ABSTRACT

Title of Document:	SATISFACTION WITH POLICE: A HEIRARCHICAL ANALYSIS OF RACE AND NEIGHBORHOOOD DISADVANTAGE
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A growing literature finds that two factors, race and neighborhood disadvantage, commonly predict attitudes toward the police; both African-Americans and residents of disadvantaged neighborhoods tend to report lower levels of police satisfaction. Recently, multilevel studies have begun to examine whether these neighborhood-level factors attenuate the race effect – testing, in other words, if African-Americans are less satisfied with the police *only* because they are more likely to live in disadvantaged areas. This thesis expands on current research by not only examining race versus context, but also race via context. In other words, I test whether the effect of race on police satisfaction *varies* according to neighborhood disadvantage. Drawing on a number of theoretical perspectives, I predict that race matters more (i.e. the racial gap is wider) in neighborhoods marked by social and economic disadvantage. Multilevel modeling is employed to test this hypothesis using data from over 10,000 individuals in 60 neighborhoods.

SATISFACTION WITH POLICE: A HEIRARCHICAL ANALYSIS OF RACE
AND NEIGHBORHOOOD DISADVANTAGE

By

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Thesis submitted to the Faculty of the Graduate School of the
University of Maryland, College Park, in partial fulfillment
of the requirements for the degree of
Master of Arts
2006

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Dedication

This thesis is dedicated to the memory of Professor Doug Smith. To answer your

question Doug, I usually drive with the 3-wood.

Acknowledgements

A number of instrumental people deserve to be acknowledged for their valuable contributions, in one way or another, to the completion of this thesis. To my chair, Shawn Bushway, for assuming a difficult role in an even more difficult time. Thank you for taking command, providing valuable insight, and above all else, keeping me on track. To my other committee members, Brian Johnson and David Weisburd, for your comments, support, and expertise. To the smackdown crew, for the same. And to my family and friends for distracting, when it was needed, and keeping me focused when it was needed more. Carole, you did all these things and so much more. I thank you for everything.

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Chapter 1: Introduction

Researchers, politicians, and criminal justice practitioners alike have long been interested in exploring citizens' perceptions of the police, particularly at the neighborhood level. Without question, communities benefit from a trusted and respected police force. Research shows, for example, that individuals' who are satisfied with the police are less likely to fear victimization, more likely to cooperate with the police, and even less likely to commit crime (Tyler, 2003). Furthermore, the police represent the most salient branch of the criminal justice system in the community. Consequently, perceptions of their services often transcend the individual department, jurisdiction or agency to condition larger perceptions of the criminal justice system as a whole. In fact, some argue that distrust toward the police is often a precursor to feeling that the justice system in general lacks legitimacy and therefore should not be supported or obeyed (Tyler, 1990).

Although most Americans hold favorable attitudes toward the police (Tuch and Weitzer, 1997), it is becoming increasingly clear that many do not. Who becomes less satisfied with the police, and why, are questions that have been at the forefront of numerous studies over the years (Cao et al., 1996; Dunham and Alpert, 1988; Hagan and Albonetti, 1982; Reisig and Parks, 2000; Sampson and Jeglum-Bartusch, 1998; Smith et al., 1991; Tyler and Huo, 2002; Weitzer, 1999; Weitzer and Tuch, 2002, 2004; Webb and Marshall, 1995). While some examine individual-level explanations, others study the effect of ecological contexts such as neighborhoods. More recently studies have examined both simultaneously.

Across this array of research, two findings consistently emerge, one at each level of analysis. At the individual-level, minorities, and particularly African-Americans, generally express less satisfaction with the police than do Caucasians. At the aggregate-level, attitudes toward the police are negatively correlated with a neighborhood's level of disadvantage. In other words, both minorities and those living in poor, typically crime-ridden communities hold less favorable attitudes toward the police than other groups.

With those findings in mind, researchers have recently tried to explain *why* blacks have more negative attitudes. Is it due to a quality of race - something unique about either African-American culture or the way these minorities are treated by the police? Or, perhaps these attitudes merely reflect residential location; blacks might be less satisfied with the police only because they are also more likely to live in disadvantaged neighborhoods. Whichever is actually the case (studies have supported both explanations) this is the point at which the vast majority of police satisfaction research has stopped.

We learn that race matters, at least to some extent. We learn that neighborhoods matter, at least to some extent. And perhaps neighborhood context accounts for much of the observed race effect on attitudes toward the police. But what we know very little about is the extent to which race and neighborhood disadvantage mutually condition one another. Could the effect of race on satisfaction with the police *vary* according to a neighborhood's level of disadvantage? Likewise, might race better predict attitudes toward the police in certain neighborhoods? These questions have remained largely un-examined across police, race and neighborhood research. Their answers, carrying both theoretical and practical import, remain obscured by studies that simply pit race and

context against one another, waiting to see which coefficient wins. This thesis seeks to address this gap in the research by examining the effect of a cross-level interaction between race and neighborhood context on satisfaction with the police. There are reasons to expect, I argue, that it is less about being black *or* living in a bad neighborhood that predicts dissatisfaction, and more a matter of being black *and* living in a bad neighborhood. In particular, I predict that as neighborhoods become more disadvantaged race becomes a more salient factor in conditioning these attitudes.

In doing so, I begin by taking a step back and examining the important roles both race and neighborhoods play in our society, particularly in relation to the criminal justice system. Then, narrowing in on satisfaction with the police, I review the relevant studies that focus on race and neighborhood context, outlining not only the knowledge they impart but also the relationships they leave unexamined. Next I draw on a number of theories, including those derived from ethnographic neighborhood research, to explain why we might expect an interaction between race and context – particularly, why we would expect blacks and whites to share more similar attitudes toward the police in non-disadvantaged neighborhoods than in disadvantaged ones. I highlight two studies that have examined this interaction and outline their respective theoretical and methodological shortcomings. Finally, I describe a dataset that is particularly well-equipped to address these issues and how I will use it to test my hypotheses.

Chapter 2: Literature Review

Race and the Police

Racial disparities are an undeniably prominent part of the criminal justice system. For example, blacks accounted for just over 40% of the incarcerated population while comprising only 12% of the overall population in 2004 (Bureau of Justice Statistics, 2005). According to these statistics, an estimated 32% of black males will be incarcerated in a state or federal prison at some point during their lives compared to less than 6% of white males. How much of this disparity is due to extra-legal or discriminatory factors remains a debate. The preponderance of evidence, in fact, seems to suggest that these numbers (which have remained relatively consistent over the past 20 years) largely result from the disproportionate rate at which blacks commit serious crimes – particularly drug offenses – and not from some underlying racial bias (Tonry, 1995; Blumstein, 1993; Wilbanks, 1987). Still, many point to the racial overtones of the federal War on Drugs, arguing for instance that stiffer penalties for crack versus powder cocaine (which disproportionately affect the black community) are symptomatic of a larger history of institutionalized racism (Mauer, 2003; Tonry, 1995; Mann, 1993). In short, it is clear that a racial disparity exists within U.S. prisons; however it is less clear how much this disparity is due to systematic discrimination.

There remains a similar lack of consensus on the role race plays in sentence severity. Some studies have shown that minorities receive harsher sentences even after legally relevant factors are taken into account (Bushway and Piehl, 2001; Albonetti, 1997; Zatz, 1984). Still, others have found that there are either no

significant racial disparities (Engen and Gainey, 2000; Klein et al., 1990), or that African-Americans are actually treated more *leniently* than whites (Feimer et al., 1990; Peterson and Hagan, 1984). More recently, evidence is beginning to show important interactions in sentencing decisions. Here, studies show that a defendant's race affects sentencing decisions in certain contexts (e.g. region or offense type), or in combination with other factors (e.g. age, sex, or time period) (Britt, 2000; Ulmer and Johnson, 2004; Johnson, 2006; Crawford, 2000; Spohn and Holleran, 2000; Steffensmeier et al., 1998). Attempting to make more sense of these divergent findings, Mitchell and Mackenzie (2004) recently conducted a meta-analysis of 85 related studies. They found that after offense seriousness and offender criminal history were taken into account, blacks still appear to be sentenced more harshly than whites. The difference, however, becomes very small (and often insignificant) when more control variables are included.

The story is largely the same when it comes to research on policing. Although some studies find racial biases when it comes to traffic stops (Engel and Calnon, 2004) and officer coercion (Terrill and Mastrofski, 2002), studies that include more control variables typically find no evidence of discriminatory practices. For example, accounting for important contextual (e.g. neighborhood disadvantage), legal (e.g. offense seriousness) and situational (e.g. suspect behavior) factors, most often renders the effect of suspect race insignificant when it comes to an officer's arrest decision or use of force. (Alpert and Dunham, 1997; D'Allessio, and Stolzenberg, 2003; Smith, 1986). In fact, a recent study of police encounters with 3,130 suspects in Indianapolis and St. Petersburg showed that minorities actually experienced disrespect from the police less often than

whites (Mastrofski et al., 2002). Results such as these have led D'Allessio and

Stolzenberg (2003) to conclude that the "disproportionately high arrest rate for black

citizens is most likely attributable to differential involvement in reported crime rather

than to racially biased law enforcement practices" (p. 1381).

<u>Attitudes toward the Criminal Justice System</u>

But despite relatively inconsistent evidence of racial biases in the criminal

justice system, one consistent finding is certain – African-Americans are less likely

than whites to trust, support and be satisfied with the justice system. Even after

relevant controls are taken into account, such as class, neighborhood, education, and

criminal history, blacks remain more likely to see the system as unjust (Hagan and

Albonetti, 1982; Hagan et al., 2005; Henderson et al., 1997).

Arguably the strongest of these system-wide perceptions is attitudes toward

the police, where, for example a 1999 Gallup poll showed that 77% of black

Americans believed that racial profiling is widespread among the police (Newport,

1999). Due in part to their heightened visibility, both in the media and on the street,

police officers represent the most salient branch of the justice system. Both

personal interactions and second-hand accounts are more common with the police

than with the court or correctional systems. Consequently, officers' actions (or

inactions) often engender strong opinions of their services among citizens. And as I

have alluded, the difference in such opinions remains noticeable between whites

and blacks. Indeed, race is consistently one of the strongest individual-level

predictors of satisfaction with the police (Tuch and Weitzer, 1997).

But why is this the case? Why do African-Americans, decade after decade, express less satisfaction with the police than Caucasians? To answer this question researchers typically explore aspects of at least one of the following three dimensions: police behavior, cultural differences between blacks and whites, and neighborhood structure. Studies examining the first dimension commonly look at officer's discretionary behavior which may include use of force, decision to arrest, vehicle stops and searches, procedural fairness, report filing, or victim treatment. In short, these studies attempt to show whether police actions vary according to the race of the citizen encountered, or (importantly) if they are *perceived* to vary across race. Indeed, personal contacts with the police (especially negative experiences) influence citizens' larger views of the police (Tyler and Huo, 2002; Weitzer and Tuch, 2002).

