Murder by Structure: Dominance Relations and the Social Structure of Gang Homicide[1]

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Most sociological theories consider murder an outcome of the differential distribution of individual, neighborhood, or social characteristics. And while such studies explain variation in aggregate homicide rates, they do not explain the social order of murder, that is, who kills whom, when, where, and for what reason. This article argues that gang murder is best understood not by searching for its individual determinants but by examining the social networks of action and reaction that create it. In short, the social structure of gang murder is defined by the manner in which social networks are constructed and by people's placement in them. The author uses a network approach and incident-level homicide records to recreate and analyze the structure of gang murders in Chicago. Findings demonstrate that individual murders between gangs create an institutionalized network of group conflict, net of any individual's participation or motive. Within this network, murders spread through an epidemic-like process of social contagion as gangs evaluate the highly visible actions of others in their local networks and negotiate dominance considerations that arise during violent incidents.

INTRODUCTION

Most sociological theories of murder seek general "laws" or social "causes" and rely heavily on heterogeneity or stratification as the main correlates

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of homicide. The usual study attempts to explain differences in aggregate homicide rates at the neighborhood, city, or state level by using individual or contextual attributes such as age structure, economic conditions, ethnicity, or neighborhood composition. And indeed, despite some variation, we know from these studies that individuals of minority groups, especially males between the ages of 17 and 28, who live in poor, isolated neighborhoods bereft of social and human capital are the most likely perpetrators and victims of murder. Gang membership is considered just another risk factor that increases one's likelihood of killing or being killed.

Yet neither individual characteristics nor social conditions kill people. "Youth" does not pull a trigger nor anomie strangle a victim. Murder is an action. And, in fact, the vast majority of people whom our models identify as at risk of committing homicide never resort to it. That is, aggregate-level theories cannot explain why particular people kill, how their victims are selected, or what drives them to murder in the first place. Our aggregate approach sees motive and murder as almost random instantiations of demographic and social conditions that we call risk factors. In such a view, individuals muddle through a sort of Hobbesian chaos, albeit in particular types of places and under certain circumstances. As a result, there is little rhyme or reason to who kills whom.

But we know that murder is not in fact such a random matter. It is first and foremost an interaction between two people who more often than not know each other: approximately 75% of all homicides in the United States from 1995 to 2002 occurred between people who knew each other prior to the murder (Federal Bureau of Investigation, selected years). We also know that the victim and offender tend to resemble each other socially and demographically (e.g., Wolfgang 1958; Luckenbill 1977). Young people kill other young people, poor people kill other poor people, gang members kill other gang members, and so on. Thus, contrary to stratification theories, a particular murder is not so much the outcome of the differential distribution of attributes as it is an *interaction* governed by patterns of social relations between people similar in stature and status. But if murder is an interaction, then we must ask how such interactions are patterned; what types of social relations produce murder; and how, if at all, these individual interactions organize larger patterns of murder.

In this article, I argue that gang murder is best understood not by searching for its individual determinants but by examining the social networks of action and reaction that create it. Gang members do not kill because they are poor, black, or young or live in a socially disadvantaged neighborhood. They kill because they live in a structured set of social relations in which violence works its way through a series of connected individuals. The gang qua group carries with it a set of extra-individual adversaries and allies that shape individual choices of action, including

the selection of murder victims. As corporate actions between groups, gang murders do not end with the death of the victim but persist in the organizational memory of the gang, which is governed by norms of retaliation and violent mechanisms of social control. Gang murder occurs through an epidemic-like process of social contagion as competing groups jockey for positions of dominance, and aggregate patterns of murder arise as these individual disputes create a network of group relations that shape future patterns of conflict, collective action, and murder.

I shall demonstrate this interactional quality of gang murder by applying a network approach to incident-level homicide records. With these data, I shall reveal the social structure of gang homicide in Chicago by analyzing the mechanisms through which dominance disputes give rise to stable networks of violence. My findings suggest that gangs are not groups of murderers per se, but rather embedded social networks in which violence ricochets back and forth. Individual murders between gangs create an *institutionalized* network of group conflict—sustained patterns of interaction—net of any individual's participation or motive. Within this network, murders spread through a process of social contagion as gangs respond to threats by evaluating the highly visible actions of others in their local networks. Individual murders, especially those public in nature, directly threaten the social status and ranking of groups, thus signaling to the gang and others in the social context that a threat has occurred. Additionally, norms of reciprocity intimately link matters of social status with vengeance-seeking behavior and the desire to avoid subjugation to other gangs. Gangs must constantly (re)establish their social status through displays of solidarity—in this case, acts of violence—which, in turn, merely strengthen these murder networks.

I begin by developing a general framework of homicidal transactions to show how the consequences of individual violent episodes shape future patterns of murder. Then, I discuss how such interactions in the gang context create murderous networks by placing adversaries in positions where each must attempt to defend, maintain, or repair their reputation by constantly negotiating dominance disputes. Finally, I use descriptive and statistical network techniques to analyze such claims. Individual gang murders, especially those that are reciprocal in nature, create and sustain group relations by continually defining the nature and direction of intergroup relations. Violence spreads to other gangs as status disputes arise and are settled with violence. What begins as a single murder soon generates a dozen more as it diffuses through these murder networks.

MURDER AS INTERACTION: CONSEQUENTIALITY AND SOCIAL STATUS

Interaction-based studies show a rather consistent sequential patterning of interpersonal violence that coincides with Goffman's (1967) concept of "face" and its associated processes of face work (e.g., Felson 1981, 1982; Fagan and Wilkinson 1998).[2] In general, violence unfolds as a dynamic process of exchange and interpretation between disputants and, quite often, third parties. Homicide in particular has a standard interactional form, irrespective of age, race, gender, location, or motive: opponents in a confrontation seek to establish or maintain face at the other's expense by remaining steady in a contest in which violence is or has become an acceptable means for settling the dispute (Luckenbill 1977; Polk 1999). As an interaction, then, murder results from a give-and-take process in which the victim and offender negotiate appropriate face-saving behaviors.[3] Forward-looking actors know that the consequences of such violent exchanges extend beyond the immediate transaction and must consider the consequentiality of their actions as they negotiate competing individual interests—such as self-preservation or monetary gain—versus context-specific behavioral expectations—such as norms of toughness and respect (e.g., Felson 1981; Fagan and Wilkinson 1998; Anderson 1999; Phillips 2003; Jacobs 2004).

The most obvious consequence of a lethal exchange is, of course, death. Yet, actors in violent exchanges often seek not only to save their lives but also to minimize future victimization and to assert their social standing—behavioral patterns common in dominance hierarchies of animal and human small groups (Mazur 1973*a*; Chase 1980; Gould 2003). Ivan Chase's (1980) classic example of "pecking orders" among chickens provides a useful example. Chase finds that winning or losing a pecking contest affects the social position of the victorious and vanquished chickens. A chicken that wins a pecking contest is less likely to become a victim in

[2] Goffman (1967) defines *face* as "the positive social value a person effectively claims for himself by the line [verbal and nonverbal acts] others assume he has taken during a particular contest" (p. 5). Processes of face work—those of maintaining, presenting, or saving face—are by definition reciprocal and interactive. A sequence is formed in which each interaction influences the subsequent one within the given transaction and beyond, or what Goffman calls "consequentiality" (p. 157).

[3] Even murders motivated by instrumental or material matters tend to follow the microprocesses described here insofar as the interaction between the victim and perpetrator is dynamic and may contribute to the lethal outcome. For example, compliance with a robber, such as quickly relinquishing one's wallet, tends to decrease the escalation of violence. Moreover, expressive matters such as status or face are often attached to instrumental motives; i.e., one commits a robbery not to put the proverbial bread on the table but for the cash in hand needed for culturally prescribed consumption patterns (Jacobs and Wright 1999; Topalli, Wright, and Fornango 2002).

future attacks precisely because it has proven its dominance; often, a victorious chicken is never challenged a second time. However, a losing chicken has two possible pecking-order trajectories. On the one hand, a defeated chicken can become a victim in subsequent attacks; that is, other chickens observe the first defeat, see the defeated chicken as vulnerable, and target that chicken as an easy opponent. Such a chicken is a "double loser" and is relegated to the bottom of the pecking order. On the other hand, a defeated chicken can pursue a more aggressive position against a nondominant chicken with the hopes of reestablishing dominance over at least one other chicken. In this case, a one-win/one-loss chicken ends up in the middle of the pecking order. Although this latter attack is in no way retaliation—rarely do chickens seek revenge—a losing chicken can regain some status relative to others in the group through outward acts of aggression and displays of dominance.

In the world of chickens, the consequences and actions of violent exchanges are rather straightforward: one's capacity to successfully dominate another is directly related to one's social standing. And while to a certain degree this type of self-preservation is true of human societies, the consequences of violent exchanges become increasingly complex when symbolic matters—such as honor or reputation—are at stake. Unlike material objects such as a loaf of bread or a parcel of land, which are useful to their possessors independent of any context-derived meaning, concepts such as honor, status, and reputation are entirely *symbolic* in that they are predicated almost entirely on recognition by others in a social context. In short, symbolic matters such as honor are manifested in face-to-face interaction and bestowed by the group in accordance with their evaluation of said interactions: to have honor is to be thought honored by others (e.g., Bourdieu 1966; Pitts-Rivers 1966; Gould 2003).

In the United States, notions of honor are generally associated with acts of hypermasculinity, especially the use of violence to protect one's reputation (Wyatt-Brown 1982; Katz 1988; Nisbett and Cohen 1996; Anderson 1999; Polk 1999; Wilkinson 2003). Any honorable man protects his reputation, and by extension his perceived social status and self-worth, by exhibiting a "ferocity of will" that includes a willingness to engage in violent face-saving behavior when his honor is assaulted (Miller 1993; Stewart 1994). In this way, insults become deadly precisely because their consequences directly influence the social standing of the disputants. Formalized systems of honorific and status-conferring violence—such as a duel or vendettas—more frequently emerge in social contexts in which (1) formal institutions of social control are absent or impotent and (2) violence is condoned or promoted as an acceptable form of social control

or "self-help" (Black 1983).[4] And, modern street culture produces just such a context for the criminal underworld and the urban gang, where violence serves as a primary currency of honor and social status.[5]

MURDER AS A GIFT: RECIPROCITY, DOMINANCE, AND THE SOCIAL CONTAGION OF VIOLENCE IN MODERN STREET CULTURE

Life in many inner-city neighborhoods is governed by a "code of the streets"—a set of informal behavioral precepts organized around a search for respect that regulates public interaction (Anderson 1999; see also Wilkinson and Fagan 1996). A strong reputation is displayed through interactions that demonstrate one's willingness to use violence to maintain face or gain respect. Quick wits and quick fists confer status. The timid or trigger shy become suckers, punks, or victims. Violence is proof positive of the respect one claims to have. Like pecking contests among chickens, public displays of one's willingness to use violence (as well as other nonviolent gestures, such as attire, body language, eye contact, etc.) are signals of one's street savvy and toughness with the main purpose of deterring would-be attackers. On the street, the outcome of any single dispute is consequential and cumulative. Failure to act in—or win—a given contest not only diminishes one's social standing vis-à-vis one's opponent but also makes one appear weak, a potential target for future street interactions.

One of the street code's most pervasive norms is that of *retribution*, a perversion of the "golden rule" stipulating that personal attacks (verbal or physical) should be avenged (Anderson 1999; Jacobs 2004; Jacobs and Wright 2006). This threat of vengeance lingers over street interactions, promising *lex talionis* payback for offenses made to one's safety or honor. As in other honor cultures, retaliatory street violence binds social status

[4] The rich ethnographic and historical literature on conflict and violence supplies numerous examples to this point, such as duels in the American South or 18th-century England (Greenberg 1990; MacAleer 1994; Otterbein 1994); vendettas in Mediterranean honor cultures (Blok 1974; Gambetta 1993; Gould 1999, 2000); codes of honor among Japanese samurai (Ikegami 1995); status disputes in tribal and rural societies more generally (Gluckman 1955; Bourdieu 1966; Pitts-Rivers 1966; Ginat 1987; Greenberg 1989; Villarreal 2002; White 2004); and codes of respect and honor among young males in urban America (Horowitz 1983; Bourgois 1995; Anderson 1999).

[5] Examples of the use of honor codes and violence in the criminal underworld include organized crime (Gambetta 1993; Baxter and Margavio 2000); drug dealers and users (Padilla 1992; Bourgois 1995; Jacobs 1999); professional thieves, robbers, and burglars (Wright and Decker 1994; Jacobs and Wright 1999; Topalli et al. 2002); and urban street gangs (Short and Strodtbeck 1965; Horowitz 1983; Vigil 1988; Decker and Van Winkle 1996; Hughes and Short 2005).

and honor together through the norm of *reciprocity*. In this sense, interpersonal violence can be thought of as a "gift," a gesture that, if accepted, demands to be reciprocated. Regardless of whether a gift is positive or negative, an honorable person returns gifts, thus pointing to the "rude truth that not only hospitality engenders obligations to reciprocate, but that offenses and assaults do too" (Miller 1993, p. 5). On the street, those who reciprocate the gift of violence are better equipped to maintain their social standing as "reputable" and "honorable" persons, as well as deter future transgressions (Jacobs 2004).[6]

Disputes about honor and reputation may ultimately be founded on issues of *dominance*—that is, claims between disputants concerning who lords power or status over whom.[7] In the posthumously published *Collision of Wills*, Roger Gould (2003) argues that interpersonal violence most often arises from disputes over dominance, especially in relations in which social ranking is unclear or cannot be solved using external cues. According to Gould, lethal violence occurs more frequently in symmetric relations, rather than asymmetric or hierarchical ones, because social status, normative behaviors, mechanisms of social control, and rules of deference (basic parameters of any social transaction) are more ambiguous and therefore more subject to dispute. In hierarchical relations—such as employer-employee, parent-child, police-citizen, and teacher-student—dominance is well defined and backed by social norms and institutions of social control. In contrast, symmetric relations—such as friend, neighbor, classmate, co-worker, or acquaintance—are by definition equitable; that is, one party cannot unilaterally claim dominance over the other.[8] A dominance claim by one party in a symmetric relation is consequential in that it potentially sets precedent for future interactions, including the subjugation of one party or the ascension of the other party to a position of power.

