A Multi-Racial-Ethnic Model of Perceived Neighborhood Crime

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A thesis

submitted in partial fulfillment of the

requirements for the degree of

Master of Arts

University of Washington

2014

Committee:

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Program Authorized to Offer Degree:

Sociology

University of Washington

Abstract

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This paper investigates the relationship between Seattle residents' perceptions of the racial-ethnic composition of their neighborhood and their perceptions of neighborhood crime. The study uses questions about perceptions of neighborhood crime from the Seattle Neighborhood Crime Survey, matched with census data and police department crime statistics. Perceptions of more Black neighbors are positively associated with perceptions of the neighborhood crime level, even after controlling for crime rates, objective measures of race, and other neighborhood- and individual-level factors associated with crime. Perceptions of more Latino neighbors and Asian neighbors did not show the same effect on perceived neighborhood crime. This suggests that, among racial/ethnic minorities, Blacks experience the greatest racial discrimination and supports the view that racial stereotypes influence perceptions of neighborhood crime. Variation in effects by race of the perceiver and implications for future research are discussed.

INTRODUCTION

Much of the literature on ethnic and racial residential segregation has shown that racial-spatial segregation has powerful consequences for neighborhood conditions and for quality of life (Massey and Denton 1993; Peterson and Krivo 2010). Members of racial and ethnic minority groups tend to reside in impoverished neighborhoods, characterized by scarce social and community services, an abundance of physical and social incivilities, and pandemic problems with crime and violence. By comparison, members of the majority, on average, tend to reside in affluent neighborhoods, characterized by ample social and community resources, hospitable living conditions, and few problems with crime and violence. The greatest racial divide in the United States continues to be Black-White, regardless of socio-economic status. In fact, Peterson and Krivo (2010) observed that there are very few highly impoverished and otherwise disadvantaged White neighborhoods in major U.S. cities comparable to the level of poverty and disadvantage experienced in many Black urban neighborhoods and, likewise, there are very few affluent and highly advantaged Black neighborhoods as is characteristic of many White neighborhoods in the U.S. Prior research (Massey and Denton 1993; Massey and Fischer 1999) has found that the most affluent Blacks are more segregated from Whites than are the most impoverished Latinos and Asians.

White avoidance of and white flight from neighborhoods with increasingly black populations has been cited as a key mechanism that sustains extreme racial segregation (Massey, Gross, and Shibuya 1994; South and Crowder 1998; Quillian 2002). Other studies (Denton and Massey 1991; Crowder 2000) have also noted that Whites flee neighborhoods with increasing minority populations, especially in the presence of multiple minority groups. Some research has attempted to explain White avoidance of Black neighbors as an expression of racial aversion to

Blacks (Massey and Denton 1993; Lewis, Emerson, and Klineberg 2011) and some have attempted to frame this aversion as the result of negative stereotypes held by Whites against Blacks (Quillian and Pager 2001; Krysan et al. 2009) or as the result of prejudice influenced by negative stereotypes and threat to group position (Bobo and Hutchings 1996; Bobo and Zubrinsky 1996; Dixon 2006; Lewis at al. 2011), as explained by Blumer's (1958) group threat theory. A competing racial explanation argues that it is not out-group animosity but in-group affinity that accounts for Whites' preference for racial homogeneity in their neighborhoods (Clark 1992; Krysan et al. 2009). And yet other research has argued that White avoidance of Black neighbors is actually due to non-racial neighborhood factors which happen to be associated with race, such as crime and poverty (Taub, Taylor, and Dunham 1984; South and Crowder 1997; Harris 1999; Krysan et al. 2009).

Prior research also suggests that Whites have a similar but less pronounced aversion to Latino neighbors (Bobo and Zubrinsky 1996; Peterson and Krivo 2010), although Latino-White segregation levels are close to Black-White segregation levels in some metropolitan areas (Lewis et al. 2011). Latinos suffer similarly but less severely from negative stereotypes held by Whites and some studies show that Whites do feel their majority position threatened by Latinos' rapidly increasing growth in the United States (Bobo and Zubrinsky 1996; Beck 2000; Lewis et al. 2011). On the other hand, Whites do not tend to hold negative stereotypes about Asians (Sue and Kitano 1973; Wong et al. 1998) and, despite rapid growth, their relatively small population in the U.S. (less than 5% as of the 2010 Census) likely indicates that they are less threatening to Whites than Blacks and Latinos. Furthermore, some research has shown that, unlike proportion Black and proportion Latino, proportion Asian does not affect Whites' mobility decisions (Crowder, Hall, and Tolnay 2011; Lewis et al. 2011), though other research shows that the presence of a

combination Blacks, Latinos, and Asians does impact White mobility decisions (Denton and Massey 1991; Crowder 2000).

Just as an increasingly multiethnic America necessitated research about Whites' attitudes about minority groups other than Blacks, there has been a growing body of research on minority groups' attitudes about other minority groups. Not only do Whites exhibit distaste for Black neighbors, but according to Bobo and Zubrinsky (1996) and Zubrinsky Charles (2000), Latinos and Asians also rank Blacks as the least preferable neighbors in surveys on neighborhood racial preferences. Paradoxically, Blacks are the most open to racially integrated neighborhoods. There is some evidence that Asians' negative attitudes towards Blacks' exceeds even Whites' negative attitudes towards Blacks, as Asians expressed a greater disinclination towards Black neighbors than did Whites (Bobo and Zubrinsky 1996; Zubrinsky Charles 2000). Zubrinsky Charles (2000) notes that it is primarily foreign-born Asians who show significantly greater aversion to Black neighbors than Whites and that foreign-born Latinos' also express greater desire to avoid Black neighbors than do Whites, whereas U.S.-born Asians' and Latinos' attitudes about Black neighbors are comparable to those of Whites.

To create policies that might combat residential segregation, research must endeavor to understand what motivates neighborhood preferences among all races/ethnicities. Research has shown that one of the most substantial influences on neighborhood selection is the perception of a neighborhood's crime level. According to prior research, perceptions of neighborhood crime affect residential mobility decisions more so than do official crime rates (Taub et al. 1984). A great deal of research has also affirmed an association between neighborhood racial composition—often measured as percent Black—and fear or perceptions of neighborhood crime, which may indicate a common stereotypical association between Blacks and crime (Stinchcombe

et al. 1980; Liska, Lawrence, and Sanchirico 1982; Moeller 1989; Covington and Taylor 1991; Skogan 1995; Chiricos, Hogan, and Gertz 1997; Chiricos, McEntire, and Gertz 2001; Quillian and Pager 2001). Moreover, Taub et al. (1984) cite perceived neighborhood crime and deteriorated housing as the most significant determinants in individual residential mobility decisions (cited in Quillian and Pager 2001). Although Whites as well as members of minority groups demonstrate distaste for and/or avoidance of Black neighbors, one must consider that this is not necessarily evidence of racial animus. People of all racial/ethnic groups, including some Blacks, may prefer to avoid neighborhoods with a large proportion of Black residents because Black neighborhoods, on average, have higher rates of neighborhood problems, like high crime rates and physical and social disorder, such as abandoned or run-down houses (Liska and Bellair 1995; Sampson and Raudenbush 2004). Because it is common knowledge that problems of crime and deterioration tend to be highest in neighborhoods with large Black populations, "neighborhood racial composition, then, may merely serve as a proxy for objective conditions that affect neighborhood quality" (Quillian and Pager 2001, p. 720).

