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An Examination of the Role of Perceptions in Neighborhood Research

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Abstract

Accumulating research demonstrates that both archival indicators and residents' self-reports of neighborhood conditions are useful predictors of a variety of physical health, mental health, substance use, criminal, and educational outcomes. Although studies have shown these two types of measures are often related, no research has systematically examined their relationship. With a sample of Mexican Americans, this study examined this relationship and demographic factors that might account for variations of residents' perceptions of their neighborhoods. Results showed that country of birth, social class, family structure, and gender moderated relations between archival variables and adults' perceptions of danger. Thus using information from both archival data and self-reports should improve the ability of neighborhood researchers to understand individual differences in responses to neighborhood conditions.

Numerous studies have shown that those living in disadvantaged contexts are at risk for negative outcomes (e.g., See Leventhal & Brooks-Gunn, 2000 for a review). For instance, poor neighborhood quality is associated with emotional, behavioral, and delinquency problems (Aber, 1994; Elliot, et al., 1996). Much of this research has focused on aggregates, whereby levels of neighborhood risk are associated with rates of negative outcomes (See Roosa, Jones, Tein, & Cree, 2003 for a review). Several studies, however, have tried to identify factors that contribute to individual differences in reactions to neighborhood conditions. These two traditions, in general, have used different approaches to measuring neighborhood conditions with the former relying almost exclusively on archival data and the latter most often using self-reports. Few studies have used both types of measures and none systematically examined how they relate to one another. Understanding how self-report measures of neighborhood conditions relate to archival measures is one essential step toward understanding individual differences in how people respond to neighborhood conditions. Therefore, the purpose of this study was to begin the process of examining relations between these two methods of assessing neighborhoods. This study explored whether people living in the same neighborhoods evaluated their neighborhoods differently and whether any differences found were related to personal/familial characteristics such as gender, income, country of birth, or family structure.

Most research on neighborhood influences has relied on data from archival sources such as the census or municipal records (e.g., poverty rate, crime rate) to assess neighborhood quality. Archival indicators are valued because most are objective, not biased by the perceptions of study participants, and are related to important outcomes such as rates of academic failure (Leventhal & Brooks-Gunn, 2000). On the other hand, much theory and research emphasizes

the importance of perceptions of neighborhood conditions in understanding reactions to those conditions (Bronfenbrenner, 1979; Plybon, Edwards, Butler, Belgrave, & Allison, 2006; Wen, Hawkey, & Cacioppo, 2006). For instance, adolescents' perceptions of neighborhood danger were related to depression, anxiety and externalizing problems (Aneshensel, & Sucoff, 1996). Further, perceived neighborhood cohesion was associated with positive academic outcomes (Plybon et al., 2006).

The current study focused on Mexican Americans' perceptions of their neighborhoods. Few studies of neighborhood effects have included Mexican Americans despite the fact that 25% of this population lives in poverty (U.S. Census, 2000) and a large portion lives in the types of low-income, urban neighborhoods (Moore & Pinderhughes, 1993) commonly associated with poor adaptation. Mexican Americans, compared to members of the majority population, also are at greater risk for negative outcomes commonly associated with neighborhood conditions (e.g., mental disorders, health concerns; Centers for Disease Control, 2006; Grant et al., 2004). Therefore, neighborhood effects may help in understanding negative outcomes among Mexican Americans.

Importance of Perceptions in Neighborhood Research

Multiple theories argue that individuals play key roles in their understanding of, and reactions to, environments. Bronfenbrenner's (1979) ecological theory states that individuals are embedded within environments with which they interact to influence development. Individuals actively process and construct beliefs and perceptions of their environments and, in turn, interact with their surroundings based on those beliefs or perceptions (Bronfenbrenner, Moen, & Garbarino, 1984; Rutter et al., 1997). Similarly, Social Cognitive Theory (Bandura, 1986) states that environments provide frameworks for individuals' mental representations of their contexts. Individuals then mentally reconstruct their environments from these representations and make decisions about how to respond to their contexts based on these representations. Consistent with these theories, Roosa and colleagues (2003) proposed a transactional model of neighborhood influences in which perceptions mediate the association between archival neighborhood indicators and individuals' outcomes. They proposed that individuals develop "filters" through which they perceive their environments. These perceptions then directly impact individual and family processes which, in turn, contribute to individuals' outcomes. Because individuals vary in their perceptions of neighborhoods, individuals living within the same context can experience their neighborhoods quite differently.

