INTRA-STREETBLOCK SPATIAL PATTERNING OF CRIME-RELATED PAROCHIAL CONTROL

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The streetblock has emerged as an important ecological unit in analyses of urban crime and disorder (Taylor, et al., 1984; Weisburd, et al., 2012). Previous work has documented sizable inter-streetblock, intra-neighborhood differences in crime and disorder and associated levels of informal social control (Taylor, 1997). These differences are part of broader patterns of ordered segmentation or informal parochial control in neighborhoods (Bursik and Grasmick, 1993; Suttles, 1968). This paper uses a multi-method investigation relying on behavioral observation, ethnography, and crime mapping of one streetblock in a disadvantaged, depopulating, dangerous, and predominantly African-American section of West Philadelphia in Philadelphia, Pennsylvania (USA). The goal is to learn whether informal social control on a streetblock operates in a spatially graded pattern (i.e., is one portion of the streetblock more orderly than another?). Evidence suggests this is the case. Results show that factors including ecological advantage (Eck, 1994; Rengert, 1996; St. Jean, 2007), spatial arrangements of nonresidential land use, long-term residents, block segmentation (Fowler, 1992; Jacobs, 1961), and incivilities (Taylor, 1987, 2001) shape outdoor drug dealing and teen group activity patterns. The study documents observed intra-streetblock ordered segmentation for the first time.
INTRODUCTION

For several decades, the streetblock (or street segment) has been an important unit of spatial analysis for understanding residential safety patterns. Work has revealed sizable inter-streetblock differences in levels of reported crime (Groff et al., 2010; Taylor et al., 1984; Weisburd et al., 2012), reactions to crime (McCord et al., 2007; Robinson et al., 2003), physical deterioration (Taylor et al., 1995), and expectations of informal social control (Kurtz et al., 1998; Taylor, 1997). Various physical, social, and cultural factors on a streetblock have proven to be relevant, as have some features of the surrounding area (Fowler, 1987, 1992; Jacobs, 1968; Kim et al., 2013; Steenbeek et al., 2012; Weisburd, 2012; Wilkerson et al., 2012).

Important as it is to understand inter- or between-streetblock differences in crime and related activity patterns and perceptions, scholarship to date has largely overlooked intra-streetblock (i.e., within a single streetblock) spatial patterning of collective, crime-related activity patterns and perceptions. Does such a spatial gradient exist? If so, how do spatial and physical factors contribute to it? Depending on the conceptual frame one wishes to use, at issue here is documenting intra-streetblock variation in ordered segmentation (Suttles, 1968) or spatially graded intra-streetblock parochial control (Bursik and Grasmick, 1993), with an emphasis for both frames on observed behavior and collective perceptions. To the best of the authors' knowledge, this has not yet been done using a streetblock that is racially and ethnically homogeneous and located in a dangerous part of a dangerous city.

The next section outlines two closely related conceptual frames for crime-related informal social-control dynamics: ordered segmentation and parochial control. The following section describes four relevant predictors of crime discussed in the literature: ecological advantage, incivilities, land use, and residential composition.

Ordered Segmentation and Parochial Control in the Urban Residential Context

Suttles's (1968) concept of ordered segmentation describes how neighborhood residents organize smaller groups that are sorted both spatially and racially/ethnically and that share moral values. Different groupings construct different, highly localized, moral socio-spatial orders to organize street life. Without these groupings, intra-neighborhood differences would result in higher levels of local conflict. Ordered segmentation had both an ongoing aspect — “the orderly relationship between groups” — and a crisis mode — “the sequential order in which groups combine in instances of conflict and opposition” (Suttles, 1968:10). The broad consequence was “an overall pattern where age, sex, ethnic, and territorial units are fitted together like building blocks to create a larger structure” (ibid). As a result, residents generally knew whom they would encounter where and when as they moved through the neighborhood.Ordered segmentation creates only a part of a dangerous city.

The current study builds on Suttles's work in two major ways. First, Suttles's (1968:225-227) multilevel concept of ordered segmentation addressed boundaries between neighborhoods, within neighborhoods based on ethnicity, and by corner based on affiliation. Although he observed micro-level sorting of different users by ethnicity for facilities like Peanut Park (p. 55) and the local pizza parlor (p. 50), his work did not address ordered segmentation within a residential streetblock. The present work considers whether ordered segmentation can exist within a residential streetblock. Second, although the part of Chicago studied by Suttles was by no means safe at the time, his ethnography predated the dramatic increase in crime witnessed in large U.S. cities starting in the mid-to late 1960s (LaFree, 1998), the crack-cocaine invasion that started in the late 1980s, and the part of a dangerous city.

A complex ecological of crime is the city's ability to organize itself. The local organization of social control depends on physical deterioration and social factors. Suttles refers to the residents of a streetblock that is racially and ethnically homogeneous and located in a dangerous part of a dangerous city.

Relevant empirical works included in this study include those of Bursik and Grasmick (1993), who developed the concept of social order, thus managing but not resolving many potential challenges and conflicts (Suttles, 1968:227). Suttles's concept was grounded in his three-year ethnographic study of the Addams area in Chicago in the early 1960s. At that time, the area was multi-ethnic, multi-racial, and considered a slum.

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late 1980s, and the consequent emergence of large numbers of open-air drug markets in disadvantaged neighborhoods in U.S. cities (Rengert, 1996; Rengert, et al., 2005).