Secondly, some feel that attitudes toward the police are due to larger cultural differences between whites and blacks. This line of research attempts to show whether minorities are socialized to hold certain beliefs; one such belief is thought to be a general distrust of authority – in particular, distrust toward the police. According to the cultural transmission argument, African-Americans are more likely to be raised with skepticism, if not downright disdain, toward the police. Most often, this dissatisfaction emanates from a conceptualization of police as the dominant white majority interested only in preserving the status quo and racial order; their consequent lack of legitimacy in the eyes of the black community leads its members to question or utterly disregard officer's authority. Accordingly, this

approach would predict little or no change in blacks' opinions toward the police as a result of changes in officer behavior.

Third, and becoming increasingly prominent in the field, are aggregate-level explanations. Focusing primarily on neighborhood differences, this approach asks whether African-Americans are less likely to be satisfied with the police as a result of where they live. Perhaps the direct effect of being black on attitudes toward the police is not a function of race at all, but is instead a manifestation of neighborhood context. Indeed, research has shown that police act differently in different neighborhoods and that the neighborhoods most commonly neglected or abused by officers are those which tend to contain a high percentage of minorities (Smith, 1986; Terrill and Reisig, 2003). Moreover, socioeconomic correlates of police satisfaction tend also to correlate with concentration of African-Americans in the community.

So despite individual-level factors known to shape these attitudes (race being among the strongest), qualities of neighborhoods themselves might account for why individuals are more or less likely to be satisfied with the police. The following section examines ecological context in more detail, focusing on the neighborhood's role in the criminal justice system and particularly in relation to satisfaction with police.

Neighborhood Disadvantage

The early work of Park et al. (1925) and Shaw and McKay (1929; 1942), highlighted the important role geographic units play in social organization and criminal behavior. And after a long period of dormancy, ecological approaches to the study of crime have resurfaced in the last decade providing new explanations for violence, fear of

crime, and delinquency. Indeed, neighborhood-level research has permeated criminology journals during this time period. From the mid 1990s to 2000 alone, Sampson et al. (2002) estimated that the number of neighborhood studies had more than doubled to an average of about 100 per year, "becoming something of a cottage industry in the social sciences" (p. 444).

Without question, this line of research has highlighted the importance of where people live. Sparked by Wilson's (1987) book *The Truly Disadvantaged,* researchers have focused primarily on *structural* dimensions of neighborhood disadvantage such as the concentration of low-income, African-American, single-parent and uneducated residents (Small and Newman, 2001). Indeed the term concentrated disadvantage, which refers to the geographic isolation of multiple forms of disadvantage, has dominated much of this research. Though as I will discuss later, this construct can be measured in many ways, virtually every study looking at geographically isolated disadvantage finds that it predicts a number of negative outcomes. From school performance, health problems and teenage childbirth, to delinquency, crime and suicide, residential location seems to make a considerable difference (see Sampson et al., 2002 for a review). We also see that neighborhoods tend to be distinguishable from others in terms of both socioeconomic status and racial composition. Most commonly, those neighborhoods suffering socioeconomic disadvantage are also the ones with a high concentration of African-American residents.

In addition to structural factors, recent studies have focused on the effects of neighborhood *social processes* such as friendship networks (Sampson and Groves, 1989), social control (Bursik and Grasmick, 1993) and collective efficacy (Sampson et al.,

1997). This research has taught us that neighborhoods characterized by cohesion and

high amounts of social control are better equipped to prevent crime and delinquency. Not

surprisingly these social processes tend to be correlated with structural factors;

disadvantaged neighborhoods most commonly lack the ability to effectively regulate their

residents.

Importantly, and of more direct import to this thesis, neighborhood characteristics

also affect the *perceptions* of its residents. Especially in this realm, race begins to play a

prominent role in neighborhood research. For example, residents with more black

neighbors are more likely to think their neighborhood has a crime problem (Quillian and

Pager, 2001); even in neighborhoods with relatively low crime rates, the presence of

African-American residents increases the perception that crime is in fact much higher.

The Neighborhood Context of Police Satisfaction

But perhaps in no other area are race and neighborhoods so intertwined than in

relation to attitudes toward the police. A considerable body of research continues to

revolve around police behavior – particularly discretionary behavior – and how this

behavior often depends on the ecological context in which it occurs. Quantitative studies

show that the way in which police manage resources, exercise discretion and respond to

problems often varies according to neighborhood context. In disadvantaged

neighborhoods, police are more likely to use force and arrest suspects but are less likely

to stop suspicious persons or file incident reports (Sherman, 1986; Smith, 1986; Terrill

and Reisig, 2003). Qualitative data has also painted a similar picture; narratives from

residents of inner city ghettos tell of police routinely ignoring calls for service,

indiscriminately using force and generally not providing the kinds of service residents want (Anderson, 1999).

Theoretical work has advanced at least four explanations for these findings (see Klinger, 1997). First, officers patrolling disadvantaged neighborhoods tend to see (as a result of their common recurrence) certain crimes as "normal" and as a result are less likely to investigate them. Second, police officers tend to be less sympathetic to crime victims in poor, crime-ridden areas, seeing them as often undeserving of police assistance. In fact, police often have a hard time distinguishing between victim and offender in these neighborhoods where both are in ready supply. Third, as a result of heightened exposure to deviance, officers in these neighborhoods are simply more cynical of the justice system, questioning the usefulness of vigorous police action. To them, it is more difficult to see the benefit of their work when the crime rate remains high and support for their services remains low. Finally, departmental resources in these areas are often overburdened. The demand for services typically outweighs the supply of officers, lengthening response time and leaving police unable to do much proactive or community policing.

The combination of these factors suggests that residents of disadvantaged neighborhoods might be less satisfied with their police. Indeed, a number of studies have shown this empirically (Apple and O'Brien, 1983; Jacob, 1971; Smith, 1986 Weitzer and Tuch, 2005; Reisig and Parks, 2003). And as these areas predominantly house minorities, researchers have also begun to ask whether neighborhood context might account for why blacks are less satisfied with the police.

Leading this effort, Sampson and Jeglum-Bartusch (1998) attempted to explain the link between neighborhood context and public perceptions of the police. Examining survey data from over 8,000 residents of 343 Chicago neighborhoods, they found not only that structural factors determined attitudes toward the police but also that the effect of race was insignificant when concentrated disadvantage (a clustering of economic disadvantage and racial segregation) was included in their model of police satisfaction. In other words, the effect of race on satisfaction with the police was completely mediated by structural differences between neighborhoods. The authors concluded, "apparently, then, it is a neighborhood context more than a race-specific attitude that explains estrangement from the police" (p. 800).

Accordingly, these findings imply that as neighborhood conditions deteriorate (e.g. levels of concentrated disadvantage) so should attitudes toward the police, and that this relationship should not vary according to race. Blacks living in affluent neighborhoods should be equally satisfied with the police as their white neighbors, just as whites living in disadvantaged neighborhoods should be equally dissatisfied as their black neighbors.

More recently, however, Reisig and Parks (2000) provide some doubt as to whether the effect of race is completely attenuated by context. Armed with an equally impressive sample of over 10,000 residents from 58 neighborhoods in three U.S. cities the authors found that although neighborhood context *reduced* the effect of being black on satisfaction with the police, it did not subsume the race effect. Blacks remained less satisfied with the police even after including concentrated disadvantage in their model. Reisig and Parks, therefore, concluded that some, but importantly "far from all of the

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difference in satisfaction with police found for whites and for African-Americans can be attributed to differences in residential location" (p. 627).

In essence, each of these studies, with certain differences in model specification, employed the same analytic approach. They each estimated a direct effect for race, a direct effect for neighborhood disadvantage and included them both in the same model to see the effects on each coefficient. In the end, the more fully specified models showed that including neighborhood factors in a model tends to reduce the measured impact of individual factors such as race, suggesting that there is substantial, but not perfect, correlation between neighborhood characteristics and individual effects. Blacks are less satisfied with the police at least in part because they are more likely to reside in neighborhoods with more crime, less resources to prevent crime, and strained police forces.

The Missing Gap: Race via Context

Despite advancing our knowledge of why minorities are less satisfied with the police, these two studies leave unanswered the important question of whether the effect of race on attitudes toward the police *varies* according to neighborhood context. Although race and neighborhood context appear to matter separately, race may matter *more* in certain neighborhoods. Neither Sampson and Jeglum-Bartusch or Reisig and Parks test for an interaction between these two variables. Certainly Reisig and Parks' (2000) findings allow for the possibility that context affects blacks and whites differently. But even Sampson and Jeglum-Bartusch's (1998) finding fails to rule out this possibility.

Important interactions between race and neighborhood structure can remain despite a non-significant main effect for race.[1]

Finding an interaction could bring with it certain policy implications and new research directions. For instance, if the racial divide in attitudes toward the police disappears in better neighborhoods, we might want to focus our policy efforts more on increasing the social and economic vitality of disadvantaged communities. From a criminal justice perspective, initiatives like community policing (where an emphasis is placed on strengthening relationships with residents) might be especially helpful in these neighborhoods but perhaps unnecessary in more affluent areas. A subsequent research agenda might propose examining what it is about middle and upper-class neighborhoods that foster a common outlook toward the police. On the other hand, a null finding would provide useful information as well. If different neighborhood structures have the *same* effect on blacks and whites attitudes toward the police (and if race remains a significant predictor of satisfaction), these policies would likely have little impact on narrowing the racial gap in attitudes. Here, the research agenda might proscribe a more qualitative understanding of the cultural diffusion of attitudes toward the police.

Research Testing for the Race/Context Interaction

Only two studies have examined this relationship. Huebner et al. (2004) tested for the interaction among a sample of residents from 20 neighborhoods in one Midwestern jurisdiction. Running OLS models separately for blacks and whites, they found no significant differences between races for the effect of neighborhood context on

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[1] When it comes to sentencing decisions for instance, offender's race (by itself) rarely predicts sentence severity. However, when race is combined with other factors such as gender, age and crime type, these interactions significantly affect sentencing decisions (Spohn and Holleran, 2000; Kautt and Spohn, 2002).

satisfaction with police. Thus, they concluded that neighborhood disadvantage did not appear to condition the effect of race on police satisfaction.

The study suffered, however, from a number of drawbacks. The authors did not report important information concerning variation across neighborhoods in terms of satisfaction with the police or racial composition. This is important because if little variation existed, there would be little to explain. Sampling from only 20 neighborhoods in one mid-western town likely limited this variation. Moreover, less than 200 African-Americans were included in the analysis which raises the possibility that the null results were driven by problems with statistical power.

In a better attempt to examine this interaction, Smith et al. (1991) used data from the police services study (the same data used in this thesis) to show whether a neighborhood's racial composition conditioned the effect of an individual's race on satisfaction with the police. With three times more neighborhoods (sampled from three different cities) and over 10 times more African-Americans, these data addressed many of the problems plaguing the Huebner study. Perhaps as a result, Smith found a significant interaction. As he concluded, "nonwhites living in areas with higher percentages of nonwhites in the population have less favorable views of police than nonwhites living in areas that are more racially mixed" (p. 27).

Though an intriguing result, the study measured only one neighborhood-level variable, percent non-white. As such, it essentially treated middle-class predominantly black neighborhoods and what Anderson (1999) would call the "hyper-ghetto" predominantly black neighborhoods the same. Thus, important differences between these neighborhoods, in terms of disadvantage for instance, were unaccounted for.