Dominance contests are exacerbated in the group context because mur-

[6] George Fenwick Jones (1959) captures this ethic in his rephrasing of biblical aphorisms into the language of honor: "Blessed are those who wreak vengeance, for they shall be offended no more, and they shall have honor and glory all the days of their lives and eternal fame in ages to come" (p. 40).

[7] I use the term "dominance" similarly to Gould (2003) in reference to the general distribution of power in a relation, i.e., who decides the overall direction of or action in a relationship.

[8] As Gould (2003, p. 71) writes, "In relations approximately this type [symmetric], it is not easy to say how differences will most likely be resolved. Because each party to a dispute has an equivalent basis on which to claim the right to have a say, neither has an agreed-on right to override the views of the other. It makes no sense to say, 'You must stand aside as I walk by because, as your neighbor, I demand that you do so.' Absent some other criterion such as seniority or status, people who are neighbors cannot demand unilateral deference from each other."

derous interactions and the networks they create are more likely to be sustained over time and space. In the group context—that is, warring countries, feuding families, or fighting street gangs—individual murders can be framed as a threat to group solidarity and lead to social patterns that elicit further violence (e.g., Short and Strodtbeck 1965; Decker 1996; de la Roche 1996; Gould 1999). Disputes often become intrinsically collective because the group regards an offense against a member as an offense against all, a sentiment that fosters in-group cohesion as a function of confronting external threats (Hughes [1948] 1991; Shils and Janowitz 1948; Pfautz 1961; Sherif 1967). Collective and, by extension, individual honor derives from the ability of the group to successfully retaliate and from its capacity to protect its members.[9] Back-and-forth retaliation could occur indefinitely with groups defining their existence in reference to their enemies and allies, thus producing enduring conflict structures.

As individuals and groups get caught up in these types of dominance contests, violence spreads through a process of social contagion that is fueled by normative and behavioral precepts of the code of the street. The social contagion of violence occurs either when (*a*) disputes are sustained over time or violent acts between opposing parties escalate or when (*b*) acts of aggression diffuse outward from the original source of conflict to incite new violent acts between or toward nondisputants (Loftin 1986; Fagan, Wilkinson, and Davies 2000; Jacobs 2004). The first mode of contagion refers to *direct retaliation,* as in the types already discussed: the retribution for a past dispute by the aggrieved or a member of the aggrieved's group against the person or group responsible for the original affront. The second mode of contagion refers to a process of *generalized violence,* the spread of violence to those not directly involved in the initial dispute (Jacobs 2004). As in the one-win/one-loss chicken example, generalized violence functions as a way to restore one's face by drawing attention to acts that, although they may not be a part of the original dispute, serve as status-conferring actions—a sort of collective liability in which innocent victims (nondisputants) serve as proxies for past wrongs (Black 1983; Gould 1999; Jacobs and Wright 2006).

I maintain that the emotional and practical consequences of a homicide unfold through such contagion processes as individuals and groups get caught up in struggles over dominance and social status. Furthermore, I argue that the spread of violence and its consequences create a network structure between disputants—sustained patterns of animosity, conflict, and interaction. Put another way, individual homicides link together to

[9] Anderson (1999) describes it this way: "Part of what protects a person is both how many people can be counted on to avenge his honor if he is rolled on in a fight and who these defenders are—that is, what their status on the street is" (p. 73).

form an overarching contentious network that acts as a conduit for future action. I hypothesize that individual murders—especially those occurring in group contexts that stress the use of violence and the norm of reciprocity as status-conferring mechanisms—create or sustain such structures since the consequences of murder trigger normatively prescribed (re)actions from connected groups involved in dominance disputes. Yet, how do such murder networks arise? What do they look like? Are they enduring structures or merely temporal aberrations? And, what mechanisms produce them? To answer these questions, the present study employs formal network methodology to analyze one such contagious network—gang conflict.

FROM GANG MURDER TO SOCIAL STRUCTURE: A NETWORK APPROACH

The group nature of gang activity generates patterns of interaction, daily behaviors, and belief systems that are particularly well suited to the creation of contentious networks and the social contagion of violence. Structurally, the gang demands certain microbehavior of its members (e.g., hanging out, dealing drugs, fighting, partying, and so forth) that de facto increase a member's exposure to potentially violent situations (e.g., Short and Strodtbeck 1965; Decker and Winkle 1996; Thornberry et al. 2003). More important, however, honorific and status concerns are amplified in the gang context not only because of the prevalence of broader street culture but also because of internal group processes. In short, the gang exists in a social milieu that emphasizes the idea of honor and promotes the use of violence as a key status-conferring behavior.

At the individual/gang member level, status considerations are directly associated with hypermasculine ideals of toughness and fighting prowess, as well as a general penchant for mayhem and mischief (Miller 1958; Short and Strodtbeck 1965; Horowitz and Schwartz 1974; Vigil 1988; Hughes and Short 2005). At the group/gang level, collective honor is a function of a group's cohesion and ability to fend off perceived threats (Short and Strodtbeck 1963; Kobrin, Puntil, and Peluso 1967; Decker 1996). Similar to the omnipresent threat of violence in the wider street culture, the threat of attack creates a perpetual "myth" in which the gang must constantly protect itself and its members (Katz 1988; Decker and Winkle 1996). In turn, threats from outside the gang can bolster group processes, generate internal cohesion, and solidify gang identity, structure, and morale (Thrasher 1927; Short and Strodtbeck 1965; Klein and Crawford 1967; Suttles 1968; Hagedorn 1988; Jankowski 1991). Furthermore, perceived threats may in fact be an important causal dimension in gang

formation since mutual protection is one of the most frequently cited reasons for joining a gang (e.g., Esbensen and Huizinga 1993; Decker and Curry 2000; Thornberry et al. 2003).

The consequentiality of such threats stems from the fact that a gang's identity and social status are, in large part, *defined* by and through its relationships to other neighborhood actors, but especially to other gangs. For my purposes, I rely on Klein and Maxson's (2006) definition of a "street gang" as "any durable, street-oriented youth group whose involvement in illegal activities is part of its group identity" (p. 4).[10] A gang's reputation—its main currency of social standing—is assessed through a dynamic process of exchange with those in its local context. In general, an "honorable" gang is one that protects its members, acts as a cohesive group, and abides by the "golden rule" of the street that requires retribution for slander against the gang's name, reputation, or turf (Short and Strodtbeck 1965; Kobrin et al. 1967; Horowitz 1983; Vigil 1988; Decker 1996).[11] External threats call into question whether or not a gang can or will abide by such ideals, and a gang's response to such threats will guide

[10] The definitional debate in the gang literature is exhaustive to say the least (see Bursik and Grasmick 1993; Spergel 1995). The pivotal issue in this debate is the extent to which gangs should be defined by their criminal and deviant activity. Some scholars, such as Short (1997), purposefully exclude deviant behavior as a defining characteristic to avoid the problem of including in the definition the behavior that is being explained. Such definitions tend to focus on activities and processes that define the gang as a collective: hanging out, movement through space, group-defined organizational boundaries, membership criteria, etc. Other scholars include such collective attributes but use levels of violence as the vital dimension that distinguishes unique gang types (Klein 1995; Knox 2001). In the present study, this debate is somewhat moot. On the one hand, I am explicitly looking at collective processes in the gang that define any individual group. By these standards, all the gangs I study possess the internal qualities of process-oriented definitions. On the other hand, it is violent—and, by legal definitions, criminal—action on which I focus. But, as my analysis shows, violence is dynamic and reciprocal. Thus, violence is both a defining trait *and* the result of such group processes. The two are inseparable, although we like to think that they can be pulled apart for pedagogical purposes (see Klein and Maxson [2006] for a recent discussion along similar lines). I argue that focusing on observable behaviors and interactions can show us something more tangibly useful about the group processes that make the gang a distinct social entity.

[11] A unique study of the social status of street gangs by Kobrin and colleagues (1967) underscores this point. Kobrin et al. asked community residents, criminal justice officials, *and* gang members in a Chicago neighborhood to rank all the gangs in that area according to various status criteria. The study finds that the social standing of any individual gang is a function of perceived fighting ability, notoriety for being "tough," and a reputation for "looking for fights." More impressively, evaluations of high- and low-status gangs are consistent across the criminal justice officials, community residents, and gang members, suggesting that those inside and outside the gang world recognize that the social status of a gang is directly related to its willingness to use violence for honorific purposes and adherence to behavioral rules such as those of contemporary street culture.

the status evaluations of others. This implies that a gang must consider not only its immediate opponent but also how its actions or inactions will be evaluated by others in the social context, including future adversaries and allies.

Drawing on Gould's theory of violence, my argument is that violence among gangs is centered on concerns of dominance. Gang murder is, to say the least, a conflictual interaction between members of two groups that potentially threatens the social status and dominance positions of those involved. Failure to respond to a threat may result in subjugation to an enemy and, thus, lessens one's social standing, honor, or reputation. In contrast, a willingness to use violence—especially retaliatory violence—brands a gang as worthy of respect and can possibly restore a damaged reputation. If a gang frames an action as a threat, it must coordinate group action to redress the threat in order to (re)establish the social order. Otherwise, the group loses status vis-à-vis its opponents and others in the network and, in turn, increases the likelihood of subsequent attacks or future victimization. As a result, gang murder is often retaliatory in nature, an attempt at achieving a sort of street justice (Maxson 1999; Kubrin and Weitzer 2003).

Consistent with the framework put forth here and the dynamics of gang violence more generally, I hypothesize that individual gang murders create a lasting social network that influences subsequent patterns of violence. I further hypothesize that dominance disputes between groups are largely responsible for the creation of these murder networks. In other words, when gangs get caught in dominance contests, norms of reciprocity and the use of violence as status-conferring behavior fuel the social contagion of violence. If, as I maintain, the gang defines itself through such conflictual interactions and dominance contests, then such structures should persist over time. In a sense, there is a "gang effect" to the degree that being a member of a particular gang carries with it a structured pattern of relations.[12] Gang members inherit this network and use it as a schematic for their violent actions. While an individual member pulls the trigger, it is the structure that determines who kills whom.

This approach posits that the gang exerts its influence on its members

[12] By "gang effect" I mean some emergent property of the gang net of differences in attributes of its members that influences individual and collective behavior. Prior research shows a facilitative effect associated with gangs: members engage in a greater range and amount of deviant activity during periods of membership as compared to non–gang members (Short and Strodtbeck 1965; Esbensen and Huizinga 1993; Thornberry et al. 2003). Yet, these studies face many of the problems associated with methodological individualism in that the unit of analysis tends to be exclusively the gang *member*. Such studies rarely measure properties, structures, or group processes of the *gang* that facilitate such behavior.

precisely because the existence of the group is predicated on the interdependence of its members. To the extent that the gang exists as a group, its patterns of interaction must exist beyond the actions of any single individual. In other words, the persistence of the social group demands that certain behavioral patterns, norms, culture, and activities should be sustained across time and space (Simmel 1898). The transmission of the group manifests itself in similarities (or differences) in the behavior of its members at different times. If group processes are at work—if there is a gang effect—the structure it creates should have an influence on member behavior above and beyond individual attributes or motives.

Reciprocal or persistent murders between groups would support these hypotheses by suggesting that the organizational memory or collective capacity of the gang is strong enough to incite future violence beyond the individual event or the participation of any single member. The absence of sustained or reciprocal interactions between groups falsifies such a view. The alternative hypothesis implies a sort of *isolated murder* case: gang members kill each other with limited or little effect on other member or group activities. In this case, a murder would appear in a network at any one point in time but would *not* appear in subsequent time periods or spark reciprocal activities between groups. If such interactions were the result of isolated interactions or individual motives, they would *not* affect larger group-level actions and perhaps even question the existence of the gang as a unique social group (e.g., Fleisher 2005; Sullivan 2005). In other words, homicide would be a manifestation of individual motives and therefore would not necessarily elicit further collective (group) action or produce an effect on larger patterns of gang relations. Murder would not create a "structure" in the network sense of the word used here. As such, and consistent with the framework just discussed, the ensuing analysis begins with the homicide incident—the specific details of an individual homicide, in particular, who kills whom—and creates the global structure from the bottom up.

DATA

The main source of data used in this article is two independent data sets provided by the Chicago Police Department.[13] The first set of data includes records of all homicides in Chicago from 1994 to 2002. Data are recorded at the incident (dyad) level and contain demographic, geographic, motive,

[13] Data were provided by the Chicago Police Department's Division of Research and Development. The analysis of the data reflects the opinions of the author and in no way represents the views of the Chicago Police Department or the City of Chicago.

and gang information on both the offender and victim as recorded by homicide detectives.[14]

In the present analysis, I select all cases in which either the victim or the offender in the homicide is identified as a gang member. This choice requires some clarification since a debate exists surrounding the classification of a "gang related" homicide (for a review, see Maxson and Klein [1996]). Some municipalities rely on a conservative definition that classifies a homicide as gang related only if the crime itself was *motivated* by gang activity, such as turf defense, drug dealing, or prior gang conflicts. Other municipalities use a member-based definition that classifies any homicide as gang related if either the victim or the offender was a gang member. Because I am interested in group violence, the former strategy errs on the side of sampling too heavily on the dependent variable by capturing only those cases in which a group motive was determined. In contrast, the latter definition errs on the side of capturing too many incidents, including those motivated purely by individual member purposes—after all, gang members can and do act of their own accord.