A complementary conceptual frame for the same dynamics but more attuned to challenges related to crime is Bursik and Grasmick’s (1993) basic systemic model of crime. Social control is a community’s ability to regulate the behaviors of residents and visitors so the community is safer and more orderly. This ability depends on social networks and resources that are shared between residents, local organizations, and larger social institutions. Bursik and Grasmick’s systemic model differentiates social control by incorporating Hunter’s (1985, 2003) tripartite model of public, private, and parochial control. Public control refers to residents’ ability to solicit resources for their communities from external agencies or constituencies (e.g., agencies in city government). Private control refers to within-community influences emerging from intimate ties between family members and/or residents sharing extremely close personal relationships. Parochial-control dynamics operate between public- and private-control dynamics in a neighborhood and emerge from relational networks among neighbors that are built on looser, secondary ties (Bursik and Grasmick, 1993:39). According to Hunter (1985:235), “As people move outside of their dwelling they are most immediately entering the physical domain of the parochial social order . . . . [B]y definition the parochial social order is necessarily based upon the physical proximity of neigh-dwellers, co-habitants of a common area sharing a common fate.” Parochial control is shaped by many setting conditions, including residential stability and racial heterogeneity (Bursik and Grasmick, 1993). The control dynamics cluster broadly around two sets of issues: (1) excluding certain individuals, groups, or activities from a location and (2) regulating activities within a location.

Within neighborhoods, parochial-control dynamics can vary by location and streetblock (Kurtz, et al., 1998; Suttles, 1968; Taylor, 1997; Taylor, et al., 1984). These localized control dynamics shape residents’ concerns about crime and incivilities (Drakulich, 2013). Earlier research suggests that in high-crime neighborhoods, where physical incivilities like vacant houses and crimes like open-air drug dealing may be quite close by, some degree of parochial control may continue in a more spatially restricted form. That is, there may be an observable, collective, intra-streetblock spatial gradient of parochial control. In Suttles’s frame, intra-streetblock variation in ordered segmentation may exist. That possibility is assessed here. Previous works have highlighted the conceptual and empirical importance of streetblock dynamics for understanding urban crime patterning (Taylor, 1997; Weisburd, et al., 2012).

Relevant Predictors

Of particular interest in the current study is one type of crime — open-air drug dealing — and one neighborhood problem — groups of unsupervised teens/young men hanging out. Both are current concerns of residents and policy makers (Lawton, et al., 2005; Taylor, et al., 2010). The microecology of the streetblock is conditioned by both streetblock and contextual factors (Taylor, 1997). Focusing on this particular type of crime and neighborhood problem helps to narrow the range of relevant features. In this section, we consider four types of features that can influence informal social control in the context of drug dealing and unsupervised adolescent groups: ecological advantage, incivilities, land use, and residential composition.

Ecological advantage

Traffic patterns create activity nodes (Brantingham and Brantingham, 1995), which, in turn, create opportunities for crime. The land-use features identified by crime-pattern theory powerfully shape both perceptions of crime (McCord, et al., 2007) and actual crime patterns (Stucky and Ottensmann, 2009). In this study, features just outside the study streetblock reveal an activity node — a high-volume artery intersecting a trolley stop and two bus stops. Earlier work suggests such a node should prove most suitable to open-air drug dealers because it creates an ecological advantage for them with nearby public-transit stops bringing in customers in volume while simultaneously legitimating dealers standing around (Eck, 1994; Rengert, et al., 2005; St. Jean, 2007).
Accordingly, these off-streetblock features of the street network should elevate the potential for open-air drug dealing at the northern end of the streetblock.

**Incivilities**

Potentially relevant here is one specific physical incivility, vacant houses, which may elevate the potential for open-air drug dealing. Although these structures simultaneously create gaps in surveillance and residents’ shared psychogeography of informal control on the streetfront (Taylor, 1988:319-322), their potential for increasing opportunities for drug dealing has been debated (St. Jean, 2007; Taylor, 1997). Focusing specifically on the link between incivilities like vacant housing and dealers’ micro-level locating decisions, St. Jean (2007:42) suggested physical incivilities like vacant housing were irrelevant: “When selecting a micro neighborhood location such as a street corner on which to conduct sales, drug dealers pay little attention to neighborhood disorder, especially physical disorder.” However, the micro-ecology of streetblocks suggests that physical incivilities, especially vacant houses, could be relevant because they can have micro-ecological impacts on the spatial behaviors of residents and other groups (Taylor, 1997, 2001:179-196). Boarded-up homes provide places on a streetfront where drug-market customers or juveniles, dealers, lookouts, or touts affiliated with the local drug market can hang out or sit on stoops unchallenged (Taylor, 1987). Further, fronts of vacant houses and vacant lots not only create uncontested resting points where anyone can sit or stand unchallenged, they also create gaps in the amount of street frontage that is potentially under resident-based surveillance (Taylor, 1988:319-320). Thus, there are fewer residents in the immediate vicinity to monitor groups of people hanging out, ask groups to leave, or call formal authorities to address the nuisance.

**Land use**

Whether open-air drug dealing appears at an activity node may further depend on specific land-use patterning and the presence or absence of specific facilities. In the same way that a vacant house creates spatial gaps in resident-based surveillance and monitoring capacities, specific non-residential land uses may also create gaps. Alternatively, these land uses may reinforce resident-based informal control.

Building on seminal suggestions from the late Jane Jacobs (1961), researchers have extensively studied the contributions of land-use variations to residents’ use of and perceived jurisdiction over public spaces on streetblocks (Appleyard, 1981; Baum, et al., 1978; Fowler, 1987, 1992; Greenberg, et al., 1982; Kurtz, et al., 1998; McPherson and Silloway, 1986; Taylor, et al., 1995). Research generally has suggested that nonresidential, commercial land uses on a block create two potentially opposing dynamics (Cozens, 2002; Cozens and Love, 2009). On the one hand, land uses like corner stores can generate increased numbers of strangers on a streetblock, which make it harder to distinguish between insiders and outsiders (Merry, 1981) and are linked to higher levels of physical deterioration (Baum, et al., 1978; Taylor, et al., 1995). The effects depend not only on the specific type of land use in question but also on which aspect of informal social control is considered (Kurtz, et al., 1998). The effects also may depend on whether there are significant ethnic differences between the commercial proprietors and the residents (Taylor, et al., 1995). Small commercial centers like a half dozen stores clustered around an intersection may be locations where residents feel less secure (Taylor, 1997).

