



# SUBJECTIVE CONSTRUCTIONS OF NEIGHBORHOOD BOUNDARIES: LESSONS FROM A QUALITATIVE STUDY OF FOUR NEIGHBORHOODS

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**ABSTRACT:** *This article explores the boundaries of neighborhoods as subjectively constructed by 37 adolescents and 33 parents across four census-defined block groups in a Western city. We examine the degree of consensus among participants on the spatial boundaries of their neighborhoods, the stability of participants' subjectively constructed neighborhood definitions, and the overlap between subjectively constructed definitions and census block group and tract definitions. Through an analysis of qualitative interviews, we isolate four factors that appear to influence how participants define their neighborhood boundaries: physical and institutional characteristics of the neighborhood, its class, race, and ethnic composition, perceived criminal threats from within and outside the neighborhood, and symbolic neighborhood identities. These factors can operate to facilitate or compromise consensus and stability about neighborhood boundaries and identity. The study findings are exploratory but suggest several avenues for further investigation into how parents and adolescents construct neighborhood boundaries and the possible influences that subjective neighborhood definitions have on families.*

**N**eighborhood has long been recognized as a defining social context of American life (e.g., Coleman, 1988; Massey & Denton, 1993; Park, 1936; Sampson & Morenoff, 1997; Sampson, Morenoff, & Earls, 1999; Suttles, 1972; Wilson, 1987). Chaskin (1997) refers to the intuitive appeal of the neighborhood construct, suggesting the term's power comes from "its nuanced

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complexity as a vernacular term” (p. 524) more than from its precise scientific meaning. Indeed, despite a long tradition of neighborhood research, scholars continue to disagree about how to define neighborhood (Bursik & Grasmick, 1993; Gephart, 1997; Hallman, 1984; Keller, 1968; Lee & Campbell, 1997). Arguments range from what the appropriate physical borders of a given neighborhood are to whether place-based definitions of neighborhood still matter in the modern information age. Some network analytic approaches refute the a priori importance of place in favor of person-centered models of interpersonal ties, some of which may be geographically bound and others not (Elliott & Sims, 2001; Fischer, 1982; Wellman & Leighton, 1979; White & Guest, 2003).

Still, the hypothesis that place matters continues to attract considerable scholarly attention. The “neighborhood effects” literature, for example, posits that physically bounded spatial units independently affect a range of outcomes from teen pregnancy and school drop-out, to employment, marriage, parenting, and perceptions of social disorder and crime (e.g., Brooks-Gunn, Duncan, Klebanov, & Sealand, 1993; Crane, 1991; Furstenberg, Cook, Eccles, Elder, & Sameroff, 1999; Hipp, 2007; Hogan & Kitagawa, 1985; Sampson, Morenoff, & Gannon-Rowley, 2002; Wilson, 1987, 1996). Furthermore, research links neighborhood characteristics to various health outcomes from regular preventive care to mortality (Cummins, Curtis, Diez-Roux, & Macintyre, 2007; Kirby & Kaneda, 2005; Roos, Magoon, Gupta, Chateau, & Veugelers, 2004). From such a perspective, a neighborhood is not good or bad for family functioning and child development solely because of the individual characteristics of its residents, but also because the structural characteristics of the neighborhood, its institutions, and the social and cultural forces operating within it independently promote or undermine positive developmental outcomes of residents.<sup>1</sup>

Among the many challenges of studying neighborhood effects is determining where the boundaries of a neighborhood should be drawn in the first place. For example, a researcher’s characterization of the social, organizational, and cultural capacity of a neighborhood, its level of disorganization, or its cohesiveness, depends on where the neighborhood’s boundaries are drawn a priori. If these initial boundaries miss the mark, the study findings may be misleading. For example, if census tracts are chosen to proxy neighborhood boundaries, but the concept under study is sensitive to relatively proximate influences such as those operating at the block level, true neighborhood effects will get masked when analyzed at the census tract level. In his recent *American Sociological Review* article, Hipp (2007) convincingly demonstrates the sensitivity of neighborhood effects research to boundary definition by providing empirical evidence that neighborhood characteristics differ in their effects on perceptions of crime and disorder depending on whether they are measured at the tract or block level. Echoing concerns identified in previous work (e.g., Openshaw & Taylor, 1979, 1981; Armhein, 1995), Hipp argues that selecting a geographic unit of analysis that is appropriate for the particular phenomenon under investigation is critical to accurately identifying neighborhood effects. Despite its importance, however, he points to a relative dearth of attention paid by researchers to questions of “appropriate aggregation” (662).

Further complicating neighborhood boundary placement is its sensitivity to resident interpretation. Coulton, Korbin, Chan, and Su (2001) suggest that the effect a neighborhood has on individuals partially depends on residents’ subjective definitions of neighborhood boundaries, such that “variation among residents in how they see their neighborhoods may, in part, be responsible for the weak neighborhood effects found in many studies” (p. 382). Building on Coulton and her colleagues’ research emphasizing resident-defined neighborhood boundaries, this article examines the subjective representations of neighborhood boundaries in a sample of residents from four neighborhoods chosen for their variation in social disadvantage and adolescent developmental outcomes.

The intent of the current analysis is to consider a set of questions about neighborhood boundary definition that may have implications for the conduct of neighborhood research and the interpretation of findings from neighborhood studies. Our intent is not to evaluate neighborhood effects, but

rather to elaborate our understanding of neighborhood boundary definition: How much consensus is there across residents' subjective boundary definitions (i.e., their "cognitive neighborhood maps")? How similar are cognitive neighborhood maps to administratively defined boundaries such as census tracts or block groups? And over the course of an interview, how stable are residents' subjective definitions of neighborhood boundaries? After examining these questions, we explore four factors that we find influence participants' subjective neighborhood boundaries: physical and institutional; characteristics; race, ethnic and class composition of the neighborhood; proximate criminal threats; and symbolic neighborhood identities. These factors emerged from the interviews as critical to informing subjective neighborhood definitions, and their importance is also indicated in previous research on neighborhood definition (e.g., Haeberle, 1988).

Before addressing the key research questions, we review the literature on neighborhood meaning and measurement, and introduce our study design and methods. The results are presented in two sections. First, we examine neighborhood boundaries constructed by respondents, and compare these with the most commonly used administrative boundaries, the block group, and the census tract. We then present qualitative interview data to elucidate the factors that we found to most influence neighborhood boundary selection and definition. Finally, we provide an extended discussion of the findings and implications for neighborhood effects research generally.

## **BACKGROUND**

### **Physical, Social, and Psychological Dimensions of Neighborhood**

Echoing neighborhood scholars' calls for greater definitional precision (Chaskin, 1997; Gephart, 1997), Elliott et al. (2006) suggest three critical dimensions of neighborhood: a neighborhood is (1) a small residential area physically located within a broader community, (2) that allows for direct resident interaction encouraging the formation of a neighborhood "social life," and (3) that has its own psychological identity to residents and outsiders based on the sociopolitical history of its development. Similarly, Gephart (1997) highlights the physical, social, and psychological import of neighborhoods, as "spatial units, associational networks, and perceived environments" (p. 9).

These conceptualizations suggest the potential for multiple and intersecting neighborhood boundaries in a given physical space. Neighborhood boundaries may be defined by physical landmarks and features of a neighborhood, the spatial reach of residents' social interactions, or rather subjectively—through an examination of residents' "cognitive maps" of the physical contours of their neighborhoods (Coulton, Korbin, & Su, 1996; Downs & Stea, 1973). Furthermore, residents' social interaction patterns within a geographic area may not parallel those of their neighbors, as they may socialize with different neighbors, use a diverse set of neighborhood resources, and rely on different modes of transportation to move around the neighborhood. Similarly, resident consensus about neighborhood definition will depend on the degree to which physical and social dimensions of neighborhoods are shared; or whether, instead, person-centered networks reduce the collective relevance of physical, social, and symbolic features of the local environment (Chaskin, 1997). The nature of phenomenological constructions of neighborhood, then, are not a given, but an object for investigation (Buttimer, 1980; Hunter, 1974; Tuan, 1977).

### **Subjective Definitions of Neighborhood**

The question of subjective neighborhood definition has a rich history in neighborhood and community studies (Anderson, 1990; Gould & White, 1974; Guest & Lee, 1984; Hunter, 1974; Keller, 1968; Lee & Campbell, 1997). In defining their neighborhoods, residents may use demographic data (e.g., age, race, income), physical features of the area (e.g., natural and created

elements of the area, including streets, rivers, landmarks), and also draw on symbolic notions of neighborhood that “imply a more long-lasting perception of social arrangements dependent on location” (Haerberle, 1988, p. 618).

Because residents of a particular geographic space do not necessarily use the same physical, social, and symbolic referents to define their neighborhoods, subjective definitions of neighborhood may be quite divergent (Lee & Campbell, 1997). The amount of consensus across residents has been found to vary by characteristics of the neighborhood itself, with dissensus being the greatest in neighborhoods where residents feel the least community attachment (Korbin & Coulton, 1994).

Furthermore, subjective neighborhood definitions are flexible, and resident definitions may shift by context and function, and may vary with how survey questions are worded (Elliott et al., 2006; Galster, 1992; Korbin & Coulton, 1994). Institutional referents become important to residents when defining larger local areas of importance (which may or may not be considered one’s “neighborhood”), but these referents are rarely used to demarcate smaller neighborhood boundaries (Guest & Lee, 1984). According to this “hierarchical conception of locality structure” (Guest & Lee, 1984, p. 35), there may be significant resident consensus about the boundaries of a larger local area, but dissensus and overall ambiguity about the boundaries of the smaller neighborhood unit precisely because these smaller areas lack defining institutional features shared by the collective.