Among studies that considered archival indicators of neighborhood conditions in conjunction with individuals' perceptions, important findings have emerged. First, individuals' appraisals of their neighborhoods offer valuable and unique information that archival indicators alone do not. Plunkett, Abarca-Mortensen, Behnke, and Sands, (2007), for instance, found that adolescents' reports of neighborhood wealth, education, and income predicted individuals' self-esteem, self efficacy, academic performance, and academic aspirations, while census data predicted only self-esteem. Similarly, in a study of African American, European American, and Latino adults, Wen et al. (2006) found that perceptions of neighborhood quality were related to self-rated health after controlling for individual characteristics and archival indicators of neighborhood socioeconomic conditions. Interestingly, some studies found no relation between adolescents' reports of neighborhood disadvantage and either neighborhood poverty rates or police reported homicide rates (Bass & Lambert, 2004). Other studies, however, reported significant relations between archival indicators and perceptions of neighborhoods. For instance, archival indicators (e.g., poverty rate) were related to adults' perceptions of neighborhood quality in the Wen et al.(2006) study. In addition, some studies found that perceptions mediated the association between archival indicators and outcomes (Deng et al., 2006; Ross, 2000). Together these findings raise the question of why there is such variability

in the association between archival and self-report descriptions of neighborhood quality. This study examined several personal or family characteristics that might help explain variations in perceptions of neighborhood danger within the same, or in highly similar, neighborhoods.

Potential Moderators of Perceptions of Neighborhoods

A possible explanation for variations in individuals' perceptions of neighborhoods is that there are individual and family characteristics that moderate the association between archival neighborhood conditions and perceptions of those conditions. People who differ in their social roles, who differ in their degree of exposure or vulnerability to neighborhood conditions, or who come to the same neighborhood from very different historical or cultural backgrounds are likely to evaluate neighborhood conditions differently (note: these three conditions are not necessarily independent of one another). To test this argument, this study examined whether Mexican American adults' perceptions of neighborhood danger differed systematically depending on country of birth, SES, family composition, or gender. Identifying such moderators is crucial to furthering understandings of why individuals respond differently to the same or objectively similar neighborhoods (Roosa et al. 2003; Rutter, 1990).

One potential contributor to variations in perceptions of neighborhood quality may be differences in residential histories. Immigrants may experience a dual frame of reference when viewing their contexts, comparing their current living conditions with those in their home countries (Suárez-Orozco & Suárez-Orozco, 2001). Thus, there could be differences in perceptions of neighborhoods between Mexican immigrants and U.S.-born Mexican Americans. For example, if recent immigrants, especially those from poor or rural areas of Mexico, are asked to evaluate the quality of their neighborhoods in the U.S., they may rate them favorably, despite unfavorable characteristics according to archival data, because of amenities (e.g., running water, trash pickup) that may have been lacking in their neighborhoods in Mexico. On the other hand, many immigrants will find the traffic, gangs, and crime common in many low-income U.S. urban neighborhoods disturbing while some U.S.-born Mexican Americans may have become inured to these problems from long term exposure. The current study examined nativity as a potential moderator of the association between archival neighborhood indicators and individual's perceptions.

Socioeconomic status (SES) also may moderate associations between archival neighborhood characteristics and individuals' perceptions. People with diverse socioeconomic experiences may have different priorities with regard to what constitutes "good care" of homes in their neighborhoods. Middle class individuals may be more sensitive to potential threats to property than lower income persons with fewer possessions. This hypothesis is supported by research showing that adults in middle class neighborhoods perceived similar levels of danger as individuals in lower class neighborhoods despite archival data showing higher crime rates and unemployment in the latter (Aneshensel & Sucoff, 1996). Therefore, this study examined SES (i.e., education level) as a potential moderator of the relation between archival records and perceptions of neighborhood danger.

Family structure also may influence individuals' perceptions of neighborhood contexts. In single-parent, female-headed households, women may be forced to attend to external spheres (e.g., neighborhood) typically handled by men in addition to the more internal/familial spheres. Thus, women from female-headed households may rate their neighborhoods differently than women from two-parent households because of their broader perspective. While relatively few studies have examined the role of family structure in neighborhood perceptions, those that have found that single mothers were more likely to report unfavorable views of their neighborhoods than mothers in two parent households (Christie-Mizell, Steelman, & Stewart, 2003). However, the potential moderating role of family structure has yet to be tested systematically.

Not surprisingly, males and females differ in their assessment of neighborhood context. Males report witnessing more violence and victimization in their neighborhoods than females (e.g., Richters & Martinez, 1993) but females perceive their neighborhoods as more dangerous (Aneshensel & Sucoff, 1996) and less cohesive than do males (Aneshensel & Sucoff, 1996). Such gender differences could be greater in a Mexican American sample because of the greater prevalence of traditional gender role values in this population, particularly among immigrants. Therefore, gender was tested as a potential moderator of the relations between archival indicators of neighborhood quality and residents' perceptions of neighborhood danger.

Most research on neighborhood qualities has focused on characteristics of neighborhood disadvantage such as the unemployment rates. However, a few studies have shown that positive neighborhood characteristics such as affluence (i.e., percent of families with incomes above \$50,000) are related to important outcomes such as delinquency or violence (Beyers, Bates, Pettit, & Dodge, 2003; Stewart, Simons, & Conger, 2002). Therefore, this study also tested whether nativity, SES, family structure, or gender moderated relations between archival measures of positive neighborhood characteristics and perceptions of neighborhood danger.