On the other hand, under some conditions, nonresidential land uses can enhance residential functionality. Fowler's (1992:97-98, 109-113) Toronto findings showed that high-density blocks, if they were short and hosted mixed land uses, were not only perceived as being safer but actually were. These findings aligned closely with Jacobs' (1961) observations from the 1950s about Hudson Street in Greenwich Village. Fowler's findings, however, were limited to a multi-ethnic neighborhood in a large Canadian city that was relatively safe, compared to large American cities. This paper investigates whether Fowler's conclusion is supported when examining just one streetblock in a predominantly African-American neighborhood in a high-crime city.
Residential composition
Finally, residential stability can also facilitate parochial control. Bursik and Grasmick (1993) described how residential stability facilitates the development of secondary relational networks, which are important for maintaining social control because people are more likely to protect an area if they know and value the others living there. When people are constantly moving in and out of an area, such relationships are much less likely to develop. When there is residential stability in a community and residents are familiar with and value one another, residents are more likely to engage in informal surveillance and intervene when suspicious activities occur.

Sampson and Groves (1989) found residential stability significantly predicted local friendship groups (positive impact) and problematic unsupervised peer groups (negative impact). However, reanalyses of these data showed a confusing pattern of direct and indirect stability effects on crime (Veysey and Messner, 1999). Therefore, given uncertainty about the stability/crime connection and spatial scaling concerns (Taylor, 2010), the contribution of stability to local secondary relational networks, and thereby to local safety, remains an open question.

Focus
To summarize, both Suttles’s concept of ordered segmentation and Hunter’s concept of parochial social control suggest that localized social control varies spatially within a community and that these spatial variations shape urban crime patterns (Taylor, et al., 1984; Weisburd, et al., 2012). However, even the most recent work has examined only differences between streetblocks. The question of whether a collective and observable spatial gradient of informal control exists within a streetblock remains open. This study will be the first to examine this question, and we do so using a setting that is racially homogeneous and located in a high-crime urban neighborhood. Prior research suggests ecological advantage, physical incivilities, land use, and residential composition all will influence informal social control in the context of drug dealing and unsupervised adolescent groups.

SETTING AND DATA COLLECTION
Study Setting
The current study took place in the city of Philadelphia, Pennsylvania (USA). In the early 2000s, Philadelphia was among the most dangerous of U.S. cities with populations of more than one million people; in 2002, its murder rate (18.9/100,000) was second only to Chicago’s (FBI, 2003).

Our observations took place on the 800 block of North 45th Street in the Mill Creek section of West Philadelphia. The streetblock was built between 1916 and 1922 and is a southbound one-way street. The streetblock is 30 ft. (9.14 m) wide and runs from Westminster Avenue on the north to Parrish Street on the south (Figure 1).3 It is densely packed with two-story row homes on both sides of the street. The homes range from 14-17 ft. (4.26-5.18 m) wide.

Three streets (from south to north: Ogden, Hoopes, and Laird) enter North 45th from the west in T-junctions, creating four segments of roughly equal length on the west side of the streetblock (from south to north: 112 ft., 99 ft., 99 ft., and 130 ft. [34.13 m, 30.17 m, 30.17 m, and 39.62 m]).4 The row homes on the west side of the street north of Hoopes and the east side of the street south of Hoopes have porches; the rest of the houses have front stoops placed directly on the sidewalk.

Lancaster Avenue, a major arterial road in West Philadelphia, crosses Westminster Avenue at a northwest-southeast angle at the northern end of the streetblock. The Southeastern Pennsylvania Transportation Authority (SEPTA) #10 trolley and #43 bus run along Lancaster Avenue and stop...
at the three-way intersection of Westminster, Lancaster, and North 45th. SEPTA’s #64 bus, which runs along Westminster from 48th Street, also crosses Lancaster and stops at the three-way intersection.

On the southeast corner of the intersection of Westminster and North 45th is Dave’s Refrigeration. Employees sell refrigerators and do home-appliance maintenance, often placing large refrigerators outside on the sidewalk during business hours. On the southwest corner, facing Westminster, is the RCRF “storefront” church. The side of the church extends 76 ft. (23.16 m) down the west side of North 45th. The building originally housed a store on the first floor with a hall above.5 On the northwest corner of North 45th and Lancaster, immediately north of the study block, are two closed-up, vacant stores, originally a large auto repair facility. The northeast corner of the intersection is Lancaster Avenue. Going west from North 45th on Westminster, there are vacant lots and houses on the south side and a low industrial building with no windows and a metal shutter over a loading door on the north side. At the time this study began, there were several abandoned homes where Westminster meets North 46th (the next north-south artery west of and parallel to North 45th). Late in the study period, these were being demolished to make room for new housing units.

Proceeding south on North 45th from its intersection with Westminster, one encounters one more large, nonresidential land use in addition to the storefront church. Between Laird and Hoopes, there is an independent garage ("Jackson Autobody — A One Stop Center") on the east side of the street. The shop is the width of three 14 ft. (4.26 m)-wide row homes and has a large garage door that opens onto North 45th. The door is open during business hours three seasons of the year.

Figure 1 shows the locations of the vacant lots and boarded-up, vacant houses on North 45th. At the time of the study, there were five vacant lots on the west side of the street and three on the east side. There were also two vacant houses on the west side and five on the east side. Vacant houses were clustered more toward the northern end of the streetblock. Some of the vacant lots were clearly maintained or owned by adjacent residents. On the west side, the lot on the northwest corner of Ogden and North 45th was acquired from the city by the adjacent resident, who maintained it, cutting the grass and picking up litter. On the east side, a vacant lot south of the garage was fenced but filled with trash in 2003. It was cleaned out between 2003-2005 and has remained a clean lot. A deck onto the lot was attached to the adjoining house. Another vacant lot just to the south is fenced and used for parking by the residence just to its south.
There has been some redevelopment at the southern end of the streetblock. On the east side of the block at Parrish are the Jameson Court Apartments and Community Building. At the time of the study, on the west side, just below Ogden, was a vacant lot and two remaining row homes. They have since been replaced by two new townhomes.