Fortunately, the data allow me to distinguish between these two definitions. In addition to the official motive classification given by the investigating detective, each case also contains information on the disputants (including gang membership), other potential motivating circumstances (such as whether or not an altercation preceded the homicide), and a short description of the chronology of the event. I employ the member-based approach because it casts a broader net and potentially yields more false-positive results that can be detected through additional coding; it also minimizes potential selection on the dependent variable. Indeed, as will be seen in the analysis, murders involving persons who are not gang members (referred to here as "non–gang members") differ significantly on issues of dominance and reciprocity. Although not reported here, I ran all analyses according to both definitions. As it stands, results from both definitions are similar with respect to the direction, magnitude, and significance of parameter estimates, although the conservative definition yields somewhat stronger results (as one might expect). Therefore, I utilize the member-based definition in order to capture a wider range of individual and collective behaviors.

Each homicide is coded according to the gang affiliation of the offender and victim, creating a dyadic data set of homicide incidents. Coding the

[14] Although the use of official crime statistics as a source of information is a perpetually debated topic (for a discussion, see Thornberry and Krohn [2003] and Kirk [2006]), homicide records have proven to be a considerably more reliable data source than other official crime indicators for two reasons. First, considerable resources and manpower are directed at homicide investigations, and, second, homicides are more likely to be reported than other types of crimes.

data in this way has two major benefits. First, it allows me to recreate each homicide at the incident level, that is, who kills whom, where, and in what year. Second, and perhaps more important, it allows me to aggregate individual interactions to the gang level. So, in the case of gang wars, I can trace the number of deaths between groups, the timing of such deaths, and the length of such exchanges.

The second set of data is derived from geographic maps of gang turf for all police beats in Chicago. These maps were created by gang intelligence officers, *not* homicide detectives, and are maintained and managed by a different division of the Chicago Police Department than that providing the homicide data. In total, there are 281 police beats in Chicago with a median resident population of approximately 6,000 residents per beat. Police beats are distinct geopolitical entities generally bounded by major intersections, thoroughfares, and other ecological markers. As I describe in the next section, I use these maps to ascertain (1) the overall size of a gang as a function of the total space it occupies, (2) how many uncontested pieces of turf a gang controls, and (3) the extent to which the turfs of any two gangs in a homicide overlap—that is, geographic points that might serve as contested ground for dominance disputes or conflict more generally.

Decoding the meaning of gang homicide networks and the interactions themselves is extremely difficult without a qualitative understanding of Chicago's gang world, its key actors, and the subjective meaning they give to it. To clarify and extrapolate the network and regression findings, I also draw from field notes and interview material derived from ethnographic fieldwork with gangs and gang members in several Chicago neighborhoods. The research was designed to gather data on (*a*) how gang members understand gang violence, (*b*) what their subjective reasons were for engaging in inter- and intragang violence, and (*c*) how, if at all, they linked seemingly disparate violent acts.[15]

To these ends, I designed the fieldwork to bring me as close as possible to gang violence or, at least, close to the actual "facts" of the violent events. I began by locating two "street gang workers," essentially social workers and caseworkers whose job it is to provide services directly to gang members and to mediate gang disputes. One worker is employed by a major religious organization that operates mainly in three African-American housing projects on the South and West sides of the city, and the second street worker is a former Hispanic gang member who works for a small nonprofit organization on the West Side. Combined, these two men have

[15] A full description of my ethnographic methods is presented elsewhere (Papachristos 2007).

more than 30 years' experience working with gang members in Chicago.[16] From October 2002 until December 2003, I followed the two men as they went about their daily work including walking or driving through neighborhoods, chatting with residents, and helping gang members with a variety of life issues such as getting a job, procuring health care for a sick child, urging them to stay in school, and supporting them in various legal issues.[17] As I had hoped, both workers were deeply entrenched in mediating gang violence. On a weekly basis, I observed as gang members would tell the men about ongoing disputes, seek their counsel, and enlist them to defuse potentially hostile situations. This usually meant relaying messages back and forth between the warring parties. At the extreme, it meant literally standing between gang members, pulling them off one another, or urging them to put down their guns.

The ethnographic data used in this article are derived from observations, conversations, and informal interviews during the field period as captured in ethnographic field notes.[18] During the earlier stages of the fieldwork, I merely observed as the workers went about their normal routine, asking questions only sporadically. After the first few months, I began engaging both the workers and their gang clientele more directly about given disputes and gang violence more generally. As a rule, I never wrote anything down in front of gang members, lest I rouse suspicion.

[16] Unlike the more common one-neighborhood or one-gang approach, I intentionally sought out gang and nongang contacts from multiple neighborhoods to understand variation in violent acts under different neighborhood conditions. My intention was to sacrifice some depth about particular gangs in order to capture variation between gangs and across neighborhoods.

[17] I followed each worker approximately twice a week, staggering the weeks with each worker in order to provide some continuity in my observations of specific incidents, such as inquiring about incidents that arose earlier in the week.

[18] The usual caveats of urban ethnography are also warranted. Undoubtedly, my own personality and physical features may have influenced my observations and conversations. Even though the street workers vouched for me, just about every time I was introduced to a new group of gang members, I was as seen as a "narc" (undercover police agent), a drug customer, a social worker, and once even a "repo" man. After some ridicule and a bit of persistence, the workers would assure people that I was "cool," which appeared to put people at ease. At the very least, gang members were amenable to talking with me and tolerating my questions. However, my presence as an outsider or "stranger" allowed me to ask questions that seemed glaringly obvious to the insider. In a few instances, my questions were met with outright laughter on the part of the respondent, and then a sense of pity followed as the respondent proceeded to answer my questions in great detail. My constant prodding even seemed welcomed as some respondents even rummaged through personal artifacts, such as photos or gang documents, to "teach me" about their gang or show me family members who had been killed. Perhaps more important, my association with the street workers allowed me to talk with gang members from multiple groups and to cross neighborhood or turf boundaries that would otherwise have been off-limits.

Instead, I took jottings in the field (i.e., in the car, bathroom, etc.), which were then expanded into full field notes as soon as possible after the day's observations. When I did ask people if I could interview them or talk with them about a specific subject, I also asked if I they would mind if I scribbled a few notes. When possible, I tried to capture the cadence of speech patterns as well as the use of expletives, the latter of which is essential in understanding the proximal motives of murder. To protect the anonymity of those I observed, I replaced any identifying individual information with a pseudonym; I have not, however, altered any names of the gangs.

The analysis proceeds in two stages. The first stage uses a network approach to recreate the social structure of gang homicides building up from individual homicides to a global network structure. The goal of this stage is to determine the network pattern of gang homicide, describe its basic properties, and assess its stability. The second stage analyzes possible mechanisms responsible for the creation of these murder networks. More specifically, I use dyadic models and network autocorrelation models to examine the mechanisms responsible for the observed patterns of murder and, in particular, patterns of reciprocity. All of the empirical material comes from the data just described, but analyzed in two different ways. Therefore, I save the description of statistical methodologies for each respective section.

THE SOCIAL STRUCTURE OF GANG HOMICIDE

This section focuses on the network structure of gang murder and begins with the construction of the murder network for a single year, 1994. I then use standard network techniques to analyze the properties of the observed network. To assess the stability and influence of this network—that is, the extent to which it truly represents a stable social "structure"—I recreate murder networks in two additional years, 1998 and 2002, and run a statistical test to detect the relationship between these different networks. These years are selected for two reasons. First, they differ in their rate of homicidal interaction. The 1994 overall homicide rate is 33.4 per 100,000. In contrast, the overall 1998 rate is 24.3 and the 2002 rate is 22.3, the lowest in more than a decade. Differences in rates should therefore account for the extent to which the sheer density of interaction dictates the shape of the observed network. On average, gang homicides account for 35% of all homicides in any given year.

Second, the four-year time intervals further ensure that the level of analysis is the *gang,* not the gang member. Although tenure of gang membership varies, gang membership tends to be a transitory experience

(Thornberry et al. 2003). Individuals generally mature out of gang membership but are also removed from membership for varying lengths of time for school, incarceration, marriage, or, as seen here, death. The likelihood that a single gang member is involved in multiple gang homicides eight years apart is not known but is most likely extremely small.

Descriptive Analysis

In 1994 there were 931 homicides in Chicago, of which 31% ($n = 284$) involved at least one gang member as a victim or offender. Forty-eight different gangs were involved in these homicides, leaving a potential network size of 2,256 possible ties between two unique gangs. Figure 1 displays the directed graph (digraph) of these murders.

Each node represents a unique gang, with the shape representing the predominant race of the gang: squares signify black gangs, triangles Hispanic gangs, circles white gangs, and diamonds Asian gangs. Nodes are labeled with a number representing each unique gang, and a table listing all gang names is given in the appendix below. Arcs indicate a single homicide, with the direction indicating the victim. Bidirectional arcs indicate reciprocal homicides between two groups. The thickness of the line represents the intensity of the conflict measured as the number of homicides between gangs. Loops indicate murders within the same gang. Isolates represent gangs in which the only homicide that occurred involved members of the same gang.

At the incident level, homicides involving gang members share several commonalities. The vast majority of homicides (98%) were intraracial and intergang (88%). Moreover, 93% involved a firearm, 89% occurred in public (especially on the street or in a public walkway), 38% involved more than one perpetrator, and 37% were reciprocal. The levels of reciprocity are of particular importance since they far exceed the expected number that would be found in networks with similar in-degree and out-degree distributions. Indeed, to test the null hypothesis of independence of the proportion of reciprocal murders in the network, I generated 5,000 simulated networks conditioned on the observed in- and out-degree of the 1994 murder network. The mean number of *expected* reciprocal dyads in the simulated networks is 15.31 with a standard deviation of 2.81, whereas the *observed* number of dyads in the network is 36, thus giving strong evidence that reciprocity occurs more than would be expected (t-statistic $= 7.24$; $P = .000$). In short, reciprocity is one of the strongest characteristics of the observed murder networks.

Most of these homicides began over symbolic threats. As seen in table 1, 98% of all gang-related homicides in 1994 in which the motive could be determined began over expressive factors, as compared with 67% of

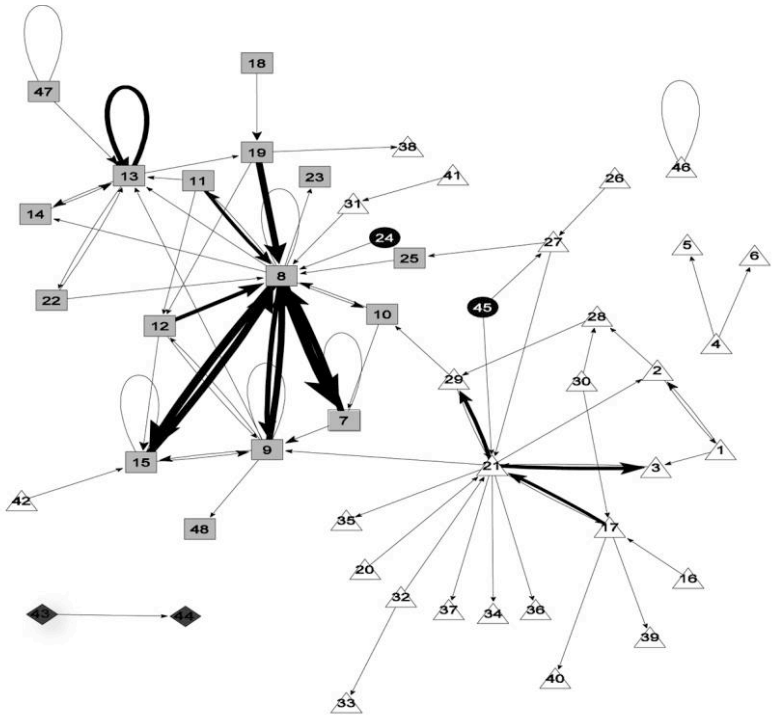

FIG. 1.—The social structure of gang homicide in Chicago, 1994. Squares represent black gangs; triangles represent Hispanic gangs; diamonds represent Asian gangs; circles represent white gangs; direction of arrow indicates direction of homicides; and thickness of line indicates number of homicides between gangs.

non-gang-related homicides.[19] That is, the "spark" of most of these murders, that is, its proximate motivating action, was typically some argument over nonmaterial matters. Even more so than homicides in general, then, gang homicides occur for symbolic reasons—an important caveat given the prevalence of Chicago gangs in underground economies and "corporate-style" drug dealing (e.g., Padilla 1992; Levitt and Venkatesh 2000).

[19] Event narratives were used to code these cases rather than the official motive given by the detective. Missing data are those cases that did not include such narratives or in which the actual motive could not be determined. I coded a homicide as expressive if it began as an argument or altercation. Instrumental homicides are those that began as disputes over property, money, or narcotics or were committed during the course of another crime (e.g., robbery). Turf considerations for a gang are considered instrumental if they relate to drug dealing or other economic interests and are expressive if the turf violation involves use by a nonmember or noneconomic disputes (e.g., disrespectful graffiti on turf). The "other" category for nongang homicides refers mainly to those that occurred during a sexual assault. Gould (2003) uses a similar coding schema.

TABLE 1
FREQUENCY OF GANG AND NONGANG HOMICIDES BY MOTIVE, 1994

	MOTIVE			
	Expressive	Instrumental	Other	TOTAL
Non-gang-related homicides	289	124	18	431
% non-gang-related homicides ...	67.1	28.8	4.2	100
Gang-related homicides	237	6	0	243
% gang-related homicides	97.5	2.5	0	100
Total	526	130	18	674
% total	78	19.3	2.7	100

NOTE.—$\chi^2 = 84.27$; $P = .000$; $df = 2$.

Although these homicides are similar in terms of the context and motive, figure 1 shows distinct racial cleavages, as well as differences in density, power, and exposure to murder within the larger network.