Method

Sample

Data for this study came from a study investigating the role of culture and context in the lives of Mexican American families in a large southwestern metropolitan area (Roosa et al., 2008). Participants were 750 Mexican American students in 5th grade and their families who were selected from rosters of schools that served ethnically and linguistically diverse communities in a large southwestern metropolitan area. Eligible families met the following criteria: (a) they had a fifth grader attending a sampled school; (b) both mother and child agreed to participate; (c) the mother was the child's biological mother, lived with the child, and self-identified as Mexican or Mexican American; (d) the child's biological father was of Mexican origin; (e) the child was not severely learning disabled; and (f) no step-father or mother's boyfriend was living with the child. Although participation was optional for fathers, 460 (81%) fathers from the 570 two-parent families in the study also participated.

Table 1 presents demographic characteristics for families who had complete data on the neighborhood perceptions measure (n=748). Unlike most studies of Mexican Americans, this sample was diverse on both SES indicators and language. Annual income ranged from less than \$5,000 to more than \$95,000 and education levels of both mothers and fathers ranged from one year or less to post graduate degrees. Although most studies of Mexican Americans or Latinos are limited to English speakers (Gonzales, Knight, Morgan-Lopez, Saenz, & Sirolli, 2002), less than one-third of mothers or fathers were interviewed in English reflecting the impact of several decades of high rates of immigration on the Mexican American community in the Southwest.

To represent the diversity of Mexican Americans on acculturation, social class, and the cultural/ecological niches in which they lived, a multi-step sampling procedure was employed that included (1) identifying the range of community contexts inhabited by Mexican Americans in the metropolitan area, (2) using random and purposive sampling to select communities, and (3) selecting and recruiting families from each community. Details of the sample and sampling design are described elsewhere (Roosa et al., 2008). All procedures were reviewed and approved by an Institutional Review Board and conformed with APA ethical standards.

Procedures

School selection and neighborhood identification—A mix of random and purposive sampling strategies were used to ensure that communities represented a wide range of the contexts in which Mexican American families live, from barrio-style communities that support traditional Mexican values and lifestyles to more mainstream and integrated communities. In total, 47 schools from 18 school districts, the Catholic Diocese, and charter schools were selected for the study. All public and Catholic schools selected agreed to participate in the project while only one of three charter schools agreed to participate. Operationalization of the neighborhood construct has received considerable attention from a methodological standpoint and researchers have commonly used existing census or administrative boundaries. In the current study, neighborhood was operationalized at the level of the census tract. Census tracts contain approximately 4,000 residents and are delineated with the assistance of local participants to enhance their relevance as an identifiable geographic space (U.S. Census Bureau, 2000). Using this operationalization, families in this study lived in 154 neighborhoods.

Family selection and interviews—Upon obtaining family contact information, families whose ethnicity was indicated as Hispanic or families with Hispanic/Latino surnames were randomly selected for screening. In total, 73.2% (n=750) of eligible families completed interviews. Professional interviewers conducted in-home Computer Assisted Personal Interviews that lasted about two and a half hours. Each participating family member completed the interview in the language of his/her choice (English or Spanish) and was paid \$45.

Neighborhood Level Measures

All neighborhood level indicators were captured from the 2000 Census. Indicators of disadvantage (e.g., unemployment, poverty, low education, female headed households) were examined because disadvantage is a common construct in studies of neighborhoods (e.g., Deng et al., 2006). However, because recent work points to the importance of examining advantaged neighborhood contexts (e.g., Beyers et al., 2003), relations between individual's perceptions and archival indicators of neighborhood advantage (e.g., residential stability, concentrated affluence) were examined as well. In contrast to much of the work on neighborhood effects, which relies heavily on composite indicators of advantage and disadvantage, this study examined the association between perceptions and multiple archival indicators individually because theory suggests that using composite indicators may mask important variability in individual's responses to different characteristics of contexts (Bronfenbrenner et al., 1984).

Measures of neighborhood disadvantage—For each neighborhood, tract-level 2000 U.S. Census data of (a) the percent of families below poverty level, (b) the percent of the population 16 years and over in the labor force who were unemployed, (c) the percent of the population 25 years and over who had not graduated from high school/equivalent, and (d) the percent of female headed households were used as indicators of neighborhood disadvantage.

Measures of neighborhood advantage—For each neighborhood, (a) the percent of the population who lived in the same house in 1995 (i.e., residential stability), and (b) the percent of families with incomes greater than or equal to \$50,000 (i.e., affluent families) in 1999 were used as individual indicators of neighborhood advantage (Beyers et al., 2003; Stewart et al., 2002).

The distribution of the 154 neighborhoods in these analyses on the archival indicators of neighborhood qualities are shown in Table 2. The neighborhoods were as diverse as the families with poverty levels ranging from less than 1% to almost 70%, female headed household rates ranging from 0% to almost 90%, and affluent families ranging from 0% to almost 90%.