**Redevelopment Context**

The recent renovation on the block is part of significant redevelopment in the immediate area that was taking place at the time of the study (2003-2005) and has continued since. The redevelopment is part of the Philadelphia City Planning Commission’s (PCPC) 44th and Aspen Redevelopment Plan (PCPC, 2002). At the time of the study, extensive renovation was taking place to the south and west of the study block as part of the PCPC plan. South of Parrish, low-rise public-housing communities were demolished, and the land was converted into single-unit lots. Since 2005, new two-story townhomes, in a mixture of subsidized and private housing, have been constructed there. Late in the study period, homes were being demolished on North 46th Street below Westminster. Since 2005, new townhomes have appeared on North 46th and on Hoopes and Laird west of North 45th.

**Demographic and Crime Context**

The study streetblock is located within census tract 105 in Philadelphia County. The population of the census tract dropped from 8,328 in 1960 to 3,503 in 2000, declining an average of 19.2% per decade. During that period, the percentage of the population that was African American ranged from 94-99%, the percentage of unemployed males in the labor force topped 37% in 1990. Data from the 2005-2009 American Community Survey for the census tract showed continued depopulation (3,316), continued predominance of African Americans (94.27%), and an unemployment rate for males in the workforce of 17.46% (U.S. Census Bureau, n.d.). By any standard, the locale would be considered disadvantaged relative to the broader city.

The census tract is located within the Philadelphia Police Department’s 16th District. Excluding the airport and Fairmount Park, there are 23 districts in the city. The 16th District’s 2001 violent crime rate was 2,234/100,000 people, the fifth highest in the city (unweighted median district rate = 1,420), and its property crime rate was 5,596/100,000 people, the seventh highest in the city (unweighted median district rate = 4,951). Although it was not the most dangerous police district in Philadelphia, the crime rates in the 16th District were considerably above average. Further, the study block was only two blocks away from a streetblock that, in December 2000, witnessed the worst one-day shooting total in the city’s history (Conroy and Caparella, 2001; John-Hall, 2007; Jones, 2007; Soteropulos, 2004).

**Observations and Coding**

For academic years 2003-2004 and 2004-2005, the first author resided with a relative who lived on the study block. This allowed him to become a participant observer and learn about conditions and personnel on and around the streetblock. Since the relative with whom he was staying was a long-term resident of the block, many other long-term residents were willing to speak with the author.

The author conducted brief observations in November 2003 (n = 3), late August 2004 (n = 4), and September 2004 (n = 6). He conducted all of the observations during daylight hours in the late afternoon or early evening when it was not raining. Given his schedule, it was not possible to randomly sample specific days or days of the week. Thus, the observation schedule reflects an opportunity sample of observation times.

To conduct the observations, the first author stationed himself on the front stoop of his relative’s house, which was located on the west side of North 45th Street, roughly midway between West-
minster Avenue and Parrish Street. From this vantage point, it was relatively easy to see what was happening up and down the length of the street. With a clipboard and watch, he noted what people did, where they went, and when. Since the relative with whom the first author resided was well known on the streetblock, other long-term residents sometimes would engage in conversation with the first author. The observations lasted 15 or 30 minutes. The first three observations took place on weekend evenings, while the others took place on weekday evenings. The average start time was 6:23 p.m. (earliest = 4:30 p.m.; latest = 8:50 p.m.), and the average ending time was 6:43 p.m. (earliest = 5:00 p.m.; latest = 9:20 p.m.).

Immediately upon concluding each observation session, the first author typed up his field notes, recalling as much detail as possible about the events and conversations he observed. He added points of emphasis in italics to separate observer reactions from content.

The first author coded the people he observed during a session into three categories based on age: preteens, teens, and adults. He also coded the people into three groups based on activity, given the theoretical questions of interest. Repair-shop employees and individuals seen conversing with them in the course of dropping off or picking up vehicles were coded into the “shop-related” category. Those who simply traversed all or a segment of the block during the observation on either foot or bicycle were labeled as “passers-through.” Those who entered or exited a house or were stationed in front of an occupied house (e.g., sitting on a porch) to which the first author knew they belonged were labeled as “house-related.”

Those who were out on the block during an observation but not transiting the block, working at the garage, talking with shop employees, or entering or exiting a residence on the block were counted but not classified into one of the three categories (passers-through, house-related, and shop-related). In a typical observation (median and average), these people comprised about 22% of the pedestrians observed. Although this percentage may seem high, recall that the number of vacant houses and lots on the streetblock afforded several places for pedestrians to sit or stand undisturbed and not interact with residents during an observation. Passers-through who may have been crack addicts—who were stumbling, seemed disoriented, or were asking where they could get rock (crack cocaine)—were noted in the first authors’ field notes.

Vehicular activity was recorded in the first author’s field notes if the vehicle stopped en route through the streetblock, started up from the streetblock, or was a city-agency vehicle on the streetblock for a business reason, like a police cruiser responding to a call.

RESULTS

The study results are presented below. First, we look at the distributions of violent crimes and drug arrests that we mapped for the study area. Second, we describe the pattern of overall pedestrian counts to provide a rough sense of the volumes and types of persons observed on the streetblock. Third, based on field notes, we examine the three broad activity spheres on the block and one activity area off the block that the first author observed. Finally, also relying on field notes, we describe the immediate social geography and spatially graded social dynamics for the part of the streetblock closest to the first author’s observation location.

Crime on and around the Streetblock

First, we mapped the violent-crime and drug-arrest counts for the calendar year preceding the first author’s arrival to census blocks for the area around and including the study streetblock.10 (The City of Philadelphia did not start making geocoded point data publicly available until 2006, well after the study concluded.) Figures 2-3 depict the counts of drug crimes (arrests) and violent crimes respectively in census tract 105 from August 31, 2002, to August 31, 2003. These figures are...
necessarily somewhat imprecise because they were aggregated to census blocks rather than streetblocks.

The crime maps suggest that the southern half to two-thirds of the study streetblock experienced fewer drug and violent crimes than did locations at the northern end of the streetblock and to the west of it. There were no violent crimes south of Laird and no drug crimes south of Hoopes. For both types of crime for the census blocks in question, it is not known which crimes took place away from the study streetblock (for example, along Westminster, Laird, or North 46th) versus on the study streetblock itself. (The houses on the census blocks just south of Parrish were demolished during the study period.)