Alternatively, it is highly plausible that racial stereotypes are the theoretical mechanism between perceptions of racial composition (or even objective racial composition) and perceptions of neighborhood crime. Stereotypes about Blacks' criminality are extensive and well-known in America. Although Latinos have suffered from similar negative stereotypes, the racial hierarchy that keeps Blacks at the bottom in American society means that negative stereotypes are more persistent and severe for Blacks than for Latinos (Dixon and Rosenbaum 2004). In modern American society, Asians typically do not suffer from negative stereotypes. To the contrary, there is a prevalent stereotype in the United States of Asians as "model minorities" who excel at educational and career attainment and largely do not engage in deviance or crime, which is

supported by media images and some social science research (Sue and Kitano 1973; Wong et al. 1998) [1]. Building upon prior research and in an effort to better understand the mechanisms that allow racial residential segregation to persist, this study examines racial and non-racial correlates of perceived neighborhood crime levels.

This study begins with a review of social psychological literature on stereotypes, with attention to the ways in which stereotypes may shape perceptions of neighborhood crime. Next, data from a survey in which respondents were asked about their perceptions of numerous aspects of their neighborhoods, including perceived levels of crime, are matched with census data and official crime data to explore the following primary questions: (1) How is the perception of the minority racial composition of a neighborhood related to perceptions of neighborhood crime? (2) Can the relationship between perceived racial composition and perceived neighborhood crime be explained by other associated neighborhood factors? And (3) does the association between perceived racial composition and perceived neighborhood crime vary depending upon the race/ethnicity of the perceiver?

The data show that the perception of a greater proportion of Black neighbors is significantly associated with perceptions of neighborhood crime levels, net of official crime rates, the objective Black neighborhood population, and other individual and neighborhood factors; however, the results about perceived Latino neighbors and perceived Asian neighbors are not as clear. Comparing the effects of these variables on neighborhood perceptions among Whites, Blacks, Latinos, and Asians yields a result that the association between the perception of Black neighbors and the perception of neighborhood crime is stronger for Asian respondents than for

[1] There is considerable discomfort among some scholars over the term “model minority”, partially because it overlooks the large ethnic variation within the pan-Asian group. Its use herein is in no way meant to imply that this is a positive stereotype, but rather to acknowledge that many Americans do subscribe to this point of view and are not culturally sensitive enough to recognize ethnic variation among Asians.

White respondents. The implications of these results are considered with regard to possible explanations for racial segregation.

PRIOR RESEARCH

Race and Neighborhood Preferences

Despite research which contends that residential segregation is on the decline (Frey and Farley 1996; Iceland 2004), most Whites, Latinos, and Asians do not want to live in neighborhoods with more than a small proportion of Black neighbors. In Zubrinsky Charles's (2000) showcard experiment, which invited participants to construct the racial composition of their ideal neighborhood, nearly 20% of Whites, approximately one-third of Latinos, and 40% of Asians preferred neighborhoods that excluded Blacks entirely. As aforementioned, Latinos' and Asians' negative attitudes towards Black neighbors are strongest among foreign-born Latinos and Asians; U.S.-born Latinos and Asians exhibit Black exclusion rates slightly lower than those of Whites (17% and 15%, respectively). By comparison, 17% of Whites, less than 9% of Blacks, and approximately one-quarter of Asians expressed neighborhood preferences that exclude Latinos entirely; Asian exclusion rates are approximately 16% for both Whites and Blacks and greater than one-fifth of Latinos would prefer to exclude Asian neighbors. These results clearly highlight Blacks' status as the least preferred neighbors among Whites, Latinos, and Asians. The results also suggest that Whites exhibit somewhat steady rates of disinclination towards minority neighbors, although there is a clear hierarchy of preference, with Asians at the top and Blacks at the bottom. Blacks' preference of Latino neighbors over Asian neighbors may be in reaction to Asians' negative attitudes about Blacks or it may reflect an affinity to Latinos, as Blacks and Latinos often experience similar social struggles, such as disparate treatment (compared to Whites) in the criminal justice system.

Not only do Whites, Blacks, Latinos, and Asians exhibit a distaste for out-group neighbors in varying degrees, members of all races express some preference for neighborhoods with high percentages of in-group neighbors. Whites tend to prefer neighborhoods with nearly 50% same-race neighbors and more than 10% of Whites expressed a preference for a 100% homogeneous neighborhood. On average, Blacks expressed a preference for approximately 37% same-race neighbors and fewer than 3% of Blacks preferred 100% neighborhood homogeneity. Latinos and Asians both preferred neighborhoods with approximately 41% same-race neighbors and approximately 7% of Latinos and Asians prefer 100% homogeneity in their neighborhoods (Zubrinsky Charles 2000). These results suggest that Blacks are most open to racial integration and Whites, Latinos, and Asians demonstrate more resistance to racial integration.

Studies of actual mobility patterns tend to support these preferences, as Whites do exit neighborhoods with growing Black or mixed minority populations (Denton and Massey 1991; Massey and Denton 1993; Crowder 2000; Quillian 2002). There is also some evidence of increased segregation among Asians and Latinos, as many recent immigrants opt to settle in ethnic enclaves (Iceland 2004). Scant research has attempted to explain the causes of mobility decisions among minority groups, especially with respect to living near other minority groups rather than near Whites, but a few have described it more as the outcome of a lack of choice than as a matter of choice. In other words, Latinos and Asians sometimes reside in neighborhoods with large Black or Black and Latino populations due to a lack of economic resources to live elsewhere and dark-skinned Latinos sometimes reside in proximity to a large proportion of Blacks due to their dark skin status (Alba, Logan, and Stults 2000; South, Crowder, and Chavez 2005). Blacks often wind up in predominantly Black neighborhoods as a result of flight or

avoidance by Whites, Latinos, and Asians (Massey and Denton 1993; Bobo and Zubrinsky 1996; Zubrinsky Charles 2000; Quillian 2002).

Perceptions of Crime and Race

Although many prior studies conclude that neighborhood crime is a key determinant in Whites' decisions to flee or avoid racially integrated neighborhoods, Quillian and Pager (2001) rightly point out that *perceptions* of neighborhood crime affect the decision to move above and beyond official crime rates, as most individuals are not likely as aware of objective crime rates as they are of their own perceptions. While actual crime rates have been proven to affect perceptions of crime (Hipp 2010), other research shows that perceptions of crime are not solely based in reality. For instance, signs of social and physical disorder, such as the presence of homeless persons or run-down houses and abandoned buildings, also influence perceptions of neighborhood crime (Wilson and Kelling 1982; Sampson and Raudenbush 2004). Quillian and Pager (2001) argue that, because perceptions of neighborhood crime are influenced by multiple factors beyond objective crime rates, perceptions of crime cannot be trusted to reliably reflect neighborhood conditions.

Following similar logic, this paper proposes that *perceptions* of neighborhood racial composition influence perceptions of neighborhood crime more so than does actual racial composition. Most individuals are less cognizant of the official demographics of their neighborhood than they are of their perceptions of racial composition. A fair amount of research has shown that Americans of all races tend to underestimate the size of the White population and overestimate the sizes of minority group populations (Gallagher 2003; Wong 2007). Though Wong (2007) finds less racial innumeracy at the local community level than at the national level,

there is still reason to believe that there may be some discrepancies between subjective and objective measures of racial composition at the tract level.

Quillian and Pager (2001) argue that objective racial composition is likely to influence perceptions of crime because neighborhood racial composition is a "readily observable characteristic" (p. 721), unlike socioeconomic status. Although race, especially Black race, can be quite salient, the racial innumeracy literature suggests that other factors, such as media exposure, can distort individual perceptions of racial composition (Gallagher 2003; Wong 2007). Urban ethnographers have observed that, in public spaces within cities, residents utilize visual cues, such as apparent race, age, and sex, to assess potential threat from strangers (Anderson 1990; Duneier 1999); however, residents are more likely to consider a comprehensive perception of the neighborhood rather than a snapshot judgment of an individual when making mobility decisions.

If the perception of neighborhood crime is influenced by perceptions of neighborhood racial composition (particularly perceptions of proportions of Black and Latino neighbors), net of objective measures of racial composition and crime, then perceptions of racial composition may impact mobility decisions away from Black and integrated-minority neighborhoods. If non-racial factors, such as perceptions of crime and disorder, are in fact the primary driving force for neighborhood assessments and mobility decisions, but these perceptions are also associated with racial considerations, then these "non-racial" concerns can no longer be thought of as such.