Individual-level Measures

Neighborhood Danger—Mothers and fathers reported on their own perceptions of the degree of danger in their neighborhoods using a 3-item subscale of the Neighborhood Quality Evaluation Scale (NQES, Roosa et al., 2005). Parents were asked to indicate their levels of agreement ranging from (1) *not true at all* to (5) *very true* on items such as “It is safe in your neighborhood” (reverse coded). Higher scores reflect a higher sense of danger in the neighborhood. This is the only known neighborhood perceptions measure with evidence of cross-cultural and cross-language (English/Spanish) equivalence (Kim, Nair, Knight, & Roosa, in press). In the current study, Cronbach’s alphas of .89 for both parents were obtained.

Hypothesized moderators—This study examined several potential moderators of the relation between self-report and archival neighborhood measures. First, for mothers (n=750) and fathers (n=460) separately, nativity was examined as a moderator. Both men and women reported on their country of birth (1=Mexico and 0=U.S.). Second, mothers’ and fathers’ educational attainment was tested as a moderator. Both men and women responded to a question asking “what is the highest level of education you have completed?” These data were recoded into a dichotomy for these analyses (1=completion of high school or GED, 0=less than high school diploma/equivalent). Third, among mothers only, family structure was tested as a moderator. Mothers reported on their marital and cohabitation statuses (1 = two parent family, 0 = single parent family). Finally, in two parent families in which both mothers and fathers participated (n=460), parent gender was tested as a moderator (1 = female, 0 = male).

Analytic Strategy

In the present study, there are two distinct nesting hierarchies. First, individuals (level 1) were nested within neighborhoods (level 2). Second, and only in gender models, men and women (level 1) were nested within families (level 2) which were nested within neighborhoods (level 3). Multilevel models are appropriate for analyzing datasets with multiple hierarchies or units of analysis (Raudenbush & Bryk, 2002). These models also allow the examination of cross-level interactions, whereby the association between the neighborhood-level predictor and the dependent variable is moderated by an individual-level predictor. Therefore, we used multilevel models to answer the current research question: Does the relation of a particular archival neighborhood characteristic to residents’ perceptions of their neighborhood vary as a function of individual-level characteristics, such as gender, nativity, and educational attainment?

Results

Nativity, Socioeconomic, and Family Structure Analyses

An unconditional model was tested to determine whether significant variation existed at each level of the hierarchy (i.e., intraclass correlation coefficient, ICC) on neighborhood perceptions. Parameter results showed significant variation at the neighborhood level for perceptions of danger among both men and women. Neighborhood-level variance represented 13.3% ($p < .01$) of the total variance for perceptions of danger among women and 18.0% ($p < .05$) among men. These estimates indicated the existence of considerable homogeneity within, and heterogeneity across, neighborhoods supporting the use of multilevel models.

To examine the effects of nativity (Mexico-born vs. U.S.-born), SES (did not complete high school vs. completed high school), and family composition (single- vs. two-parent households) on perceptions of neighborhood quality, two-level models were specified with nativity, SES, or family composition as the level 1 covariate and neighborhood characteristics as the level 2 covariate. Then a cross level interaction between the level 1 and level 2 covariates was specified. In these models, a significant main effect for level 1 covariates indicated mean level

differences in perceptions between the two levels of the moderator variables. A significant main effect would not be especially interesting because it was generally expected, for example, that Mexico-born individuals, on average, lived in more disadvantaged neighborhoods than U.S.-born individuals. Indeed, in the current study, Mexico-born individuals lived in significantly more disadvantaged neighborhoods (i.e., neighborhood unemployment rates [$t(748) = -2.95, p < .01$], poverty rates [$t(748) = -4.09, p < .0001$], high school completion rates [$t(748) = -4.90, p < .0001$], and female-headed household rates [$t(748) = -2.91, p < .01$]). Consequently, a mean difference in perceptions between the two nativity groups (or SES groups) likely would be the result of observed distributions of residential placement. However, a significant cross-level interaction would indicate that the relation between archival data and perceptions varied as a function of the individual/family characteristic in the model. Such a finding would support the argument that self-reports of neighborhood context need to be examined, above and beyond objective characteristics, because individual's perceptions of their neighborhoods represented unique information not obtained from archival indicators alone (Roosa et al., 2003).

Nativity models were run separately for men and women (Table 3). With the exception of residential stability, main effects for the neighborhood level covariates were in the expected direction and significant in both men's and women's models. There were no significant cross-level interactions in men's models. There was one significant cross-level interaction for women in the nativity models, the interaction between nativity and neighborhood rates of female-headed households was $-0.04 (p < .05)$. The positive association between neighborhood rates of female-headed households and women's perceptions of danger was weaker for women born in the U.S. Additionally, there was a trend-level interaction for women: the interaction between nativity and neighborhood poverty rates was $-0.01 (p < .10)$, with the positive association between poverty rates and perceptions of danger being weaker for U.S.-born women.