In short, portions of the study block, particularly its southern half on the west side and all of it on the east side, did appear to be somewhat more free of crime than the surrounding regions to the north and west. We will comment below on the higher violent-crime and drug-arrest counts between Hoopes and Westminster along North 46th.

Overall Behavioral Profile

The study block was active during the observed late afternoons and early evenings. A typical (median) observation suggested 52 people on or moving through the streetblock per hour (25th/75th percentiles: 40/68) (see Table 1).

The first author observed a complex mix of people. The most frequent activity category was house-related, but both passers-through and shop-related individuals were also a significant presence. A typical (median) observation included, per hour, about eight passers-through, 20 house-related individuals, four shop employees, and two shop customers. Thus, although there appeared to be a steady flow of passers-through (median percentage = 15% of those observed), they were usually outnumbered by house-related individuals (median percentage = 50% of those observed). In a typical observation, the percentage of house-related individuals was greater than the percentage of passers-through by about 30-35%, and in only two of the 13 observations was the percentage of house-related individuals smaller than the percentage of passers-through. At the times of day observed, on-block locals or those behaviorally linked to

FIGURE 2. Drug-crime counts for census tract 105. The rectangle outlines the study block, 848-899 North 45th Street.

FIGURE 3. Violent-crime counts for census tract 105. The rectangle outlines the study block, 848-899 North 45th Street.
TABLE 1. Descriptive statistics for pedestrian counts on the study streetblock.

<table>
<thead>
<tr>
<th>Pedestrian counts (n/hour)</th>
<th>Mean</th>
<th>Median</th>
<th>SD</th>
<th>25th percentile</th>
<th>75th percentile</th>
<th>Min.</th>
<th>Max.</th>
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<tbody>
<tr>
<td>Not including passers-through</td>
<td>4.46</td>
<td>4.00</td>
<td>13.91</td>
<td>4.00</td>
<td>5.00</td>
<td>2.00</td>
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<td>Including passers-through</td>
<td>5.85</td>
<td>5.00</td>
<td>15.33</td>
<td>4.00</td>
<td>6.00</td>
<td>2.00</td>
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<td>By activity category:</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>House-related</td>
<td>18.46</td>
<td>20.00</td>
<td>14.95</td>
<td>6.00</td>
<td>24.00</td>
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<td>Passers-through</td>
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<td>8.00</td>
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<td>4.00</td>
<td>8.00</td>
<td>.00</td>
<td>20.00</td>
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<td>Shop employees</td>
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<td>Shop customers</td>
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<td>2.00</td>
<td>3.33</td>
<td>.00</td>
<td>4.00</td>
<td>.00</td>
<td>8.00</td>
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<tr>
<td>Shop total (employees + customers)</td>
<td>7.23</td>
<td>8.00</td>
<td>4.94</td>
<td>4.00</td>
<td>12.00</td>
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<td>Percentages of total:</td>
<td></td>
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<td></td>
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<tr>
<td>House-related</td>
<td>46.66</td>
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<td>21.19</td>
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<td>Shop-related</td>
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</tbody>
</table>

Note. Study streetblock was North 45th Street, Philadelphia, Pennsylvania, between Parrish Street and Westminster Avenue. Statistics based on 13 30-minute (3) or 15-minute (10) observations of the study streetblock between November 2003 and September 2004. The original counts were multiplied to produce hourly rates. House-related pedestrians began their journey by exiting a house on the streetblock or ended their journey by entering a house on the streetblock. Passers-through traversed one or more segments of the streetblock, suggesting that their trip started and ended beyond the study streetblock. Shop employees were those obviously working at the shop. Shop customers were those conversing with the shop employees or exiting or entering the shop. Percentages of the house-related, shop-related, and passers-through categories do not add up to 100 because individuals who were on the block but not traversing it or entering or exiting a house were not classified (median and average: 22%).

such locals were also a significant presence, typically outnumbering transiting pedestrians. Also notable, although usually a smaller percentage, were individuals doing business with or working at the garage (shop-related).

Turning to the ages of those observed, although they were absent during three late-night observations, preteens were generally visible on the block. In a typical observation, the author saw four in one hour, and in half of the observations, the number ranged from two to 16. Preteen play activity often took place on the sidewalk on the west side of North 45th between Hoopes and Laird.

**Activity Spheres**

**Off-streetblock open-air drug activity**

The first activity sphere considered is open-air drug activity and the groups of individuals related to it. Dealing took place along Westminster Avenue toward 46th Street and at the northern end of 46th Street. The first author had ample opportunities to observe these activities while traveling to and from the streetblock. While the idea of ecological advantage and previous work suggest that the open-air market activity would be located at the three-way intersection of Westminster, North 45th, and Lancaster, the intersection of North 46th and Westminster, where the first author observed the open-air dealing while driving and walking in the area, was over 200 ft. (60.96 m) away from the most ecologically advantageous spot. The sites of the observed open-air drug markets aligned spatially with the police drug-arrest data (Figure 2).

Moving from off-streetblock to on-streetblock behavioral dynamics, one feature the first author repeatedly observed was a group of young men standing at the northern end of the study block. He saw the group both during observation periods and when he was moving along the block at other times:

*Three black males in their late teens to early 20s stand and talk on the northern block between Westminster Ave. and Laird Street (8/26/04). These young men are usually encountered in this general vicinity during various times of the day. Two of the three were encountered in the previous observation.*
From various interaction patterns and their relatively constant presence, it appeared that the men in this group, whose main activity was talking and standing around, were linked to the dealers located further west on Westminster. The exact relationship, however, was unclear. It was not clear, for example, if the men were touts or lookouts, played some other role in relation to the dealing activities, or were just acquainted with the dealers. Regardless, it was clear that this group of young men was seen as problematic by residents at the northern end of the block.