Racial and Ethnic Differences in Network Structure

Figure 1 shows a densely connected network among black gangs with several highly active groups and a sparsely connected, star-like network of Hispanic gangs with a single gang at the center. White gangs are only peripherally connected in the larger network and Asian gangs are completely isolated, and, for these reasons, they are largely excluded from the remainder of the analysis.[20] On average, each gang in the network is involved in approximately three homicides. It is here, however, that racial differences become most apparent. Black gangs are three times more actively involved in murders than Hispanic gangs: black gangs, on average, are involved in 5.21 homicides whereas Hispanic gangs are involved in 1.46.

Density is a basic network property that reflects the overall connectedness of actors: the more connected the social units, the greater the network density. The density of the total network, measured as the proportion of ties present of all possible ties, is 0.065: approximately 7% of all ties that are possible are present.[21] Disaggregated by race, the black

[20] White gangs act exactly like the Hispanic gangs in terms of their network properties. However, an assessment of Asian gangs is much more difficult because of their small number and complete isolation from the larger network; in this respect, they seem to be an island unto themselves.

[21] Density, Δ, of a network with g actors is measured as the sum of all entries in the matrix, divided by the possible number of entries:

$$\Delta = \frac{i=1g\, j=1g\, x_{ij}}{g(g-1)}.$$

gang network is more than five times as dense ($\Delta = 0.304$) as the Hispanic network ($\Delta = 0.058$).[22] Such differences in density create local (intraracial) networks that affect the structure of gang relations, as well as the diffusion of violence within these networks.

In epidemiological terms, the black murder network looks similar to a "core infection" model in which highly active and interrelated groups continually (re)infect each other and then infect others in the periphery (see Laumann and Youm 1999). Although some gangs may be more active than others, as discussed in the next section, each group is engaged in murders with multiple gangs. Moreover, more than 35% of all relations are reciprocal. This suggests that interaction flows quickly because actors consistently interact and are sensitive to changes in the local network. The highly public nature of gang homicide and the density of such networks further imply that others in the network would be aware of failure to respond to local threats. The failure to respond is therefore easily conveyed and interpreted in the action (or inaction) of highly visible alters.[23] The result is a local network structure that looks like small feuding nation-states with persistent conflict between multiple groups.

Gang members themselves seem to recognize this structure, as an example from the West Side of Chicago illustrates. In the summer of 2003, a vicious feud broke out among gangs belonging to an alliance known as the Almighty Vice Lord Nation (AVLN), a cluster of gangs that share a common ancestry and formal pledges of mutual protection.[24] The gang war was triggered by the release from prison of a high-ranking gang leader, Slick. A founding member of the AVLN, Slick claimed to be dismayed by the levels of violence in his neighborhood and among the AVLN. Slick called for a truce among the warring factions and even tried to establish a "board of directors" to settle AVLN disputes nonviolently. However, other Nation leaders viewed Slick's actions as an attempt to consolidate power and subsume authority under his own flag. An intra-Nation war ensued that included several shootings and at least two homicides. Leaders of the various factions fought to keep the independence of their small group without being subservient to Slick's faction. One gang leader commented: "He [Slick] ain't got no damn right to claim shit about my gang or another other member of the Nation. . . . I don't give a fuck if he's

[22] While it is beyond the scope of this article, the structure of these networks might be correlated with macrotrends such as segregation; it is here that stratification might influence the structure of the network, suggesting an important area for future research.

[23] In network terms, this implies contagion by competition or equivalence in which an actor uses the actions or perceptions of its alters to determine courses of action (Burt 1987).

[24] Several descriptions have been written about the origins and evolution of the AVLN (Keiser 1969; Dawley 1973; Knox 2001).

[an AVLN] or not. He can't just up and walk out of the joint [prison] and start calling shots. I sure as hell don't answer to him, and my crew [gang] don't answer to him." The war waned only after an assassination attempt on Slick that left him paralyzed—the third attempt on his life, the second by his own Nation.

In network terms, the intra-Nation dispute just described is a micro-representation of the larger structure of black gang homicide. The warring factions of the AVLN alliance create small clusters of conflict, essentially trading violent episodes as groups struggled for dominance. Indeed, it is precisely these types of feuds that are most likely responsible for the form of the observed network structure, a matter I take up in the regression analysis.

The homicide networks of black gangs are remarkably resilient to external shocks since the activity of any single gang contributes only modestly to the overall structure. The black gang network consists of a single large component in which all gangs are either directly or indirectly connected. The removal of any single gang from this structure reduces the activity around that particular node, but it does little to alter the overall structure of the network. One would have to remove the 11 gangs in the core, or 70% of all the nodes, in order to fundamentally alter the structure of the network. The removal of these gangs would break the network into six smaller components, essentially isolates.

The less dense Hispanic network differs markedly. The star graph found in the Hispanic network is a highly centralized structure with a clear and dominant center. The intraracial Hispanic network has four components consisting of a dyad, a triad, an isolate, and a large component of 20 gangs. The first three components represent classic small group conflict. In the case of the dyad, if one of the gangs fails to reciprocate, the network falls apart. In the triad, we see a single gang acting as an aggressor against two alters. In this case, a single gang assumes the dominant role in attacking two alters who do not retaliate during the observation period, a classic pecking order or dominance relationship (Chase 1980).

Much of the activity in the Hispanic network happens within the large component centered on a single gang, the Latin Kings (node 21), at the center of the star-like structure. In short, the Latin Kings hold the network together and act as a significant point source of diffusion. While such a structure is highly efficient for the diffusion of violence, it is also extremely fragile. The removal of the Latin Kings would break this graph into eight smaller subgraphs, essentially reducing it to five isolates not involved in any homicides, two dyads, and a small spanning tree component of 10 gangs that is itself extremely fragile.

Qualitatively, Hispanic gang members readily acknowledge the size and influence of the Latin Kings, but do so in such a way as to neutralize the

Latin Kings' influence relative to their own group's position. For example, Lito, a member of the Spanish Cobras (node 27), explains his gang's relationship with the Latin Kings as follows: "Man, those broken-ass Crowns [a disrespectful name for the Latin Kings] are everywhere . . . like fucking roaches, you know. Sometimes, you go to squash 'em, you know, but most of the time you just leave 'em the fuck alone. We got other problems to deal with. But, if those bitches [Latin Kings] come at us, you better believe we gonna have something to say about it." Lito's remarks allude to the overall size of the Latin Kings (they "are everywhere"), while at the same time slandering the group (i.e., calling them "roaches" and "bitches"). Though a bit defensively, Lito does say that his gang would retaliate should the Latin Kings instigate violence.

Network Exposure and Power

These network structures expose individual gangs to varying levels of homicide; but gangs differ in their size, organizational capacity, and power to respond to such exposure. Network measures of degree centrality capture the dynamics of exposure to homicide and power to respond to such threats. Separate measures of in-degree and out-degree are used to account for exposure and overall activity.[25] In-degree is essentially a measure of network exposure: the number of homicides in which the gang is *victim.* In epidemiological terms, it is the rate of infectivity, or simply the exposure to the behavior of interest. Out-degree measures the opposite—the number of murders committed by a gang—and is especially important because it demonstrates the capacity of a gang to engage in murder. In essence, gangs with higher out-degree possess more power relative to other gangs in that they exert more effort in potential status-conferring acts of violence.

Figure 2 displays a scatter plot of in-degree (x-axis) versus out-degree (y-axis) for the 48 gangs in the 1994 network; the actual in- and out-

[25] The in-degree, $d_I(n_i)$, of an actor n_i is the number of other actors in the graph that are connected to the specified actor, i.e., the number of connections terminating at the actor. In-degree is thus measured as the column totals of sociomatrix X, or

$$d_I(n_i) = \sum_{j=1}^{g} x_{ji} = x_{+i}.$$

The out-degree, $d_O(n_i)$, of an actor n_i is the number of connections that emanate from the specified actor and can thus be measured as the row totals of sociomatrix X, or

$$d_O(n_i) = \sum_{j=1}^{g} x_{ij} = x_{i+},$$

where g is the number of actors in the network and x_{ij} refers to any single interaction between two actors i and j (Wasserman and Faust 1994).

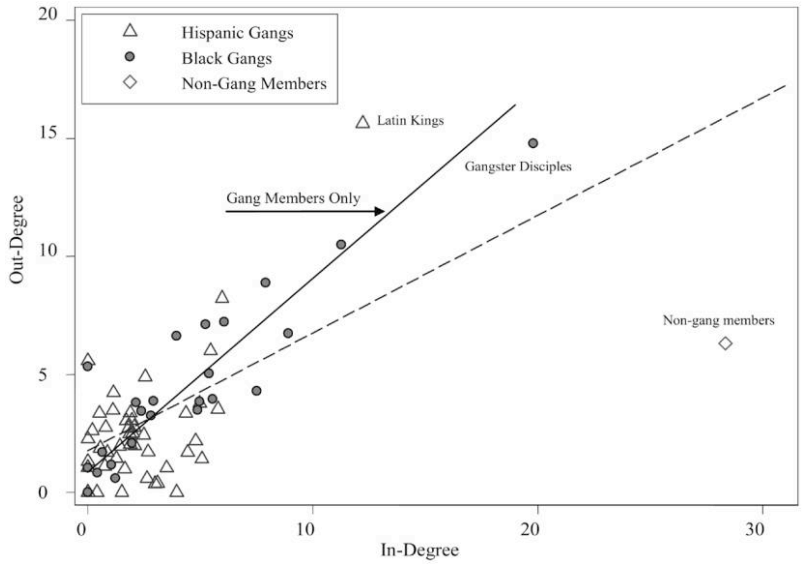

FIG. 2.—Scatter plot of degree of centrality in 1994 homicide network. Points are jittered to improve visibility.

degree measures for all gangs are given in appendix table A1. A linear relationship exists between the in-degree and out-degree (Pearson $R = .596$); when the two most central gangs, the Gangster Disciples (node 8) and the Latin Kings (node 21), are omitted, this correlation increases (Pearson $R = .651$). This suggests that exposure to violence is associated with the homicidal activity of any gang: namely, *a gang is more likely to commit murder if it is exposed to higher levels of violence*. Because not all homicides are reciprocal, this suggests that exposure to violence can also lead to *outward contagion* in the form of generalized violence toward other gangs and even non–gang members.

The outliers in figure 2 are of particular interest since they signal strong point sources of violence. A single black gang, the Gangster Disciples, is the most active in the network overall. In part, this may be a function of size and/or organizational capacity. The Gangster Disciples is Chicago's largest and most organized street gang. Presently reported in half of all police beats in Chicago, the Gangster Disciples was founded in the late 1950s as a small neighborhood-based gang on the South Side. By the mid-1990s, the gang had evolved into a highly organized and criminalized street organization, complete with a corporate-style hierarchy that orchestrated a multistate drug distribution system.[26] Interestingly, even

[26] See Perkins (1987) or Knox (2001) for more details on the Gangster Disciples.

though the Gangster Disciples is the most central gang in the network, its immediate alters are also large organized gangs, especially the Vice Lords (node 9), the Black Disciples (node 7), and the Black Stones (node 15). Moreover, these gangs are engaged in high levels of reciprocal murder during this time period.

The Latin Kings—the second most active gang in the entire network—is by far the city's largest Hispanic gang and is also highly organized, criminalized, and politicized (Knox 2001). Unlike the Gangster Disciples, whose opponents are other "corporate-style" gangs, the organizational capacity and size of the Latin Kings far surpass those of the other Hispanic gangs. Consequentially, Hispanic gangs most often interact with just a single alter, and usually that alter is the Latin Kings. Thus, the Latin Kings appears to be one of the few gangs in the Hispanic network with the ability to coordinate multiple violent relationships to any large degree.

The only group not to follow the linear trend found in figure 2 is the non–gang member category. Collectively, non–gang members experience the highest exposure to homicide but are rarely involved in the killing of gang members. In other words, non–gang members are a source of *outward* contagion as victims of homicide but do not perpetuate violence to any considerable degree. This most likely results because non–gang members do not experience the group processes that sustain gang activities; that is, the consequences of previous murders fail to incite further action because there is no group per se or because it is simply not framed as a threat that demands redress in the form of further violence. The lines in figure 2 show simple ordinary least squares regression predictions of out-degree regressed on in-degree for the 1994 murder network. The dashed line shows the predicted slope when non–gang members are included ($\beta = 0.498$; SE $= 0.201$; $t = 2.48$; $P < .01$), and the solid line displays the slope when only gang members are included ($\beta = 0.820$; SE $= 0.078$; $t = 10.33$; $P < .001$). While both slopes are positive and significant, including non–gang members in the regression decreases the slope by more than a third.

Thus far, a clear network structure emerges from homicides between gangs, one with distinct racial cleavages that exposes individual gangs to varying levels of violence. Yet, how stable is the observed network? Is such a network the result of the temporal or cultural peculiarities? Or, as hypothesized here, does such a structure indeed provide a stable basis for future interaction?