### Measuring Neighborhood Boundaries

Despite historical attention to subjective understandings of neighborhood, most contemporary neighborhood effects research uses geographic units available through administrative data (usually census tracts, but also zip codes, census block groups, groups of census tracts, and areas defined by city planners) to locate the boundaries of a neighborhood. Few studies give much theoretical consideration to the proper level of aggregation, despite concerns raised by scholars such as Openshaw and Taylor (1979, 1981) regarding the modifiable areal unit problem; for example, whether a tract, a zip code, a block group, or so forth is most appropriate for analyzing the phenomenon under study. As Hipp (2007) explains, “the definition of neighborhood frequently remains buried in the methodological details” of a study with limited attention to “whether this particular geographic unit is actually appropriate for the outcome of interest or the structural predictors being used” (p. 660).

Reliance on census tracts, in particular, to define neighborhood boundaries is quite common despite the recognition that census units may have limited theoretical relevance for the concepts being studied (Hipp, 2007) and limited correspondence to the social and psychological meaning of neighborhood to residents (Coulton et al., 2001). Moreover, census tracts are typically too large to meet a social criterion of face-to-face resident interaction and too old to reflect changes in social composition and physical development occurring over the seven decades since their initial construction (Elliott et al., 2006; Furstenberg et al., 1999). As researchers with the Social Science Research Council conclude, “There is much to be learned about neighborhood effects from studies that use census-based sources of data. At the same time, alternative procedures for measuring neighborhoods need to be nurtured” (Brooks-Gunn, Duncan, Leventhal, & Aber, 1997, pp. 286–287; see also Burton, Price-Spratlen, & Beale Spencer, 1997; Coulton et al., 2001).

Of particular relevance to this study are efforts to define the boundaries of a neighborhood from the perspective of the “insider” (see Buttimer, 1980), in this case, neighborhood residents. Reminiscent of work within geography on “mental maps” from the 60s and 70s (Gould & White, 1974; see also Downs & Stea, 1973), these *phenomenological* approaches attempt to achieve definitions of neighborhood that are grounded in the lived experience of residents. Methods of phenomenological inquiry of space and place vary (e.g., Tuan, 1974; Gold, 1980; Seamon, 1979), but share the objective of seeking an understanding of the insider’s perspective(s).<sup>2</sup>

As would be predicted by a phenomenological viewpoint, recent neighborhood research that relies on resident-drawn maps finds significant variation across residents' boundary definitions (Coulton et al., 1996; Coulton et al., 2001; Lee & Campbell, 1997). For example, Coulton et al. (1996) find that although subjective neighborhood boundaries tend to include census-defined block groups, residents' maps are typically larger than a block group, and include areas of significance that adjoin the blocks. In another study by Coulton et al. (2001), resident-drawn maps did not map neatly onto either block group or census tract boundaries. Rather, the neighborhoods drawn by sample participants typically included sections of multiple tracts and block groups. Measures of consensus demonstrated that less than one-half of the area defined by a respondent's cognitive map was typically shared with the majority of other respondents within that block group. Moreover, as with size, the degree of consensus varied by block group as well. Coulton and her colleagues conclude that phenomenological data is an important supplement to administrative data, and "is a feasible alternative or complementary strategy to the use of census-defined neighborhoods" (Coulton et al., 2001, p. 380).

### **The Current Study**

Following Coulton and her colleagues, in this article we examine resident-defined neighborhood boundaries using a cognitive mapping procedure carried out with a sample of both adults and adolescents residing in four census-defined block groups in Denver, Colorado. We consider the degree of consensus across and stability within resident-defined neighborhoods and the comparative similarity between resident-defined and administratively defined areas. In a second set of analyses, based on qualitative interviews with the adults and adolescents participating in the cognitive mapping exercise, we explore the factors that shape their neighborhood boundaries and that influence the stability of boundary definitions.

Our focus on subjective boundary definitions is an effort to complement studies that use administrative sources (e.g., Sampson, Morenoff, & Gannon-Rowley, 2002; Elliott et al., 2006). A better understanding of both administrative and phenomenological boundary definitions might help researchers and practitioners better assess under what conditions and for what kinds of questions different neighborhood measurements and definitions matter. In 1936, Thomas made the case that how people define their situations, or in our case their neighborhoods, can have quite real consequences for their attitudes and behaviors. For example, subjective definitions of neighborhood may influence the strategies residents use to parent their children (Furstenberg et al., 1999), the manner in which residents engage (or not) in the neighborhood's social life, as well as their efforts at collective action. Small's (2002) work on neighborhood frames, for example, demonstrates that the differing perceptions of public housing residents regarding their neighborhood and its history shaped participation in neighborhood organizations and activities. Moreover, an awareness of residents' subjective understandings of their neighborhood—its boundaries, problems, and use by residents—may be a critical component to effective resident empowerment and engagement in locally based citizen action (Chaskin, 1997). Thus, understanding how people subjectively define their neighborhoods may not only help researchers who study the persistent relevance of place in community studies, but may also be crucial for community practitioners and activists.

### **METHODS**

This article analyzes data from the Denver Neighborhood Study—Ethnographic Component (DNS-EC).<sup>3</sup> The DNS-EC is a qualitative study of neighborhood influences on adolescent well-being. The sample includes 33 adults and 37 adolescents residing in four census-defined Denver block groups.

The four block groups were purposively selected from a parent study, the Denver Neighborhood Survey (DNS-S), which surveyed a representative sample of 820 youth and 662 caregivers residing in 33 census block groups in Denver. The DNS-S examined the relationship between several neighborhood characteristics (as identified by both census data and survey data) and adolescent outcomes in an attempt to understand the structural and normative aspects of neighborhoods that matter for adolescent well-being (Elliott et al., 2006). The boundaries of the neighborhood used for DNS-S were defined a priori as census block groups. The DNS-EC study was designed to enrich the survey data with qualitative interview and field data. In particular, the DNS-EC qualitative substudy had two main goals: first, to explore the implications of selecting census block groups to define the boundaries of the neighborhoods (as was done in the survey component of DNS), and second, to better understand both the anomalous and predictable relationships found between characteristics of neighborhood disadvantage and adolescent outcomes in analyses of DNS survey data. In particular, although neighborhood disadvantage was related to negative adolescent outcomes overall, this was not always the case in DNS-S. As neighborhood effects theory would suggest, measures of neighborhood disadvantage were moderated by features of neighborhood organization and culture such that disadvantage alone did not determine adolescent outcomes in the 33 DNS-S neighborhoods (Elliott et al., 2006).

To further understand relationships between neighborhood disadvantage and youth outcomes, the DNS-EC intentionally focused on four neighborhoods. Two neighborhoods featured the more predictable relations between markers of neighborhood disadvantage and adolescent outcomes. One of these neighborhoods was in the top 25% of the 33 DNS-S block groups on an index of socioeconomic disadvantage ("high disadvantage"), and had relatively negative indicators of adolescent outcomes. The other neighborhood was in the bottom 25% of the block groups on the index of socioeconomic disadvantage ("low disadvantage") and had relatively positive adolescent outcome indicators. The two additional neighborhoods were selected because a less predictable association was found in the DNS-S between level of neighborhood disadvantage and adolescent outcomes. Specifically, one neighborhood was in the bottom 25% of the block groups on the index of socioeconomic disadvantage ("low disadvantage"), but had relatively negative indicators of adolescent outcomes. The other scored in the top 25% on socioeconomic disadvantage ("high disadvantage") with relatively positive outcome indicators. The index of socioeconomic disadvantage that was used is an additive combination of four standardized census block group indicators including poverty (proportion of families below the poverty line), mobility (proportion of families with address changes in the prior 5 years), family structure (the proportion of single-parent families), and racial/ethnic diversity (the number of racial/ethnic groups with at least 10% representation). The adolescent developmental outcomes were taken from the parent data of DNS-S. These included standardized indices of parents' perceptions of their childrens' prosocial competence, problem behavior, and conventionality of friends. The social disadvantage and adolescent development indices have been used in earlier work with these data, and are described in further detail in previous publications (Elliott et al., 2006). Table 1 provides basic descriptive information about the socioeconomic disadvantage and developmental indicators for each of the four block groups, and this information is discussed in the four neighborhood descriptions that follow the methods section.

Because we set forth to explore qualitatively how different neighborhood features shape the way people at different life stages understand the boundaries of their neighborhoods, the sample design included parents and adolescents from four distinct block group areas rather than a more saturated sample from a single block group. With such a study design, we were able to explore whether and how subjective neighborhood meaning might differ among residents who live in places where socioeconomic disadvantage and adolescent developmental trajectories apparently also vary (as indicated by DNS-S findings). The DNS survey findings demonstrated that factors

**TABLE 1**  
**Social Disadvantage and Adolescent Developmental Indicators by Block Group**

	Broadmore	Westside	Martin Park	Northside
<b>Social disadvantage indicators</b>				
Poverty (%)	0.00	0.03	0.21	0.46
Mobility (%)	0.34	0.47	0.52	0.54
Single parent families (%)	0.01	0.05	0.13	0.08
Number of ethnic groups over 10% representation	1	1	2	2
Classification on disadvantage index <sup>a</sup>	Advantaged neighborhood	Advantaged neighborhood	Disadvantaged neighborhood	Disadvantaged neighborhood
<b>Adolescent developmental outcomes (z scores)<sup>b</sup></b>				
Prosocial competence <sup>c</sup>	3.31	-0.92	-1.04	0.56
Conventional friends <sup>d</sup>	1.79	-2.24	-1.52	-0.14
Problem behavior <sup>e</sup>	-1.24	1.32	2.20	-1.44
Classification of adolescent developmental outcomes <sup>f</sup>	Positive adolescent outcomes	Negative adolescent outcomes	Negative adolescent outcomes	Positive adolescent outcomes

<sup>a</sup> Block groups classified as being "advantaged" scored in bottom 25 % of 33 DNS block groups on census-based index of disadvantage. Block groups classified as "disadvantaged" scored in top 25 % of 33 DNS block groups on census-based index of disadvantage.

<sup>b</sup> Standardized (z) scores for each of the developmental measures are provided.

