Analyses of outcomes for other types of crime (particularly robbery) and of cities in other regions of the country are also needed (Hawkins, 1987). While the police case files examined here lacked the information to analyze these additional outcome measures, they provide key directions for continued research on the influence of neighborhood structure and culture on criminal case outcomes. Recommendations made by Turk (1969, p. 104) more than 40 years ago for more original data collection and for "data acquired from questioning and observing the authorities themselves" have continued relevance for this line of research as well.

Finally, research on the neighborhood context of homicide investigations would strongly benefit from data covering more extensive time periods. This would permit an assessment of two potentially important dynamics. First, it would allow for a comparison of the impact of neighborhood structure and culture on investigative outcomes in stable versus transitional neighborhoods. Second, it would make possible the development of a measure of "historical homicide frequency" that in turn could be used to assess whether case

processing fatigue (where police are routinely flooded with homicide investigations from particular neighborhoods) influences homicide outcomes.⁹

There are, of course, other limitations to these study findings that should be noted. The reliance on the experience of a single city, the neighborhood dynamics within that city, and the composition of both the city and the nature of the homicide cases examined may all have some impact on the results found here. Further research in other localities may confirm whether these impacts vary significantly across different cities. However, earlier homicide clearance work by Wellford and Cronin (1999) suggested little variation across the city type. The lack of information in many of the narratives regarding the investigation of the cases themselves also hindered our ability to provide an exhaustive assessment of the proposed mediating influences.

Nonetheless, this effort supports the notion that the law extends beyond crime detection at the neighborhood level. Additionally, social disorganization within a community serves to not only foster criminal behavior but also to hinder successful case outcomes. This seems especially to be the case when these incidents emanate from neighborhoods where concentrated disadvantage and residential instability are present and interact with victim, offender, and incident characteristics that play a role in the outcome.

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9. We thank an anonymous reviewer for this great suggestion. Additionally it is noted, as another reviewer suggested, that historical data pertaining to past crime problems, police practices, and prosecutorial behavior that may impact these dynamics of criminal justice responses to homicide may be very helpful in better exploring the dynamics that have been asserted to be at work here. While such data were not available for the current study, this highlights an important avenue for further research in this area.

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