These studies also suffered an important analytical shortcoming – the disconnect between data structure and method of analysis. Both the Huebner et al. (2004) study and the Smith et al. (1991) study used multilevel data; observations taken at the individual-level were aggregated to the neighborhood-level. Neither study, however, employed multilevel tools to analyze this data. Huebner et al. ran separate OLS regressions for blacks and whites then tested for differences between the neighborhood-level coefficients for each race. Insignificant Z-scores led the authors to conclude that the effect of neighborhood context on attitudes toward the police was not different for whites and blacks. Using a similar strategy, Smith ran OLS models with multilevel data and included an interaction term between race and neighborhood racial composition.

With the advent of more sophisticated multilevel analytical techniques, researchers have begun to question the appropriateness of these more simplistic analytic models (Raudenbush and Bryk, 2002). Luke (2004), for instance, argues that there are both theoretical and statistical reasons for using multilevel models when confronted with multilevel data. Theoretically, we should use multilevel theories and techniques because "so much of what we study is multilevel in nature" (p. 4). These models allow us to analyze simultaneously the properties of group members and the group itself.

Statistically, a number of problems arise when applying simpler single-level models to multilevel data. Most notably, individuals within the same context (e.g. residents of the same neighborhood) will likely display similarities across a number of dimensions resulting in correlated error terms. This violates one of the basic assumptions of OLS regression and can increase the chance of committing a type I error. As Rountree et al. (1994) note, standard OLS approaches "tend to ignore the implicit hierarchy

involved between characteristics of individuals and of the neighborhoods or communities in which they live" (p. 388). Some studies include multilevel interaction terms to test relationships between individuals and context, such as Smith et al. (1991), but even interaction terms in OLS fail to explicitly explain the hierarchical structure of the data. Indeed, the standard error of the interaction term remains underestimated due to clustering.

Multilevel models address this problem, providing the best estimation of standard errors. This technique has a number of other benefits as well. HLM, for instance, explicitly measures within and between-group differences; this helps to determine if there is enough variation across contexts to demand a multilevel analysis to begin with. Second, the technique is especially useful when examining cross-level interactions. In particular, it allows us to assume that both the intercepts *and* slopes of individual predictors (level-1) vary across aggregate predictors (level-2). We would want to model both intercepts and slopes as outcomes if we thought that the individual race effect might be a function of aggregate neighborhood types. OLS, on the other hand, typically treats group parameters as fixed-effects, ignoring random variability across contexts.

In short, two gaps become apparent from the previous research. One is an incomplete understanding of the range of neighborhood-level variables that might condition the effect of race on attitudes toward the police. Measures related to disadvantage seem especially relevant, yet remain unexplored. The second gap is analytical, whereby studies examining this interaction have not yet moved to a multilevel framework. This technique would provide the best estimate of interactions while also giving us more information on between-neighborhood differences. This thesis, by

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incorporating a broader conceptualization of neighborhood disadvantage and using multilevel modeling, attempts to fill these gaps.

In the next chapter I draw on three theoretical perspectives which suggest an interaction between race and neighborhood disadvantage would, in fact, exist. In short, these perspectives argue that race often takes on a different meaning in disadvantaged neighborhoods, one that carries with it important implications for understanding police satisfaction.

Chapter 3: Theoretical Foundations

<u>Code of the Street</u>

Elijah Anderson's (1999) ethnographic work in Philadelphia neighborhoods documents important structural and cultural differences exist between disadvantaged and non-disadvantaged neighborhoods. Racial discrimination, for instance, is "fact of daily life" (p. 12) in ghetto neighborhoods. Moreover, whites in these areas are often unable to distinguish minorities who are law-abiding and those who are not. Middle and upper-class neighborhoods, on the other hand, display different characteristics. Whites living in theses areas are often "too sophisticated to believe that all blacks are inclined to criminality" (p. 17) and that "there is little racial tension here; comity and good will are common themes" (p. 18). In short, Anderson's ethnographic work implies that the stigma of race becomes exponentially worse as neighborhoods become more disadvantaged.

Resulting from these conditions are context-based attitudes of distrust toward the white, dominant, middle-class culture. Minorities in better-off neighborhoods, by virtue of ascribing to this culture, lack this oppositional bent. Likewise, their attitudes are more likely to reflect those of their Caucasian neighbors. Anderson argues that a different story emerges, however, in disadvantaged neighborhoods. African-Americans here often learn to reject the rules and norms which dictate behavior in middle-class communities and consequently distrust any visible signs of this culture. Public officials, corporate leaders, and even other minorities who embrace the white middle-class way of life are "unworthy of respect and hold little moral authority" (Anderson, 1999:36) to those living in the ghetto.

Indeed, arguably the *most* visible signs of the dominant white culture in these neighborhoods are the police. Constantly present on the streets and in the media, officers represent a justice system that minorities largely feel is *unjust* to begin with (Hagan and Albonetti, 1982). Coupled with perceptions that policing is less consistent, more forceful and oftentimes non-responsive in disadvantaged, crime-ridden neighborhoods, negative attitudes may become even more pronounced for these minority residents. In such neighborhoods, there exists an "us versus them" mentality where officers fail to achieve the same respect and cooperation among the African-American population. This mentality, Anderson argues, is relatively rare among minorities in socially and economically advantaged neighborhoods. In short, Anderson is talking about the same interaction predicted in this thesis; race is to be a stronger predictor of police satisfaction in the ghetto as opposed to middle-class neighborhoods.

In addition, blacks in ghetto neighborhoods tend to react to police contact differently than both their middle-class counterparts and their white neighbors. Anderson observes that in these neighborhoods African-Americans are more likely to feel that interactions with the police signify disrespect and result from officers' racial biases. But because these levels of perceived discrimination and perceived police bias are less prevalent among both middle class African-Americans and lower-class whites, these groups are less likely to make similar attributions. Therefore, we might expect relatively homogenous attitudes toward the police in non-disadvantaged neighborhoods compared to divergent perceptions in areas plagued by social and economic problems.

<u>Interlocking Disadvantage</u>

More recently, a line of literature argues that criminologists ought to pay more attention to the "intersections" in peoples lives. According to this perspective, a person's social location is not solely determined by race, ethnicity, gender, age, neighborhood, or class, but more likely represents a combination of all factors. Focusing on only one of these variables masks important intersections between them, leading to incomplete and confusing conclusions (Barak et al., 2001). From this perspective, satisfaction with the police most likely reflects multiple intersections in peoples' lives including life experiences, world views and social status.

Among them, race and ecological context play prominent roles. As Burgess-Proctor (2006) claims, inequalities experienced by those at the bottom of the stratification hierarchy are not additive but rather interlock and build upon each other. Minorities and residents of disadvantaged neighborhoods represent two groups at the bottom of this hierarchy. Perhaps the interlocking life experiences and world views of minorities living in abject poverty are fundamentally different from those of both whites living in the same neighborhoods and wealthier blacks living in middle-class suburbs. Anderson (1999), for one thinks this is the case as blacks in the "hyper-ghetto" are most likely to suffer from an array of disadvantages. Attitudes toward the police, therefore, might also reflect these intersections, suggesting that the effect of race might be conditioned by neighborhood structure.

<u>Racial Group Threat</u>

Recently, Weitzer and Tuch (2005) extended the theory of racial group threat to include relationships with social institutions, particularly the criminal justice system.

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According to the theory, the authors claim that whites typically perceive the police as allies, exercising their authority in a way preserve the racial order. Accordingly, whites are more likely to condone certain policies toward this end including police suspicion, disparate treatment, and targeting of minorities while at the same time dismissing allegations of police misconduct. "To accept that minorities are frequently mistreated would lend credence to reforms – reforms that might dilute crime control, thereby threatening whites" (2005:1011).

On the other hand, African-Americans are more likely see the police as agents of an oppressive racial majority. In turn, they are more likely to perceive "visible signs of majority domination" (Bayley and Mendelsohn, 1969; Blumer, 1958) such as racial profiling and abuse. In short, racial group threat is used to explain why blacks would be less satisfied with the police than whites.

But is group threat distributed evenly across neighborhoods? Perhaps Weitzer and Tuch's (2005) extension of group-position theory can be extended even further to examine whether minorities living in affluent neighborhoods are as apt to feel oppressed by the racial majority (and thus be as cynical toward the police) as those residing in disadvantaged areas. With increased wealth and social capital, their attitudes toward the police might mirror their class more than their race.[2] As a result, these minorities might be more satisfied with the police than those lacking this social and economic status.

Whites' perceptions of racial group threat, however, might not be as susceptible to neighborhood conditions. Certainly the theory accounts for why whites living in middle and upper-class neighborhoods would feel threatened. Trends in these housing markets,

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[2] Indeed, Wilson (1978) makes much the same argument in his book *The Declining Significance of Race.* Class, that is issues of wealth and economics, often matters more than race when predicting a wide range of outcomes.

for instance, reflect a general preference of white residents to live near other whites and to keep minorities out (Conley, 1999; Haynes, 2001). Coupled with the decreased vitality of many "ghetto" neighborhoods where residents often seek leisure activity in more affluent areas, clashes between racial groups become more common (Wilson, 1996). As a result, whites in these more affluent communities might support, or at least tolerate police practices which target minority individuals.

On the other hand, evidence suggests that poor whites (or those living in disadvantaged neighborhoods) might feel *equally* threatened by minorities. Wilson (1996) argues that as New Federalism and the recession in the 1980s led to joblessness and crime in many urban cities, those who had resources to do so most often relocated to the suburbs and other areas. While most of those who fled were white, the ones who remained in these fiscally strapped cities were then forced to compete with minorities for employment, schools and housing. Still present in today's disadvantaged neighborhoods, Wilson claims this situation "increases the potential for racial tension" (1996:186) and in turn magnifies issues of group threat.

Theoretically then, whites are equally as likely to perceive racial group threat regardless of wealth or residential location. Though these attitudes may be stronger felt by more racially prejudiced whites (Cohn and Barkand, 2004; Bobo and Hutchings, 1996), group position theory "predicts that these views are fairly common throughout the white population" (Weitzer and Tuch, 2005:1010). Minorities' perceptions, however, seem more likely to differ based on ecological context. To the extent that perceptions of group threat coincide with police satisfaction, the theory of racial group threat predicts an interaction between race and place.

In short, these theoretical explanations paint a more detailed picture of who becomes less satisfied with the police and why. It seems as though attitudes toward the police may not simply be deconstructed to matters of race or neighborhood, but more likely reflects important interactions between the two. Furthermore, a consistent direction for this interaction emerges from these explanations – race should become a more salient predictor of satisfaction with the police as neighborhoods become more disadvantaged.

Chapter 4: Methods

<u>Hypotheses and Analytic Strategy</u>

For there to be a negative interaction between neighborhood disadvantage and race, a number of hypotheses must be supported beforehand. First, the African-Americans in my sample must be less satisfied with the police than the whites. Thus, my first hypothesis aims to replicate the common finding that a significant racial gap exists in attitudes toward the police.

H1: African-Americans will express less satisfaction with the police than whites.

The second hypothesis tests whether there is variability across neighborhoods in terms of the relationship between race and police satisfaction. Finding support of this hypothesis will be necessary if I am to show which neighborhood factors explain such variation.

H2: The relationship of race to satisfaction with the police will vary across neighborhoods.