Leo [a long-term resident of the block] walks over to my location ... as he begins a conversation with me an older woman in her 60s walks south toward us on 45th. As she passes, Leo asks, “How’s everything down there?” referring to the northern end of 45th near Laird. I had not seen the lady before but she was an obvious resident based on her conversation with Leo. The lady responds “Not good. They’re out there all day and night. I can hear them out there making noise all night” (9/27/04).

What can explain the consistent presence of this group in this location? It may have been related to ecological advantage (i.e., the nearby transit stops and associated foot traffic) (St. Jean, 2007), but a strong case also can be made that their location took advantage of the spatial patterning of vacant houses, vacant lots, and the associated gaps in resident-based surveillance at the northern end of the streetblock. North of Laird, there were five vacant houses and one vacant lot, which left very few occupied households (three on the west side and five on the east side) in the short segment between Laird and Westminster. Further weakening residents’ ability to place manage this portion of the streetblock was the storefront church, which took up more than half of the west side of the block between Laird and Westminster. The first author saw activity there only on Sunday and one other weekday, leaving it unoccupied most of the time and creating a 75 ft. (22.86 m) gap in resident-based surveillance on that side of the street. This was a place where the group of young men could hang out and be rowdy because surveillance by nearby residents was spread thin. The sparseness of residential coverage and residents’ subsequent frustration is reflected in the statement by the woman conversing with Leo in the 9/27/04 quote noted above. That conversation continued:

Leo’s response was “You should call the police.” The other woman replied, “I do. They don’t do anything unless at least two people call” (9/27/04).

Not only did the vacant houses create gaps in residents’ surveillance base, but the stoops of the vacant houses also provided places where small groups of teens or young adults could sit and not be told to move on.

Of course, the behavioral implications of incivilities like vacant housing cannot be cleanly separated from ideas concerning ecological advantage (St. Jean, 2007:53). There is some conceptual overlap. Nevertheless, the pertinent point here is that, at the micro-level, some incivilities, such as vacant housing, and the positioning of a particular type of sparsely used nonresidential land use had geographical impacts on the spatial behavior of unsupervised groups.

Mid-streetblock: Safe play
The fine-grained spatial texture of the streetblock’s behavioral profile also was reflected in the juxtaposition of a safe play area right across the street from where the group of young men gathered. Whereas the first author routinely saw the young men hanging out on 45th Street north of Laird, on the west side of the streetblock south of Laird, he observed small children playing on the sidewalk on multiple occasions. This section of the streetblock was directly opposite the activity generated by the auto repair shop. Observed children’s activities included riding a scooter along this block segment and jumping rope. Several preteens appeared to live on this segment of the streetblock. For example, one child was seen exiting one house and knocking at another, asking for a child to come out and play. The preteens’ play was not supervised by adults outside, as far as the first author could determine. Thus, he assumed parents viewed this as a safe location, despite its proximity to the group of young men hanging out on the next segment just north of it.
Mid-streetblock: Auto repair shop employees and customers

The auto repair shop generated considerable activity in the center of the block segment. The contribution of its employees and customers to the overall block profile was noted above. The shop appeared to be open until approximately 9 p.m. on weekdays and some weekend days. Customers pulled their cars in and entered the shop to talk with employees. Employees also came out to look at arriving customers' vehicles or to talk with customers picking up their vehicles. Shop employees sometimes worked on vehicles while they were parked on the street. Occasionally, shop employees would emerge from the shop for a cell-phone conversation on the street or to smoke. Because the shop had customers' cars parked on the street, employees would sometimes scan the street.

Two men talk in front of the body shop. Both in their 30s-40s, one appears to work at the shop because of his oil-stained T-shirt and pants. The other person sits on the hood of a car in front of the shop as they talk. The body shop employee receives a call on his cell, and paces in front of the shop as he talks (8/24/04).

Two cars were parked on the sidewalk in front of the open shop. A worker walks out for 30 seconds, stands, looks up and down the block, and walks back into the shop ... about one minute later, a car stops in the street in front of the shop, and a woman in her 20s gets out on the passenger side and walks into the shop. The woman and shop employee walk out together and speak for another minute. She gets into [another] car parked on the sidewalk in front of the shop and pulls away from the shop (8/26/04).

A truck driven by a black male pulls to the front of the shop and stops in the street. After 20 seconds a shop employee walks out and speaks with the driver. After a one-minute conversation the truck drives off and the shop employee walks back to the front of the shop, stops, and looks up and down the block (9/6/04).

It is unknown whether shop employees or customers would intervene in a situation where someone was being personally threatened, as the first author did not observe any such scenarios. However, at the very least, the shop generated "eyes on the street" (Jacobs, 1968) in the midsection of the streetblock at seemingly regular intervals, and this activity continued until late into the evening. The shop also generated vehicular traffic, of course.

Social Geography

Factors facilitating parochial control on the southernmost segment of the streetblock included fewer vacant houses (compared to the northern segment) and, perhaps more importantly, a cohesive core of long-term residents living within this segment. The relative with whom the first author was staying, who owned a house on the block; Leo, the long-term resident mentioned above; and another relative of the first author, who lived around the corner, all grew up in the neighborhood and went to the same elementary school. Another resident of the block, Joe, also grew up with members of the first author's family. At the time of the observations, Joe resided in the southernmost section of the streetblock. There were also other long-term residents living in this section of the streetblock (pseudonyms: Kramer, Church Lady). The first author’s field notes documented aspects of these ties, including residents asking after one another, getting updates on health matters, and in one instance, visiting a group member in the hospital.

Long-term residents in this cohesive group saw a marked discrepancy between the condition of the locale when they were growing up and its current condition. In one conversation with the relative of the first author who lived around the corner and was also a long-term resident, the relative explained:

He said he could remember a time when if he tried to play hooky from school he didn’t have to be worried about his mom catching him, he had to worry about the neighbors seeing him ... he went into the fact that he hates seeing young black males standing on the corners...
doing nothing with their lives ... he wants to say something to them, but realizes the kids of today are nothing like they were when he was growing up. Kids today will “cuss you out, and then go get their parents to do the same.” He said it would be best just to “mind your own business” and to not get into fights about it (11/23/03).