<sup>c</sup> *Prosocial competence* is a general measure of development that includes subscales of attitudinal items (personal efficacy, educational expectations, commitment to conventionality) and behavioral items (grades in school and involvement in conventional activities).

<sup>d</sup> *Conventional Friends* combines two subscales, one measuring the proportion of friends who are positively oriented toward school and one measuring the proportion of friends involved in illegal activities.

<sup>e</sup> *Problem Behavior* is a measure of nonconventional behavior that includes subscales of delinquent behavior, drug use, and frequency of arrests in the past year.

<sup>f</sup> Block groups classified as having "positive adolescent outcomes" scored above the mean on an index composed of standardized indicators, and block groups classified as having "negative adolescent outcomes" scored below the mean on this index.

beyond socioeconomic disadvantage of the block group explained adolescent outcomes, and therefore, one of the goals of DNS-EC was to probe further the meaning of neighborhood among residents in block groups selected to reflect extremes of census-defined socioeconomic disadvantage and survey-based adolescent outcomes. An alternative strategy would have been to sample a greater number of participants in only one block group. Such a strategy would have increased the representativeness of viewpoints in the selected block group area, but would have prevented us from exploring the possible ways by which residents in block groups with different census characteristics and different adolescent trajectories arrive at their understanding of neighborhood boundaries.<sup>4</sup> Given that a key goal of DNS-EC was to examine precisely these variations, we chose the multiblock group comparative approach.

Our choice to sample both adolescents and parents in each neighborhood mirrored the sampling strategy of the DNS-S design and permitted us to explore variations in how residents at different life stages understand their neighborhoods. Such an approach reflects the project's central interest in neighborhood variation in parenting and adolescent developmental trajectories. By including parents who were raising adolescents, as well as adolescents themselves, we were able to explore the differences and similarities in meanings that parents and adolescents ascribed to various neighborhood features—from physical structures, perceived threats to safety, to racial and class composition—in each of the block groups.

### Methodological Limitations

The study findings presented below must be interpreted within the context of these sampling decisions. Our findings regarding neighborhood boundary definition within any block group and the comparisons we make across the different block groups are meant to illustrate the complexity of neighborhood boundary definition and guide future research by offering hypotheses as to how subjective definitions of neighborhood boundaries are constructed and used by residents living in diverse areas of the city. The block groups from which the four subsamples of participants are drawn are relatively small areas; however, the 14 to 19 respondents from each were not drawn according to probability sampling techniques. Thus, the subsamples are not necessarily representative of the block groups, precluding our ability to make generalizations beyond the study itself.

The findings are, therefore, speculative and must be treated with appropriate caution. Still, such an exploration allows for an in-depth account of neighborhood boundary meaning among a heterogeneous sample of residents who inhabit block groups that were purposively selected to vary by level of disadvantage and adolescent outcomes. Moreover, as the following discussion suggests, despite the small, nonrepresentative, and heterogeneous sample of adolescents and parents from diverse block groups, we observe commonalities in terms of the factors that residents consider in their construction of neighborhood boundaries. These commonalities, especially when considered in light of related findings from the neighborhood research more generally, give us confidence that the hypotheses suggested by our findings are worthy of further study.

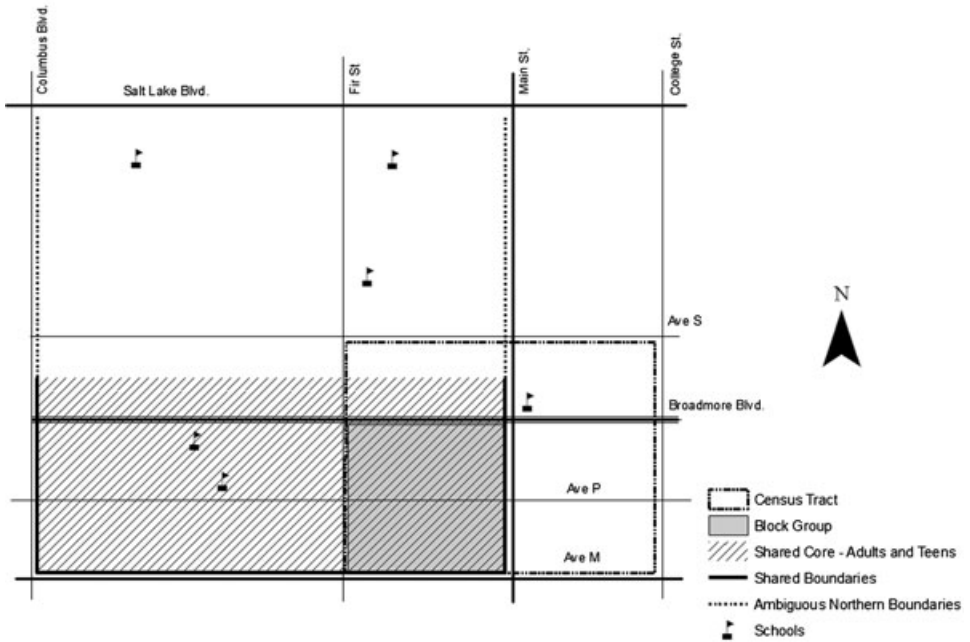
### The Four Neighborhoods<sup>5</sup>

#### **Broadmore**

Broadmore was selected to represent an *advantaged block group with relatively positive adolescent outcomes*. As Table 1 indicates, the poverty rate of the Broadmore block group is less than 1%, only 1% of households are headed by a single parent, it is over 90% European-American, and it has a mobility rate of 34%. Census data also reveal that one-third of the households in Broadmore



## Broadmore



**FIGURE 1**

### Broadmore Neighborhood Map Illustration

include children under 18 years of age and 12% include adults over the age of 65 (age demographics not shown on Table 1). The adolescent outcomes, as determined by the DNS-S results, suggest that teens in Broadmore are positively oriented toward school and prosocial activities and they socialize with similarly directed peers. Our field work largely supported both the census demographic indicators and the survey data on adolescent outcomes. The streets of Broadmore are lined with medium and large owner-occupied homes with relatively large yards and recent model cars, few non-white residents were observed during the field effort and it was relatively easy to locate households with adolescents eligible for study participation. Study participants reported that the neighborhood was “family-friendly” with many structured and unstructured social activities geared toward families. Participants reported being strongly identified with their neighborhood, and the adults and adolescents universally referred to the neighborhood by the name, “Broadmore.” A largely African-American residential area borders Broadmore (depicted north on the map), a fact that played a significant role in neighborhood boundary definitions, as we discuss in the section. Figure 1 provides an illustration of the Broadmore area.

### Westside

Westside was selected to represent an *advantaged block group* with *relatively negative adolescent outcomes* (see Table 1). Like Broadmore, over 90% of residents are non-Hispanic whites; it has a low poverty rate (3%) and few single-headed households (5%). Westside mobility rates are somewhat higher than Broadmore (47% compared to 34%). Westside also has a relatively high number of homes with adults over 65 years of age (21%) and relatively few households with children under 18 years of age (16%). Despite the socioeconomic advantage of Westside, the

## Westside

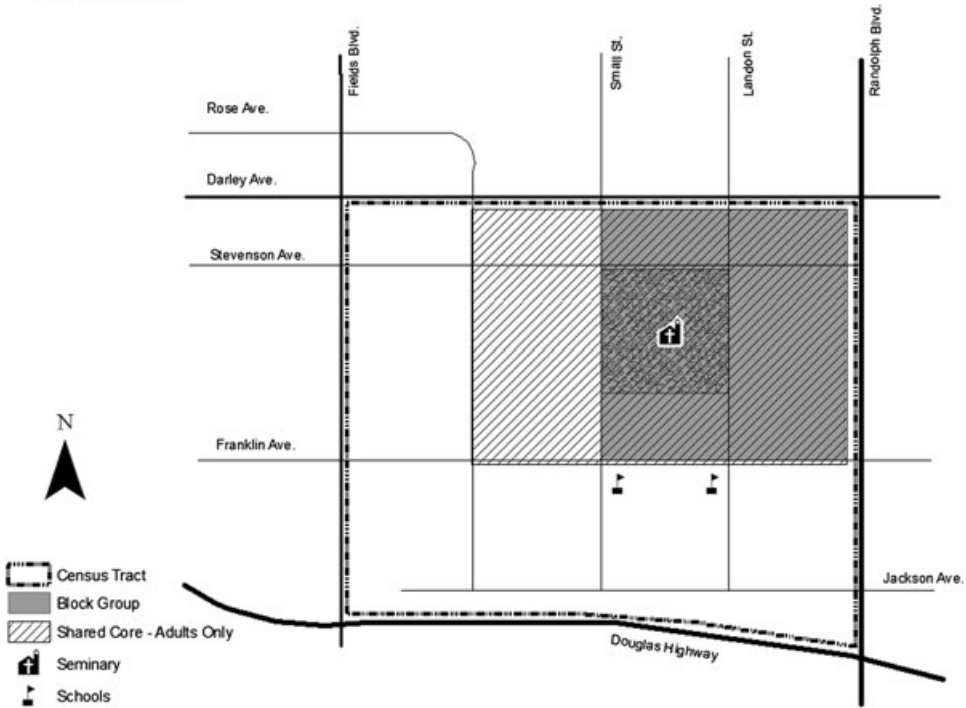


FIGURE 2

### Westside Neighborhood Map Illustration

adolescent outcomes, as determined by the DNS-S, are relatively negative. Westside adolescents' standardized scores were below the sample mean on prosocial competence and conventionality of friends, and above the sample mean on problem behavior. Our field work revealed that in northern and western sections of the block group, houses are larger with what appear to be more affluent residents, but Westside homes in other parts of the block group are smaller and more modest. Field efforts also confirmed that many residences within Westside are occupied by elderly individuals; it was comparatively difficult to locate families with adolescents who would be eligible for the study. According to participants, and consistent with the high mobility indicated by the census data, the neighborhood was experiencing change as long-term elderly residents were dying or moving, and families with very young children were moving into the single family homes characteristic of Westside. Participants did not routinely refer to the neighborhood by any particular name. When pushed by the interviewer, they sometimes called it "Westside," but just as frequently by one of two or three other names. This lack of an agreed upon neighborhood identity appears to be consistent with other aspects of our analysis of Westside, as is discussed in the analysis section of the article. Figure 2 provides an illustration of the Westside area.