To test these hypotheses, I will run a random-coefficient model containing only level-1 predictors. This model will estimate an effect for race on satisfaction with the police (H1) while allowing the intercept and slopes to vary across neighborhoods; in OLS, these parameters would remain fixed. The model will also indicate whether the race effect varies across the 60 neighborhoods (H2).

The next hypotheses begin to incorporate aggregate-level measures into the random coefficient models. As with my first hypothesis, H3 seeks to replicate the common finding that neighborhood disadvantage is negatively correlated with police satisfaction.

H3: Residents of disadvantaged neighborhoods will be less satisfied with the police than those living in non-disadvantaged neighborhoods.

Moreover, as this model will include both individual and aggregate-level variables, I will test whether the race continues to predict satisfaction with the police after accounting for neighborhood context. In other words, this model will show whether my measures of neighborhood disadvantage completely attenuate the effect of race on police satisfaction.

H4: Controlling for neighborhood disadvantage, race will remain a significant predictor of attitudes toward the police.

Finally, my primary hypothesis concerns the multilevel interaction between race and context:

H5: As neighborhoods become more disadvantaged, race will become a stronger predictor of satisfaction with the police.

In other words, I am interested in whether the racial gap in attitudes toward the police converges in more affluent areas and diverges in disadvantaged ones. To test this hypothesis, I will model the variation in the race coefficient (across neighborhoods) as a function of neighborhood disadvantage. This cross-level interaction model will therefore allow both the intercept and slope (for race) to vary across neighborhoods, showing if such interactions exist.

Data

Much of the literature studying the impact of race on police satisfaction was generated using the 1997 Project on Policing Neighborhoods (POPN). Ideally, therefore, this thesis, which seeks to extend this work, would make use of the same data. However, the POPN data is confidential and requires special access. Therefore, I will rely on publicly available data from 1977 Police Services Study (PSS). The design of the POPN was based on the PSS data, and both datasets randomly sample residents from approximately

60 diverse neighborhoods, measure residents' perceptions of the police, and capture individual and neighborhood-level demographics. And, as I intend to show, I can replicate the basic results from the literature using the PSS data.

The PSS is based on interviews conducted among a randomly selected sample of 9,618 individuals from 60 neighborhoods in three jurisdictions (Rochester, New York; Tampa-St. Petersburg, Florida; and St. Louis, Missouri).[3] Neighborhoods were defined by police beat boundaries and census block information with an average population of 9,500 and an average land area of two square miles. In each of the 60 neighborhoods approximately 200 households were randomly selected for the study. Though completion rates varied across neighborhoods, it exceeded 80% in all cases (Smith, 1986). The telephone interviews tapped a wide array of information including police encounters and victimization experiences. Of interest to this study are the victimization survey data which examine citizen attitudes about the police and crime in their neighborhoods.

<u>Variables</u>

Dependent

The dependent variable is a three-item summated scale measuring the extent to which citizens are satisfied with police services in their neighborhood. Residents were first asked, "How would you rate the overall quality of police services in your neighborhood?" Responses ranged (on a five-point likert scale) from very poor to excellent and the question was asked once at the beginning of the interview and again at the end. Some may feel that the question asked in the beginning reflects a more accurate,

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[3] Because data for some observations were missing, the total sample size in the analyses reported here is 7,438. Though over 20% of respondents are dropped, an earlier analysis with fewer independent variables (n=9,082) showed no significant differences with the more truncated sample. Moreover, an analysis of the missing cases showed no discernable patterns across race, attitudes toward the police or neighborhood context, suggesting that they are missing at random.

unfiltered rating of the police. However, the filter, that is to say the host of questions

asked during the interview might also serve to trigger real memories of past events or

feelings. Recalling a specific crime or instance of police courtesy may then allow for a

more accurate overall assessment, suggesting the preference for the latter question. To

account for both of these possibilities and capture what is probably the most accurate

picture of citizens' attitudes, I decided to include both ratings in the scale. The third item

asked participants to respond yes or no to the question, "Do you think that the police

department tries to provide the kind of services that people in your neighborhood want?"

As responses to the third question are dichotomous, each item was standardized

and their z-scores summed in order to create the scale. Together, these items reflect

scales commonly implemented in the police satisfaction literature; in fact, the scale is

nearly identical to that used by Reisig and Parks (2000), and with a Chronbach's alpha of

.75 it appears to be a reliable measure of satisfaction.

Independent

Individual-Level

Race ('white') is the key individual-level variable for this analysis. Since less

than one percent of the sample consists of any race other than Caucasian or African-

American, the analysis will be limited to these two groups. I also include the following

control variables which previous research has suggested predict attitudes toward the

police: sex ('male'), age, yearly household income ('income'), education level

('educatn'), having been stopped by the police in the last year ('stopped'), having had

other contact with the police in the last year ('ocontact'), knowing a police officer

('knowpol'), having been victimized in the last year ('isvict'), and fear of being victimized ('fearvict'). Table 4 shows descriptive statistics for these variables. Neighborhood-Level

Previous research has also identified a host of variables associated with a neighborhood's level of disadvantage. Common measures include some form of the following: socioeconomic disadvantage, family structure, and racial heterogeneity. These variables, however, are most typically employed to explain crime. As I am interested measures of disadvantage that predict satisfaction with the police, this list should encompass a broader range of factors (including crime itself). Below is a list of 10 variables drawn from the data that I have divided into five dimensions of neighborhood disadvantage.[4]

1. Neighborhood Crime: violent victimization rate ('viocrm'); property victimization rate ('propcrm').

2. Socioeconomic Status: percentage of households making less than $5,000 per year[5] ('less5k'); income heterogeneity ('inchet'; the probability that two randomly selected residents from the same neighborhood would fall into different income categories); percent of households making less than $5,000 while also having lived in the neighborhood for less than five years ('downmob'; a measure of downward mobility, or what could be seen as neighborhoods of last resort).

3. Racial Composition: percent non-white ('pctnw'); racial heterogeneity ('racehet'; the probability that two randomly selected residents are of different race).

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[4] Neighborhood variables were constructed by aggregating individual-level survey responses to the neighborhood level.
[5] This was approximately the poverty rate for a family of four in 1977

4. Family Structure: percentage of single-parent households with at least one child under 18 years old ('singlep'); percentage of non-owner occupied dwellings ('notown').

5. Neighbor Social Ties: aggregate measure of how often neighbors interact with one another ('interact').

Tables 1 and 2 show the correlations between both individual and neighborhood variables respectively. Whereas the individual-level variables are generally uncorrelated, there is understandably a different story at the aggregate level. As we know, correlates of disadvantage tend to come clustered at the neighborhood-level. This is evidenced by relatively large correlations across the board for my ten measures.

Table 1: Correlation Matrix among Level-1 Variables (N = 7438)

	X_1	X_2	X_3	X_4	X_5	X_6	X_7	X_8	X_9	X_{10}
White (X_1)	1.0									
Male (X_2)	.01	1.0								
Age (X_3)	.11	-.02	1.0							
Income (X_4)	.24	.17	-.29	1.0						
Education (X_5)	.24	.09	-.29	.48	1.0					
Stopped (X_6)	-.06	.14	-.24	.06	.08	1.0				
Other police contact (X_7)	.09	.04	-.12	.16	.17	.05	1.0			
Knowing a police officer (X_8)	-.09	.11	-.07	.03	-.00	.03	.10	1.0		
Been victimized (X_9)	-.04	-.01	-.22	.05	.05	.11	.09	.03	1.0	
Fear of victimization (X_{10})	-.15	-.06	-.12	-.07	-.03	.04	.03	-.04	.27	1.0

Table 2: Correlation Matrix among Level-2 Variables (N = 60)

	X_1	X_2	X_3	X_4	X_1	X_6	X_7	X_8	X_9	X_{10}
Violent crime (X_1)	1.0									
Property crime (X_2)	.75	1.0								
Percent in poverty (X_3)	.54	.38	1.0							
Income heterogeneity (X_4)	-.43	-.33	-.87	1.0						
Downward mobility (X_5)	.61	.53	.79	-.67	1.0					
Percent non-white (X_6)	.54	.46	.66	-.70	.55	1.0				
Racial heterogeneity (X_7)	.44	.52	.27	-.30	.33	.59	1.0			
% single-parent households (X_8)	.63	.59	.62	-.64	.68	.76	.50	1.0		
% non-owned dwellings (X_9)	.51	.50	.36	-.42	.46	.66	.60	.65	1.0	
Neighbor interaction (X_{10})	.07	.08	.02	-.02	.02	.07	.09	.05	.10	1.0

To avoid problems of multicollinearity that result from including too many correlated variables in regression analyses (Morenoff and Sampson, 1997), I ran a principal components factor analysis of all ten neighborhood-level variables. From this analysis, two latent dimensions (with eigenvalues over 1) emerged, the pattern of which can be seen in Table 3.[6] With an eigenvalue greater than 6, the first factor is dominated by high loadings for neighborhood crime, racial heterogeneity, household disadvantage, and lack of neighbor interaction. This factor, which I call "social disadvantage", seems to represent common measures of social dislocation (Wilson, 1987) or what has more recently been termed "concentrated disadvantage" (Sampson, et. al, 1997); absent however are measures which specifically address economic shortcomings. Indeed, it is the second factor that loads heavily on these items (e.g. poverty, income heterogeneity and downward mobility). With an eigenvalue over 2, I refer to this construct as "economic disadvantage". To create scales reflecting these two types of disadvantage, I

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[6] Analyses using all methods of rotation (varimax, oblique, etc.) produced substantively identical results.

standardized and summed the z-scores for each of the items on their respective factor.[7]

Table 4 shows the descriptive statistics for these disadvantage measures.

Table 3: Varimax Rotation Principal Components Analysis
_____

Social Disadvantage

	Factor Loadings
Violent victimization rate	.752
Property victimization rate	.770
Percent non-owner-occupied dwellings	.825
Percent single parent households	.796
Percent non-white	.811
Racial heterogeneity	.758
Neighbor interaction	-.593
Eigenvalue	**6.554**

Economic Disadvantage

	Factor Loadings
Percent in poverty	.825
Income heterogeneity	-.683
Downward mobility	.689
Eigenvalue	**2.488**

_____
[7] Reliability tests of the economic and social disadvantage scales produced alphas of .91 and .85 respectively.

Table 4: Variables, Metrics, and Descriptive Statistics

Variables	Metrics	Descriptive Statistics		
		Mean	S.D.	Range
Dependent Variable				
Satisfaction with Police	(3 item standardized scale)	0.00	1.00	-3.58-1.15
Explanatory Variables				
Individual-Level (n=7724)				
Race	(0=Black, 1=White)	0.74	0.44	0-1
Gender	(0=Female, 1=Male)	0.44	0.50	0-1
Age	(continuous)	46.34	17.53	16-90
Income	(1=<$5,000…7=>$30,000)	3.13	1.69	1-7
Education	(0=none…21=5 years grad school)	12.38	3.20	0-21
Stopped by Police	(0=no, 1=yes…in the last year)	0.14	0.35	0-1
Other Police Contact	(0=no, 1=yes…in the last year)	0.24	0.42	0-1
Victimized	(0=no, 1=yes…in the last year)	0.31	0.46	0-1
Fear being Victimized	(0=no, 1=yes)	0.35	0.35	0-1
Know Police Officer	(0=no, 1=yes)	0.28	0.45	0-1
Neighborhohood-Level (n=60)				
Economic disadvantage	(3 item standardized scale)	0.00	1.22	-3.05-2.40
Social disadvantage	(7 item standardized scale)	0.00	5.39	-7.75-11.20

Chapter 5: Results

Before specifying a multilevel model, we must first determine if there is sufficient justification for multilevel analysis in the first place. Luke (2004) offers three criteria from which to base this decision. First, there should be *empirical* justification. Here we must show sufficient variation in the dependent variable across level-2 units. In my case, attitudes toward the police must vary across neighborhoods. If attitudes are relatively homogenous between neighborhoods, a multilevel analysis lacks justification. One way to show this is graphically. Figure 1 shows each of the 60 neighborhood's mean level of satisfaction with police. Indeed, it appears that attitudes display substantial variation across neighborhoods.