The marked discrepancy observed by the long-term residents between current and past conditions in the neighborhood perhaps deepened their sense of solidarity. These comments also reflected residents’ uneasy accommodation of other groups nearby, part of a partial social order with many potential challenges and conflicts (Suttles, 1968:227).

These long-term residents kept an eye on things. It was not unusual for a long-term resident to stick his head out the door and scan the block. Leo was the most actively engaged resident in terms of local surveillance. He maintained a vacant lot close to his home. He often worked outside on his car or other projects, and when he was outside, he would help other elderly residents going from the car to the house or vice versa. He also kept an eye on things when he was working outside:

Leo is fixing his car in front of his home. He stops every few minutes to look up and down the block, rolling out from beneath the car on a dolly at least three to four times (8/25/04).

Leo walks over to my location in a blue one piece workman’s uniform. He was tooling around with pieces of wood in front of his house (9/27/04).

While it appeared that several householders contributed to place management in the southern half of the streetblock, Leo probably came closest to functioning as a place manager (Felson, 1995). He actively maintained a vacant lot, spent considerable time out on the block, scanned the block when he was outside, and could discriminate regulars who lived on the block or nearby blocks from others. In sum, at the southern end of the streetblock, there were several long-term residents who knew one another and looked out for one another and one who not only took over a vacant lot but also acted as a place manager.

**Spatially Delimited Parochial Control on the Block**

As indicated by the conversation between Leo and the resident from the northern end of the streetblock, rowdy behavior often took place at the northern end and was associated with the teen/young male group frequently observed there. In contrast, at the southern end of the streetblock, residents sought to better control both rowdy behavior and drug dealing. This is seen in behavioral responses to two addicts, observations, and a story about a dealer who lived on the southern end of the streetblock.

Toward the southern end of the streetblock, drug addicts or customers were at least monitored and sometimes directed elsewhere, although they did not always comply with directions:

A girl in her 20s saunters down the middle of 45th Street toward Parrish. She appeared to be strung out on drugs, her hair was disheveled and her clothes were dirty. As she’s walking she’s fumbling with articles in a plastic bag and mumbling. She sits down on the steps of an occupied home [between Ogden and Hoopes, west side]. Leo interrupts his conversation with Joe and tells the girl, “Hey, you can’t sit there.” The girl groans but does not move. Leo continues his conversation, keeping a watchful eye on the girl ... After five minutes a police car rambles south on 45th from Westminster and stops in front of the drug addict girl. The black male officer does not say a word. Upon seeing the police car the girl mumbles something, gathers her belongings, and walks north. The police car circles the block (8/24/04). [It later turned out that someone on the streetblock had called the police about the addict.]

A man in his 50s in extremely dirty clothes walks toward my location from the north. His shirt and pants were both covered in dirt, and he stumbled as he walked. He mumbles something while staring at me. He stands there for another 30 seconds ... then moves a step closer to me.
and mumbles, "I need a fat rock" using his thumb and forefinger to show the size desired. Leo responds, "Go down the street for that stuff ... Cause there ain't none here" (8/25/04).

In both of these examples, Leo was seeking to discourage addicts from spending time, other than the minimum needed for passing through, in the southern half of the streetblock. In the second instance, he clearly differentiated the observation location from the markets located "down the street." This language assumes and seeks to maintain the intra-streetblock ordered segmentation.

One dealer, however, did live on the southern half of the streetblock. Whether he owned or rented his home was not known. One day, the dealer was seen leaving his house with someone, and Leo explained to the first author, who was observing at the time:

*He sells that crack rock. Stupid a** used to sell it in front of his own house ... Told him not to do that **** around here. I'm not used to that stuff (8/26/04).*

Leo said that though he no longer smokes crack as he did when he was younger ("with my cop and bar owner buddies"), he does not judge crack users. The first author never saw the dealer dealing at any of the nearby locations, but on more than one occasion, the author overheard drug-business discussions (not sales) between the dealer and employees taking place in front of the dealer's house. The account provided by Leo suggested that the dealer had formerly dealt there but was persuaded to locate operations elsewhere.

Although few, these instances indicate how the residents sought to prevent drug dealing and customers in this portion of the streetblock. Addicts seeking crack were monitored if they delayed in the locale or were told clearly that drugs were not available there. Residents of the southern end of the streetblock exercised vigilance over that zone, as evidenced in the watchful behavior of Leo and other residents. Although the first author did not observe direct instances of addicts or dealers being responsive to residents' warnings, the spatial patterning of the violent-crime and drug-arrest data seems to suggest that residents of this portion of the block did maintain stronger parochial control in their immediate environs. It appears that the combination of several long-term residents, long-term social ties among some of the residents, one relatively active place manager, and fewer vacant houses contributed to this partially constructed social order.

**DISCUSSION**

The present investigation considered whether intra-streetblock spatial variation in the type of partial social order described by Suttles's (1968) concept of ordered segmentation could be documented on a streetblock in a relatively dangerous neighborhood in one of the most violent large cities in the U.S. Stating the same question using Bursik and Grasmick's systemic model of crime: can a collective, behaviorally observed intra-streetblock spatial gradient of parochial control be observed in this context? Work to date has documented *inter-streetblock* variations in crime-related parochial control and *intra-streetblock* variations in reactions to crime but has not documented a behavioral intra-streetblock spatial gradient in a racially homogeneous and generally dangerous context.

Parochial control did appear to be spatially graded within the study streetblock, based on both the crime data and the open-ended observations. A group of young/teen males, apparently acquainted with open-air drug dealers off the block, was frequently observed on the northern end of the streetblock and repeatedly disturbed residents at that end with their late-night rowdiness. Several factors may have contributed to the lack of parochial control on the northern end of the block, including the large number of vacant houses at that end of the block; the consequent small number of residents available to call for assistance; the blank side of a mostly unused, nonresidential land use, which created a gap in the residents' surveillance base; and an activity node immediately adjacent off the block. In the middle and on the southern end of the block, actions relevant to...
parochial control were more visible and perhaps effective. Parochial-control contributions came from vigilant employees working at the garage located in the middle of the block, residents who routinely checked on the streetblock, and one resident who played an active role as place manager. In this portion of the streetblock, there were also fewer vacant houses and a cohesive core of several long-term residents who had grown up together.