Race and Negative Stereotypes

Due to the historical legacy of American slavery and the enduring political, economic, scientific, and religious justifications for the aforementioned enslavement, Blacks have encountered and continue to encounter negative stereotypes regarding their intelligence, integrity,

and morality, to name but a few (Dixon and Rosenbaum 2004). Some of the most prevalent and pervasive stereotypes about Blacks suggest that they have a propensity towards violence and criminality. These stereotypes are very likely buttressed by an overrepresentation of Blacks in the media as the perpetrators of violent crimes (Dixon and Linz 2000; Bjornstrom et al. 2010). Regardless of one's personal beliefs or level of prejudice, stereotypes about Black criminality are deeply ingrained in Americans' minds (Devine 1989).

Many researchers agree that stereotypes can serve as heuristic tools in the absence of complete information. Although classic studies have characterized stereotypes as inaccurate and powerful (Allport 1954) and some have continued to support this position (Jones 1986; Devine 1989), some claim that stereotypes are largely accurate depictions of a target group (McCauley 1995), whereas yet others concede that stereotypes can be accurate or inaccurate (Judd and Park 1993; van den Berghe 1997; Madon et al. 1998). With regard to negative stereotypes about Blacks, it is probable that negative media representations combine with long-standing stereotypes and varying degrees of racial intolerance to construct skewed concepts of Blacks in which race and criminality are conflated (Quillian and Pager 2001).

There is powerful evidence that stereotypes are established in children's psyches before they even develop the cognitive ability or mental capacity to challenge or critique the stereotype's legitimacy and acceptability (Allport 1954; Devine 1989). Thereafter, stereotypes and their subsequent presuppositions shape attitudes, perceptions, and actions. These reactions can be subtle and even subconscious (Quillian and Pager 2001). In implicit association tests in which respondents associated Black or White faces or names with words of positive or negative valence, Black respondents exhibited a preference for White over Black, after having expressed a strong explicit preference for Black over White (Nosek, Banaji, and Greenwald 2002). In two

experiments administered to university students and elementary school students, respectively, in which Black and White performers commit identical "ambiguously aggressive" acts, such as an ambiguous shove, the Black performer's actions were generally viewed as more violent and threatening (by both Whites and Blacks) than the White performer's actions (Duncan 1976; Sagar and Schofield 1980; ctd. in Quillian and Pager 2001). These studies not only illustrate the pervasiveness of Black criminality stereotypes, but they also show just how early and powerfully stereotypes can affect perceptions and judgments.

Other studies have shown that people tend to acknowledge and recall information confirming stereotypes and discount and disregard information which is disconfirming of stereotypes (Rothbart, Evans, and Fulero 1979; ctd. in Quillian and Pager 2001). These mechanisms allow stereotypes to flourish. Quillian and Pager (2001) suggest that not only might stereotypes influence perceptions of neighborhood crime, but they might also "lead to selective attention and interpretation of media reports about crime in a way that reinforces the mental association between race and crime" (p. 723). They further advance that stereotypes may extend from individuals to neighborhoods so that Black neighborhoods essentially get ascribed a spoiled identity, characterized by high crime, violence, and disorder (Quillian and Pager 2001; see also Goffman 1963).

Although Latinos are at times confronted with similar negative stereotypes to Blacks, they do not share the same historical context and, as such, negative stereotypes are more pervasive and severe for Blacks than for Latinos (Dixon and Rosenbaum 2004). As previously stated, Asians typically do not suffer from negative stereotypes in the United States. Instead, there is a prevalent stereotype in the American consciousness of Asians as "model minorities" who are especially smart and hard-working and largely do not engage in deviance or crime (Sue

and Kitano 1973, Wong et al. 1998), characteristics which are quite literally in direct opposition to those ascribed to Blacks via negative stereotypes.

Race of Perceiver and Stereotypes

Studies have shown that some members of groups targeted by negative stereotypes maintain dominant stereotypical ideologies about their own group (Sagar and Schofield 1980; Nosek et al. 2002), which suggests that stereotypes may merely be "cognitive representations of behavioral differences among groups" (Quillian and Pager 2001, p. 724). On the other hand, other research suggests that perceptions of out-group members are influenced more by stereotypes than perceptions of in-group members (those targeted by the stereotype) and that people exhibit tendencies to regard out-group members less favorably than in-group members (Judd and Park 1993). For instance, it has been argued that while both Whites and Blacks are influenced by Black criminality stereotypes, Blacks are more likely than Whites to assess individual characteristics in order to better discern between potentially more- and less-threatening Blacks (Anderson 1990; ctd. in Quillian and Pager 2001).

Following the reasoning that stereotypes can serve a heuristic function, but with racial bias, this paper assumes that perceived neighborhood racial composition will influence perceptions of neighborhood crime levels among all races, but that the effect will be weaker for in-group members than for out-group members. In other words, as this paper also assumes that perceived Black neighbors will have the strongest impact on perceptions of crime among all races, Black respondents should perceive the least crime in response to perceived Black neighbors. Prior studies suggest that Asians and Whites will perceive the most crime in response to perceived Black neighbors, and likely in that order (Bobo and Zubrinsky 1996; Zubrinsky Charles 2000).

Racial Composition and Neighborhood Crime Perceptions

A growing body of research has attempted to observe the relationship between racial composition of a place and perceived threat of crime. Prior studies have operationalized criminal threat in various ways, including fear of crime, perceived risk, and perceived safety. Few studies have used perceived racial composition as the main independent variable(s) of interest.

Among those that have used objective measures of racial composition, Liska et al. (1982) analyze the effect of racial composition on fear of crime while controlling for official measures of crime. They conclude that fear of crime is greater—for Whites and Blacks—in cities with higher Black populations and that White fear is also influenced by property crime rates, but Black fear is not impacted by crime rates. Their use of cities (N = 26) as the unit of analysis precludes them from drawing any conclusions about neighborhoods and fear of crime, however (Quillian and Pager 2001).

Ward, LaGory, and Sherman (1986) use census tracts in upstate New York as the unit of analysis, but their research is focused on fear of crime among the elderly. Ward et al. (1986) found that, among predominantly White, elderly (60+) respondents, proportion Black (at tract level) was only related to perceived safety among those suffering health or "mastery" problems (p. 335). These results do not give us insight into fear of crime experienced by those under 60, but they do pose an interesting challenge to the body of research which suggests that older people fear crime more despite their relatively low risk of victimization.

For Thompson, Bankston, and St. Pierre (1992), racial composition was but one of many variables of interest in a study that was primarily concerned with the methodology of measuring fear of crime. Using three separate measures—perceived safety (which they called "global fear"), fear of property crime, and fear of violent crime, they distinguished perceived safety from fear of

criminal victimization and found that the Black/White ratio of a respondent's county population was related to perceived safety but not to fear of crime. Thompson et al (1992) found that perceived severity of crime in the community was the strongest determinant of all three of their measures of fear; however, since these are both subjective measures, the directionality may be reversed. It could be that respondents who had the most fear perceived crime as more serious in their community.

Jeanette Covington and Ralph Taylor published two separate studies based on their 1982 Baltimore survey data, which measured neighborhoods at the census block level. In the first (Covington and Taylor 1991), they applied objective measures of race to subjective measures of fear of crime. They analyzed race at the aggregate level with census figures and at the individual level, not as the respondent's race, but as a measure of the respondent's racial dissimilarity from his or her neighbors, calculated as the absolute value of the difference between the dichotomous (Black or White) value for race and the neighborhood's proportion Black. Though they were able to determine that respondents in predominantly Black (> 90%) neighborhoods were more fearful of crime than respondents in neighborhoods with fewer Blacks, they could only conclude that racial dissimilarity is positively associated with fear of crime; their research design does not allow for distinctions between Blacks' and Whites' fear levels. Covington and Taylor (1991) make a brief mention of "forcing" in a crime rate variable and state that race remains significant at both the aggregate and individual levels in this model; however, this finding is more of a side note than a primary focus it is unclear whether this was an objective or subjective measure of crime rates. The lack of inclusion or in-depth analysis of a model that controls for objective measures of crime allows for the possibility that the observed effects of neighborhood racial

composition on fear of crime may actually indicate an association between racial composition and actual crime levels (Quillian and Pager 2001).