Figure 1: Average Level of Police Satisfaction by Neighborhood
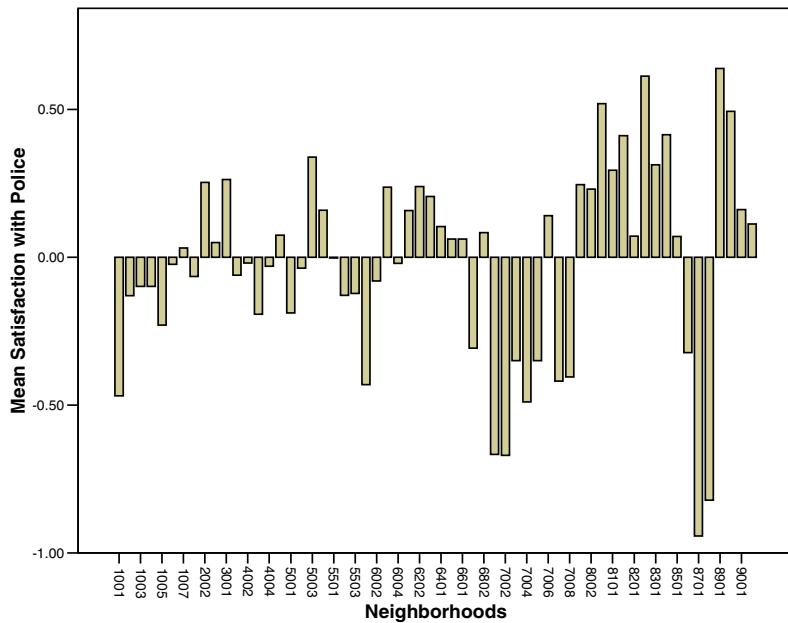
A more formal piece of empirical evidence, however, is provided by the intraclass correlation coefficient (ICC). The ICC measures the proportion of variance in the dependent variable that is accounted for by level-2 units:

$$\rho = \frac{\sigma_{u0}^2}{\sigma_{u0}^2 + \sigma_r^2} \quad \textit{(Equation 1)}$$

where σ_{u0}^2 and σ_r^2 are estimates of the level-2 and level-1 variances, respectively.

Unconditional Model

These values are obtained by fitting a multilevel model with no level-1 or level-2 predictors, often referred to as either an unconditional, unrestrained, or null model. Applying Equation 1 to my data, I find that the ICC is .11.

$$\rho = \frac{.109}{.109 + .897} = .11$$

In other words, 11% of the variation in attitudes toward the police can be attributed to differences across neighborhoods. In the scope of neighborhood-level studies, this is a substantial variance (Luke, 2004); it suggests that a multilevel analysis is appropriate.

The relatively large ICC also suggests that the observations in these data are not independent. It appears that residents of some neighborhoods are more similar to each other than they are to residents from other neighborhoods. This indicates that there is a good chance the independence assumption of OLS is violated. Since HLM allows for correlated error structures, we also satisfy Luke's *statistical* justification.

Finally, there must be a *theoretical* reason for using multilevel modeling. In this thesis, I am interested in examining the characteristics of neighborhoods that affect individual's satisfaction with the police – and in particular, how these characteristics might mean something different for blacks and whites. Thus, both my theoretical framework and hypotheses operate at multiple levels, providing the third and final justification for this approach.

Before delving in to the more complex multilevel models, I begin with a descriptive account of the relationship between race, neighborhood disadvantage, and satisfaction with the police. Figure 2 illustrates the racial divide in police satisfaction. As expected, African-Americans report significantly less satisfaction with police (p<.01) than whites, falling well below the mean (0); whites, on the other hand, score slightly above the mean. Though the direction of this difference falls in line with the majority of extant research (i.e. blacks tend to be less satisfied than whites), the magnitude is somewhat lower. Whereas studies typically find a 20-25 percentage point difference in opinions toward the police (Dunham and Alpert, 1988), the black/white divide here is only 10%.

Figure 2. Race and Satisfaction with the Police (n=7724)

*Min = -3.58 Max = 1.15 Mean = 0
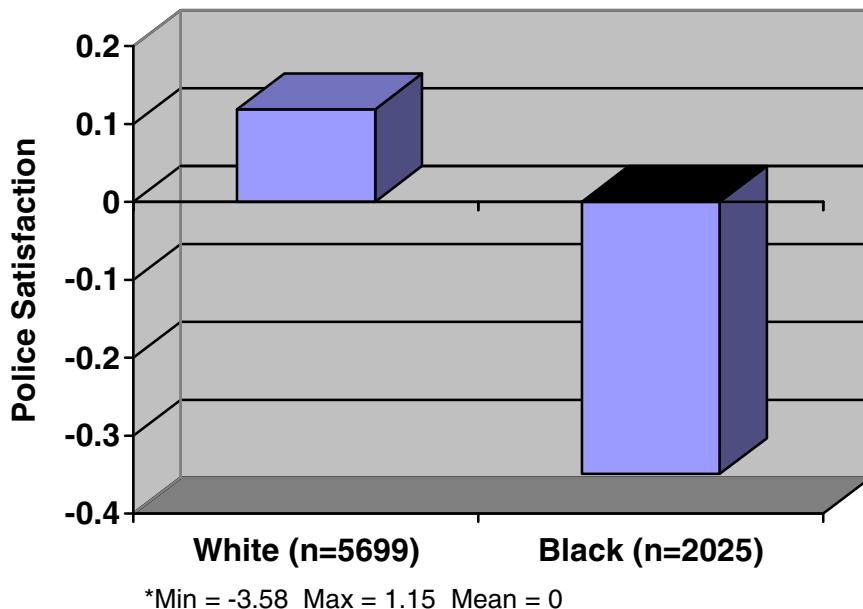
Moving from individual-level demographics to aggregate-level contextual factors, Figure 3 shows differences in police satisfaction according to levels of neighborhood disadvantage. Consistent with previous research, residents of socially

and economically disadvantaged neighborhoods report lower levels of satisfaction with the police. Like with race, however, the difference is relatively weak in magnitude. The difference in attitudes toward police between those living in neighborhoods below and above the median level of social disadvantage is only 2%. The gap is a bit wider in terms of economic disadvantage, where residents living in 'low' disadvantage neighborhoods score six percentage points higher in police satisfaction than their counterparts.[8] The main point of the figure, however, is the significant (p<.01) negative relationship between neighborhood disadvantage and satisfaction with the police.

Figure 3. Police Satisfaction by Neighborhood Level of Social and Economic Disadvantage
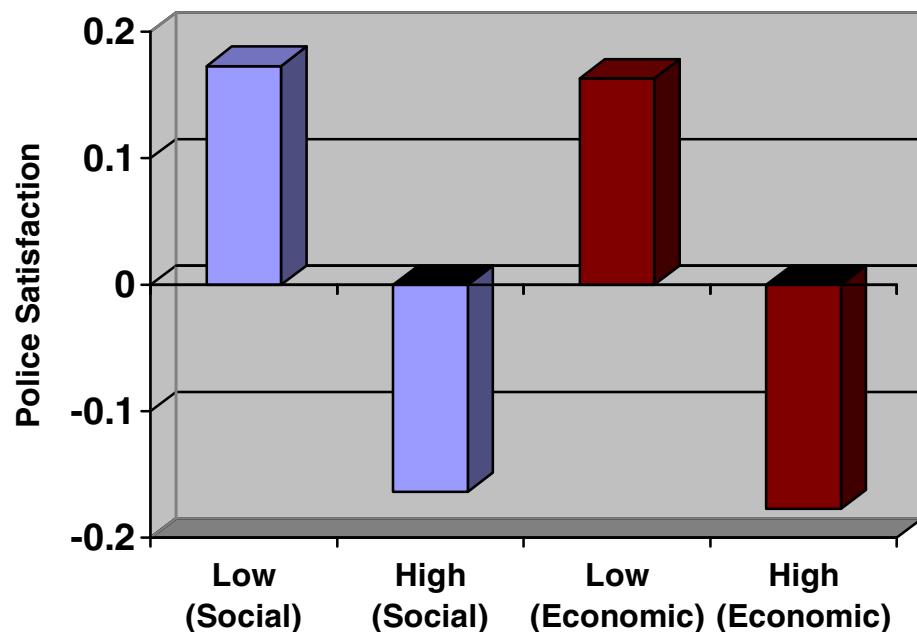
*Social   Min = -7.75 Max = 11.20 Mean = 0
Economic Min = -3.05 Max = 2.40   Mean = 0
*Low = below median; High = above median

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[8] Though the relative height of the bars in Figure 3 appears to be equal, the larger difference attributed to economic disadvantage is explained by a much smaller range of values.

Finally, I examine neighborhood disadvantage and police satisfaction by race.

Figures 4a and 4b illustrate, descriptively, the interaction between race and context.

Figure 4a. Satisfaction with Police by Race and level of Neighborhood Social Disadvantage
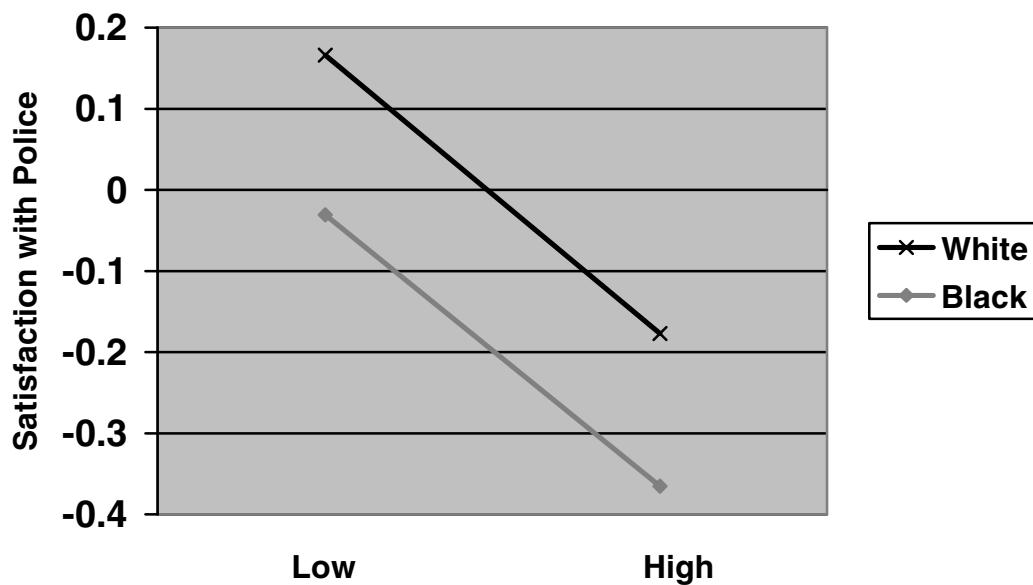
Moving from low to high on the social disadvantage scale produces an almost

identical decrease in satisfaction for the police for whites and blacks. Thus, there

appears to be very little support my hypothesis that the effect of race varies according

to a neighborhood's level of social disadvantage. Economic disadvantage, however,

paints somewhat of a different picture. Here it appears that moving from more

affluent to poorer neighborhoods impacts African-Americans' views toward the

police more so than the views of whites. Although police satisfaction declines among

both races as economic disadvantage increases, the decline is steeper for blacks.