These spatial gradations along the streetblock suggest it may be wise to think about parochial-control dynamics in the systemic model of crime in a more spatially differentiated manner (Bursik and Grasmick, 1993). In a more sociological vein, the partial social order created through ordered segmentation at the between- and within-neighborhood levels, as described by Suttles (1968), may be spatially segmented within the streetblock as well.

Different nonresidential land uses contributed in varying ways to the block’s behavioral profile. The mostly unused storefront church at the northern end of the block may have facilitated the teen/young male group that regularly hung out there. By contrast, the auto repair shop in the middle of the block not only generated vehicular traffic but also contributed noticeably to the presence of “legitimate” pedestrians on the block. Further, employees came out to meet customers, do quick adjustments to vehicles, conduct cell-phone conversations, or quickly scan the block to protect customers’ cars parked on the street. Although these employees were only functioning outside the shop as guardians of customers’ cars and not as place managers, they contributed consistently to a steady and watchful level of activity on that portion of the block.

An analysis of current results along the lines of St. Jean’s (2007) model might argue that collective efficacy was low and incivilities were high at the northern end of the block and that the reverse held at the southern end of the block. However, this analysis is too simplified. It overlooks several features that are specific to the scale of a streetblock analysis, rather than broadly sociological. The contribution of active commercial land use in the middle of the block, as described above, is one example. Further, following Jacobs’s (1961) and Fowler’s (1992) thinking, nonresidential land uses enhance safety the most when they are located on short streetblocks. In this instance, because the street was segmented into four units on the west side, these short segments permitted small children to play on the west side of the block between Hoopes and Laird, separated from the group of young males hanging out just across the street on the north side of Laird. Further, the segmentation made the southern half of the streetblock, bounded on the north by Hoopes and the vacant lot across, somewhat more manageable as an arena to take in and understand, especially given the narrowness of the street network. Jacobs (1961) suggested and Fowler (1992:97) empirically confirmed that such a combination of short streetblocks and mixed residential/nonresidential use is crucial for neighborhood safety. The results here extend Fowler’s (1992) finding based on ethnically diverse neighborhoods to a predominantly African-American neighborhood with higher crime.

Turning to a consideration of the off-streetblock open-air drug-market activity, the first author noted that it did not take place close to the intersecting bus and trolley routes at North 45th and Lancaster, which would have been the most ecologically advantageous location. Rather, the activity took place about 200 ft. (60.96 m) further west. Many additional factors may have contributed to the market’s location. Regardless, the important point is that ecological advantage, a key part of the dealing-location models of St. Jean (2007) and others (e.g., Eck, 1995), may have impacts that can be spatially displaced due to other factors, perhaps including the chance of police apprehension.

Of course, the current work has numerous limitations, including all of those typically associated with case studies. The first author observed only one streetblock, usually at about the same time of day (late afternoon into early/mid-evening), just a few times during only a few months of the year. Variations in pedestrian activity related to the season, time of day, and day of the week were likely and were not modeled. Second, it was simply not possible to conduct inter-rater reliability checks on the behavioral counts. The first author’s sitting outside and watching was accepted by members of the block because he was a relative of and staying with a long-term block resident who
was also a lifelong member of the neighborhood. An additional observer, especially an outsider, would not have been so accepted. Because this is a multi-method study and relies heavily on this qualitative component, including the “insider” status of the first author in this setting, it is not possible to envision an examination of comparable depth on a number of different streetblocks.

The following points may partially offset these limitations. The observer’s insider status facilitated decoding events on and around the streetblock and increased the willingness of other residents to converse with him. In addition, observations were made at the same time of day and during roughly the same time of year (from late summer into mid-fall). Further, the crime data did indeed correspond spatially with the observations. This was a multi-method study in which the patterns of results from different types of indicators aligned spatially.

In sum, the current work has documented, we believe for the first time in a racially homogeneous and high-crime context, observed intra-streetblock spatial variation in parochial social control relative to open-air drug dealing and groups of rowdy young males. Using Suttles’s conceptual frame, ordered segmentation at the intra-streetblock level has been observed. Nonresidential land-use patterning, physical incivilities, and residential composition all made micro-level contributions to the observed spatial gradient.

NOTES

1. The incivilities thesis — its evolution; the quality and nature of its empirical support; and its justice, policing, and community implications — is extremely complex and beyond the scope of this paper. See Harcourt (2001), Harcourt and Ludwig (2006), Kelling and Coles (1996), and Taylor (2001) for more in-depth discussion.

2. In the drug market, a tout is a person who introduces buyers to sellers.

3. This section of the 800 block contains address numbers 845-899. Address numbers 800-844 are located south of Parrish Street and were not included in this study.

4. Length details are from “Plate 5 – Part of 24th and 44th Wards” in Bromley and Bromley (1927).

5. Details regarding the original construction are from Sanborn Map Company (1983).

6. Census-tract boundaries did not change during this period.

7. See Lawton, et al. (2005) for more details on how these data were sourced and geocoded.

8. The November 2003 observations lasted 30 minutes. After that, in order to ensure accuracy, the observations were reduced to 15 minutes given the volume of people and activities witnessed.

9. We chose not to use the terms “insiders” and “outsiders” for observed pedestrians because such terms make potentially unwarranted social assumptions. “Passers-through” and “house-related” make no such assumptions.

10. Given the rapid depopulation and demolition taking place in the area, as well as outdated and potentially misleading census population figures, crime counts seemed preferable to estimated rates.

11. In the sections that follow, quotes from the first author’s field notes have been italicized.

REFERENCES


outsider, y on this it is not blocks.


Robinson

Sampson

Sanborn N

Soteropol S

St. Jean P

Steenbeek

Stucky TI

Suttles GI

Taylor RI

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