Education models also were run separately for men and women (Table 3). With the exception of the residential stability indicator (for men and women) and the female-headed household indicator (for women), the main effects for the indicators of neighborhood advantage and disadvantage were significant and in the expected direction. Among the men's models, there were two significant cross-level interactions and one trend. First, the interaction between education and concentrated affluence was $-0.01 (p < .05)$, suggesting that the negative association between concentrated affluence and perceptions of danger was stronger for men who had not completed high school. Second, the interaction between education and neighborhood poverty rates was $0.02 (p < .01)$, indicating that the positive association between poverty rates and perceptions of danger was stronger for men who had not completed high school. Third, the interaction between neighborhood unemployment rates and educational attainment was $0.05 (p < .10)$, suggesting that the positive association between unemployment rates and men's perceptions of danger in the neighborhood was stronger for men who had not completed high school.

There were two significant cross-level interactions among the women's models. Specifically, the interaction between women's educational attainment and neighborhood unemployment rates was $0.05 (p < .01)$, suggesting that the positive association between unemployment rates and women's perceptions of danger was stronger for women who had not completed high school. Parallel findings held for the interaction of women's educational attainment and neighborhood rates of female headed households, $0.04 (p < .01)$.

Family structure models were run to determine if women from two-parent and single-parent households perceived their neighborhoods differently depending on indicators of neighborhood advantage and disadvantage. These models were run for women only because, by design, all adult males were from two-parent families. With the exception of residential

stability, main effects for the neighborhood level covariates were in the expected direction and significant in all models. Only one significant cross-level interaction emerged from these analyses; the interaction between family structure and concentrated affluence was 0.01 ($p < .05$). This finding suggests that the negative association between concentrated affluence and women's perceptions of danger in their neighborhoods was weaker for women from single-parent households.

Gender Analyses

To examine gender differences in perceptions, a 3-level model was employed: men and women (level 1) were nested within families (level 2) which were nested within neighborhoods (level 3). An unconditional model was tested initially to determine whether significant variation existed at each level of the hierarchy. Parameter results from an unconditional 3-level model showed significant variation at the family and neighborhood levels for perceptions of danger. Family-level variances represented 12.6% ($p < 0.01$) of the variance in perceptions of danger and neighborhood-level variance represented 19.0% ($p < .001$). These estimates indicate the existence of considerable homogeneity within, and heterogeneity between, families and neighborhoods, supporting the use of multilevel models.

In the model, parent gender was included as a covariate at level 1 and neighborhood archival indicators as a covariate at level 3. A cross level interaction was created to determine if men's and women's reports of neighborhood perceptions varied in response to archival data. The male-female comparison is made between co-residential parents; that is, men and women are *matched* within neighborhood. In light of this sampling characteristic, a significant main effect for gender indicates that there are mean differences in perceptions between the two groups, suggesting that even when men and women live within the same family and neighborhood, one group has statistically different perceptions than the other group. A significant cross level interaction indicates that the mean differences between the two groups are based on individuals' evaluations of the specific objective neighborhood characteristic included in the model

The main effect for gender achieved statistical significance ($p < .01$) in one model: the model exploring gender and neighborhood unemployment rates. The main effect was trending ($p < .10$) in the model exploring gender and female headed householder rates. In both models the main effect was negative, suggesting that, even when men and women resided in the same neighborhoods, men reported lower levels of perceived danger than women. However, none of the cross level interactions were significant. The significant main effects in the absence of interactions suggest that although men and women reported different neighborhood perceptions, these differences were not based on any of the archival variables explored in these models.

Discussion

Research on neighborhood effects consistently has shown that the quality of neighborhoods adds a significant amount of explained variance to models predicting adult and child adjustment (e.g., Leventhal & Brooks-Gunn; 2000). Researchers involved in neighborhood studies generally are divided into two camps, those who utilize objective indicators of neighborhood quality usually obtained from archival sources, and those who assess perceptions of neighborhood quality utilizing various forms of self-report measures. A smaller, third group of researchers use both of these methods and their results signaled that information provided by these two methods often was not interchangeable. This study systematically examined associations between a self-report measure and a variety of archival indicators of neighborhood quality to identify factors that contribute to individual differences in responses to neighborhood conditions in a sample of Mexican American adults.

The results provided evidence that individuals with different family and personal characteristics may vary significantly in how they perceive their neighborhoods. Specifically, individuals' perceptions differed by nativity, education, family structure, and gender. For instance, using two different indicators of neighborhood disadvantage (female headed household and poverty rates), Mexico-born women reported a stronger association between objective indicators and perceptions of danger than U.S.-born women. Thus, the immigrant women were more sensitive or responded more strongly to objective indicators in the neighborhood. A potential explanation for this could be that Mexico born women might be unfamiliar with the characteristics of some U.S. neighborhoods (e.g., traffic, gangs, crime), while U.S.-born women may have become accustomed to such neighborhood characteristics from long term exposure.