Thus, the graphs suggest a greater chance for finding a significant cross-level

interaction between race and economic disadvantage as opposed to race and social

Figure 4b. Satisfaction with Police by Race and level of Neighborhood
Economic Disadvantage
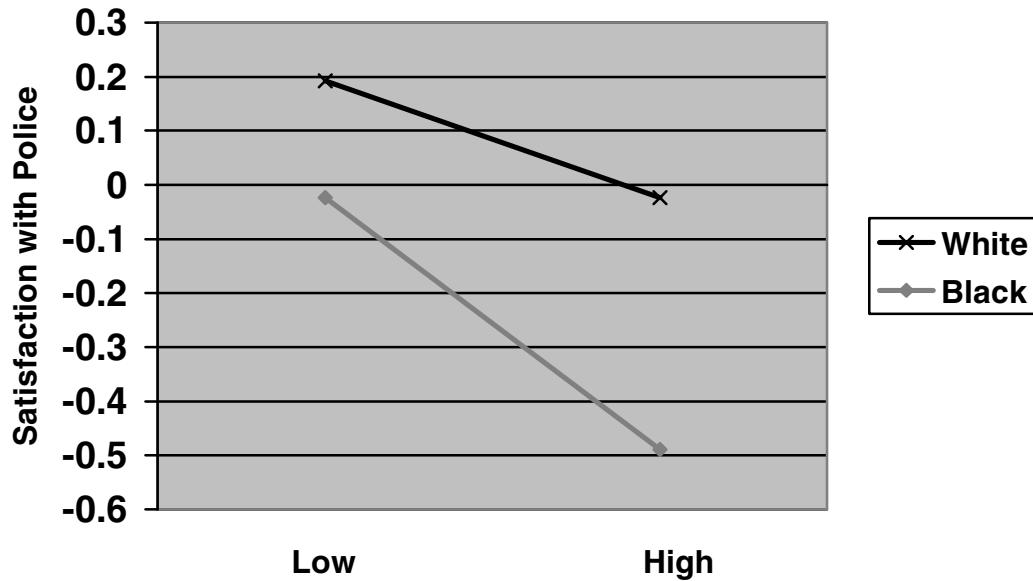
disadvantage. The following multi-level analysis tests whether either interaction

exists.

Random Coefficient Model (Level 1)

After learning from the unconditional model that satisfaction with the police

does in fact vary across the 60 neighborhoods, the next step is to begin adding level-1

predictors. In this case, estimating a random-coefficient model provides information

about the individual-level factors that predict satisfaction with the police, and also

shows the degree to which these effects vary across the 60 neighborhoods

(Raudenbush and Bryk, 2002; Luke, 2004; Ulmer and Johnson, 2004). Ultimately,

then, this stage guides the specification of the final level-1 model and provides useful

statistics for model building at level-2.

The random-coefficient model is made up of two parts. First, I incorporate all

level-1 explanatory variables into the equation:

Level-1

$$SATPOL_{ij} = \beta_{0j} + \beta_{1j}WHITE_{ij} + \beta_{2j}MALE_{ij} + \beta_{3j}AGE_{ij} + \beta_{4j}INCOME_{ij} +$$
$$\beta_{5j}EDUCATNij + \beta_{6j}STOPPED_{ij} + \beta_{7j}OCONTACT_{ij} + \beta_{8j}ISVICT_{ij} +$$
$$\beta_{9j}FEARVICT_{ij} + \beta_{10j}KNOWPOL_{ij} + e$$

There are no level-2 variables at this stage, but the level-1 intercept and ten regression

coefficients are allowed to vary across neighborhoods:

Level-2

$$\beta_{qj} = \gamma_{q0} + u_{qj} \text{ for q} = 0,1,\ldots,10.$$

Combining these equations allows for the possibility that neighborhoods differ in

both overall levels of police satisfaction and in the relationship of the individual-level

variables to police satisfaction.

Assessing the fit of multilevel models is more complicated than calculating a

simple R^2 and interpreting it as the percentage of explained variance (as is the case

for OLS models). This is because multilevel models have a separate R^2 for each level

and using traditional calculation approaches can result in situations where adding

predictors can cause smaller or even negative R^2 values (Luke, 2004). An appropriate

solution to this problem is to instead interpret R^2 as the proportional reduction of

prediction error. Luke (2004) offers the following equations for calculating the R^2 at

level-1:

$$R_1^2 = 1 - \frac{(\hat{\sigma}_r^2 + \hat{\sigma}_{u0}^2)Comparison}{(\hat{\sigma}_r^2 + \hat{\sigma}_{u0}^2)Baseline} \qquad (Equation\ 2)$$

and at level 2:

$$R_2^2 = 1 - \frac{(\hat{\sigma}_r^2/\tilde{n} + \hat{\sigma}_{u0}^2) Comparison}{(\hat{\sigma}_r^2/\tilde{n} + \hat{\sigma}_{u0}^2) Baseline} \quad \text{(Equation 3)}$$

where $\tilde{n}$ is the average number of level-1 units in any level-2 unit. Including the 10 individual-level variables improved the predictive ability of the model in Table 5 compared to the null model by 15% at level-1 and 50% at level-2.

Also used to assess model fit, the chi-square statistic in multilevel analyses compares the deviance of multiple models. It is defined as -2 times the value of the log-likelihood function of the unconditional model minus the value of the log-likelihood function of the model in table 5 containing all explanatory variables and random coefficients[9]. Table 5 displays a significant chi-square statistic suggesting that the model fit is improved significantly by incorporating the level-1 explanatory variables.

It is also important at this stage to make sure that the intercept can be interpreted for any value among the continuous predictor variables (age, income, education, and fear of victimization). Centering these variables around either their group mean (neighborhood) or grand mean (overall) accomplishes this goal. I centered these variables around their grand means:

$$(X_{ij} - \overline{X})$$

---

[9] The model fits reported in this thesis were derived from *full* maximum likelihood (ML) estimation. This type of estimation is preferred to *restricted* ML when comparing models with a different number of fixed elements (Luke, 2004), as is the case when comparing an unconditional model to a random coefficient model. Also, although restricted ML can result in less biased random-effects estimates than full ML, these differences are usually very small when there is a relatively large (30 or more) number of level-2 units (Snijders and Bosker, 1999).

As a result, the intercept β_{0j} becomes the expected outcome for a subject whose value on X_{ij} is equal to the grand mean $\overline{X}$ for that continuous variable and zero for the dichotomous variables (race, sex, police contact, victimization, and officer familiarity).

Fixed Effects

Table 5 shows the results from the random-coefficient model. The fixed-effects panel shows a positive and significant coefficient for 'white', supporting the commonly held finding that African-Americans express less satisfaction with the police. Holding all else equal, blacks are expected to report .22 (or 5%) less satisfaction with the police than whites. In fact, race is one of the strongest level-1 predictors in the model. Results also show that females, people who are older, those who have not been stopped by the police or victimized, those who do not fear being victimized and those who know a police officer are more likely be satisfied with the police. The factors appearing to have no significant impact on police satisfaction are other police contact (e.g. calls for service) education level, and income.[10]

Random Effects

The second purpose of this model is to assess the degree to which the effects of the level-1 factors vary across neighborhoods. The random effects panel of Table 5 shows that four level-1 predictors display such variation. In line with hypothesis 2, the effect of race on satisfaction with the police varies according to neighborhoods. The coefficients for police stops, victimization and fear of victimization also vary

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[10]Since education and income are moderately correlated (.48), I ran the model twice more, removing income in the first and education in the second. Neither specification substantively changed the results. Education and income, alone, remained insignificant and none of the other predictors changed significance.

Table 5: Random-Coefficient Regression Model
(Level-1) Predicting Police Satisfaction

Fixed Effects	Coefficient	S.E.
Intercept, γ_{00}	-.117*	(.041)
White, γ_{10}	.259**	(.046)
Male, γ_{20}	-.115**	(.021)
Age, γ_{30}	.006**	(.000)
Income, γ_{40}	.010	(.008)
Education, γ_{50}	-.008	(.004)
Stopped by Police, γ_{60}	-.124**	(.035)
Other Police Contact, γ_{70}	-.007	(.027)
Victimized, γ_{80}	-.230**	(.027)
Fear of Victimization, γ_{90}	-1.006**	(.077)
Know Police Officer, γ_{100}	.222**	(.026)

* p<.05
** p<.01

Random Effects	Variance Component	p-value
Intercept, u_{0j}	.037	<.01
White, u_{1j}	.016	<.05
Stopped, u_{6j}	.019	<.05
Victimized, u_{8j}	.014	<.01
Fear of Victimization, u_{9j}	.145	<.05

Proportional Reduction of
Prediction Error
  Level 1 (R^2_1)   .151
  Level 2 (R^2_2)   .500
Model χ^2: 185062
Degrees of Freedom: 14
p<.01
N = 7,438

across the study's 60 neighborhoods.[11] Finally, the significant model intercept

suggests that after controlling for individual-level factors, satisfaction with the police

---

[11] Oftentimes running the model again (and specifying those variables as random) will cause the results to change. In other words, variables showing signs of random variation in the first run might lose this evidence in later runs. Therefore, authors often report a *reduced* random-coefficient model. The model presented here is the final reduced model.

still varies across neighborhoods. For the remaining analyses I will specify these

variables as random.[12]

What we do not yet know is the qualities of neighborhoods that might account

for the varying effect of race. In the next step, I attempt to model this variation by

incorporating the level-two variables in the model.

<u>Full Random Coefficient Model</u>

The full random-coefficient model includes all level-1 predictors along with

both level-2 measures, social and economic disadvantage. This model examines the

direct effect of neighborhood disadvantage on satisfaction with the police. It also

allows us to examine the impact on level-1 variables when contextual factors are

added to the model.   The following equations represent the fully specified random-

coefficient model.