### Martin Park

Martin Park was selected for the DNS-EC as a *disadvantaged block group* with *relatively negative adolescent outcomes* (see Table 1). One-fifth of Martin Park residents fall below the federal poverty line, 13% of households are headed by single parents, and the mobility rate of

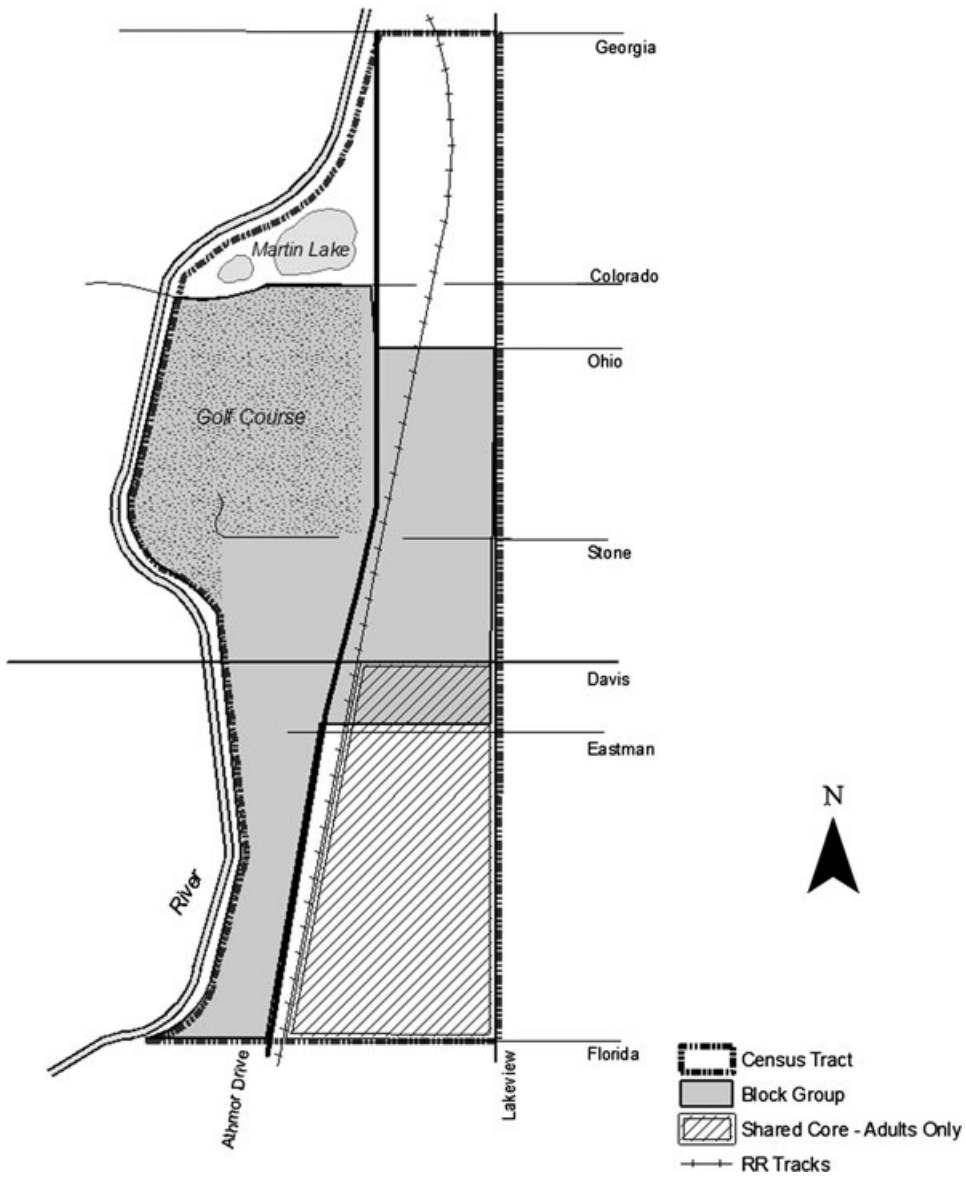
households is 52%. The population of Martin Park is disproportionately Caucasian, but includes a significant number of Latino residents as well. Like Westside, adolescent outcomes in Martin Park are below the DNS-S sample mean on indicators of prosocial competence, conventionality of friends, and engagement in problem behavior. Seven percent of the households of Martin Park include adults over 65 years of age (the lowest percentage of older adult residents among the four block groups studied) and 32% of households include children under 18 (similar in youthfulness to Broadmore). Our field work uncovered important physical features of Martin Park that proved important to the subsequent boundary analysis. Specifically, Martin Park is a mixed-use area subdivided by major thoroughways and industrial and commercial areas, with a river running along its western border (this is also the western border of the census tract) and a north-south railroad track, running along the eastern border of the block group to the south but directly through the middle of the northern section of the block group. The eastern block group border to the north is a busy commercial street, which is also the border of the census tract. Throughout Martin Park, small single-family homes are mixed with apartments, and most participants in DNS-EC reported renting their residences. Parts of the block group were not residential at all, including a golf course and several blocks of small businesses. Interestingly, there are no schools located in the nearby vicinity of Martin Park. Figure 3 provides an illustration of the Martin Park area.

### **Northside**

Northside was selected to represent a *disadvantaged block group with relatively positive adolescent outcomes* (see Table 1). It had the highest poverty rate of the four block groups, at 46%, and the highest mobility rates, at 54%. Eight percent of households were headed by single parents and it was the most ethnically diverse of the neighborhoods with substantial numbers of Caucasians and Latinos, and some, but fewer (less than 10%) Asians and African Americans. Almost one-third of households included an adult over 65 years of age and just over one-fifth of the households included children under 18. Adolescent outcomes, as measured on the DNS-S, suggested that adolescents were doing fairly well, despite the socioeconomic disadvantage of the block group. Measures of prosocial competence were above the sample mean and problem behavior levels were well below the sample mean. Northside teens did score somewhat lower than the sample mean on conventionality of friends ( $-0.14$ ), but this was significantly more positive than either Martin Park or Westside, the two block groups chosen for their negative adolescent outcomes.

Our field work revealed that within Northside, there is a low-rise subsidized housing project (Allenspark) for low-income families, adjacent to a subsidized low-income senior citizen apartment building. The Allenspark project is made up of several townhouses, and together with the senior citizen center the grounds spanned an area three blocks by two blocks in size. A small recreation center and baseball field are included within this area and used primarily by residents of Allenspark. Participants drawn from within the housing project reported that many adolescents residing on the grounds were doing poorly in school, and engaged in delinquent and antisocial activities. As a result of our field work, we concluded that the poverty, mobility, and racial diversity of the Northside block group are concentrated among residents of these two subsidized residential structures. Outside the subsidized housing projects, Northside is a mostly white, low-poverty area with medium-sized homes. Participants drawn from this area described it as “calm” and “family-oriented” and did not report that youth in the neighborhood were engaged in negative activities to any significant degree. Thus, though the DNS-S analyses led us to select the Northside block group because of its relatively positive adolescent outcomes despite its disadvantaged census indicators, our field work suggested the block group classification obscured what might more accurately be described as two distinct neighborhoods in Northside, one with high disadvantage and poor adolescent outcomes (the housing project) and one with low disadvantage and positive

# Martin Park



**FIGURE 3**

### Martin Park Neighborhood Map Illustration

adolescent outcomes. These distinctions are explored in greater detail in the analyses presented below. Figure 4 provides an illustration of the Northside area.

### Sample

The convenience sample includes 37 adolescents between the ages of 10 and 20 (mean age 14.4 years) and 33 parents across the four block groups. Parental age was not systematically

Northside



**FIGURE 4**  
**Northside Neighborhood Map Illustration**

collected, so age data is missing for 11 participants. Of 22 of the 33 parent participants, age ranged from 26 to 53, with an average age of 41. The sample is over three-fourths non-Hispanic White ( $n = 54$ ), with Latinos comprising the next largest group ( $n = 11$ ). The remaining sample identified as African American ( $n = 1$ ), Asian ( $n = 1$ ), and mixed race ( $n = 2$ ). One participant did not identify herself by race or ethnicity.<sup>6</sup> The parent sample included 10 men and 23 women, and the adolescent sample included 21 boys and 16 girls. Just over half of the participating parents and adolescents were from the same family, though this was not a criterion of eligibility. Specifically, 20 adolescents in the sample had a parent who participated, and 19 parents had an adolescent who participated. In several cases, siblings or spouses from the same family were sampled. Overall, 39 of the 70 respondents had a relative who was also a study participant.<sup>7</sup> Recruitment took place via door-to-door appeals and personal referrals from study participants and nonparticipating residents.

**Data Collection**

Interviews of between 60 and 120 minutes in duration were conducted face-to-face using a semistructured topical protocol. The trained interviewer was guided by a set of focal concerns including neighborhood definition, boundaries, and identity; neighborhood places, organizations and activities; schooling experiences; parenting strategies; and social ties. Participants began their interviews by drawing the boundaries of their neighborhoods, as they perceived them, on maps provided by interviewers. Throughout interviews, participants used these “cognitive maps” to locate important activities, locations, and people and to indicate whether participants considered

emerging topics (incidents, crime, problems) to be located inside or outside their neighborhoods. Adjustments to the maps were noted to reflect shifts in participants' boundaries throughout the interviews. All interviews were audiorecorded, transcribed, and content coded, and analyzed with the aid of an electronic software package designed for the analysis of qualitative data (Nvivo, 2006). An initial list of topical codes was generated to coincide with the primary concerns of the interview protocol. Additional codes were generated inductively by the researchers, and all interviews were recorded with the full list of coding categories. Each interview was coded by a minimum of two coders. Coding differences were resolved through discussion with the original coders and the project director.