Another finding was that associations between objective indicators and perceptions differed by education. Specifically, the associations of certain objective indicators of neighborhood disadvantage (poverty rates, unemployment rates, female headed households) and perceptions of danger were stronger among less educated men and women than those more educated. Further, men with less education reported a stronger negative association between concentrated affluence and perceptions of danger than more educated men. Perhaps those with less education are more critical of their surroundings. Alternatively, these individuals may be less mobile (i.e., fewer have cars) than their more educated counterparts and consequently have more direct exposure to, and are more familiar with, the actual characteristics of their neighborhoods. Another plausible explanation for the differences across education categories may have to do with the ways in which individuals define their neighborhood space; that is, those with lower levels of education may tend to define their neighborhood space more narrowly, perhaps due to decreased mobility, than more educated, and more mobile, people. Of course, these explanations represent new hypotheses that require testing in future studies.

Lastly, women in single-parent families reported a stronger negative association between a neighborhood advantage indicator (affluent neighbors) and perceptions of danger than women in two-parent families. Single-parent mothers do not have a partner to represent the family in neighborhood situations and, because of their lower social class standing, are more likely to experience the neighborhood on foot than from the relative safety of a car. Thus, affluent neighbors may provide single-parent mothers with a greater sense of security while having little influence on the feelings of mothers in two-parent households.

Taken together, these findings suggest that certain individuals are more sensitive to, or their perceptions are more influenced by, objective neighborhood conditions. Quite simply, objective characteristics of neighborhoods garnered from archival data told only part of the story. Personal and familial characteristics may condition individuals to focus on particular aspects of their neighborhoods or to react more strongly to certain aspects of their neighborhoods than others when assessing levels of danger. Thus, the results offer support for the contention that variations in perceptions of neighborhood conditions do not occur randomly but rather emerge systematically as a function of individual and family characteristics. These findings, however, do not challenge the importance of archival indicators of neighborhood disadvantage or advantage. Instead, they provide evidence that researchers interested in understanding individual differences in adjustment need to take individual perceptions of neighborhood conditions into account in addition to archival indicators of neighborhood conditions. Attention to perceptual biases of individuals, for the way individuals perceive, organize, and evaluate information about their neighborhood environments, is likely to improve the effectiveness of researchers' models of adjustment (Bandura, 1986; Bronfenbrenner et al., 1984; Rutter et al., 1997). After all, people react to the way they see their environment rather than to archival statistics describing that environment.

This study was the first to examine systematically associations between self-reports and archival indicators of neighborhood quality. This study used only a small sample of the archival indicators that have been used in neighborhood research and only a single self-report measure of neighborhood quality, although the measure used was the only one known to meet criteria for cross-language (English-Spanish) equivalence, a requirement for research with a sample including English- and Spanish-speaking participants (Knight & Hill, 1998). Given the numerous self-report measures of neighborhood characteristics, the examination of how archival and self-report measures of neighborhoods relate has just begun. In addition, the current sample was limited to adults of Mexican heritage, although there is no reason to believe that systematic variation in the relations between archival and self-report measures are limited to this population. Researchers should, however, continue to examine interactions between personal or family and neighborhood characteristics as they relate to perceptions of neighborhoods in other samples. Of utmost importance, researchers need to take into account people's perceptions of their neighborhoods in models of adaptation to improve the ability to explain individual differences in responses to neighborhood conditions.

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References

- Aber, LL. Poverty, violence, and child development: Untangling family and community level effects. In: Nelson, C., editor. Threats to optimal development: Integrating biological, psychological, and social risk factors. Vol. Vol. 27. Hillsdale, NJ: Erlbaum; 1994. p. 229-272.
- Aneshensel CS, Sucoff CA. The neighborhood context of adolescent mental health. *Journal of Health and Social Behavior* 1996;37:293–310. [PubMed: 8997886]
- Bandura, A. Social foundations of thought and action: A social cognitive theory. Upper Saddle River, NJ: Prentice-Hall; 1986.
- Bass JK, Lambert SF. Urban adolescents' perceptions of their neighborhoods: An examination of spatial dependence. *Journal of Community Psychology* 2004;32:277–293.
- Beyers JM, Bates JE, Pettit GS, Dodge KA. Neighborhood structure, parenting processes, and the development of youths' externalizing behaviors: A multilevel analysis. *American Journal of Community Psychology* 2003;31(1–2):35–53. [PubMed: 12741688]
- Bronfenbrenner, U. The ecology of human development: Experiments by nature and design. Cambridge, MA: Harvard University Press; 1979.
- Bronfenbrenner, U.; Moen, P.; Garbarino, J. Child, family, and community. In: Parke, RD., editor. Review of child development research. Vol. Vol. 7. Chicago: University of Chicago Press; 1984. p. 283-328.
- Centers for Disease Control and Prevention. Surveillance Summaries, June 9. *MMWR* 2006;55(No SS5)
- Christie-Mizell CA, Steelman LC, Stewart J. Seeing their surroundings: the effects of neighborhood setting and race on maternal distress. *Social Science Research* 2003;32:402–428.
- Deng S, Lopez V, Roosa MW, Ryu E, Burrell GL, Tein JY, et al. Family processes mediating the relationship of neighborhood disadvantage to early adolescent internalizing problems. *The Journal of Early Adolescence* 2006;26(2):206.
- Elliott DS, Wilson WJ, Huizinga D, Sampson RJ, Elliott A, Rankin B. The effects of neighborhood disadvantage on adolescent development. *Journal of Research in Crime and delinquency* 1996;33:389–426.
- Gonzales, N.; Knight, G.; Morgan-Lopez, A.; Saenz, D.; Sirilli, A. Acculturation and the mental health of Latino youths: An integration and critique of the literature. In: Contreras, J.; Kerns, K.; Neal-Barnett, A., editors. Latino children and families in the United States: Current research and future directions. West Port, CN: Praeger; 2002. p. 45-74.