Level-1

$$SATPOL_{ij} = \beta_{0j} + \beta_{1j}WHITE_{ij} + \beta_{2j}MALE_{ij} + \beta_{3j}AGE_{ij} + \beta_{4j}INCOME_{ij} +$$
$$\beta_{5j}EDUCATN_{ij} + \beta_{6j}STOPPED_{ij} + \beta_{7j}OCONTACT_{ij} + \beta_{8j}ISVICT_{ij} +$$
$$\beta_{9j}FEARVICT_{ij} + \beta_{10j}KNOWPOL_{ij} + e$$

Level-2

$$\beta_{0j} = \gamma_{00} + \gamma_{01}ECDIS_j + \gamma_{02}SOCDIS_j + u_{0j}$$
$$\beta_{qj} = \gamma_{qj} + u_{qj} \quad \text{for } \beta \text{ coefficients, } q = 1, 6, 8, 9$$
$$\beta_{qj} = \gamma_{qj} \quad \text{for all other } \beta \text{ coefficients, } q = 2, 3, 4, 5, 7, 10$$

Table 6 shows that only one of the disadvantage measures significantly

predicts police satisfaction, partially supporting hypothesis 3.   Neighborhoods

characterized by high levels of economic disadvantage display lower levels of police

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[12] All other individual-level variables will be specified as fixed

Table 6. Full Random-Coefficient Regression Model Predicting Police Satisfaction

	Coefficient	S.E.
Level-1		
White	.227**	(.043)
Male	-.114**	(.022)
Age	.006**	(.000)
Income	.008	(.008)
Education	-.008*	(.004)
Stopped by Police	-.121**	(.036)
Other Police Contact	-.008	(.025)
Victimized	-.228**	(.029)
Fear of Victimization	-1.008**	(.078)
Know Police Officer	.222**	(.024)
Level-2		
Economic Disadvantage	-.085**	(.022)
Social Disadvantage	-.002	(.005)
Intercept	-.097*	(.043)
* p<.05		
** p<.01		
Proportional Reduction of Prediction Error		
Level 1 (R^2_1)	.023	
Level 2 (R^2_2)	.328	
N = 7,438		

satisfaction, whereas social disadvantage appears to have no effect. After accounting for contextual factors, the race effect diminishes only slightly (a difference of .032, or 0.7%) and remains a significant predictor of attitudes toward the police. That race remains a significant predictor of police satisfaction after controlling for neighborhood disadvantage coincides with the findings of Reisig and Parks (2000) and also supports my 4th hypothesis. It appears that even in the late 1970s, neighborhood disadvantage did not completely account for why African-Americans tended to be less satisfied with the police. Table 6 also shows that although the full

model improves the prediction accuracy only slightly for level 1, it improves

prediction at level 2 by over 30% over the restricted model in Table 5.[13]

Cross-Level Interaction Models

    To this point, results have shown that both individual-level and contextual

factors explain satisfaction with the police. Among these, race and neighborhood

economic disadvantage exert among the strongest independent effects on attitudes.

My primary hypothesis, however, predicts that the race effect might also be

dependent on neighborhood disadvantage. Drawing from the intersectionality and

racial threat perspectives, I expect that race will become a stronger predictor of police

satisfaction in more disadvantaged neighborhoods. The final stage of my analysis

tests for these cross-level interactions.   The cross-level interaction model, then, tests

whether the effect of race on police satisfaction varies according to a neighborhood's

level of social or economic disadvantage (Luke, 2004; Raudenbush and Bryk, 2002).

The level-1 model remains the same but at level-2 I incorporate the cross-level

interaction term for race and disadvantage.

Random Slopes Model

Level-1

$$SATPOL_{ij} = \beta_{0j} + \beta_{1j}WHITE_{ij} + \beta_{2j}MALE_{ij} + \beta_{3j}AGE_{ij} + \beta_{4j}INCOME_{ij} +$$
$$\beta_{5j}EDUCATNij + \beta_{6j}STOPPED_{ij} + \beta_{7j}OCONTACT_{ij} + \beta_{8j}ISVICT_{ij} +$$
$$\beta_{9j}FEARVICT_{ij} + \beta_{10j}KNOWPOL_{ij} + e$$

---

[13] Because the number of estimated parameters remains the same, chi-square statistics are not reported
for this and subsequent models.

Level 2

$$\beta_{0j} = \gamma_{00} + \gamma_{01}ECDIS_j + \gamma_{02}SOCDIS_j + u_{0j}$$
$$\beta_{1j} = \gamma_{11} + ECDIS_j + \gamma_{12}SOCDIS_j + u_{1j}$$
$$\beta_{qj} = \gamma_{qj} + u_{qj} \quad \text{for } \beta \text{ coefficients, q = 1, 6, 8, 9}$$
$$\beta_{qj} = \gamma_{qj} \quad \text{for all other } \beta \text{ coefficients, q = 2, 3, 4, 5, 7, 10}$$

The parameters γ_{01} and γ_{02} indicate the respective main effects for economic and social disadvantage on satisfaction with the police. The cross-level interaction terms, on the other hand, are represented by γ_{11} and γ_{12}.

Again, my primary prediction is that race becomes a more salient factor in disadvantaged neighborhoods – that as levels of disadvantage increase, so does the gap between whites' and blacks' perceptions of the police. My hypothesis, then, predicts positive and significant coefficients for *ECDIS, γ_{11}* and *SOCDIS,γ_{12}* (the two measures of disadvantage which influence the slope for 'white').

Table 7 shows the results for this model. Counter to my hypothesis, neither measure of neighborhood-level disadvantage is significant in predicting the slope for 'white'. The effect of race on police satisfaction appears not to vary according to a neighborhood's level of social or economic disadvantage. Although blacks remain less satisfied than whites, and residents of disadvantaged neighborhoods less satisfied than those in affluent neighborhoods, race appears to have a statistically similar effect across all 60 neighborhoods. This is further evidenced by insignificant R^2 values, meaning that the addition of two cross-level interaction terms yielded no more predictive power than the full random coefficient model in Table 6.

It is important to remember, though, that this effect was allowed to vary only as a function of economic and social disadvantage. At the bottom of table 7 we see

Table 7: Cross-Level Interaction Model Predicting
Police Satisfaction

Fixed Effects	Coefficient	S.E.
White		
BASE γ_{10}	.229**	(.061)
ECDIS γ_{11}	.006	(.034)
SOCDIS γ_{12}	-.001	(.011)
Male γ_{20}	-.114**	(.021)
Age γ_{30}	.006**	(.001)
Income γ_{40}	.008	(.008)
Education γ_{50}	-.008*	(.004)
Stopped by Police γ_{60}	-.121**	(.035)
Other Police Contact γ_{70}	-.008	(.027)
Victimized γ_{80}	-.228**	(.027)
Fear of Victimization γ_{90}	-1.008**	(.077)
Know Police Officer γ_{100}	.222**	(.026)
Intercept		
BASE γ_{00}	-.097	(.056)
ECDIS γ_{01}	-.089*	(.036)
SOCDIS γ_{02}	.001	(.011)

Random Effects	Variance Component	p-value
White	.020	<.05
Stopped	.019	<.05
Victimized	.014	<.05
Fear of Victimization	.144	<.05
Intercept	.039	<.01

* p<.05
** p<.01
Proportional Reduction of
Prediction Error

Level 1 (R^2_1)	.000	
Level 2 (R^2_2)	.000	

N = 7,438

that the variance component for 'white' remains significant, indicating that race still

varies across neighborhoods in terms of police satisfaction, only that it must vary

according to something other than social or economic disadvantage.

I also ran an expanded cross-level interaction model, modeling interactions for

each factor whose effect varied across neighborhoods. Thus, in addition to 'white',

the following equation specifies cross-level interaction terms for 'stopped', 'isvict',

and 'fearvict':

Level-1

$$SATPOL_{ij} = \beta_{0j} + \beta_{1j}WHITE_{ij} + \beta_{2j}MALE_{ij} + \beta_{3j}AGE_{ij} + \beta_{4j}INCOME_{ij} +$$
$$\beta_{5j}EDUCATN_{ij} + \beta_{6j}STOPPED_{ij} + \beta_{7j}OCONTACT_{ij} + \beta_{8j}ISVICT_{ij} +$$
$$\beta_{9j}FEARVICT_{ij} + \beta_{10j}KNOWPOL_{ij} + e$$

Level 2

$$\beta_{0j} = \gamma_{00} + \gamma_{01}ECDIS_j + \gamma_{02}SOCDIS_j + u_{0j}$$

$$\beta_{1j} = \gamma_{10} + \gamma_{11}ECDIS_j + \gamma_{12}SOCDIS_j + u_{1j}$$

$$\beta_{6j} = \gamma_{60} + \gamma_{61}ECDIS_j + \gamma_{62}SOCDIS_j + u_{6j}$$

$$\beta_{8j} = \gamma_{80} + \gamma_{81}ECDIS_j + \gamma_{82}SOCDIS_j + u_{8j}$$

$$\beta_{9j} = \gamma_{90} + \gamma_{91}ECDIS_j + \gamma_{92}SOCDIS_j + u_{9j}$$

$\beta_{qj} = \gamma_{qj}$ for all other β coefficients, q = 2, 3, 4, 5, 7, 10.

The cross-level interaction terms for 'white' change only slightly and remain

insignificant; regardless of model specification, the effect of race on police

satisfaction is invariant across neighborhood disadvantage. Each of the other

predictors, however, does interact with one of my disadvantage measures (Table 8).

The negative coefficients for γ_{62} and γ_{82} indicates that being stopped by the police and

being victimized plays a larger role on residents' attitudes toward the police in

socially disadvantaged versus non-disadvantaged neighborhoods. Similarly, being

afraid of victimization (γ_{91}) is more likely to condition satisfaction with the police in

economically disadvantaged communities versus more affluent ones. In other words,

for residents living in relatively safe, cohesive neighborhoods, being stopped by the

police, being a victim of crime, and fearing crime are less likely to affect overall

Table 8: Full Cross-Level Interaction Model

Fixed Effects	Coefficient	S.E.
White		
BASE γ_{10}	.230**	(.043)
ECDIS γ_{11}	.005	(.035)
SOCDIS γ_{12}	-.000	(.011)
Male γ_{20}	-.112**	(.022)
Age γ_{30}	.006**	(.001)
Income γ_{40}	.007	(.008)
Education γ_{50}	-.008*	(.004)
Stopped by Police		
BASE γ_{60}	-.121**	(.034)
ECDIS γ_{61}	.000	(.034)
SOCDIS γ_{62}	-.015**	(.007)
Other Police Contact γ_{70}	-.009	(.027)
Victimized		
BASE γ_{80}	-.227**	(.027)
ECDIS γ_{81}	-.012	(.032)
SOCDIS γ_{82}	-.011**	(.006)
Fear of Victimization		
BASE γ_{90}	-.993**	(.072)
ECDIS γ_{91}	-.152**	(.058)
SOCDIS γ_{92}	-.008	(.017)
Know Police Officer γ_{100}	.223**	(.026)
Intercept		
BASE γ_{00}	-.094	(.056)
ECDIS γ_{01}	-.105**	(.036)
SOCDIS γ_{02}	.003	(.011)

Random Effects	Variance Component	p-value
White	.022	<.05
Stopped	.015	>.05
Victimized	.011	>.05
Fear of Victimization	.113	<.05
Intercept	.040	<.01

* p<.05
** p<.01
Proportional Reduction of
Prediction Error
  Level 1 (R^2_1)   .001
  Level 2 (R^2_2)   .005
N = 7,438

opinions of the police. These factors matter more in disadvantaged neighborhoods.