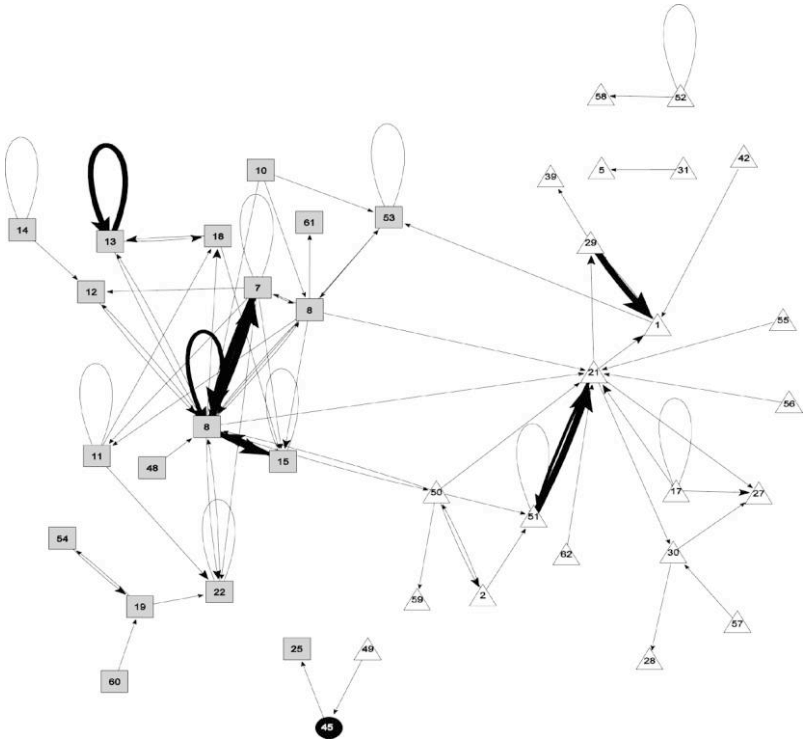

FIG. 3.—The social structure of gang homicide in Chicago, 1998. Squares represent black gangs; triangles represent Hispanic gangs; diamonds represent Asian gangs; circles represent white gangs; direction of arrow indicates direction of homicides; and thickness of line indicates number of homicides between gangs.

Network Stability

To answer these questions, I recreate the structure of gang homicide in two additional years, 1998 and 2002, displayed in figures 3 and 4, respectively.

The visual similarity between networks of different years is striking. Black gangs are again involved in dense, symmetric networks, whereas the Hispanic gangs are in a star-like network with the Latin Kings in the center. The only apparent change in the overall network structure occurs in 2002, when the prominence of the Latin Kings seems to diminish. As predicted by the cut-point analysis presented above, this breaks the Hispanic network into several small components of dyads and triads.

To test the stability and predictive power of the earlier gang conflict networks on later gang homicide, I use the quadratic assignment procedure (QAP) on the 1994, 1998, and 2002 matrices for all 66 gangs that

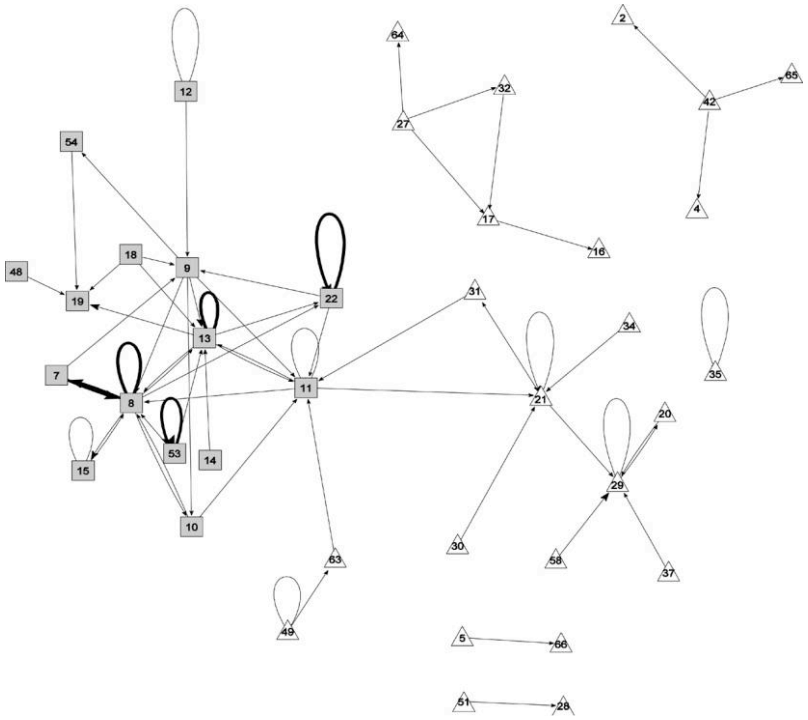

FIG. 4.—The social structure of gang homicide in Chicago, 2002. Squares represent black gangs; triangles represent Hispanic gangs; diamonds represent Asian gangs; circles represent white gangs; direction of arrow indicates direction of homicides; and thickness of line indicates number of homicides between gangs.

were reported as taking part in any murder during these years (Krackhardt 1987). QAP procedures provide a basic test of the null hypothesis of independence among the gang homicide networks. QAP correlates two network structures using Monte Carlo simulations that randomly rearrange the nodes while preserving the structure of the network in order to determine the strength of the relationship between two matrices. QAP then assesses the probability of a correlation being as high as the observed correlation within a network of a similar structure. Parameter values range from zero to one: the larger the value, the greater the correlation, where statistical significance is the probability of achieving as high a correlation as that observed. I use the results from $N = 5{,}000$ simulations as the basis for significance tests on all estimates.

Table 2 lists the QAP results, with the row acting as the predictor variable. The QAP correlations provide enough evidence to reject the null hypothesis of independence for the overall networks, the black networks,

TABLE 2
QAP Correlations for the 1994, 1998, and 2002 Gang-Related Homicide Network

	Overall Network		Black Network		Hispanic Network	
	1998	2002	1998	2002	1998	2002
1994 ...	.526***	.435***	.500***	.422***	.637***	.120
1998 ...		.561***		.621***		.072

Note.—N = 5,000 Monte Carlo simulations.
*** P = .001.

and the early Hispanic networks. For the overall networks, there is a moderate correlation between the structures from 1994 and 1998 (.526, $P < .001$) and 1998 and 2002 (.561; $P < .001$). The correlation is somewhat smaller, although still statistically significant, between 1994 and 2002 (.435; $P < .001$). Disaggregated by race, the patterns of the black network are similar to the overall network, with higher correlations between closer years. The 1994 and 1998 homicide networks for Hispanic gangs are highly correlated (.637; $P = .001$), but the significance is lost in 2002 when the structure dissipates. That is, there is not enough evidence to reject the null hypothesis of independence for 2002. The 2002 Hispanic network provides the exception to the general rule: the prior network structure does not appear to determine the homicide patterns.[27] These findings suggest, even with the change in structure in 2002, that overall homicide patterns are significantly correlated and that the effect is somewhat stronger in years closer in time.

Overall, the QAP test suggests that the observed patterns of murderous interactions are rather stable over time, even though individual gang members (most notably the victim) come and go. Clearly, then, murder creates an enduring structure of relations, one that appears to be institutionalized in that it creates lasting patterns of contention among groups.

DOMINANCE RELATIONS AND THE CREATION OF GANG MURDER NETWORKS

Whereas the previous section described the social structure of gang homicide, this section examines the mechanisms that produce these murder

[27] One possible reason for this change in network structure is the effect of law enforcement initiatives on the Latin Kings over the past several years. While similar strategies have been used against black gangs, the shape of the Hispanic network suggests that such intervention strategies would be more effective against a diffuse structure rather than a dense one.

TABLE 3
MEANS, SDs, AND PARTIAL CORRELATIONS AMONG DYAD-LEVEL VARIABLES

	Mean	SD	1	2	3	4
1. Murder tie, 1996–97	.072	.259	. . .	.534	.039	.220
2. Black-on-black murder	.064	.246			.013	.064
3. Absolute size difference	11.16	20.22				.104
4. Competition for dominance	.096	.132				. . .

NOTE.—N = 2,415. Partial correlations with gang-specific effects controlled.

networks. More specifically, I analyze how dominance disputes, absolute differences in gang size, and prior network exposure predict the presence of a murderous tie between dyads *and* whether or not a murder is reciprocal.

Predicting a Murderous Tie—Dyadic Analysis

The analysis begins by examining the question of who kills whom or, more precisely, what predicts the presence of a murder between any two gangs in the network. In the first set of models, I predict the presence of a murder between any two gangs during the 24-month period from January 1996 to December 1997. In total, 466 murders were committed by 70 groups (69 gangs and a non–gang member category). The dependent variable is measured as a binary indicator (1 = yes, 0 = no) of whether or not a murder occurred between two specific gangs among all possible 2,415 dyadic ties.

I examine the effects of three dyad-level variables on the presence of a murder between gangs: (1) the amount of competition for dominance, (2) the racial and ethnic composition of the involved gangs, and (3) the absolute size differences between the two gangs. Table 3 presents partial correlations between these variables controlling for gang-specific effects.

Competition for dominance.—To capture the theorized notion of dominance, I use the gang turf maps to generate a measure I call *competition for dominance*. Competition for dominance is measured as the Jaccard coefficient of contested turf of two gangs involved in a given homicide. That is,

$$\frac{a}{(a + b + c)},$$

where, as seen in table 4, a is the amount of turf that gang A and gang B jointly occupy, b is turf occupied by gang B but not by gang A, and c is turf occupied by gang A but not by gang B. This measure is derived using a two-mode adjacency matrix of the gangs and the turf they occupy

TABLE 4
BINARY TABLE OF ASSOCIATION FOR GANG TURF RELATIONSHIP BETWEEN ANY TWO GANGS (Dyad Level)

	GANG A	
GANG B	Yes	No
Yes	*a*	*b*
No	*c*	*d*

in 1996–97, the graph of which is displayed in figure 5. Essentially, figure 5 visualizes the relations between gangs (circles) and their turf (squares), where each link between nodes represents a parcel of turf that a gang occupies. These data allow me to quantify the total number of neighborhoods in which a gang has a piece of turf and, more important, which neighborhoods are occupied by more than one gang. I make the assumption that gangs that occupy the same space are more likely to come into direct conflict.[28] Group A in figure 5 gives a straightforward example in which two gangs are simultaneously reported in the same neighborhood and, on the basis of my assumption, are therefore more likely to compete for status and resources. Moreover, in group A this is the *only* neighborhood in which these two gangs are reported and they are the *only* gangs in this area. The Jaccard coefficient literally measures the proportion of turf overlap between two gangs involved in a homicide. The values of the coefficient range from zero to one, where one is exact overlap.

The argument here is that turf is not simply a piece of economic capital, but a crucial dimension of symbolic capital and gang identity. Indeed, of the 20 different turf disputes I observed during my fieldwork, only two involved economic issues, in those instances, disputes about the rights to sell drugs on a particular street corner. All other turf disputes involved symbolic matters, such as disrespectful gang graffiti or boasts of social status and reputation. The most common turf transgression I observed was the unauthorized use of a piece of turf by a rival gang member, such as playing basketball at a park controlled by a rival gang or eating at a restaurant that one's rivals claim as a hangout.

Beyond controlling a parcel of land and its uses, gang turf is at the foundation of gang identity and group processes (Short and Strodtbeck

[28] This technique is commonly used in network analysis to infer social relations based on affiliation data; methodologically, one transforms a two-mode matrix into a one-mode matrix on the basis of joint affiliation. For example, two individuals who belong to the same organization, sit on the same board of directors, or attend the same school would be considered to have a link between them.

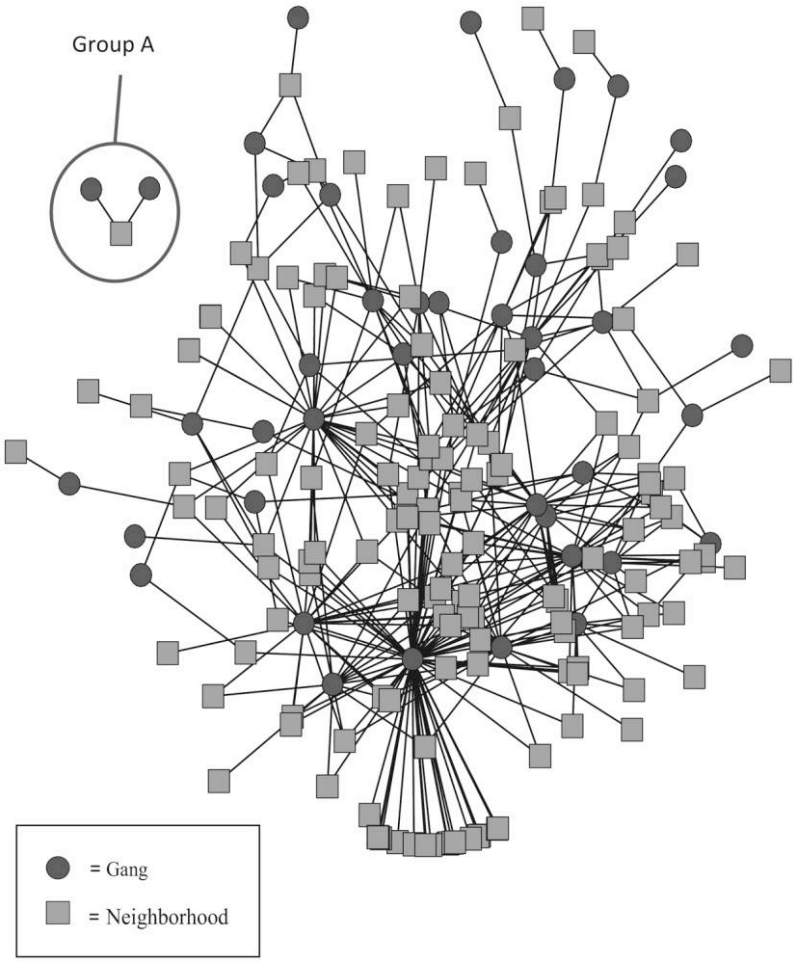

FIG. 5.—Two-mode graph of gang turf in Chicago, 1996–97

1965; Horowitz 1983; Vigil 1988). In some contexts, the name of the neighborhood is synonymous with that of the local gang. Many of the gang members in this study often switch back and forth between the group name and the neighborhood name. The K-Town Kings, for example, is a faction of Latin Kings who reside in an area of Chicago in which the street names all begins with the letter *K* (Kilmore, Kedvale, Kilpatrick, and so on); thus, while they are formally Latin Kings, the gang members informally call themselves the K-Town Kings and are recognized as such by other members of the Latin Kings. Likewise, many gangs add street

names to their proper gang surnames—such as the 55th Street Disciples, a branch of the Gangster Disciples who reside on or around 55th Street.