- Grant B, Stinson F, Hasin D, Dawson D, Chou S, Anderson K. Immigration and lifetime prevalence of DSM-IV psychiatric disorders among Mexican Americans and non-Hispanic whites in the United States. *Archives of General Psychiatry* 2004;61:1226–1233. [PubMed: 15583114]
- Kim SY, Nair RL, Knight GP, Roosa MW. Measurement equivalence of neighborhood quality measures for European American and Mexican American families. *Journal of Community Psychology*. (in press).
- Knight, GP.; Hill, NE. Measurement equivalence in research involving minority adolescents. In: McLoyd, V.; Steinberg, L., editors. *Studying minority adolescents: Conceptual, methodological and theoretical issues*. Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.; 1998. p. 183-210.
- Leventhal T, Brooks-Gunn J. The neighborhoods they live in: The effects of neighborhood residence on child and adolescent outcomes. *Psychological Bulletin* 2000;126:309–337. [PubMed: 10748645]
- Moore, J.; Pinderhughes, R. *In the barrios: Latinos and the underclass debate*. New York: Russell Sage Foundation; 1993.
- Plybon LE, Edwards L, Butler D, Belgrave FZ, Allison KW. Examining the link between neighborhood cohesion and school outcomes: The role of support coping among African American adolescent girls. *Journal of Black Psychology* 2006;29:393–407.
- Plunkett SW, Abarca-Mortensen S, Behnke AO, Sands T. Neighborhood structural qualities, adolescents' perceptions of neighborhoods, and Latino youth development. *Hispanic Journal of Behavioral Sciences* 2007;29:19–34.
- Raudenbush, SW.; Bryk, AS. *Hierarchical Linear Models: Applications and data analysis methods*. 2 ed. Thousand Oaks, CA: Sage Publications Inc.; 2002.
- Richters JE, Martinez P. The NIMH Community Violence Project I: Children as victims of and witnesses to violence. *Psychiatry* 1993;56:7–21. [PubMed: 8488215]
- Roosa MW, Deng S, Ryu E, Lockhart Burrell G, Tein JY, Jones S, et al. Family and child characteristics linking neighborhood context and child externalizing behavior. *Journal of Marriage and Family* 2005;67:515–529.
- Roosa MW, Jones S, Tein JY, Cree W. Prevention science and neighborhood influences on low-income children's development: Theoretical and methodological issues. *American Journal of Community Psychology* 2003;31(1–2):55–72. [PubMed: 12741689]
- Roosa MW, Liu FF, Torres M. Sampling and recruitment in studies of cultural influence on adjustment: A case study with Mexican Americans. *Journal of Family Psychology* 2008;22:293–302. [PubMed: 18410216]
- Ross CE. Neighborhood disadvantage and adult depression. *Journal of Health and Social Behavior* 2000;41:177–187.
- Rutter, M. Psychosocial resilience and protective mechanisms. In: Rolf, J.; Masten, A.; Cicchetti, D.; Nuechterlein, KH.; Weintrabe, S., editors. *Risk and protective factors in the development of psychopathology*. New York: Cambridge University Press; 1990. p. 181-214.
- Rutter M, Dunn J, Plomin R, Simonoff E, Pickles A, Maughan B, Ormel J, Meyer J, Eaves L. Integrating nature and nurture: Implications of person-environment correlations and interactions for developmental psychopathology. *Development and Psychopathology* 1997;9:335–364. [PubMed: 9201448]
- Stewart EA, Simons RL, Conger RD. Assessing neighborhood and social psychological influences on childhood violence in an African-American sample. *Criminology* 2002;40:801–829.
- Suárez-Orozco, C.; Suárez-Orozco, MM. *Children of immigration*. Cambridge, MA: Harvard University Press; 2001.
- U.S. Census Bureau. *Census 2000 Geographic Terms and Concepts*. Washington, DC: U.S. Census Bureau; 2000.
- Wen M, Hawkey LC, Cacioppa JT. Objective and perceived neighborhood environment, individual SES and psychosocial factors, and self-rated health: An analysis of older adults in Cook County, Illinois. *Social Science & Medicine* 2006;63:2575–2590. [PubMed: 16905230]