Taylor and Covington (1993) focused on the impact of unexpected neighborhood changes (between 1970 and 1980) on three dimensions, including minority and youth composition, on fear of crime. Though they found a positive association between racial composition (proportion Black) and fear of crime (measured as perceived safety, day and night separately) net of changes in the minority youth population and measures of physical and social disorder, they confirm that they cannot easily explain a direct link between racial composition and fear of crime. Again, they make mention of "forcing" crime variable into the model (described this time as "crime change variables") and, again, racial composition remains significant (p. 389). Although the mention of crime change variables suggests that these would be objective measures, this is not explicitly stated and remains unclear. As in the prior study, the omission of a model that controls for objective measures of crime allows for the possibility that the observed effects of racial composition on fear of crime may instead indicate an association between racial composition and actual crime levels.

Drakulich (2012) tested Allport's contact hypothesis from a criminological perspective and found that Blacks and Latinos were less like than Whites to subscribe to negative out-group stereotypes about the criminality of other minority groups. Furthermore, this study found that although positive interracial interactions with neighbors did tend to reduce adherence to negative racial stereotypes about minorities, this did not significantly increase perceptions of neighborhood safety. This research showed that, despite positive interracial interactions, people overestimated the threat of crime in neighborhoods with larger minority populations—Blacks, Latinos, and Asians—net of the actual crime rate.

Studies that used subjective measures of racial composition as a key variable of interest include Stinchcombe et al. (1980), who utilize General Social Survey (GSS) respondents' subjective assessments of their proximity to Black neighbors and find a positive association with fear of criminal victimization. Moeller (1989) utilizes survey data in which respondents were asked to assess neighborhood racial composition on a 5-point scale ranging from all White to all Black and concludes that fear of crime is highest in all-Black or mostly Black neighborhoods. Moeller's (1989) analysis also includes a multiplicative term between respondent's race and [subjective] neighborhood racial composition and finds that Whites living in all-Black or mostly Black neighborhoods are more fearful of crime relative to non-Whites living in all-Black or mostly Black neighborhoods. As Quillian and Pager (2001) rightfully point out, neither of these studies can be certain about the direction of causality because they utilize entirely subjective measures. Instead of Whites perceiving more crime in Black neighborhoods, it might be the case that Whites in high crime neighborhoods perceive more Black neighbors.

Skogan (1995), like Stinchcombe et al., used GSS data to analyze the effects of perceived racial composition on fear of crime. Unlike Stinchcombe and his colleagues, who utilized data from Black and White respondents, Skogan (1995) used data only from White respondents. In addition to observing the impact of perceived Black neighbors on White fear, he also attempted to measure social prejudice (by combining responses about Whites' views on integrated schools and segregated neighborhoods) and to observe its impact on fear of crime. The study concludes that prejudice is positively associated with fear of crime, as is proximity to Blacks. Since these are once again all subjective measures, this study may also suffer a causal directionality problem.

Like Covington and Taylor, Chiricos et al. (1997) evaluated racial composition at the census block level. They improved upon prior research by utilizing both objective and subjective

measures of neighborhood racial composition. Their dependent variable was a subjective measure of fear of crime, which was arguably operationalized better than in prior studies; however, they also did not control for actual crime levels, thus leaving them open to criticisms similar to those leveled against Covington and Taylor. Although their results showed that objective racial composition was not associated with fear of crime whereas subjective racial composition (specifically, perceived Black neighbors) was significantly associated with fear among Whites but not Blacks, Quillian and Pager (2001) contend that the observed effects of neighborhood racial composition on fear of crime may actually indicate an association between racial composition and actual crime levels. Chiricos et al. (1997) did acknowledge that there might be a causal directionality problem with perceived Black neighbors and fear of crime. They also refuted Covington and Taylor's (1991) assertion that racial dissimilarity is positively associated with fear of crime, regardless of the respondent's race, by showing that the perception of living in a majority Black neighborhood significantly intensified fear for Whites, but the perception of living in a majority White neighborhood did not intensify fear for Blacks (Chiricos et al. 1997).

Chiricos et al. (2001) tested the effects of both objective and subjective measures of neighborhood racial composition on perceived risk of criminal victimization. They argued that a cognitive assessment of risk is a "more accessible and unambiguous" proxy for criminal threat than fear of crime because asking respondents to rate the odds that a specific crime will happen to them is a non-hypothetical measure and because some respondents, such as young adult males, might be disinclined to admit fear (Chiricos et al. 2001, p. 327). Their study was also the first of its kind to include Latinos as both respondents and as a minority group whose neighborhood presence might pose a threat to some respondents. This study utilized the same cognitive

assessment of fear of crime as its dependent variable as Chiricos et al. (1997) and perceived racial ethnic composition was the principal independent variable of interest. Unlike Chiricos et al. (1997), Chiricos et al. (2001) did not control for objective measures of race/ethnicity. They did, however, include both subjective and objective measures of neighborhood crime in the models. Citing racial innumeracy studies, they argued that it is not actual neighborhood racial composition but a person's perceptions (or misperceptions) that drives their perceptions of criminal threat. Though the results of Chiricos et al. (1997) support this argument, omitting objective measures of race/ethnicity leaves this study open to the directionality criticism that so much of this research has suffered from.

Perhaps the most thorough of all of the studies to analyze the effects of race on fear of crime to date has been one that utilized only objective racial composition, Quillian and Pager's (2001) research on neighborhoods in Chicago, Seattle, and Baltimore. In fact, the present research makes an effort to build upon their Seattle analysis. Because the research designs of each of the three surveys that Quillian and Pager (2001) used is different, they must be considered separately. In all three studies, they use perceived neighborhood crime as the dependent variable because, they argue, it is the perception of *neighborhood* crime more so than individual fear of crime or personal risk of victimization that influences neighborhood perceptions and mobility decisions. In the Chicago and Baltimore studies, they include Latino respondents in the analyses; however, they excluded these responses from the Seattle data. Despite the inclusion of Latino respondents, the key independent variable of interest was proportion Black in the neighborhood. In all three studies, they also control for actual crime rates with official police data; in Chicago and Seattle, they also calculate a victimization rate from victimization questions in the respective surveys. In the Chicago and Seattle studies, they were

able to use the proportion of young Black men in a neighborhood to better capture respondents' fear of crime; these data were not available from the Baltimore study, so percentage Black was used instead. In an effort to observe whether fear of crime varies by race of the perceiver, they included interaction terms between respondent race and percentage Black (or young Black men) and, in the Chicago study, also between respondent race and percentage Latino. They also control for a number of individual-level characteristics, such as age and sex, and neighborhood-level characteristics, such as measures of neighborhood disorder.

In the Chicago study, Quillian and Pager (2001) found that both Black and White respondents in neighborhoods with higher proportions of young Black men did perceive more crime and they found no significant difference by race of the respondent. In the Seattle study, they found that percentage young Black men was the strongest determinant of perceived crime, except for the actual crime rate. Furthermore, they found that White respondents perceived more crime relative to Black respondents as the percentage young Black men increased. In the Baltimore study, percentage Black had a strong and significant impact on perceived neighborhood crime and, as in Seattle, Whites perceived more crime as the percentage Black increased.