Even more than identification, defense of turf is often the raison d'être for collective violence precisely because it links gang identity with social status. Defending turf affords an opportunity to display group cohesion and social status, namely, that the gang has the capacity to keep what it values and fend off would-be transgressors. Therefore, a threat against turf can be thought of as a threat against the lifeblood of the organization and a prime opportunity for the group to act for its own sake. One gang informant describes the loss of turf (or failure to protect its boundaries) as the ultimate failure of a gang. Melo, a midranking leader of the Two-Six gang, describes an ongoing war with the rival Latin Lovers that began over a piece of disrespectful graffiti:

> This is *our* 'hood, see? We got no choice but to protect it. If we back down, we ain't shit. Everyone will think we ain't nothin' but a bunch of punk ass bitches. . . . How can we call ourselves 2-6, if we don't got this corner? We always had this spot. It's ours, man, no matter what those fuckers [Latin Lovers] come at us with. . . . Without that, what do we got? Nothing. Might as well join the fucking Boy Scouts if you ain't got a spot. If we back down, we look weak, man. . . . Can't let no slobs [Latin Lovers] try and just take that spot away.

Melo's colorful remarks point to two important aspects of gang turf. First, that the piece of turf in question (literally, a street corner) is partially what defines the Two-Six: it is a part of their history, collective memory, and persona. Second, defense of the spot is connected not only to such identity claims but also to positions of dominance. Notice that Melo does not raise a single economic issue, only those of dominance: that the Two-Six will look like "a bunch of punk ass bitches" if they fail to protect their spot. In fact, such subservience to the Lovers would, in Melo's eyes, make the Two-Six the structural equivalent of a Boy Scout troop.

Given such turf considerations, I take the proportion of turf overlap captured in the Jaccard measure as an indicator of competition for dominance between two gangs in a homicide. The more alike in turf overlap—the closer the coefficient is to 1—the more gangs have to lose when conflict arises. In other words, more is at stake between groups with higher turf overlap because of the greater potential loss of status should a gang fail to defend its turf. Similarly to Gould, I hypothesize that gangs are more likely to engage in homicide and the reciprocal exchange of homicides because neither gang holds a clear, externally supported dominance position. The higher the coefficient, the more alike the gangs are in turf overlap and, consequently, the more likely they are to kill each other and reciprocate violence.

Table 3 shows that, at the dyad level, the dominance measure between any two gangs is 0.096; that is, any two gangs in a dyad share approximately 10% of their turf. If one considers only those dyads that resulted in a murder, then this percentage increases to roughly 25%. However, the standard deviations of network dominance measures are greater than the mean, most likely skewed because of highly active and large gangs such as the Gangster Disciples and the Latin Kings. To account for these skewed distributions and potential outliers, I log the measure and conduct the analyses with and without outlying gangs.

Racial composition of the gangs.—I examine racial variation in murderous ties using a binary indicator of whether the murder occurs between two gangs of the same racial or ethnic composition, but, more specifically, if the homicide occurred between two black gangs (1 = yes, 0 = no).[29] Gangs are coded as black or Hispanic if more than 90% of the victims or offenders were of that race. This variable is included as a control for racially unique correlates of homicide found in other research, as well as an indicator of the racial distinctions in the observed network structures. Moreover, in *all* cases the race of the victim is identical to the racial composition of the gang as classified by the police and prior research. As seen in table 3, approximately 7% of all dyads occur between two black gangs; however, approximately 57% of actual murders occur between two black gangs, resulting in the strongest single partial correlation of the covariates (.534), a finding consistent with other quantitative research on gang homicide in Chicago (e.g., Block and Block 1993; Papachristos and Kirk 2006).

Size of gang.—The size of the various gangs is controlled for as the absolute size difference between the offending and victim gangs, where size is as measured by the total number of neighborhoods in which the gang was reported by the Chicago Police Department. My underlying assumption is simple: the larger the gang, the more space it occupies. The size of a gang offers both a competing explanation of murder and a potentially important control variable. The absolute size difference between gangs ranges from zero (two gangs of the same size) to 115, with an average size difference of 11.16. But, again, the considerable standard deviation of 20.22 suggests that this average is heightened by the presence of large gangs such as the Gangster Disciples and Latin Kings. Size does not appear to be highly correlated with the other covariates.

As mentioned above, the analysis is presented in two stages. The first set of findings presents the dyad-level regressions models that predict a

[29] Given that more than 95% of these murders were intraracial, this variable produces fundamentally the same results as a simple same vs. different race variable and, I believe, retains the importance of racial and ethnic differences in the networks.

murderous tie between any two gangs. The second set employs network autocorrelation models to predict reciprocity within the observed murder networks.

Results.—Table 5 presents the results from a dyad-level logistic regression of the three predictor variables on whether or not a murderous tie exists between two gangs in the 1996–97 network. Model 1 presents the baseline model considering only the racial composition of the gang and the absolute size difference between gangs in a dyad. Theoretically, model 1 tests the extent to which murder between any two gangs is driven by size. Both variables in model 1 are positive and statistically significant, suggesting that a murder is more likely among two black gangs ($\beta = 3.88$; $P < .001$), as compared to two Hispanic gangs or two gangs of different races, and as absolute differences in size between gangs increase ($\beta = 0.016$; $P < .001$). As a general matter, then, gang murders are more likely between two black gangs, a finding that holds in all remaining models. With regard to size, model 1 suggests that murders are more likely between gangs of different sizes. This finding runs counter to Gould's argument, which predicted that violence would be more likely among gangs more alike in size; however, as will be seen in the remaining models, the significance of this variable drops when controlling for the larger Gangster Disciples and Latin Kings.

Model 2 adds the theoretical construct at the core of my argument, competition for dominance, namely, whether gang murder is driven by turf overlap and the perceived dominance associated with such overlap. As hypothesized, the competition for dominance variable has a positive and statistically significant effect on the presence of a murder between two gangs ($\beta = 0.753$; $P < .001$). Taking the log odds of the raw coefficient ($\exp[0.753] = 2.12$) suggests that for each additional percentage increase in turf overlap, the odds of a murder between gangs increase by a factor of two, with all other variables held constant. In short, murders are indeed more likely when two gangs have more at stake. The black-on-black variable ($\beta = 4.12$; $P < .001$) retains its significance, whereas the significance of the size variable drops in this and subsequent models. This finding holds in all subsequent models in table 5.

The remaining models in table 5 test the robustness of this finding by adding in fixed effects for outlying gangs and non–gang members. Models 3 and 4 add in dummy variables for non–gang members and the Gangster Disciples and Latin Kings, respectively. The coefficient for non–gang members is positive and significant in both models, suggesting that non–gang members are more likely to be killed across all dyads than gang members. This is in part due to the fact that non–gang members (as a group) are more likely to interact across gang and racial lines. Put another way, all different types of gangs kill non–gang members whereas dyadic

TABLE 5

PARAMETER ESTIMATES OF DYAD-LEVEL LOGISTIC REGRESSION MODEL PREDICTING A MURDER BETWEEN TWO GANGS IN 1996 AND 1997

	MODEL				
	1	2	3	4	5
Black-on-black gang murder (1 = yes)	3.882***	4.114***	4.577***	5.028***	6.781***
	(.210)	(.301)	(.380)	(.411)	(.640)
Absolute size difference	.016***	−.001	.001	.001	.015
	(.003)	(.004)	(.004)	(.008)	(.022)
Log (competition for dominance)		.753***	.962***	1.030***	.756***
		(.070)	(.096)	(.100)	(.080)
Non–gang member (1 = yes)			5.307***	5.879***	
			(.720)	(.791)	
Gangster Disciples (1 = yes)				.983	.722
				(.880)	(1.35)
Latin Kings (1 = yes)				2.187***	1.711***
				(.431)	(.590)
67 gang dummy variables[a]					[a]
Constant	−3.599***	.627**	1.143***	1.132***	−1.373
	(.14)	(.30)	(.35)	(.38)	(1.25)
Log likelihood	−410.1	−293.9	−258.6	−241.8	−208.9
χ^2	399.6	632.0	702.6	736.2	748.2

NOTE.—N = 2,415. Numbers in parentheses are SEs.

[a] These variables garnered 11 positive and statistically significant coefficients and 57 nonsignificant coefficients (0 = non–gang member).

* $P < .10$.

** $P < .05$.

*** $P < .01$.

confrontations between two specific gangs are more circumscribed. As a result, murderous ties exist between the non–gang member category and a greater number of specific gangs (of both races) than between any two gangs. Adding in the dummy variables for the Latin Kings ($\beta = 2.19$; $P < .001$) and the Gangster Disciples ($\beta = 0.983$) in model 4 increases overall model fit, although only the former is statistically significant. This suggests that the odds of a murder in a dyad increase by a factor of nine when a Latin King is involved ($\exp[2.18] = 8.85$). All other variables except absolute size differences are positive and statistically significant.

Finally, model 5 adds in fixed effects for each of 69 gangs through a series of dummy variables and using the non–gang member as a reference group in order to control for nonindependence among dyads as well as gang-level effects (see, e.g., Mizruchi 1989). Each dummy variable is coded as 1 if the gang is present in a given dyad, such that each dyad will have values of 1 for those two gangs and zeros for all other variables. For the sake of presentation, the coefficients of these variables are suppressed in model 5, but 11 of the gang indicators and the Latin Kings variable are positive and statistically significant. More important, the black-on-black variable ($\beta = 6.78$; $P < .001$) and the competition for dominance variable ($\beta = 0.756$; $P < .001$) retain their directionality and statistical significance, suggesting that a murder is more likely between two black gangs and when two gangs share a greater portion of turf overlap, even when considering individual gang effects. Model 5 also provides the best fit of the models in table 5.

Predicting Reciprocity—Network Autocorrelation Models

The final set of models examines the reciprocal exchange of murders. By reciprocal, I am referring to any murder between members of two distinct gangs that is followed by a murder between the same gangs six months after the first killing and that is initiated by a member of the first victim's gang. In short, reciprocal murders indicate an exchange between these two groups during the observation period.[30] While reciprocal murders include the more specific case of retaliation, the data do not allow me to directly link specific motives between incidents. That is, I cannot deduce whether the actual reason for a homicide was a prior homicide. Reciprocity is measured as a binary variable indicating if a murder is reciprocal (1 =

[30] In other analyses, I also allowed for murders between two gangs to occur six months prior to account for any left-hand censoring issues; the results are extremely similar. I also conducted analyses using 8-, 10-, and 12-month intervals, which also produces similar results.

reciprocal, 0 = not) for the 466 murders that occurred in the 1996–97 period.

In contrast to the dyad-level analysis, the analysis of reciprocity considers only those incidents that actually occurred. As a result, I am able to include additional incident-level covariates, thus allowing for more variation in motive and context. In addition to the black-on-black, absolute size, dominance measures, and controls for non–gang members and the Gangster Disciples and Latin Kings, I include four additional binary covariates: (1) whether or not a firearm is used (1 = yes), (2) whether or not the murder occurs in public or on the street (1 = public/street), (3) whether or not the murder is preceded by a verbal argument or altercation (1 = yes), and (4) whether or not multiple perpetrators are involved (1 = yes). Consistent with prior research (see Howell 1999; Maxson 1999), table 6 shows that nearly all homicides involving gang members are committed with a firearm (96%) and occur in public (91%). Moreover, 79% of all homicides are preceded by an argument or fight between the disputants, and 33% involve more than one offender.[31] Like Gould (2003), I take murders preceded by a verbal argument or altercation to indicate a *symbolic* threat and those murders involving a greater number of disputants to indicate a higher level of collective action. This variable is also theoretically consistent with the argument described above in that it ensures that the proximate interactions preceding a murder were not about instrumental or monetary considerations. Taken together, I hypothesize that disputes that occur on the street, occur over symbolic reasons, and involve collective action should be more likely to produce reciprocal homicides.

I model reciprocity using a network autocorrelation model (also known as a network effects model) that accounts for the structural interdependence among network units by using an autocorrelation term (Leenders 2002). In the present analysis, I use a model commonly employed in the study of the diffusion of ideas, innovations, and diseases (Valente 2005), which takes the form

$$\log \frac{\text{prob}\,(y_t = 1)}{[1 - \text{prob}\,(y_t = 1)]} = \alpha + \sum \beta_k X_k + \beta_{(k+1)} W y_{(t-1)},$$

where y is a binary vector indicating whether or not a murder in 1996–97 occurred, α is the intercept, β's are the parameter estimates for vectors k, and W represents a lagged social network of gang homicide, which I describe below. I expand this model to a two-level population average logistic regression model with the 466 murders at level 1 and the 70 gangs

[31] As in table 1, the symbolic variable was coded 1 if the murder is motivated by a verbal argument or altercation that was not about property, money, or drugs or was committed during the commission of another crime.

TABLE 6
MEANS, SDs, AND PARTIAL CORRELATIONS AMONG INCIDENT-LEVEL VARIABLES

	Mean	SD	1	2	3	4	5	6
1. Reciprocal murder	.453	.498	. . .	.029	−.016	.001	.077	.147
2. Gun used	.961	.194			.198	−.118	.151	−.006
3. Occur in public	.908	.228				.048	.228	−.082
4. Black-on-black murder ...	.697	.459					.051	−.021
5. Symbolic	.791	.407						.282
6. Multiple offenders	.333	.472						. . .

NOTE.—$N = 466$. Partial correlations with gang-specific effects controlled.

at level 2, thereby treating murders as nested within gangs.[32] Given the interest in who is doing the killing, I assign gangs in level 2 on the basis of the offender's gang.