Table 1

Descriptive Statistics for the Sample of Families

	Full Sample				Father Participating Subsample					
	<i>n</i>	%	Range	Mean	SD	<i>n</i>	%	Range	Mean	SD
Age of mother	748		25–54	35.85	5.81	457		25–54	35.78	5.65
Age of father						453		27–63	38.16	6.27
Family income (X\$5,000)	731		1–20	6.73	4.40	447		1–20	7.43	4.66
Mother's years of education	747		1–19	10.36	3.66	456		1–19	10.30	3.82
Father's years of education						455		1–20	10.12	3.93
Two parents	748	76.07								
Mothers interviewed in English	747	30.25				457	27.13			
Fathers interviewed in English						456	23.46			

Table 2

Descriptive Statistics for the Sample of Neighborhoods

	Full Sample (n=154)			Father Participating Subsample (n=126)		
	Range	Mean	SD	Range	Mean	SD
% families below poverty	0.56–68.53	15.87	13.03	0.78–68.48	16.06	13.11
% unemployed	1.05–29.14	6.97	4.33	1.33–29.14	6.95	4.32
% not high school graduates	2.25–81.26	33.20	20.01	2.25–77.24	33.75	20.19
% female headed households	0.00–89.24	9.14	5.19	0.00–26.21	9.06	5.13
% in same house for 5 years	6.48–72.55	42.71	12.86	6.48–72.55	43.56	12.33
% with incomes \geq \$50,000/year	0.00–89.24	37.16	19.60	0.00–89.24	37.42	20.24

Table 3

Random Coefficients Models for Perceptions of Danger

Model	Intercept	Individual level covariate	Neighborhood level covariate ^a	Cross level interaction
Men				
<i>Nativity Modifier</i>				
Nativity & Affluent Neigh	2.20***	0.24*	-0.02***	-0.00
Nativity & Residential Stab	2.05***	0.41***	0.01	-0.01
Nativity & Poverty	2.17***	0.28**	0.03***	-0.00
Nativity & Unemployment	2.16***	0.29**	0.08***	-0.01
Nativity & low education	2.18**	0.28**	0.01**	0.00
Nativity & Female HH	2.10***	0.36***	0.05**	-0.01
<i>Education Modifier</i>				
Ed & Affluent Neigh	2.52***	-0.22*	-0.01*	-0.01*
Ed & Residential Stability	2.53***	-0.30**	0.00	0.00
Ed & Poverty	2.51***	-0.22**	0.02*	0.02**
Ed & Unemployment	2.52***	-0.26**	0.05**	0.05~
Ed & low education	2.52***	-0.22*	0.01**	0.01
Ed & Female H H	2.53***	-0.28**	0.03*	0.02
Women				
<i>Nativity Modifier</i>				
Nativity & Affluent Neigh	3.19***	-0.02	-0.02***	0.00
Nativity & Residential Stab	2.34***	0.17*	-0.01	0.01
Nativity & Poverty	2.43***	0.09	0.03***	-0.01~
Nativity & Unemployment	2.39***	0.13	0.07***	-0.02
Nativity & low education	2.45***	0.08	0.02***	-0.00
Nativity & Female H H	2.39***	0.13	0.06***	-0.04*
<i>Education Modifier</i>				
Ed & Affluent Neigh	2.51***	-0.02	-0.02***	-0.01
Ed & Residential Stability	2.50***	-0.07	0.00	-0.00
Ed & Poverty	2.50***	-0.03	0.02***	0.00
Ed & Unemployment	2.50***	-0.04	0.03~	0.05**
Ed & low education	2.53***	-0.04	0.02***	-0.00
Education & Female H H	2.51***	-0.07	0.01	0.04***
<i>Family Structure Modifier</i>				
Fam Struct & Affluent Neigh	2.54***	-0.08	-0.03***	0.01*
Fam Struct & Resid Stab.	2.55***	-0.13	-0.01	0.01

Model	Intercept	Individual level covariate	Neighborhood level covariate ^a	Cross level interaction
Fam Struct & Poverty	2.57***	-0.13	0.03***	-0.01
Fam Struct & Unemploy	2.55***	-0.11	0.06**	-0.01
Fam Struct & low education	2.62***	-0.15~	0.02***	-0.00
Fam Struct & Female H H	2.55***	-0.11	0.05**	-0.03
<i>Gender Modifier</i>				
Gender & Affluent Neigh	3.16***	-0.12	-0.02***	0.00
Gender & Residential Stab	2.26***	-0.09	0.00	0.00
Gender & Poverty	2.08***	-0.16	0.02***	0.00
Gender & Unemployment	2.06***	-0.25**	0.06***	0.02
Gender & low education	1.77***	0.01	0.02***	-0.00
Gender & Female H H	2.20***	-0.25~	0.03**	0.02

~ p < .10.

* p < .05.

** p < .01.

*** p < .001

^a grand-mean centered