Though their analyses are sound, Quillian and Pager's (2001) study could be improved by adding subjective measures of race. Following Chiricos et al.'s (2001) assertion that perceived racial composition influences neighborhood perceptions of crime more than does objective racial composition, the present research will utilize perceived racial composition as key variables of interest, but also control for objective measures of racial composition, in an attempt to resolve the causal directionality issue. For the same reason, this study will also control for objective crime rates.

This study will also improve upon prior research by including White, Black, Latino, and Asian survey respondents and analyzing perceptions about Black, Latino, and Asian neighbors. This analysis will attempt to discover and understand the impact of the perceptions of minority neighbors on perceived crime, net of many individual- and neighborhood-level factors, and to observe if there are differences by race of the perceiver.

DATA, MODELS, AND HYPOTHESES

Sample and Data: The Seattle Neighborhoods and Crime Survey

Individual-level data come from the Seattle Neighborhood Crime Survey (SNCS), a 2002-2003 survey of 4,904 residents within 123 Seattle census tracts which included measures of perceived neighborhood racial composition as well as perceptions of neighborhood safety. The survey incorporated three sampling designs: (1) a random sample of households within census tracts; (2) a replication sample of the Seattle Criminal Victimization Survey (Miethe and Meier, 1994); and (3) a race-ethnic oversample of census blocks with the highest proportions of racial and ethnic minorities. For the purposes of the present study, only data from the 4,643 respondents who self-identified as White, Black, Hispanic[2], or Asian are included. Contextual data from the 2000 U.S. Census and Seattle Police Department were integrated into the SNCS data and provide the neighborhood-level measures used in the models.

It should be noted that Seattle may prove to be a moderate test case because, compared to national averages and larger major U.S. cities, Seattle has significantly smaller Black and Latino populations and a considerably larger Asian population. In contrast to other major metropolitan areas, Seattle has more households with incomes greater than $100K, fewer households in poverty, and lower rates of violent crime. Seattle also has less racial segregation than other major

[2] Although the Latino ethnicity was referred to as “Hispanic” on the SNCS, this study refers to this ethnicity as “Latino” when not referencing the SNCS.

U.S. cities. Due to the aforementioned factors, it is possible that Seattle residents will perceive less crime in their neighborhoods than one might observe in residents of cities with more residential segregation, less wealth, and greater rates of violent crime. Nevertheless, this study examines the relationship between Seattle residents' perceptions of neighborhood racial composition and their perceptions of neighborhood crime, when controlling for a number of neighborhood- and individual-level characteristics, including actual neighborhood racial composition and official crime rates.

Models

The perception of the level of neighborhood crime is the dependent variable of this study (Detailed descriptions of all variables appear in the Appendix). Perceived neighborhood crime was chosen rather than measures of individuals' fear of crime or personal risk of victimization because the assessment of neighborhood (rather than individual) safety may yield important insights into neighborhood preferences and factors contributing to persisting residential segregation. To test the hypotheses, this study evaluates the association between perceptions of the size of neighborhood minority populations and perceptions of neighborhood crime in regressions that control for relevant neighborhood- and individual-level covariates. Model 1 examines effects of neighborhood-level predictors of perceived crime; Model 2 adds in individual-level predictors except those that include perceived neighborhood racial composition and a measure of perceived neighborhood disorder; Model 3 adds perceived neighborhood racial composition variables; Model 4 adds perceived neighborhood disorder; and Model 5 adds interaction terms between respondent race and perceived neighborhood racial composition.

The principal objective of this study is to examine the association between perceptions of neighborhood racial composition and perceptions of neighborhood crime. To mitigate the issues

that might arise if the association between these variables is in fact spurious, the models include controls for other variables that likely influence perceptions of crime, as suggested by prior literature.

Each of the models controls for variables that are strongly associated with perceived crime and likely associated with the key independent variables, perceived race. One such variable is the actual crime rate. Skogan and Maxfield (1981) argued that although residents might be fearful of violent crimes, the greater frequency of property crimes inspires more fear than the less common violent crimes. On the contrary, Zimring (1997) asserted that violent crime in a neighborhood has a greater effect on residents' perceptions of crime than property crimes and recent research by Hipp (2010) supports this assertion. Because perceptions of neighborhood crime are likely shaped by violent crimes and property crimes, the crime rate measures include both types. Following prior research, the objective crime rates were each logged to reduce skew and allow for nonlinearities.

Because many crimes committed are never reported to the police and police sometimes do not record less serious crimes, the models also include victimization reports based on questions in the SNCS. All models include a neighborhood-level victimization rate, which was logged to allow a non-linear functional form. Models 2-5 also include an individual-level victimization variable. It is assumed that individual-level victimization impacts perceptions of neighborhood crime through experiential learning. A person begins with a baseline perception of the neighborhood's crime level, which is updated through direct experience. If a person experiences criminal victimization within the neighborhood, it is reasonable to expect that their perceptions of the neighborhood's crime level will increase. Previous empirical studies find that, neighbors and other persons in the neighborhood who are aware of the crime incident will also

increase their perceptions of neighborhood crime, which also supports an experiential learning argument (Covington and Taylor 1991). Although the victimization variables rely on a relatively small sample of Seattle residents to approximate victimization measures, the victimization reports may be less likely than official crime reports to underestimate the actual rate of crime.

Following Quillian and Pager (2001), the neighborhood population is divided into the three categories (poor, middle class, and affluent), represented by dummy variables, to control for income at the tract level. Measures of poor (lower income dummy) and affluent (upper income dummy) residents in each tract are included in all models; middle-class residents are the excluded category. The models also control for neighborhood population density, which is a variable that has been theoretically linked to measuring disorder (Sampson and Raudenbush 2004), and percent homeowners, which is a measure of residential stability. The models control for objective measures of race by including percent Black, percent Latino, and percent Asian. By controlling for actual racial composition, one can rule out the possibility that the effects of individuals' subjective perceptions of their neighborhood racial composition on their perceptions of crime is merely reflecting the neighborhood's actual racial composition. The models also control for percent immigrant because prior research suggests that immigrants often have different racial attitudes than do persons born in the United States (Bobo and Zubrinsky 1996; Zubrinsky Charles 2000).

Model 2 adds individual characteristics, including the aforementioned personal victimization variable. Model 2 adds respondent's race, with Black, Latino, and Asian as dummy variables and White as the omitted category. Model 2 also controls for immigrant respondents to observe potential differences between foreign-born and U.S.-born respondents. Past literature suggests that age and sex are important factors, with the elderly tending to fear crime more than

the young and women tending to fear crime more than men (Skogan and Maxfield 1981, Quillian and Pager 2001). Model 2 also adds controls for respondent's household income and respondent's level of education.

Model 3 adds subjective measures of racial composition, which are the main independent variables of interest[3]. Prior research suggests that perceived racial composition—especially perceived Black neighbors—will be associated with perceived neighborhood crime levels, even while controlling for actual racial composition and official crime rates. Model 4 adds a subjective measure of neighborhood disorder, as broken windows theory suggests that signs of physical and social disorder influence perceptions of crime (Wilson and Kelling 1982, Sampson and Raudenbush 2004).

Model 5 adds nine interaction terms between respondent's race (with the interaction terms for White respondents as the omitted categories) and perceived Black, Hispanic, and Asian neighbors in order to determine whether the effect of perceived minority neighbors on perceived crime is different for Whites, Blacks, Latinos, and Asians. Model 5 also adds three interaction terms between immigrant respondent and perceived racial composition to determine whether the effect of perceived minority neighbors on perceived crime is different for immigrants than for persons born in the U.S.