The DNS-EC substudy was approved by the Institutional Review Board of the University of Colorado, and written informed consent was obtained at the time of the interview. In the case of adolescents, written assent from adolescents and written consent from their parents were obtained.

### **Analytic Strategy**

The purpose of the analyses was to examine subjective definitions of neighborhood boundaries and explore the meanings that participants attached to neighborhood characteristics and conditions (e.g., Lofland & Lofland, 1995; Patton, 1990). For the analyses, cognitive maps were examined along with interview data and census and block group maps. The first set of results presents an analysis of the consensus and stability of participants' cognitive maps and the match between cognitive maps and census-defined tract and block group boundaries. Figures 1–4 display the census tract, block group, core area, and shared boundaries (when applicable) for the four neighborhoods. Tables 2 and 3 summarize the findings for all four neighborhoods. The method used to calculate consensus, stability, and matches is detailed in the results section. The second set of results identifies factors that influence boundary placement and boundary shifting. Factors were identified through a systematic analysis of all interview sections that were explicitly about boundary placement, as well as a systematic analysis of participant responses to interviewer probes about whether and why participants considered a particular point of discussion to be within or outside of their neighborhood.

## **RESULTS**

### **Boundary Consensus, Stability, and Correspondence to Administrative Definitions**

By comparing residents' maps to one another and to census tracts and block groups, we considered three aspects of neighborhood boundaries: boundary consensus across residents, within-participant stability of boundaries, and correspondence of residents' subjective maps with administrative boundaries.

#### ***Boundary Consensus***

We examined two boundary consensus indicators: whether residents' subjective maps shared an overlapping *core* area and whether the maps indicated *boundary agreement* across residents. To identify core areas, we overlaid all cognitive maps—comparing adult and adolescent maps separately—in each neighborhood. The area common to the greatest number of maps was identified as the core. If fewer than 50 % of participants shared a common area, the neighborhood was classified as not having a shared core. As indicated in the third column of Table 2, the majority of adults shared a core area in all four neighborhoods, but the majority of teens shared a core area

**TABLE 2**

**Consensus Results by Block Group: Extent of Agreement on Shared Core and Shared Boundaries**

Block Group	Criteria for Selection into DNS-EC	Shared Core (50% or more agreement on common area)	Shared Boundaries			
			North	South	East	West
Broadmore (10 teens, 9 adults)	Advantaged block group/ positive adolescent outcomes	Shared core, adults and teens	30% teens 44.4% adults	80% teens 77.8% adults	50% teens 66.7% adults	80% teens 88.9% adults
Westside (10 teens, 9 adults)	Advantaged block group/ negative adolescent outcomes	Shared core, adults only	40% teens 44.4% adults	30% teens 44.4% adults	90% teens 66.7% adults	50% teens 44.4% adults
Martin Park (7 teens, 7 adults)	Disadvantaged block group/ negative adolescent outcomes	Shared core, adults only	57.1% teens 42.9% adults	57.1% teens 57.1% adults	28.6% teens 57.1% adults	42.9% teens 71.4% adults
Northside <sup>a</sup> (10 teens, 8 adults)	Disadvantaged block group/ positive adolescent outcomes	Shared core, adults and teens	30% teens 50% adults	40% teens 37.5% adults	40% teens 25% adults	30% teens 25% adults
Northside (without Allenspark) (6 teens, 5 adults)		Shared core, adults and teens	33.3% teens 20% adults	50% teens 60% adults	50% teens 20% adults	33.3% teens 80% adults
Allenspark (4 teens, 3 adults)		Shared core, adults and teens	25% teens 100% adults	50% teens 66.7% adults	50% teens 66.7% adults	50% teens 100% adults

<sup>a</sup>Northside is reported first as the entire neighborhood, followed by the portion of Northside exclusive of the Allenspark housing project, and then the Allenspark housing project proper.

**TABLE 3**

**Frequency of Boundary Shifting by Block Group**

Neighborhood	Boundary Shifting	
	N	%
Broadmore	7/19 shift	36.8
	6/9 adults	(66.7)
	1/10 teens	(10.0)
Martin Park	4/14 shift	28.6
	2/7 adults	(28.6)
	2/7 teens	(28.6)
Westside	8/19 shift	42.1
	4/9 adults	(44.4)
	4/10 teens	(40.0)
Northside	6/18 shift	33.3
	3/8 adults	(37.5)
	3/10 teens	(30.0)
Northside (without Allenspark)	4/11 shift	36.4
	3/5 adults	(60.0)
	1/6 teens	(16.7)
Allenspark	2/7 shift	28.6
	0/3 adults	(0.0)
	2/4 teens	(50.0)

*Note:* Overall neighborhood shifting: 25/70 respondents or 35.7% (45% of adults and 26% of teens).

in only two of the four neighborhoods (Broadmore and Northside). The teens who did not share a core lived in Martin Park and Westside, the two neighborhoods selected for their more negative adolescent outcomes. As is discussed further below, our analyses point to several factors such as the natural and created boundaries that cut across Martin Park and the demographic similarity between Westside and its neighboring streets—that might have limited consensus among teens in these two block groups as well as contributed to a more limited attachment to their neighborhood.

In Broadmore, teens and adults shared the same core area (see Figure 1), whereas in Northside adults within the Allenspark housing project shared one core area (the grounds of the housing project) and the teens in the Allenspark housing project shared a different core area that included the housing project but extended both south and east of it. Northside non-Allenspark teens and adults shared most of the same core area, but the teen shared core area extended further north than did the parents’ (see Figure 4). As Figure 2 illustrates, Westside adults shared a rather large core area that included the block group plus an additional area to the west of it. In the case of Martin Park, the adult shared core area included only a small part of the block group between Eastman and Davis. The majority of the shared core was located outside of the block group (see Figure 3).

In general, the core area analysis corroborated Coulton et al. (2001) findings. Core areas were useful for identifying shared neighborhood areas but they excluded significant portions of individual participants’ maps, which tended to extend in idiosyncratic ways from the shared area. Moreover, in the case of Northside, the high disadvantage block group with positive adolescent outcomes, the shared core analysis suggested Allenspark and non-Allenspark participant maps shared little in common, but rather these participants perceived themselves as living in quite different neighborhoods.

To consider boundary agreement across residents, we examined whether the same markers were used to demarcate interviewees’ north, south, east, and west boundaries. As with our core



analysis, we found that adults tended to agree more than teens about neighborhood boundaries, although most adults and adolescents shared at least one boundary (see Table 2, columns 4–7), typically a busy street or boulevard. For example, in the case of Westside, the eastern boundary, Randolph Blvd, was agreed upon by almost everyone (90% of teens, and 66.7% of adults). The most block group agreement on boundaries, however, was in Broadmore, where the majority of adults and adolescents agreed about the same three boundaries (Columbus, Avenue M, and Main Street; see Figure 1), making it the neighborhood that not only has the least disadvantage and most positive outcomes but also the most consensus across teens and adults in terms of both shared core area and shared boundaries. The northern boundary showed less agreement, for reasons discussed in the following section that we hypothesize have to do with the race and class distribution of residents across the area and Broadmore residents' ideologies about race relations.<sup>8</sup>

As with the shared core analysis, Northside boundary consensus improved when the Allenspark housing project was considered separately from the rest of the neighborhood. Allenspark adults tended to agree that the boundaries of the housing project were their neighborhood boundaries, whereas adolescents in Allenspark reported a wider and more heterogeneous set of boundaries. Because teenagers leave the housing project daily for school, we suggest they had larger functional neighborhoods, in contrast to Allenspark adults who reported being physically and socially isolated. All of the Allenspark teens we interviewed were attending school, whereas two of the three adults were unemployed and the third worked on the project grounds.

### **Boundary Shifting and Stability**

To measure the stability of participants' boundary definitions over the interview, we examined whether a participant changed her neighborhood boundaries during the interview. As Table 3 indicates, these findings reveal that boundary shifting was not unusual, with over one-third of participants changing the placement of their neighborhood boundaries at points throughout the interview. Adults (45%) were more likely to shift boundaries than adolescents (26%), although this pattern reversed in the Allenspark housing project where none of the adults shifted their boundaries. Thus, not only did Allenspark adults agree on a shared core area that was only as large as the housing project grounds, these boundaries proved to be quite fixed. In the words of one Allenspark resident, Martina, "*Allenspark is like a – a town in itself. I mean, it's its own thing.*" Interestingly, the least amount of boundary shifting occurred in the two most disadvantaged areas, Northside/Allenspark and Martin Park, perhaps signifying a degree of social isolation and boundary inflexibility that challenges parenting in these areas.

Given the substantial within-participant variability reported by many participants across the different neighborhoods within the course of an interview, our findings suggest that people conceptualize their neighborhoods differently when thinking about how they move around and use these familiar spaces. Boundary shifting undoubtedly occurs over time as well as within a particular interview setting. However, we do not have the data to examine stability of neighborhood definitions over time of residence or over the life course.

### **Subjective Versus Objective Boundaries**

To consider whether residents' neighborhood maps corresponded to census tracts and block groups, we overlaid block groups and census tracts on residents' maps. In general, our findings support the broader DNS survey findings suggesting that block groups may be better proxies than census tracts of subjective neighborhood boundaries because as compared to census tracts, block groups tended to overlap with significant parts of the shared core areas (Elliott et al., 2006). The exception here is Martin Park, where the block group almost completely misrepresents the

residents' perceived neighborhood boundaries. As Figure 3 illustrates, the shared core for Martin Park adults is mostly outside of the block group but located almost entirely in the southeastern corner of the census tract, which included a business area between Athmor, Davis, Lakeview, and Florida. The golf course, which is located within the block group, apparently holds little meaning to participants, as it was seldom mentioned at all, without prompting from the interviewer.