Network exposure and social contagion.—Using a network autocorrelation model also allows me to include a final mechanism of theoretical interest—a contagion parameter that models the influence of prior exposure in murder networks. The stability of these murder networks suggests that prior murders influence the selection of victims in subsequent years. As hypothesized above, this may reflect a process of social contagion in which communication and competition drive the diffusion of violence between gangs. *Communication* drives the contagion of murder as ego and alter are socialized into a shared understanding of animosity or conflict; that is, we are enemies and we both know it. Under these conditions, small insults blow up into events that require a severe response because of the prior interactions between groups. *Competition* drives contagion when killing is necessary to prevent the loss of face: that is, if we do *not* kill, then we lose status relative to others in the social network. If murders are truly contests or exchanges in which status is won, lost, or gained, then murder would be an important "winning" strategy. These two mechanisms are not necessarily mutually exclusive, however. In fact, the two might directly influence each other: one is socialized into contentious relations (communication) *because* of prior interaction and competition.[33]

I measure the social contagion of violence as a lagged adjacency matrix of gang murder in 1994 and 1995, the $Wy_{(t-1)}$ parameter in the network

[32] Traditional one-level models produce the same results, but with exaggerated standard errors caused by gang-level effects.

[33] Communication and competition roughly parallel Burt's (1987) ideas of contagion of cohesion and structural equivalence, respectively. Theoretically, cohesion and equivalence refer to two potentially different mechanisms. Empirically, however, the two might refer to similar social influence processes, especially in small homogeneous networks in which the majority of contact and socialization (cohesion) occurs between those occupying similar roles (equivalence).

effects model. The matrix is lagged to account for the influence of past gang murders on present decisions to reciprocate.[34] When, as I do here, a network is measured on direct contact, it captures social influence conveyed through overt transmission or direct pressure (Valente 2005, p. 103).[35] This implies that the contagion of gang murder is influenced by those in the *immediate* conflict network in the two prior years; namely, gangs are influenced by interaction within their local network, in particular, their immediate network neighbors, or those with whom they were involved in murders in the past. A significant β parameter provides evidence of contagion. I hypothesize that gangs are more likely to engage in reciprocal homicides with those whom they have killed or been killed by in the past.

Results.—Table 7 examines the mechanisms responsible for the reciprocal murders in the 1996–97 networks by regressing the dependent variable (whether a homicide is reciprocal) on incident-and gang-level variables. Model 1 tests the effect of incident and contextual factors on the likelihood of a reciprocal murder; in other words, this model assesses the extent to which reciprocal murders are explained by variation in incident-level circumstances. Model 1 shows nonsignificant effects of whether or not a gun was used ($\beta = -0.202$), whether or not the murder occurred in public ($\beta = -0.599$), and whether or not multiple offenders were involved ($\beta = 0.358$). These variables lack statistical significance probably as a result of the lack of variation in these murders: a great portion of these incidents involve a gun, involve multiple offenders, and occur on the street. The significant predictors in model 1 are the black-on-black variable ($\beta = 1.075$; $P < .001$), the symbolic variable ($\beta = 0.923$; $P < .05$), and the non–gang member variable ($\beta = -3.63$; $P < .001$). These findings suggest that reciprocal homicides are more likely when both the victim and the offender are members of a black gang and when the killing is preceded by a verbal argument or dispute. Additionally, reciprocal

[34] This approach is similar to lagged spatial autocorrelation terms used to capture the influence of past violent crime rates at the neighborhood level (e.g., Morenoff, Sampson, and Raudenbush 2001). I use a two-year time frame in both instances to capture a greater number of incidents and gangs. Analyses conducted on single-year networks or with greater lags produce similar results, especially given the stability of these networks. Furthermore, any time parameter used in such models creates some right-hand censoring; i.e., gang disputes do end with the calendar year.

[35] Consistent with other network research, I also measured W using measures of structural equivalence (measured as Euclidean distance) between gangs in the network. However, the structural equivalence and adjacency matrices were highly correlated ($R = .871$), suggesting that, in this case, the two were measuring the same social influence processes. In other words, gangs interact with their equivalent alters. This is not surprising given the small, nonoverlapping nature of the networks. I am grateful to an *AJS* reviewer for reminding me of this point.

TABLE 7

PARAMETER ESTIMATES OF A TWO-LEVEL POPULATION AVERAGE LOGISTIC REGRESSION MODEL PREDICTING RECIPROCAL MURDERS

	MODEL					
	1	2	3	4	5	6
Incident-level characteristics:						
Gun used (1 = yes)	−.202	−.112	−.042	.081	.074	.035
	(.671)	(.666)	(.786)	(.701)	(.762)	(.704)
Occur in public (1 = yes)	−.599	−.320	−.427	−.273	−.377	−.328
	(.511)	(.523)	(.591)	(.576)	(.596)	(.564)
Black-on-black murder (1 = yes)	1.075***	.631^{+}	−.0515	.469	.0983	−.0714
	(.277)	(.351)	(.522)	(.311)	(.428)	(.441)
Symbolic (1 = yes)	.923**	.709*	.816*	.695*	.765*	.727*
	(.328)	(.336)	(.381)	(.357)	(.370)	(.361)
Multiple offenders (1 = yes)	.358	.381	.334	.266	.240	.232
	(.255)	(.271)	(.290)	(.285)	(.293)	(.290)
Non–gang member as victim or offender (1 = yes)	−3.633***	−3.681***	−2.242***	−3.717***	−2.623**	−2.909***
	(.5411)	(.675)	(.621)	(.593)	(.980)	(.698)

Gang-level characteristics:						
Absolute size difference		.0231***	.0228***	.0141***	.0125*	.009
		(.005)	(.005)	(.004)	(.006)	(.011)
Lagged network, 1994–95			.234**		.135+	.103*
			(.078)		(.070)	(.052)
Log (competition for dominance)				1.216***	1.246***	1.322***
				(.210)	(.250)	(.251)
Gangster Disciples (1 = yes)						.0851
						(.883)
Latin Kings (1 = yes)						−.335
						(.571)
Constant	−.417	−1.222	−2.086*	3.242**	2.891*	3.611**
	(.77)	(.76)	(.97)	(1.05)	(1.27)	(1.16)
Wald χ^2	47.64	53.81	55.81	72.38	79.94	87.32

NOTE.—N = 466. Numbers in parentheses are SEs.
+ $P < .10$.
* $P < .05$.
** $P < .01$.
*** $P < .001$.

murders are considerably less likely when a non–gang member is involved. The significance of the symbolic variables supports the theory put forth here and that of Gould (2003): murders are more likely to be reciprocated when they are preceded by noneconomic/material disputes. This symbolic variable retains its statistical significance in all the remaining models, even when controlling for gang-level effects.

Model 2 adds the gang-level absolute size variable, which, as in the dyad analysis, is positive and statistically significant ($\beta = 0.023$; $P < .001$). This suggests that reciprocal murders are more likely between gangs of different sizes. This effect is retained in all subsequent models (3–6), except when dummy variables are added in model 6 for the Gangster Disciples and Latin Kings. Thus, as in the dyadic models and counter to Gould's argument regarding violence among status equals, size differences appear to influence reciprocal murders; but the effect of size appears to be driven mainly to these two large gangs, in large part because they are involved in a considerably larger number of turf disputes.

The social contagion parameter is added in model 3 to assess the effect of prior network structure on reciprocal murders. The parameter is positive and statistically significant ($\beta = 0.234$; $P < .01$) and slightly improves overall model fit (Wald $\chi^2 = 55.81$). In the case of reciprocal murders, therefore, there is evidence of contagion: a murder is more likely to be reciprocated if someone in your gang is killed in the prior six months by a gang in your local network neighborhood. Put another way, the murderous interactions of a gang's network neighbors are positively associated with a murder being reciprocated.

Model 4 presents the effect of the competition for dominance variable on reciprocal murders, controlling for size and incident-level characteristics. Just as in the dyad models, the dominance variable is positive and statistically significant ($\beta = 1.22$; $P < .001$). Thus, when two gangs share a greater proportion of contested turf relative to their respective size, they are more likely to exchange murders, net of incident-level characteristics and absolute size differences. The log odds of this parameter ($\exp[1.22] = 3.87$) imply that a one-percentage-point increase in turf overlap increases the odds of a murder being reciprocated by a factor of nearly four. Quite simply, when more is at stake between two gangs—when they have a greater proportion of turf overlap that is often linked with dominance and status considerations—the reciprocal exchange of murders is considerably more likely. Additionally, this variable increases model fit over the previous models (Wald $\chi^2 = 72.38$).

Model 5 tests the robustness of the contagion ($\beta = 0.135$; $P < .10$) and dominance variables ($\beta = 1.25$; $P < .001$) by considering both variables simultaneously, both of which are positive and significant. The magnitude and significance of the dominance variable are retained, although the

statistical significance of the contagion parameter drops to the most lax significance level. The continued significance of these variables, as well as the symbolic variable ($\beta = 0.765$; $P < .05$), supports the idea that most of the variation in reciprocal murders is explained by these *gang-level* factors.

Finally, model 6 contains all incident- and gang-level predictors and adds two dummy variables for the Gangster Disciples and Latin Kings. As in the dyadic analysis, controlling for these two outlier gangs provides the best overall model fit and mediates the effects of size of the gang (Wald $\chi^2 = 87.32$). More important, though, the influence of the symbolic, social contagion, and dominance variables holds even when controlling for the juggernaut Gangster Disciples and Latin Kings. However, neither the Gangster Disciples nor the Latin Kings variables are statistically significant, implying that other gangs are just as likely to retaliate.

Models 5 and 6 have several important implications. First, there is considerable evidence of network contagion within these murder networks: one is more likely to reciprocate a murder with a gang it has been involved with in murders in the past and/or when its prior network neighbors are also engaged in murders. Second, competition for dominance, as expressed in turf overlap, is a strong and consistent predictor of reciprocity in murder between gangs, even when considering variation in incident-level characteristics and size differences. In other words, when two gangs have more at stake—regardless of the specific motivating event of a murder—that murder is more likely to be reciprocated. Finally, it appears that such immediate dominance considerations at least partially mediate the effect of prior network exposure. Thus, even though there is evidence for contagion, competition for dominance appears to have a stronger influence on reciprocity when controlling for other incident- and gang-level characteristics.

DISCUSSION

These results demonstrate that gang murders create an enduring social structure that is produced through dominance disputes and the social contagion of prior interactions. At the incident level, homicides between gangs most often result from conflict over symbolic threats within group contexts that stress the use of violence as social control. The parameter estimates of the symbolic and competition for dominance variables support such claims and Gould's (2003) description of group violence: murders are more likely to involve symbolic circumstances among groups caught up in dominance disputes. Contrary to Gould's argument that violence is more likely among near equals, however, murders are more

likely among gangs of different sizes, especially when two extremely large gangs such as the Gangster Disciples and Latin Kings are taken into consideration.

Descriptive network analysis reveals distinct racial cleavages of these murder networks. Black gangs interact within a highly active and densely connected network, whereas Hispanic gangs exist in a diffuse star-like network with a clearly identified center of power. Both networks are conducive to contagion, but the black network is more resilient to external shocks. Furthermore, a positive and direct correlation exists between network exposure and activity, regardless of network structure: the more a gang is on the receiving end of murder (in-degree), the higher its total murderous output (out-degree). This relationship holds even when controlling for large and powerful gangs such as the Gangster Disciples and the Latin Kings but does not apply to non–gang members.

The two-level models, as well as the QAP test, indicate that these murder networks are *institutionalized* in that they persist over time and influence individual action and collective behavior. In other words, there is clear evidence of a gang effect that exists above and beyond individual motives and any isolated murder. In the rational choice parlance, such networks represent a considerable external constraint on gang member behavior. Even though individual gang members undoubtedly pursue their own self-interests, their murderous activities generally coincide with the larger network structure between groups. In this manner, it is the structure that kills.

Multivariate analysis provides evidence that prior network structure *and* competition for dominance disputes significantly predict the presence of a murder between gangs as well as reciprocity. With respect to dominance, it appears that murder—reciprocal or otherwise—is more likely to occur between gangs with greater amounts of turf overlap. As seen in some of the qualitative evidence, turf disputes are less about a parcel of land than about a gang's status and perceived dominance, and thus, greater overlap will have greater consequences on the social standing of the conflicting gangs. Truck, a member of the New Breed, describes the importance of turf this way:

> *Truck:* Shit, if a nigga' steps to you, tries to take what is yours, what he's really doing is seeing what you're made of. Got it? It's like this: say, some crew [gang] rolls up and tries to take your spot [street corner hangout]. They's disrespecting you on *your* 'hood, you gots to step up [retaliate]. That's, like, the worst fucking thing they could do.
>
> *Author:* Does the spot really matter that much?
>
> *Truck:* Man, ain't you listening? It ain't about no fucking corner. I mean, yeah, it's about corner, but, fuck the corner—it's about not looking like a punk [weak]. If you a punk, a corner ain't going to help, see. Plenty

> of bitches [gangs perceived as weak or of lesser status] got corners they can't keep. What good is a corner to them? You can only keep a corner if you down [loyal to the gang] and everyone knows you and your mob [gang] are down too. If people know you're solid [strong/willing to fight], and that you and your boys [gang friends] [are willing to] throw down [fight], then you be all right. You're straight. You got your corner and your rep [reputation]. That's just the way it is.

Truck's remarks and those of the gang members throughout this article highlight the importance of turf not just as an economic or political resource, but as an essential determinant of social standing. Turf disputes are occasions in which gangs struggle for dominance. What is more, turf's symbolic value is contingent on the ability of a group to fight and avoid subservience to other groups. The regression findings demonstrate that when two gangs share greater degrees of contested turf, they are more likely to engage in lethal violence and reciprocate when murder does occur.