[3] These were calculated from SNCS questions asking respondents to estimate how many of their neighbors belonged to various racial/ethnic groups. Prior to being asked about how many Asians live in their neighborhood, respondents were first asked about how many Whites live in the neighborhood (they were asked how many African Americans live in the neighborhood after being asked about Asians and about how many Hispanics live in the neighborhood after being asked about African Americans). These questions were administered such that if a person responded that "nearly all" of their neighbors were White, they were then not asked about the remaining three racial/ethnic groups (Asian, African American, Hispanic), and if a person responded that "nearly all" of their neighbors were Asian, they were then not asked about African American or Hispanic neighbors, and so on. Because approximately 50% of respondents stated that nearly all of their neighbors were White, this left a large proportion of missing data for the questions about minority neighbors. It can be reasoned by the way the questions were administered that if a person has "nearly all" White neighbors, s/he has "hardly any" minority neighbors, so these skips were recoded as "hardly any" in the variables about Asian, African American, and Hispanic neighbors.

Hypotheses

The primary hypothesis of this study is whether perceived neighborhood crime is associated with perceived racial/ethnic composition of the neighborhood. Prior related research and a review of the social psychological literature on stereotypes suggest that people of all races tend to perceive more crime in neighborhoods with higher proportions of Blacks. Therefore, hypothesis 1 is as follows:

> Hypothesis 1: People will perceive more crime as they perceive more Black neighbors, net of objective measures of racial composition and crime.

Because research has found that white flight and white avoidance are not necessarily unique to Black neighborhoods, so hypothesis 2 asserts:

> Hypothesis 2: People—especially Whites—will perceive more crime as they perceive more Latino neighbors and more Asian neighbors.

Hypotheses 3 and 4 serve as alternative hypotheses to hypothesis 2 because they are based on the idea that Asians are perceived differently from other minorities. Because of the "model minority" stereotype which purports that Asians are studious and hard-working and rarely deviant or criminal (Sue and Kitano 1973, Wong et al. 1998), hypotheses 3 and 4 are as follows:

> Hypothesis 3: People's perceptions of Asians in their neighborhoods will have no effect on their perceptions of neighborhood crime.

> Hypothesis 4: The perception of Asian neighbors will be negatively associated with perceived neighborhood crime.

In other words, people will perceive *less* crime as they perceive more Asian neighbors.

Another alternative hypothesis is that it is not racial composition—real or perceived—that affects people's perception of neighborhood crime, but disorder. This hypothesis implies that physical disorder will have a positive association with perceived crime and, controlling for disorder, the objective and subjective measures of racial composition will have no effects.

Hypothesis 5: Subjective disorder will be associated with perceived neighborhood crime, while objective and subjective racial composition have no effects.

RESULTS

The four models were estimated using ordinary least squares (OLS) regression where:

$$Y_i = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \ldots + \beta_K X_{Ki} + \varepsilon_i$$

OLS assumes linear relationships, strict exogeneity, meaning that independent variables are not correlated with the error term, and homoscedasticity, the error term of has the same variance across values of regressors. Because individuals within tracts are likely dependent, the models were run with robust standard errors and clustered by tract. The robust estimator of variance somewhat relaxes the independence assumption and clustering by tract requires only that the observations be independent between tracts.

For Model 1, which includes neighborhood predictors of perceived crime, the objective crime rate has the most significant impact on perceived neighborhood crime (.140), as might be expected. Based on standardized coefficients, percent Latino has the next biggest effect on perceived crime (.102), followed by percent Black (.075). Although it was expected that percent Black would have a greater effect on perceived crime than percent Latino, the fact that it does not might be explained by the fact that Latinos are less segregated from Whites in Seattle than are Blacks[4]. The greater propinquity between Latinos and Whites may provide more opportunities for the proportion Latino in a neighborhood to shape neighborhood crime perceptions. Percent Asian has a comparatively small positive association with perceived crime in this model (.041), which is not significant.

[4] Based on 2010 data, the dissimilarity index that describes the unevenness in the black and white populations in Seattle is 51.7. The dissimilarity index for whites and Hispanics is 30. See http://www.s4.brown.edu/us2010/segregation2010/city.aspx?cityid=5363000

For Model 2, which adds some individual predictors of perceived crime (but not perceived racial composition or perceived disorder), the objective crime rate continues to have the largest effect on perceived neighborhood crime (.137). The victimization rate is not significant in this model, but the individual victimization variable is (.095), which suggests that the experiential learning effect is stronger for the actual victim than for others in the neighborhood. Percent Latino continues to be a stronger predictor of perceived crime (.096) than percent Black (.071). The lower income dummy is positively associated with perceptions of neighborhood crime and its effect is significant; however, the effect of upper income dummy is not significant in Model 2. At the individual level, household income is negatively associated with perceived crime. The age dummy variables show a strong association with perceived crime. Respondents between the ages of 17-25, 26-35, and 36-50 all perceived more neighborhood crime relative to respondents between the ages of 51-102. Younger people are more likely to be both the victims and perpetrators of crime (the age 17-25 dummy corresponds with the peak ages for committing serious crimes, such as murder), so this may explain why they perceive more neighborhood crime. Finally, sex yielded an unexpected result—women perceived slightly less crime relative to men; however, this result is not statistically significant.

Model 3 controls for both objective and subjective measures of race as well as the actual crime rate[5]. Controlling for objective crime, the effect of perceived Black neighbors has the second biggest effect on perceived crime (.131), which supports hypothesis 1. As expected, the strongest predictor of perceived crime is objective crime (.135), suggesting that perceptions of crime are, at least in part, rooted in reality. Moreover, when perceived Black is entered in the model, actual percent Black does not yield a statistically significant result, which supports the

[5] Percent Black and perceived Black neighbors have a Pearson correlation of .612, significant at the .01 level. Percent Latino and perceived Latino neighbors have a Pearson correlation of .379, significant at the .01 level. Percent Asian and perceived Asian neighbors have a Pearson correlation of .627, significant at the .01 level.

argument that perceptions of neighborhood crime are shaped by people's *perceptions* of racial composition rather than by objective measures of racial composition. For reasons that are harder to decipher, both perceived Latino neighbors (.036) and percent Latino (.071) have significant effects on perceived crime, with percent Latino having a stronger effect. Neither perceived Asian neighbors nor percent Asian is significant, which supports hypothesis 3. Individual victimization is significant and positively associated with perceived crime. High school education shows a small effect on perceived crime (.026) in Model 3. The results suggest that persons with a high school education perceive more crime relative to those with less than high school education.

Model 4 controls for a subjective measure of physical disorder within the neighborhood. In this model, disorder is the strongest predictor of perceived neighborhood crime (.179), followed by objective crime (.130). Perceived Black neighbors shows the next strongest effect on perceived crime (.115). Perceived Latino neighbors does not have a significant effect on perceived crime in this model, but percent Latino does. People perceive more crime as the neighborhood Latino population increases, but their perceptions of the neighborhood Latino population has no significant impact. Part of the reason may be that Latino ethnicity is a less salient characteristic than Black skin and another reason may be that, because Seattle has a small Latino population (and also because of how the survey was administered – see footnote 3), too few people answered that they perceived any Latino neighbors to give this variable enough statistical power within the model. Although disorder has a strong effect in the model, perceived race does as well, so hypothesis 5 is not supported.

Model 5 adds interaction terms between respondent's race and perceived racial composition[6]. As non-multiplicative predictors, respondent Black, respondent Latino, respondent

[6] Models (not shown) were run with interactions between respondent's race and only one perceived racial composition category per model (e.g. respondent's race X perceived Black neighbors separated from respondent's race X perceived Latino neighbors,

Asian, and respondent immigrant are not statistically significant. In other words, there is no significant difference between Blacks' and Whites' perceptions of neighborhood crime when perceived Black neighbors, perceived Latino neighbors, or perceived Asian neighbors equals zero. The same is true of the comparisons between Latinos and Whites and between Asians and Whites. As the only significant interaction term, Asian respondents perceived more crime than White respondents as their perceptions of the proportion of Black neighbors increased. Prior studies have found that Asians, particularly Asian immigrants, have more negative attitudes towards Blacks than Whites do (Bobo and Zubrinsky 1996; Zubrinsky Charles 2000). Unlike in the previous models, perceived Asian neighbors has a significant effect on perceived neighborhood crime. Model 5 suggests that people perceive more crime as they perceive more Asian neighbors, which contradicts hypotheses 3 and 4.