Even in the other three neighborhoods that show somewhat more agreement between shared core areas and block groups, residents' shared cores typically extended beyond the block group itself. For example, as Figure 1 illustrates, Broadmore's shared core area included the block group, but extended to include the area to its west and slightly north. Similar kinds of extensions were true in the other neighborhoods as well, with the exception of Allenspark adults, whose shared core area was the block group (which was, not incidentally, the housing project grounds).

### Factors Influencing Neighborhood Boundaries

In the next stage of the analysis, we examined several factors that influenced participants' neighborhood definition and how these factors related to the level of neighborhood boundary consensus and stability. We found that participants emphasized physical and institutional characteristics, race and class characteristics, fears of crime, and symbolic notions of neighborhood when determining their neighborhoods' boundaries.

#### **Physical and Institutional Characteristics**

*...the park and schools almost make a physical boundary there. Same with Randolph Boulevard. It's a foreboding kind of a street, you know. Six lanes of high dense traffic...*

Roland, a white Westside adult

Consistent with past research on the sources of neighborhood definition, built and natural structures, such as roads, rivers, and parks, were frequently used by participants to define the boundaries of their neighborhoods. Like Roland above, most Westside interviewees used Randolph Boulevard to mark the eastern boundary. Throughout the interviews, both natural and built elements often served to mark off clear boundaries between neighborhoods.

But in a few cases, a busy street, a business, park, school or other aspect of the physical environment could draw two parts of a neighborhood together, rather than act as a barrier. For example, the block group of Broadmore (Figure 1) was bounded to the north by Broadmore Boulevard, a busy boulevard with a grassy median running through the center. In other contexts, a major thoroughfare such as Broadmore Boulevard might have acted as a boundary. However, the well-used boulevard was described as a central meeting place for neighborhood parties, social events, and football games, and was typically placed in the center of resident-drawn neighborhoods.

In other cases, the physical structures within a block group served to cut the area into distinct sections that served as the boundaries of resident-defined neighborhoods. For example, two prominent, intersecting thoroughfares in Martin Park—Athmor and Davis—divided the neighborhood into quadrants, with residents distributed across the four geographic areas (see Figure 3). Martin Park participants reported little interaction with residents in the different quadrants. Some adolescents in Martin Park spoke of riding their bikes as far as one of the busy streets or the river to the west (but never across them), and adults described Martin Park's streets, especially Athmor, as throughways for nonresidents traversing the city and for themselves to exit

the neighborhood. In contrast to Broadmore Boulevard's social character that was fostered by the grassy median, Athmor had the feel of a small highway, and included few meeting places to encourage resident interaction. Moreover, the industrial nature of the businesses in Martin Park limited their usefulness as gathering places for neighbors, and further segmented the area into distinct parcels.

### **Race/Ethnicity and Class**

*There are, um, a lot of black families and white families . . . that's what draws me to this neighborhood is that there is a diversity. There are big houses and little houses, there are older people and younger people . . . on every block, so that's what appeals to me.*

Veronica, a white adult from Broadmore

Like physical structures and institutions, demographic factors could unite or divide neighborhoods. In the case of Broadmore, as Veronica illustrated above, the desire for racial, ethnic, and class diversity encouraged Broadmore residents to draw large maps that extended beyond the census tract to include a northern area. Whereas the Broadmore block group was a white, middle to upper middle class neighborhood (see Table 1), North Broadmore was less affluent and included a higher percentage of African Americans. Veronica included North Broadmore as part of her neighborhood map.

Whereas demographic differences united North and South Broadmore symbolically, these differences divided them in practice. For example, almost 40% of Broadmore interviewees shifted their neighborhood definitions frequently throughout their interviews. The shifting that occurred in Broadmore was almost always in the form of extending and contracting the northern boundary. This shifting suggested an ambivalence about whether or not the North Broadmore residents were in fact neighbors, as indicated in the following excerpt from Marsha, a white Broadmore parent:

*I think in this neighborhood, it seems to me that they interact fine and a lot. But I also think that there's a definite separation and, and I don't know what the answer is . . . I think it's different areas depending on what street you're on . . . I think there's a real difference . . . [Q: What do you think is the difference?] I'm just saying it's more black and I also think that it's, the economic level, say, of those people. It goes down. They don't have the income – I don't know what the expression is . . . We don't get together.*

Marsha begins by saying that North and South Broadmore residents do indeed interact, and she refers to the shared symbolic identity of Broadmore that ties together whites and African-Americans. She, however, quickly emphasizes economic and racial differences, and concludes that the residents just *don't get together*. There appears to be significant ambivalence regarding neighborhood cohesion and interaction in Marsha's interview. On Figure 1, the dotted lines that extend upward from the west (Columbus) and east (Main) boundaries of the shared core area up to Salt Lake Boulevard reflect the imprecision of this northern boundary that did not show agreement among most of the Broadmore participants and which was continually shifting for several participants depending on the subject under discussion. The symbolic story of the neighborhood for Marsha and other Broadmore residents will be explored further below.

In the racially diverse and low-income Allenspark housing project in Northside, race and class distinctions were used to differentiate the housing project from the broader Northside neighborhood. For example, in response to the first interview question, "How do you define your neighborhood?" Yolanda, a Latina adult from the Allenspark public housing project, responded:

*Well, I'd define it as—these are all HUD housing, and there's a lot of single parents here, and, uh, there's also a LOT [emphasis hers] of Vietnamese and Koreans. And, uh, I don't like it here . . . I've been here for four years. [Q: And when you say "here", do you mean?] All of Allenspark.*

Like Yolanda, other Allenspark adults said that their neighborhood was limited to the housing project and that the demographic distinctiveness of the public housing complex set it apart from the rest of Northside. In Figure 4, this limited area is highlighted as the shared core of the Allenspark adult residents. Non-Allenspark adults seldom talked about Allenspark at all during the initial map drawing exercise. Only when discussing activities that took place in different areas around their homes did a few Northside residents recognize Allenspark, referring to it as an "island" either within or outside of the neighborhood that housed numerous welfare recipients and an African American, Asian, and Latino population with different values and experiences from the rest of the Northside. As seen in Figure 4, the shared core of Non-Allenspark Northside residents omits Allenspark.

In Westside and Martin Park, the two neighborhoods with relatively negative adolescent outcomes, residents did not discuss clear racial, ethnic, or class divisions between their neighborhoods and nearby residential areas, nor did they typically use race or class as characteristics to describe their neighborhoods. We posit that this might have been in part because these neighborhoods bordered demographically similar areas. Westside, which was itself a low-poverty white neighborhood, appeared to border a somewhat wealthier white area, and although the economic distinction was never made by participants, several of them included this more affluent area as part of their neighborhood map. In the case of Martin Park, the natural and built divisions within the block group seemed to overwhelm any racial and class distinctions that may have been otherwise used to define their neighborhoods.

### **Symbolic Identity**

*Broadmore was really on the cutting edge of neighborhood desegregation [in the 60s and 70s] and made a lot of headlines nationally as an integrated neighborhood that was naturally integrated. So when busing came to Denver, Broadmore didn't have to do any busing 'cause their neighborhood was already integrated . . . I think that's the way it was meant to be, that Broadmore was a large, integrated neighborhood where people with similar goals and aspirations for their families lived together regardless of color.*

Wendy, a white adult from Broadmore.

When defining their neighborhoods, interviewees sometimes argued that their neighborhood represented a way of life and a set of unique values, in addition to being a physical place. Boundaries were drawn to reflect such symbolic notions of the neighborhood. This was especially true in Broadmore where the large neighborhood maps that united North and South Broadmore allowed residents to espouse the ideals of integration to which they claimed allegiance. In the opening quote above, Wendy summarizes the shared symbolic story of Broadmore. By incorporating North Broadmore into their boundaries, residents were able to view their neighborhood as integrated and diverse, even though the immediate area of South Broadmore, where they resided and interacted socially, was primarily white and upper middle class. In the earlier quote about cohesion and interaction in Broadmore, Marsha moved from the official story of interaction to acknowledging racial and economic differences and concluding that North and South Broadmore residents do not actually interact or *get together*. Taken together, these two quotes highlight both the symbolic story and the inherent race and class tensions in the neighborhood.

Other adults in Broadmore spoke of moving to the neighborhood because of the integration it represented (e.g., an American “melting pot”), and contrasted the perceived diversity of Broadmore with the homogeneity of the Denver suburbs where some of their friends—white, upper-middle class professionals like themselves—chose to reside. Wendy insisted that North and South Broadmore were one neighborhood and explained what happened when a realtor published a list of names, addresses, and phone numbers of residents living in “South Broadmore” and circulated it around the community as a way of differentiating the southern residential area from North Broadmore. Wendy here reports on the attachment of neighbors to their symbolic story: “*When the greater Broadmore community found out about it, they issued a big thing in the paper disclaiming any involvement in the creation of this roster because they didn’t believe in South Broadmore’s existence as a separate entity . . . that it should be all of Broadmore.*”

We posit that this common ideology contributed to the high consensus about neighborhood boundaries that we observed in Broadmore, but also to the shifting that was observed in boundary placement on the north side of the neighborhood. Specifically, when discussing the progressive values of their neighborhood, residents spoke of a united North and South Broadmore, but discussions of social interactions were usually limited to the southern section. As we will discuss next, the symbolic racially integrated neighborhood definition that included North and South Broadmore was harder to maintain when threats to resident safety periodically emerged.