The analysis also provides evidence that prior network structure influences the social contagion of violence. The positive coefficient of the lagged network parameter suggests that the reciprocal exchange of murder is significantly more likely when a gang has had prior murderous relations with its alter *and* it is pulled into a conflict. In this sense, the "gift" of murder must be returned if only to establish one's position in the network. A member of the Spanish Cobras, Hector, explained his gang's decision to retaliate against the rival Latin Counts as not being a choice at all:

> They always comin' at [attacking] us. Everybody knows it, and they watchin' to see what you do. The thing is, what can a nigga' do? If you don't get yourself some payback, you ain't shit. People'll see you [are] weak and your mob's [gang] weak. Then, next thing you know, everyone be stepping at [attacking or insulting] you. You got to hold on to your rep. And, the only thing to do is to go back and fuck some fools [members of opposing group] up. If someone steps to you, you best roll right-the-fuck-back-up on them! Get you some revenge. If we back down from those motherfuckers [Latin Counts], they think they got the best of us. They'd think they got more heart than we do.

The key here is the importance gang members attribute to reciprocity. The norm of reciprocity that Hector describes demands retribution once an attack has occurred, especially when the threat comes from someone a gang has a prior contentious relationship with. Failure to retaliate against a long-standing opponent amounts to honorific suicide. In either case, gangs clearly seem to consider the actions of their alters, supporting the notion of the social contagion of gang murder resulting from processes of competition and contact.

In contrast to research that views homicide as a signal of disorder in

the gang milieu (e.g., Decker and Curry 2002), I find a clear and stable ordering in the conflictual relations of gangs. What may seem like the haphazard exchange of insults and bullets is in fact the product of an overarching network of contention. The stability and symbolic nature of these murder networks suggest that conflict is institutionalized and most often is a product of dominance disputes and the evaluation of dominance relations. A gang's pattern of murder thus appears to reflect its position in the network structure. Because of the public and interpretative nature of gang murder, information is often not directly transmitted but refracted and framed before action occurs (e.g., Podolny 1993). While the entire murder network may not be visible to gangs because of the timing by which retaliation occurs, these structures are decidedly real as they are real in their consequences: "Like social facts, they are invisible yet consequential macrostructures that arise as the product of individual agency" (Bearman, Moody, and Stovel 2004, p. 60). The competition for dominance measure used here implies that gangs *are* able to interpret not only their immediate opponent but also their evaluation of others in the network.

One might argue that these findings are limited by the uniqueness of the data and their context, a point frequently cited in regard to research done on Chicago gangs (see, e.g., Maxson and Klein 2001, p. 247). While the direction, magnitude, and significance of the findings may certainly vary given the context, I would argue that many of the key structures and processes would not. Similar methods and theoretical approaches would reveal that dominance disputes to a great extent determine the specific patterning of gang violence. Moreover, while murder itself is a rather unique event, its interaction patterns are very similar to interpersonal violence more generally. That is, murder may not be a unique type of action, but rather an action of greater degree in the continuum of violence.[36] Ultimately, the validity of these findings rests in empirical replication and extension to other types of violent interactions.

CONCLUSION

Gang murder in Chicago is not merely an outcome resulting from the convergence of individual or ecological variables. It is a consequential action that shapes intergroup relations, the product of dominance disputes that perpetuate murderous interactions over time. The groups are not a set of pedagogical constructs, but are readily identifiable by name, geography, and history. The Gangster Disciples engage the Four Corner

[36] Zimring (1968) demonstrates that there is little difference in the characteristics of fatal and nonfatal violent episodes, which implies perhaps a significant overlap in the distribution of offenders and motives.

Hustlers in battles over social standing, and the Latin Kings and Two-Six go to war over verbal and physical insults. In short, there is an order to gang murder evident in the social networks created through individual transactions that manifest themselves in the relations among and between actors.

Gangs continually confront dominance considerations in their quest for social status. A group can be seen as cohesive and provide its members status and protection only if the group can continually assert its dominance by protecting its members and turf and thereby avoid subjugation. Like chickens in a pecking contest, gangs want to avoid defeat and subjugation not only in the immediate lethal exchange but also in future exchanges. This process generates contentious networks of interaction that may very well define the existence of the gang as a unique sociological entity. Whereas some prior research questions the collective capacity of the gang as a social group (e.g., Short and Strodtbeck 1965; Decker and Curry 2002; Fleisher 2005; Sullivan 2005), this study demonstrates that patterns of gang conflict are extremely stable over time—a rather remarkable fact given the transitory nature of gang membership. Gang members come and go, but their patterns of behavior create a network structure that persists and may very well provide the conduit through which gang values, norms, and culture are transmitted to future generations. In this sense, it is murder by structure.

Considering the consequential nature of murder also tells us something useful about other types of collective behavior. In particular, the approach put forth here has implications for the study of social contagion of homicide and its abatement. Most theories explain the diffusion of violence as a function of proximity to violence or heightened exposure to risk factors. Recent studies have paid particular attention to the spatial dynamics of homicide examining the nonrandom clustering of high-homicide neighborhoods as well as the spatial diffusion of violence between geographic units (Cohen and Tita 1999; Rosenfeld, Bray, and Egley 1999; Morenoff et al. 2001). The central idea of such research is that neighborhood social institutions and actors are interdependent; that is, the social networks of individuals and groups (whether prosocial or deviant) reach beyond neighborhood boundaries and therefore facilitate the spatial contagion of homicide. In particular, certain deviant and criminal behaviors—such as drug dealing, gambling rings, and gang behaviors—are especially contagious.

Unfortunately, most aggregate studies of homicide fail to measure such social networks and, consequently, remain largely agnostic regarding the mechanisms responsible for the contagion of homicide. When they are measured, networks are usually captured through indirect survey measures rather than formal network methodologies. The typical approach

entails using spatial proximity of neighborhoods and their associated levels of homicide (measured as aggregate rates) as indicators of such spatial and social dependency of institutions and actors. Yet, we know that mere exposure or proximity cannot fully explain the diffusion of homicide, because murder rates themselves do not "move" across social or geographic boundaries. Murder is not an airborne pathogen: one does not usually become a victim or murderer simply by living in or next to a high-risk area.[37] The present study implies that both victims and offenders need to be incorporated in (or at least proximate to) the social networks conducive to sustaining such activities. Understanding how violent *interactions* generate meso- and macrostructures that act as the direct conduit of violence is an essential first step in this direction. And, social network analysis provides a promising avenue of investigation.

The theoretical framework and analytic approach advanced in the present study also offer insight into the abatement of the social contagion of violence. My results demonstrate that the "gang problem" in Chicago is a structural problem with unique racial differences. What types of interventions might alter such structures? And how might social network analysis be used to identify the Achilles' heel of such violent networks? The evidence suggests that viable interventions would occur at the *gang* level. That is, rather than simply target gang members *writ large*, interventions should seek to disrupt links of conflict between gangs or else focus on diminishing the organizational and violent capacity of high-impact groups. The most obvious intervention entails data-guided enforcement and legal efforts that target the organizational structure of *specific* gangs (such as the Gangster Disciples and Latin Kings) rather than broad sweeping policies that generically target gang members. In fact, some of the disruptions in the observed networks may in fact have resulted from such enforcement interventions. I urge data-driven strategies precisely because of the distinct network differences observed here: attacking only a single gang would not be as useful within the black gang network, whereas it might be a devastating intervention within the Hispanic gang network. Furthermore, social interventions that include dispute resolution and the *direct* linking of key network actors with prosocial ties (such as employment services) might steer would-be violent gang members away from more lethal forms of interaction. Social network techniques, such as those used here, can map the topography of violent networks and, thus, provide a guide to points of intervention.[38]

[37] The obvious exception being the victim of a random act of violence, e.g., someone caught in the crossfire of two rivals or hit by a stray bullet.

[38] Some scholars are already examining the utility of a network approach in the abatement of gang violence in Boston (Kennedy, Braga, and Piehl 1997), Los Angeles (Tita et al. 2003), and New Jersey (McGloin 2005). For a review, see Papachristos (2006).

While the evidence presented here applies most directly to the case of gang violence, it might also apply within the context of other sustained violent and criminal interactions, such as drug markets, smuggling rings, and terrorist activities, as well as other types of nonviolent interactions more generally, especially competition, conflict, and reciprocal exchange. For example, thinking of homicide as an interaction has implications for network theory and analysis, particularly structural balance theory. Structural balance, and the related idea of transitivity, is one of the most basic principles in social network analysis and implies that like-minded actors also tend to share similar evaluations of alters, situations, events, and ideas (Heider 1946; Holland and Leinhardt 1971). Within the context of intergroup conflict, structural balance is commonly embodied in axioms such as "the enemy of my enemy is my friend" (Mazur 1973*b*; Chase 1980). Gangs in Chicago and elsewhere have been observed to create alliance systems to further reinforce such pacts of mutual protection (Jacobs 1977; Knox 2001). Thus, network structures similar to the ones presented here provide a basic means to test the applicability of structural balance to intergroup violence in a modern urban context. Do allies and friends actually come to each other's mutual aid? Does violence produce a pecking order or confer status and rank? Moreover, homicides, as well as other negative interactions such as hostile takeovers or warfare, may require a reformulation and interpretation of standard network measures of centrality, power, and cohesive subgroupings. And, the gang provides one inroad into understanding such processes.

APPENDIX

A note on gang names.—Several of the gangs in this table have extremely similar names, for example, the Conservative Vice Lords and the Traveling Vice Lords, the Black Disciples and the Black Gangster Disciples, and so on. Although at face value such names might suggest that these are the same gangs, these groups are in fact qualitatively different social entities. In the two examples just given, the gangs share a common ancestry but currently represent different factions that operate independently. Such distinctions are readily recognized by both gang members and law enforcement officials, and for these reasons, I treat them quantitatively and qualitatively as unique gangs.

TABLE A1

List of Node Labels, Gang Names, and Degree Centrality Measures for 1994, 1998, and 2002 Murder Networks

Node Number	Gang Name	1994		1998		2002	
		In-Degree	Out-Degree	In-Degree	Out-Degree	In-Degree	Out-Degree
1	Ambrose	1	2	3	2	0	0
2	La Raza	2	2	1	2	1	0
3	Two-Sixers	2	1	0	0	0	0
4	Bishops	0	2	0	0	1	0
5	Latin Disciples	1	0	1	0	0	1
6	Allport Lovers	1	0	0	0	0	0
7	Black Disciples	3	3	3	7	1	2
8	Gangster Disciples	12	9	10	11	8	6
9	Vice Lords	6	6	4	6	4	5
10	Black Gangster Disciples	2	2	0	3	2	2
11	Black P. Stones	1	3	3	3	7	4
12	Mickey Cobras	3	3	3	1	1	2
13	Four Corner Hustlers	7	4	3	3	7	5
14	Black Souls	2	1	1	2	0	1
15	Black Stones	5	3	5	2	2	2
16	Campbell Boys	0	1	0	0	1	0
17	Maniac Latin Disciples	3	3	1	3	2	1
18	Conservative Vice Lords	0	1	3	2	0	3
19	Mafia Insane Vice Lords	2	3	2	2	4	0
20	Cullerton Deuces	0	1	0	0	1	1
21	Latin Kings	7	9	8	5	4	3
22	Traveling Vice Lords	1	2	5	2	3	3
23	Ebony Vice Lords	1	0	0	0	0	0
24	Gaylords	0	1	0	0	0	0
25	Imperial Gangsters	1	1	1	0	0	0
26	Insane Unknowns	0	1	0	0	0	0
27	Spanish Cobras	2	2	3	0	0	3
28	Latin Counts	2	1	1	0	1	0
29	Satan's Disciples	2	2	2	2	5	2
30	Latin Dragons	0	2	2	2	0	1
31	Latin Eagles	1	1	0	1	1	1
32	Latin Jivers	0	2	0	0	1	1
33	C-Notes	1	0	0	0	0	0
34	Puerto Rican Stones	1	0	0	0	0	1
35	Spanish Gangster Disciples	1	0	0	0	1	1
36	Brazers	1	0	0	0	0	0
37	Two-Two Boys	1	0	0	0	0	1
38	Latin Brothers Org.	1	0	0	0	0	0
39	Insane Dragons	1	0	1	0	0	0
40	Latin Lovers	1	0	0	0	0	0
41	Pachucos	0	1	0	0	0	0
42	Party People	0	1	0	1	0	3

TABLE A1 (*Continued*)

Node Number	Gang Name	1994 In-Degree	1994 Out-Degree	1998 In-Degree	1998 Out-Degree	2002 In-Degree	2002 Out-Degree
43	Red Scorpions	0	1	0	0	0	0
44	Flying Dragons	1	0	0	0	0	0
45	Simon City Royals	0	2	1	1	0	0
46	Spanish Lords	1	1	0	0	0	0
47	Unknown Vice Lords	1	2	0	0	0	0
48	Titanic P. Stones	1	0	0	1	0	1
49	La Familia	0	0	0	1	1	2
50	Latin Saints	0	0	2	5	0	0
51	Two-Six Boys	0	0	4	2	0	1
52	Ashland Vikings	0	0	1	2	0	0
53	New Breed	0	0	4	2	1	3
54	Cicero Insane Vice Lords	0	0	1	1	1	1
55	Insane Popes	0	0	0	1	0	0
56	King Cobras	0	0	0	1	0	0
57	Spanish Vice Lords	0	0	0	1	0	0
58	Milwaukee Kings	0	0	1	0	0	1
59	Latin Souls	0	0	1	0	0	0
60	Undertaker Vice Lords	0	0	0	1	0	0
61	Renegade Vice Lords	0	0	1	0	0	0
62	Insane Deuces	0	0	0	1	0	0
63	Insane Spanish Cobras	0	0	0	0	1	1
64	Imperial Insane Gangsters	0	0	0	0	1	0
65	Morgan Boys	0	0	0	0	1	0
66	Orchestra Albany	0	0	0	0	1	0

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