CONCLUSIONS

The primary goal of these analyses was to examine whether the perceived racial/ethnic composition of Seattle neighborhoods impacts residents' perceptions of neighborhood crime. The findings presented reveal that perceived Black neighbors is associated with perceptions of neighborhood crime, even after controlling for a variety of neighborhood- and individual-level variables that are typically associated with perceptions of crime, including objective racial composition, the official crime rate, a victimization rate, and individual victimization experiences. Perceptions of crime are higher for Asian residents who perceive greater numbers of Black neighbors, which highlights a need for more in-depth research on Asians' perceptions of and attitudes about Blacks. Using standardized coefficients, the perception of Black neighbors was consistently the third strongest predictor of perceived crime (.100) after a subjective measure

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etc.) and these yielded nearly identical results to Model 5 which includes interactions between respondent's race and all of the perceived racial composition categories.

of physical disorder (.181) and the objective crime rate (.130). This suggests that people's perceptions of neighborhood crime are shaped, at least in part, by negative racial stereotypes about Blacks. Objective measures of Latino residents had a greater effect on perceived crime than did perceptions of Latino neighbors, which often did not exhibit a significant association with perceived crime. In one instance, perceptions of Asian neighbors showed a positive and significant association with perceived crime.

As expected, the official crime rate and the estimated victimization rate were positively associated with perceived neighborhood crime and those who self-identified as recent crime victims perceived more neighborhood crime. That perceived physical disorder has such a strong effect in the models should not go unaddressed. It is possible and even likely that neighborhoods with higher minority populations have more abandoned houses and run-down buildings than predominantly White neighborhoods. This disorder may serve as a mediating variable between perceptions of minority neighbors and perceptions of crime, but this does not appear likely, as the coefficient for perceived black neighbors in Model 3 is not attenuated very much when disorder is included in Model 4 (see Table 1). It is also possible that the direction of causation between 1) perceptions of physical disorder and 2) perceptions of minority neighbors and 3) perceptions of crime is the opposite of the causal order assumed. In other words, a person's perceptions of neighborhood crime might cause their perceptions of minority neighbors or their perceptions of physical disorder. An ideal test of the effects of neighborhood disorder on perceived neighborhood crime would be an objective measure of physical disorder.

Despite this study's best efforts, there may still be an endogeneity problem between perceived racial composition and perceived neighborhood crime. Solving the possible causal directionality issue simply cannot be accomplished with an OLS linear regression model. It

should also be noted that, although the dependent variable is an ordinal variable, it was treated as a continuous variable in these analyses. Ordered logit or ordered probit models might be a better fit for this reason[7].

Another limitation of this research may be that prior similar studies have found significant efects where this one did not. Perhaps most notably, Quillian and Pager (2001) found that Whites perceive more crime than Blacks in neighborhoods with higher Black populations. They also found that females perceived more crime than males. There are several possible reasons to explain why this study was unable to replicate these results; however, it should be noted that their main finding, that neighborhood racial composition is associated with perceived crime, is replicated. Although Seattle is among the cities tested in Quillian and Pager's study, the discrepant results may be merely due to different samples of the population.

Another factor is that the research questions between the studies are slightly different. The main question of the present study is about the effect of *perceived* race on perceived crime and Quillian and Pager only used objective measures of race in their models. After running numerous models (shown and not shown) without the perceived race variables, this study still did not find a significant difference between Black and White respondents' perceptions of crime. Also, whereas Quillian and Pager only tested for Blacks' and Whites' perceptions about Black neighbors, this study tested for Blacks' Whites', Latinos', and Asians' perceptions about Blacks, Latinos, and Asians. Earlier models that were tested (not shown) were Black-White models nearly identical to those that Quillian and Pager published and none of those analyses showed a significant interaction effect between White respondents and percent young Black men, so the

[7] Ordered logit models (not shown) produced very similar results.

differing and/or additional variables are not likely the cause of the inconsistent results between the studies[8].

Despite the possible limitations of few minorities in the data set, the results do indicate that Seattle residents, particularly Asians, associate neighborhood crime with Black neighbors. Perceived neighborhood crime is associated with perceived Black neighbors even after controlling for objective measures of race, subjective physical disorder, multiple measures of actual crime, and other neighborhood- and individual-level factors typically associated with crime, which suggests that race may play a role in neighborhood selection above and beyond non-racial considerations.

It is possible that the association between perceived Black neighbors and perceptions of crime is capturing the influence of some omitted or even possibly mis-measured variables. However, numerous and varied models were tested (both shown and not shown), which include extensive controls for crime and victimization rates, socio-demographic factors, and neighborhood disorder so as to minimize the effects of errors. Based on the results of this study and prior research, it is highly plausible that racial stereotypes about crime and deviance are responsible for the observed effects (Quillian and Pager 2001; Drakulich 2012).

These results may add some insights into the causes of racial residential segregation. Prior research (Taub et al. 1984) suggests that a major reason Whites avoid Black neighbors is their perception that neighborhoods with more Blacks have higher crime rates. This research suggests that Asians may avoid Black neighbors for the same reasons, at least among Asians who can afford to avoid Black neighborhoods. Crime rates are, in fact, positively associated with the

[8] In Quillian and Pager's study, they use percent young Black men rather than the proportion of the entire Black population, as they hypothesize that young Black men rather than Blacks in general make people fearful of crime. While this is theoretically sound, this study did not use the same variable because it is testing for perceptions about Latinos and Asians as well as Blacks and it cannot make a theoretical claim that young Asian men provoke perceptions of crime. For consistency's sake, this study uses objective measures of the entire populations of Blacks, Latinos, and Asians.

proportion Black across neighborhoods; however, these results suggest that the effect of Asians' perceptions of Black neighbors on their perceptions of neighborhood crime exceeds the effects of objective measures of Black residents on neighborhood crime rates. Given that crime concerns are immensely important in neighborhood mobility decisions, stereotypes that conflate race and crime might be a major influence on racial segregation in the United States.

The results are especially troubling when one considers that they are derived from residents' assessments of their own neighborhoods, rather than of hypothetical neighborhoods or neighborhoods in which they do not reside. A person should have a reasonably good idea of the crime rate in their neighborhood, compared to their ideas about crime in other neighborhoods, which should logically decrease the need to employ racial stereotypes in estimating the neighborhood's crime rate; however, as with many matters involving racism and racial stereotypes, this behavior defies logic. As Quillian and Pager (2001) point out, "[i]f basic ideas about the operation of stereotypes are correct, then neighborhood racial composition would probably have an even larger influence on the perceptions of persons who know the neighborhood less well," which implies that prospective residents perceive even more crime than do current residents in neighborhoods with large Black populations (measured objectively or subjectively). Prospective residents with distorted perceptions about neighborhood racial composition and crime would consequently avoid those neighborhoods, thus perpetuating residential segregation.

Although Seattle has less residential segregation than most major U.S. cities, Seattle has fewer Blacks and Latinos than most major U.S. cities as well. Additionally, Seattle has a larger Asian population than most major U.S. cities. The results of the present research highlight a real need to explore racial relations between Asians and Blacks to better understand why Asians

appear to have even more racial prejudice against Blacks than do Whites. Overall, these results paint a bleak picture for the likelihood of neighborhood integration without considerable outside interventions.

Although this paper focused solely on the effect of perceptions of minority neighbors on perceptions of neighborhood crime, it is highly plausible that racial stereotypes impact perceptions of minority populations in many social processes other than neighborhood mobility decisions (Phelps 1972). Future research should incorporate subjective measures of various racial stereotypes in order to consider how perceptions may be shaped by racial prejudices across a wide range of social interactions in an effort to identify ways that these prejudicial perceptions and subsequent negative outcomes may be countered. In the recent words of Attorney General Eric Holder, "Our country is stronger when all Americans are treated equally…we must all work together to broaden horizons for younger generations, just as our predecessors did. This is the work that truly matters – because policies that disenfranchise specific groups are more pernicious than hateful rants."