### **Proximate Criminal Threats**

*Well, this part of the neighborhood here, Northside area, it’s pretty decent – it’s a nice area to grow up in . . . in this part of the town, there’s not really too much violence . . . whereas as you get closer to . . . that area, that’s where you kind of run into some problems . . .*

Eduardo, a 16-year-old Latino from Northside

Where neighborhoods’ symbolic identity could expand individuals’ neighborhood maps, fear of crime often encouraged individuals to constrict their neighborhood boundaries. Criminal threats played on demographic differences between adjacent urban areas. As noted previously, some Northside and Allenspark residents considered Allenspark to be a separate entity, partially due to the demographic differences between these neighborhoods. In Figure 4, the distinct shared cores again highlights this point. The perception that Allenspark was a violent and high crime area reinforced the apparent distinctions between these neighborhoods. Eduardo, quoted above, articulated a common perception among Northside (non-Allenspark) residents that there were “a lot of problems” (meaning crime problems) that occurred in and around Allenspark.

Crime within Allenspark also encouraged housing project residents to limit the boundaries of their neighborhood. In Figure 4, the limited shared core among Allenspark adults epitomizes this limited neighborhood definition. Allenspark adults and teens agreed that there was considerable crime in the complex, including gang violence, drug use, drug sales, and fighting, often between Latino and Asian-American teens. Isolation was a common response. Believing that police did little to protect them, Allenspark adults described being institutionally cut off from public services in the neighborhood, in some cases viewing the police as a threat from the outside who created trouble for Allenspark residents.

Criminal threats also alienated Allenspark residents from one another. Adults reported distrusting other housing project residents. Indeed, a common crime avoidance strategy was to stay indoors and to keep younger children inside as well, what Furstenberg et al. (1999) calls a protective strategy in high poverty neighborhoods. Adults kept silent about criminal activities in

the housing complex, fearing retribution for speaking up. Yolanda, for example, described what happened after one woman reported a neighborhood crime to the police:

*They throw, you know, like rocks at her, they break her windows, they throw—I guess, I’ve seen, like notes, like “F-you, this, and F-you that”, walk—they walk by and start calling her names. You know? So, so I don’t want to—I don’t want to start something like that.*

Having watched the retaliation against a neighbor, she recounted her own failure to tell the police after witnessing violence. Fears of retribution and a belief that institutional support and protection was not satisfactory, fueled the social isolation felt by Allenspark adults and may have contributed to their stable neighborhood boundaries that seldom extended beyond the housing complex.

Teens in Allenspark were more socially involved than adults, but still employed isolation techniques. They reached out to other youth from the neighborhood, but they tended to interact within their own racial or ethnic group. Adolescents from other racial or ethnic groups were not described as neighbors, but as enemies and potential combatants.

In Broadmore, fears of crime encouraged boundary shifting. As we noted previously, Broadmore adults drew large neighborhood maps to unite the demographically diverse north and south areas. Despite this, Broadmore residents saw North Broadmore as a high-crime neighborhood and they were threatened by North Broadmore residents. During interviews, some Broadmore residents discussed shootings and stabbings that had occurred near their homes and argued that these crimes were committed by “outsiders.” When pressed by interviewers, residents said that these outsiders were from *North* Broadmore. In addition, two Broadmore adults described a neighborhood watch group organized in response to recent incidents. Members of the watch group patrolled the street dividing North and South Broadmore and looked out for youth trying to enter the southern portion of Broadmore from the north. Although efforts were made to recruit adults from North Broadmore into the neighborhood watch group, in the end only South Broadmore residents joined the mobile brigade. Marsha commented on this by stating, “*I don’t know whether, you know, we want to protect our neighborhood or we want to show some solidarity. We don’t want crime and that’s also saying to them we don’t want you either . . .*”

## DISCUSSION

Our investigation of subjective definitions of neighborhood boundaries suggested that boundary definition is shaped by contextual forces and personal experiences; it is neither fixed nor is it entirely without shared meaning for residents of a common physical space. In several ways our findings are consistent with previous research. Like Coulton et al. (2001), the cognitive maps of participants in DNS-EC do share core areas that sometimes include but are not limited to census-defined block groups, but their boundary definitions extend beyond shared areas in idiosyncratic ways. As other authors have found, we observed that neighborhood boundaries could shift depending on the particular aspects of neighborhood resources or dangers under consideration (see Elliott et al., 2006; Galster, 1992; Korbin & Coulton, 1994; Leventhal, Brooks-Gunn, & Kamerman, 1997; Furstenberg, 1993). Participants’ boundaries shifted within the course of an interview in one-third of the cases, reflecting different levels of neighborhood meaning depending on context (Hunter, 1974). Had we been able to interview participants repeatedly over time, one suspects that the amount of shifting observed may have been even greater, as found by Furstenberg and colleagues (1999). Indeed, stability or variability of neighborhood definitions over time in the neighborhood and at different points in the life course would be a potentially rich course to pursue in future research that includes longitudinal data.

We did not find more agreement about neighborhood boundary definition among respondents sampled within families, as some other research has found (Furstenberg, 1993). Each of our block group neighborhoods included some participants from within the same family, but a larger proportion of related respondents did not lead to greater consensus around neighborhood definition in our study. This may suggest that the everyday worlds of teens and adults—even those who share households—are sufficiently different to warrant independent analyses of the neighborhood-level factors relevant to their outcomes.

From early accounts of the city, factors of race, class, and family structure along with physical and functional boundaries were hypothesized as sorting people into “natural areas” (Hunter, 1974; Park & Burgess, 1925). These factors were later correlated with social disorganization and collective efficacy (Kornhauser, 1978; Sampson, Morenoff, & Earls, 1999; Shaw & MacKay, 1931). Extending existing work on subjective neighborhood definition, our findings suggest four factors—familiar to neighborhood and community scholars—that help explain boundary consensus and shifting: physical and institutional characteristics of the neighborhood, neighborhood race/ethnic and class characteristics, symbolic neighborhood identities held by residents, and proximate criminal threats from within and outside the neighborhood. These factors not only appear to shape individual map definitions, but also foster or discourage boundary consensus and boundary shifting depending on circumstance. They have been variables of interest throughout the ecological tradition and have been indicated by others as important to subjective neighborhood definition (e.g., Guest & Lee, 1984; Haeberle, 1988; Hunter, 1974; Lee & Campbell, 1997), but to our knowledge scholars have not until now linked them specifically to boundary placement by residents.

Not explored in this article are the roles that neighborhood associations and schools play in shaping boundary definition. Each of the four neighborhoods in fact had a neighborhood association, although these associations appeared to be of limited relevance to participants in Northside, Martin Park, and Westside. Only in Broadmore—where we also observed a high degree of neighborhood identity, attachment, and activity—did participants speak about involvement in the neighborhood association. Regarding the role of schools, we suspect that schools had significant meaning for teens and were important contributors to their development. In some cases the placement of schools may have also helped shape teens’ boundary definitions. However, several participants attended schools relatively far from their neighborhoods and although these contexts were likely quite important for their development, they were not necessarily central to the neighborhood boundary analysis. That said, in future work, both with these data and others, it will be useful to consider in a systematic fashion the ways in which participation in schools and neighborhood associations matter for parents and teens. Similarly, although an in-depth analysis of city politics and history goes beyond this study, we recognize both as critically important to neighborhood boundary studies.

Our participants created cognitive maps to help them navigate through urban space and among their neighbors (Anderson, 1990, 1999; Suttles, 1972). In two neighborhoods, we found that race and class were central to participants’ definitions and explanations of neighborhood boundaries, often in complicated ways. Beyond sorting people into distinct areas, race and class are part of symbolic and practical efforts at neighborhood boundary definition. The ethnic mix within the Allenspark housing project contributed to social isolation and stable, smaller boundaries by acting as a barrier to resident social interaction and fueling fear and suspicion across neighbors of different racial and ethnic groups. In addition, the racial and economic marginality of Allenspark adults also distinguished them from the broader Northside community, and seemed to foster disengagement or ignorance of this area by non-Allenspark residents.

On symbolic grounds, the liberal notion of racial diversity tied white Broadmore residents to their African American neighbors to the north. But race and class differences also served to

separate these same participants from their neighbors, physically and symbolically, and fueled interpersonal fear and suspicion (see also Chiricos, McEntire, & Gertz, 2001). As Hunter (1974) suggested, stable neighborhood names and boundaries often indicate social distinctions. The same markers that Broadmore participants used to connect their neighborhood symbolically to its racially and socioeconomically distinct northern section, were also used to justify their preferences for interactions with similar others, as well as their fears of crime and value encroachment from the north. Thus, race and class could at the same time isolate residents from and connect them to the same nearby others, even within the same neighborhood and in the same participant interview.

Unlike the participants in Broadmore, the other neighborhood participants did not report a similar sense of historical connection to their neighborhood, nor did they identify so strongly with a particular neighborhood name or articulate such an intentional purpose to their choice of neighborhood. This may in part reflect the higher residential mobility rates of the other neighborhoods in comparison to Broadmore. But beyond length of time in the neighborhood, our field efforts and analyses of interviews suggested that the participants in the other neighborhoods may not have ascribed as much symbolic importance to their immediate environment as did Broadmore residents. Future research might further explore how perceived neighborhood identity can be tied to residents' sense of intentionality about their place of residence, especially given changing residential patterns, such as the increasing concentration of suburban poverty and the deconcentration of some poverty areas in central cities (Jargowsky, 2003).

Our findings also illustrate the limits of a fixed place-based understanding of community. Community is not a given; people create symbolic communities that make sense of their local space and of the larger city. These symbolic communities vary with resident social status, neighborhood characteristics, and resources (Hunter, 1974), and symbolic distinctions may be used to reframe or reinforce social boundaries (Lamont and Molnar, 2002), as was the case of Broadmore in our study. Furthermore, network theorists note that connections to social structure are not inherently local nor are they fixed, that people are not bound by place, but rather seek out additional identities, new communities, and new social relationships (Wellman & Leighton, 1979). We observed some participants redrawing cognitive maps to actualize ideals and practices that require larger or smaller physical spaces. Meanwhile, other participants maintain clear neighborhood boundaries but speak of crossing these—exiting their neighborhoods—to take advantage of social connections, activities, and opportunities located outside of self-identified neighborhoods. As Cummins et al. (2007) argue in the case of health studies, in order to understand how place affects health, researchers may have to utilize more fluid and “relational” conceptions of place (pp. 1827, 1835). Indeed, the concepts of community bridging (Jarrett, 1992) and boundary redefinition (Furstenberg, 1993) suggest that individuals can actively structure their environments to take advantage of additional opportunities and resources outside of their immediate physical environment.

As others have found, bridging strategies may be more difficult to realize in less advantaged areas (Altschuler, Somkin, & Adler, 2004; Leventhal et al., 1997). For example, residents in the Allenspark housing project, especially parents, found themselves isolated within the physical environs of the project, with apparently limited means of bridging to areas of greater opportunity. Furthermore, residents of disadvantaged neighborhoods may be more likely to perceive neighborhood disorganization, even in the absence of objective evidence (Sampson & Raudenbush, 2004), and these perceptions of disorganization may also discourage them from seeking resources or engaging in activities within or outside of their immediate neighborhood.

### **Caveats and Considerations for Further Study**

The approach to the definition of neighborhood boundaries taken in this article does not discount the relevance of externally defined measures such as the block group or census tract. Indeed, the



boundaries of a neighborhood as determined by administrative bodies or broader public consensus may have powerful effects on a variety of outcomes whether or not the particular geographic area holds social and psychological meaning to its residents. For example, the quality of grocery stores, the availability of social services, the frequency of trash pick-up, the responsiveness of the police to neighborhood incidents, and even taxi service are all differentially distributed across geographic space, and residents of particular areas will experience more limited or poorer quality services whether or not their subjective definitions of neighborhood boundaries overlap with externally defined ones (e.g., Allard, 2008; Bourgois, 1995; Deutsch, 2005; Morland, Wing, Diez, & Pool, 2002). For research purposes, the appropriate level of aggregation of the neighborhood unit if one is concerned with outcomes such as these may have less to do with accurately tapping resident perception than with properly identifying the neighborhood boundaries as defined by administrative records, city planners, real estate developers, or other externally defined ways. Our own observations in Broadmore suggested that regardless of how Broadmore residents defined their neighborhood boundaries, public officials, realtors, and journalists viewed the boundaries of Broadmore more narrowly and consistently as the small multiblock area defined by the census block-group definition and made up of predominantly white, upper-middle class residents. The police responded with particular vigilance to this area, no doubt influencing the perceived and real safety of residents within the block group. In Northside, by contrast, our field work suggested that police distinguished the Allenspark housing project from the broader Northside block group, and residents within Allenspark felt the police and security forces offered them limited protection *because* of their address. Subjective neighborhood boundaries in these cases would seem to make little difference (good or bad) in police responsiveness to a neighborhood. What is likely to be more important for capturing effects such as these is the proper identification of externally held neighborhood boundaries (Hipp, 2007; Openshaw & Taylor, 1979, 1981).

Hipp (2007) argues for increased attention to the theoretical mechanisms by which different neighborhood characteristics are hypothesized to influence particular outcomes of interest. By taking such an approach, he suggests neighborhood researchers will be able to specify the proper level of aggregation of the neighborhood unit (e.g., the census tract? the block group? the block?) for the particular question under study. We agree and would extend this argument beyond externally defined levels of aggregation such as the census tract or block group. Specifically, greater attention to theoretical mechanisms might inform understanding of when subjective representations of neighborhoods are a theoretically relevant level of aggregation (when there is consensus across residents) or better understood as an individual-level variable (when discordance is the norm). Although a thorough consideration of the theoretical mechanisms is beyond the scope of the current article, we offer a few thoughts regarding the conditions under which subjective measures may prove valuable.

Subjective definitions of neighborhood boundaries may be most sensitive to outcomes over which residents have—or believe themselves to have—at least some control. For example, we believe that the adolescent outcomes under investigation in the DNS-S (e.g., prosocial competence, conventional friends, problem behavior) may be particularly sensitive to subjective neighborhood definition. Adolescents may define the boundaries of their neighborhood to include or exclude places within a geographic area where “trouble” is likely to occur, and adjust their travel patterns and social interactions in ways that either increase or reduce the likelihood of personal involvement with these trouble spots. Similarly, parents’ understandings of neighborhood boundaries may reflect or even shape their attitudes and beliefs about neighborhood resources and threats. They may construct boundaries in a fashion that they believe maximizes resources and/or reduces threats and select parenting strategies accordingly. A mother may, for example, mark her neighborhood’s boundary to coincide with a busy road, and then forbid her children to go beyond that point as a means of reducing the possibility of an accident and attempting to control her children’s

activities. The parent may do this despite the very real likelihood that a census tract definition of the neighborhood could extend beyond the busy road and include a recreational center, shopping district, or a string of bars and liquor stores, all of which might have little relevance for an obedient adolescent following his or her mother's rules. On the other hand, that same adolescent may draw his own boundaries in ways that incorporate areas of importance to him—school, parks, general “hanging-out” areas—that have consequences for peer interactions and his outcomes.

In addition to exerting independent effects on some outcomes, it is also plausible that subjective boundary definitions act as moderators of the structural features of neighborhoods. For example, it is possible that the effects of census tract or block group characteristics such as the racial and ethnic diversity of the neighborhood, the poverty rate, or mobility indicators are dependent on characteristics of subjective boundary definitions, such as whether most residents share a core neighborhood or hold flexible boundary definitions. Perhaps in neighborhoods such as West Side and Martin Park, for example, negative adolescent outcomes were more pronounced because the majority of teens did not share a subjective neighborhood core and the neighborhood itself had little symbolic meaning to them.

The theoretical mechanism by which subjective constructions of neighborhood boundaries may influence adolescent development and other outcomes of interest to neighborhood researchers requires further attention. Moreover, additional consideration of subjective boundary definition may also prove useful to scholars and practitioners concerned with resident engagement in neighborhood action efforts, as is suggested by Small's (2002) study of public housing residents. One wonders, for example, whether there are ways to change residents' cognitive frames such that residents shift their perceptions of neighborhood boundaries to include an area of interest for community organizers (a toxic waste site, a new housing development, etc), and whether that frame shifting results in resident mobilization.

The intent of this article was to elaborate our understanding of neighborhood boundary definitions. The qualitative study design and the cognitive mapping exercise allowed for an in-depth analysis of participants' subjective constructions of their neighborhoods and provided an opportunity to compare these definitions to one another and to administratively defined block group definitions. Our findings suggest that cognitive maps and other subjective measures of neighborhood represent potentially worthwhile approaches to operationalizing neighborhood boundaries both alone and in combination with other externally defined measures. As discussed earlier, however, the findings are meant to be exploratory and to spur further research, not to be definitive. Indeed, the findings must be interpreted with caution given that they are based on four small, nonrepresentative samples of block group residents who provided open-ended interview data at just one point in time.

In conclusion, we view subjective measures of neighborhood as complementary to administratively defined definitions or to measures constructed based on researcher observation of neighborhood features and activities. Given the multiplicity of factors that are likely to influence phenomenological boundaries and the practical difficulties such perceived measures may pose for research, it is critical that future work develop a better understanding of the processes and outcomes that are most affected by subjectively constructed definitions of neighborhood, and those that are robust enough to tolerate more distal and convenient measures of neighborhood.

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## ENDNOTES

- 1 Several theoretical perspectives have been posited to elaborate why and how neighborhoods have their effects (see Gephart, 1997; Jencks & Mayer 1990). After initially finding limited evidence for neighborhood-level effects (see Jencks & Mayer's 1990 review), research over the last two decades has demonstrated more promising results (see Sampson, Morenoff, & Gannon-Rowley, 2002).
- 2 In addition to phenomenological approaches, other alternative methods include examination of pedestrian accessibility and use patterns (Demerath & Levinger, 2003; Grannis, 1998) and systematic researcher observation of physical and social features of blocks or other geographic units (e.g., the "windshield surveys" used by Spencer, McDermott, Burton, & Kochman, 1997; see also Sampson & Raudenbush, 1999, 2004).
- 3 This qualitative study was a part of the Denver Neighborhood Study, which was itself part of the MacArthur Research Program on Successful Adolescent Development, a larger multi-site qualitative and quantitative study of neighborhood effects on adolescent development (see Elliott et al., 1996).
- 4 It is also worth noting that block groups are relatively small areas (averaging about 27 contiguous square blocks) that include a mix of resident ages and a mix of residential, commercial, and city properties. While we do not claim to have reached saturation in any block group, our relatively small sample size for each block group (14–19), should be viewed in light of the fact that the block groups themselves cover a small area, and our sampling criteria required us to identify households which included adolescents (census data indicate this would include between 16% and 33% of households in each of the block groups).
- 5 To preserve the confidentiality of study participants, the actual names of people, neighborhoods, streets, and parks have been replaced with pseudonyms, and some neighborhood features have been modified, including in some cases directionality. These efforts to maintain confidentiality are a requirement of the study, as outlined in the approved Institutional Review Board DNS protocol.
- 6 The race/ethnicity by block group is the following: Northside (non-Allenspark)—eight white, three Latino respondents; Allenspark—five Latino, one Asian American, one African American respondent; Martin Park—10 white, three Latino, one respondent ethnicity not identified; Westside—19 white respondents; Broadmore—17 white, two mixed (white and African American) heritage respondents.
- 7 The overall sample had 39/70 (55.71%) respondents with a relative in the sample, the breakdown for each of the four study neighborhoods was 50% (7/14) in Martin Park, 42% (8/19) in Broadmore, 68% (13/19) in Westside, and 61% (11/18) in Northside. Differences among the block groups in terms of numbers of related individuals did not appear to systematically relate to findings on shared agreement about neighborhood boundaries.
- 8 To ease readability of the figures, boundaries are not demarcated on the three block group maps that show significant boundary variability (Figures 2–4). The three shared boundaries of Broadmore participants are included on Figure 1.

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