APPENDIX

Descriptions of Measures

Neighborhood Predictors of Perceived Crime

Total Crime Rate, 1999-2001 (logged)	Average yearly aggravated assaults, homicides, rapes, burglaries, and robberies per 1,000 persons reported to the Seattle Police Department for the years 1999-2001 (logged)
Victimization Rate (logged)	Victimization rate per 1,000 tract residents based on the proportion of SNCS respondents who report having been the victim of a crime within the past 2 years (logged)
Poor	Lower income dummy variable; Range of percentage of households with income below the official U.S. government poverty needs standard according to the 2000 U.S. Census. Range is 2-49%.
Affluent	Upper income dummy variable; Range of percentage of households with income above $65,000 in 2000, a figure roughly equivalent to $30,000 in 1980[9]. Range is 2-30%.
Density	Neighborhood population density (persons per square kilometer)
% Homeowners	Percent homeowners
% Black	Percent Black
% Latino	Percent Latino
% Asian	Percent Asian
% Immigrant	Percent Immigrant

Individual Predictors of Perceived Crime

Personal Victimization Experiences	Total number of personal victimization experiences in last 2 years, in response to the following questions: (1) How many times have you had any windows broken, property destroyed, or other damage done to your home within the past 2 years? and (2) How many times have you been physically attacked, beaten up, or threatened [with physical violence] within the past 2 years[10]?
Problem with Abandoned/Run-Down Bldgs[11]	"How much of a problem would you say abandoned houses and run-down buildings are, within 3 blocks of your home?" not a problem (1), small problem (2), and big problem (3).
Age	Respondent's age (in 2000). Entered as dummy variables as follows: Age 17-25, Age 26-35, Age 36-50. Age 51-102 is the reference

[9] $65,000 in 2000 was equivalent to about $31,103 in 1980, CPI adjusted.

[10] Although survey respondents were also asked how many times these types of physical or property damage had *ever* occurred to them, it seemed that the questions asking about recent incidents would be more pertinent to perceptions of safety and earlier models (not shown) support this assumption.

[11] The SNCS contains several questions to measure respondents' assessments of physical deterioration and social incivilities within their neighborhoods. However, many of these questions asked respondents to identify signs of disorder which were also direct measures of unlawful behavior, such as problems with teenagers loitering, problems with litter, and problems with graffiti, which proved to be problematic in earlier models (not shown).

	category.
Female	Female respondent
Income (logged)	Respondent's household income (logged)
Education	Respondent's level of education. Entered as dummy variables as High School and College with Less than High School as the reference category.
Respondent Black	Respondent's race/ethnicity is Black
Respondent Latino	Respondent's race/ethnicity is Latino
Respondent Asian	Respondent's race/ethnicity is Asian
Resp. Immigrant	Respondent was not born in the United States
Perceived Black Neighbors	"About how many of your neighbors belong to the following ethnic group: African Americans (Blacks)?" hardly any (1), some (2), at least half (3), nearly all (4) [Responses were recoded in reverse order from original SNCS data.]
Perceived Latino Neighbors	"About how many of your neighbors belong to the following ethnic group: Hispanics?" hardly any (1), some (2), at least half (3), nearly all (4) [Responses were recoded in reverse order from original SNCS data.]
Perceived Asian Neighbors	"About how many of your neighbors belong to the following ethnic groups: Asians?" hardly any (1), some (2), at least half (3), nearly all (4) [Responses were recoded in reverse order from original SNCS data.]

Dependent Variable

Perceived Neighborhood Crime	"How safe do you think your neighborhood is from crime and criminals?" very safe (1), safe (2), unsafe (3), very unsafe (4)

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Table 1. Neighborhood and Individual Predictors of Perceived Neighborhood Crime

	Model 1		Model 2		Model 3		Model 4		Model 5	
Variables	Coef.	Robust SE	Coef.	Robust SE	Coef.	Robust SE	Coef.	Robust SE	Coef.	Robust SE
Neighborhood-level characteristics:										
Total crime rate, 1999-2001 (logged)	.149***	.037	.145***	.036	.144***	.035	.138***	.033	.137***	.033
Victimization rate (logged)	.025	.015	.020	.014	.023	.014	.021	.014	.022	.014
% Poor	.566	.326	.643*	.325	.642*	.316	.442	.306	.471	.310
% Affluent	−.790	.519	−.582	.504	−.407	.476	−.522	.469	−.484	.491
Density	.039	.030	.029	.029	.029	.027	.033	.025	.033	.025
% Homeowners	.046	.149	.147	.144	.109	.142	.103	.137	.096	.141
% Black	.468**	.148	.444**	.154	−.015	.182	−.104	.177	−.068	.187
% Latino	1.832***	.503	1.726**	.547	1.267*	.523	.997*	.492	1.019*	.489
% Asian	.216	.381	.138	.365	−.066	.357	−.215	.333	−.219	.329
% Immigrant	−.447	.457	−.345	.449	−.214	.456	−.093	.411	−.121	.407
Individual-level characteristics:										
Personal victimization experiences			.044***	.009	.041***	.009	.036***	.009	.035***	.009
Problem with Abandoned/Run-Down Bldgs							.240***	.023	.243***	.023
Age:										
17-25			.263***	.049	.226***	.048	.209***	.046	.207***	.046
26-35			.208***	.031	.182***	.030	.162***	.030	.163***	.029
36-50			.161***	.024	.144***	.024	.123***	.024	.126***	.024
51-102			(ref.)		(ref.)		(ref.)		(ref.)	
Female			−.026	.029	−.027	.029	−.028	.027	−.027	.028
Income (logged)			−.038*	.017	−.030	.017	−.026	.017	−.026	.017
Education:										
Less than high school			(ref.)		(ref.)		(ref.)		(ref.)	
High school			.000	.038	.056*	.028	.065*	.026	.061*	.027
College			−.022	.036	.015	.028	.026	.030	.027	.032
Respondent Black			−.014	.053	.013	.056	.039	.054	.024	.168
Respondent Latino			.006	.065	.005	.063	.002	.062	−.090	.163
Respondent Asian			.012	.050	.012	.048	−.006	.049	−.131	.159
Respondent Immigrant			−.070	.039	−.059	.040	−.073	.040	−.037	.101
Perceived Black Neighbors					.133***	.025	.116***	.025	.101***	.026
Perceived Latino Neighbors					.050*	.025	.042	.025	.022	.030
Perceived Asian Neighbors					.043	.025	.037	.025	.056*	.025
Respondent Black x Perceived Black									−.004	.019
Respondent Latino x Perceived Black									.010	.037
Respondent Asian x Perceived Black									.171***	.050
Respondent Immigrant x Perceived Black									−.040	.043

Variables	Model 1		Model 2		Model 3		Model 4		Model 5	
	Coef.	Robust SE	Coef.	Robust SE	Coef.	Robust SE	Coef.	Robust SE	Coef.	Robust SE
Respondent Black x Perceived Latino									−.014	.086
Respondent Latino x Perceived Latino									.115	.062
Respondent Asian x Perceived Latino									−.104	.080
Respondent Immigrant x Perceived Latino									.067	.065
Respondent Black x Perceived Asian									.021	.051
Respondent Latino x Perceived Asian									−.055	.060
Respondent Asian x Perceived Asian									−.005	.050
Respondent Immigrant x Perceived Asian									−.040	.042
N		4,632		4,598		4,483		4,475		4,475
R^2		.114		.144		.165		.193		.197
F		42.83		28.90		34.54		45.60		43.38

SOURCE. – Seattle Neighborhood and Crime Survey.

* P < .05

** P < .01

*** P < .001