These results fit with what we know about neighborhood culture. Since residents in these neighborhoods generally hold more skeptical views toward the police to begin with, it follows that interactions with officers would be perceived more negatively. Also, if officers tend to use more force against suspects in these neighborhoods as some research shows (Smith, 1986; Sherman, 1986; Terrill and Reisig, 2003), attitudes following these encounters would likely be much worse. Being victimized in disadvantaged neighborhoods would play a larger role in shaping attitudes toward the police because officers who patrol these areas are typically seen as non-responsive and unsympathetic (Klinger, 1997). Finally, fear of victimization would presumably matter more in areas where this fear is coupled with a sense that the police are less likely to protect them.

Chapter 6: Discussion

The purpose of this thesis was to test whether the effect of *race* on satisfaction with the police varied across levels of neighborhood disadvantage. Drawing on a number of theoretical perspectives, I predicted that race would be a stronger predictor of attitudes toward the police in more socially and economically disadvantaged areas. This hypothesis, I felt, was supported by prior empirical evidence generated from the same dataset which showed a similar interaction between race and 'percent non-white' (Smith et al., 1991). My hypothesis, however, was not borne out by the data. Two measures of aggregate-level disadvantage failed to significantly interact with race.

Instead, it appears that changes in residential location (according to social and economic disadvantage) have no discernable impact on the racial disparity in attitudes toward the police. Blacks living in crime-free, middle-class neighborhoods are still less satisfied than their white neighbors, a difference equal to that between whites and blacks in poverty-stricken, high crime neighborhoods. One interpretation would posit that whatever accounts for blacks being less satisfied with the police than whites, accounts for this difference regardless of contextual disadvantage. The cultural diffusion of beliefs, for example, might be invariant across levels of neighborhood disadvantage. Another explanation is that different factors account for the racial gap between low and high disadvantaged areas. Meehan and Ponder (2002), according to their 'race and place' hypothesis, show that African-Americans are more likely to be surveilled and stopped by the police when driving through predominantly white neighborhoods. Thus, the gap in attitudes toward the police in non-disadvantaged

(mostly white) neighborhoods might be a function of the 'race and place' effect. The gap at the other end (i.e. the 'hyper-ghetto'), might instead be a function of interlocking disadvantage; African-Americans in these neighborhoods may be less satisfied by virtue of experiencing more discrimination and other forms of disadvantage than their white counterparts.

These results departed from Smith's (1991) finding with the same data that blacks living predominantly black neighborhoods held more similar attitudes toward the police than blacks living in racially mixed neighborhoods. There are at least two reasons for this departure in findings. First, it might be a substantive difference between the level-2 variables examined. Smith used one factor at the neighborhood-level, the percentage of residents that were non-white. I used two factor analyzed scales of disadvantage encompassing ten items. A sole measure of neighborhood racial composition carries different meaning than broader measures of disadvantage. Indeed, not all neighborhoods with high percentages of African-Americans are also disadvantaged.

Therefore, the interaction between race and context may be more a function of the racial composition of a neighborhood than its social class. This could be due to the possibility that officer bias and institutional racism are more likely in predominantly black neighborhoods, regardless of level of disadvantage (Smith, 1986). It could also reflect the notion that citizens in neighborhoods with distinct cultures have different values concerning the appropriateness of police actions (Dunham and Alpert, 1988); here, it is argued that "distinct cultures" are more likely to develop along racial lines than socioeconomic lines. Thus, we might see the effect

of race varying according to a neighborhood's percent-black population and not it's level of social or economic disadvantage.

The contrasting results might also reflect different methods of analysis. As mentioned, multilevel modeling provides a number of methodological advantages over OLS. For one, HLM adjusts for correlated error structures. Since the error structures in this dataset violate the independence assumption of OLS, it is possible that Smith's (1991) analysis committed a type I error as a result of downwardly biased standard errors. Indeed, Raudenbush and Bryk (2002) provide examples where OLS and HLM produce different results when used with the same data to answer the same question. It would be interesting to see if the interaction between race and percent non-white remains significant in a multilevel analysis.

Consequently, future researchers interested in the effects of individuals nested within some sort of context, be it neighborhoods, cities, or states, should consider the implications of their chosen analytic method. Hierarchical models are designed for these types of analyses, and are especially appropriate when examining interactions between individual and aggregate-level variables.

In addition to methodological implications, I think this thesis might also inform police practices. The findings suggest that two factors play a large role in determining attitudes toward the police: race and neighborhood context. Moreover, the significant race effect carries equal weight across the "hyper-ghetto" and the upper-class gated community. It seems, therefore, that officers must consider issues of race regardless of the beat they patrol.

A number of limitations in the current analysis should also be mentioned. First, the data did not include information on certain neighborhood factors, such as the number of police. If exposure to the police impacts satisfaction (either positively or negatively) and officers over-police disadvantaged neighborhoods, it is possible that my contextual factors were in fact capturing the effect of police size and not disadvantage. Another limitation concerns the sampling method. A common problem with telephone interviews is that they exclude residents without a phone. In my sample, the population most likely excluded from the study was African-Americans living in the most disadvantaged neighborhoods. Therefore, it is possible that a segment of the minority population with the least favorable attitudes toward the police were absent from the sample. Finally, the racial homogeneity of non-disadvantaged neighborhoods likely impacted my results. Despite extremely disadvantaged neighborhoods being relatively mixed (social = 30% white; economic = 50% white), non-disadvantaged neighborhoods were far more homogenous (social = 3% black; economic = 14% black).[14] Finding significant cross-level interactions is to some extent dependent on an equal distribution of level-1 units (e.g. race) across level-2 units (e.g. neighborhood disadvantage). With more African-Americans living in non-disadvantaged neighborhoods, results may have been different.

In the last 30 years, evidence has shown that neighborhoods have, in fact, become more racially mixed – a result driven primarily by middle-class neighborhoods becoming "blacker" as opposed to disadvantaged neighborhoods becoming "whiter" (Rawlings et al., 2004). Studies using the more recent Project on

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[14] Extreme disadvantage refers to neighborhoods one standard deviation or higher on the respective disadvantage measure. Non-disadvantaged refers to neighborhoods below the mean for the respective disadvantage measure.

Policing Neighborhoods (POPN) data collected in 1997 show striking differences in terms of the distribution of race and socioeconomic status across neighborhoods (see Appendix). For example, 9 of the 12 (75%) of racially mixed neighborhoods (≥30% white and ≥30% black) in the POPN data were classified as high socio-economic status, whereas only 8% fell in the low category (Reisig and Parks, 2004). Racially mixed neighborhoods in 1977, however, tended to be much more disadvantaged. In fact, none of the 10 racially mixed neighborhoods in the data used for this thesis were high on SES whereas 90% were low. Moreover, no predominately black neighborhoods (≥70% African-American) were high on SES and only 14% were medium compared to 6% high and 41% medium in 1997. In short, neighborhoods in 1997 displayed much more variation in terms of race and socioeconomic status, with the particular difference being far more racially integrated non-disadvantaged communities.

These differences carry important implications for the predicted relationships in this thesis. Indeed, many of my theoretical reasons for predicting an interaction between race and context assume the existence of well-integrated, stable neighborhoods where middle and upper-class African-Americans feel comfortable and identify with their white neighbors. It appears, however, that such neighborhoods were largely inexistent in 1977. The few blacks who did reside in non-disadvantaged neighborhoods during this time tended to be significantly outnumbered by their white neighbors. 30 years later, neighborhoods in the same cities showed a much different racial and economic makeup. I argue that the shift in neighborhood racial composition provides reason to believe that results would be different if analyzed

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with the newer data. With data that better fit the theoretical propositions, the probability of finding significant interactions increases.

Along with changes in the racial makeup of neighborhoods, the last 30 years have also ushered in new models of policing. Community policing and problem-oriented policing, in particular, have emerged in many jurisdictions and are especially prevalent in disadvantaged neighborhoods. Under these approaches, officers are encouraged to become more proactive in the community by interacting with residents and helping them solve neighborhood problems. Community cooperation, trust, and positive race relations are intended byproducts of this policing model (Goldstein, 1979).

Although research is beginning to show that community policing can indeed help residents living in the worst neighborhoods (Reisig and Parks, 2004), we do not yet know the extent to which this strategy has affected minority's attitudes toward the police – or, in particular, the interaction between race and neighborhood context. Perhaps in areas benefiting from community policing, the gap has narrowed between white's and black's assessment of the police. Therefore, future research should not only test whether these relationships have changed over time, but if neighborhoods benefiting from community policing have also benefited in terms of a narrowed gap between white and black perceptions of the police.

Finally, the issues discussed in this thesis would likely benefit from a more qualitative research agenda. I have demonstrated that the substantial racial gap in attitudes toward the police remains equal across levels of neighborhood disadvantage. I cannot, however, explain why this is the case. Are rich and poor African-Americans

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less satisfied with the police for the same reasons? Narratives from residents in these neighborhoods would help answer this question and show, for instance, whether the 'race and place' effect accounts for the difference in better neighborhoods and persistent racism or culturally ingrained attitudes toward authority accounts for the gap in worse neighborhoods.

Appendix

Neighborhood Racial Composition (%) by SES (PSS - 1977)

Neighborhood Racial Composition (%) by SES (POPN - 1997)*
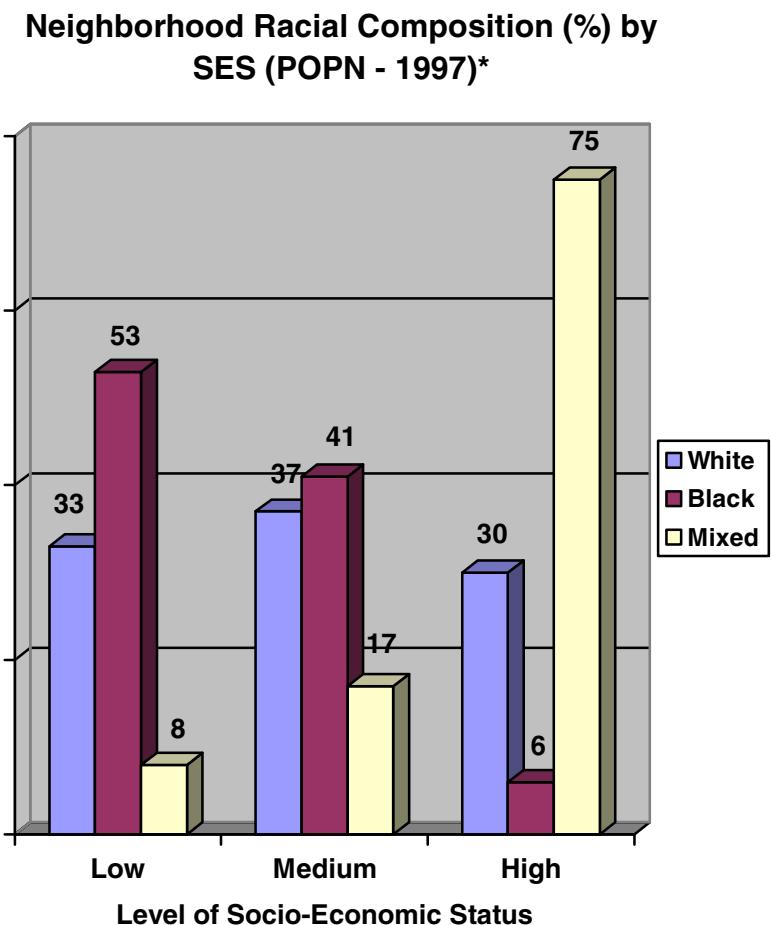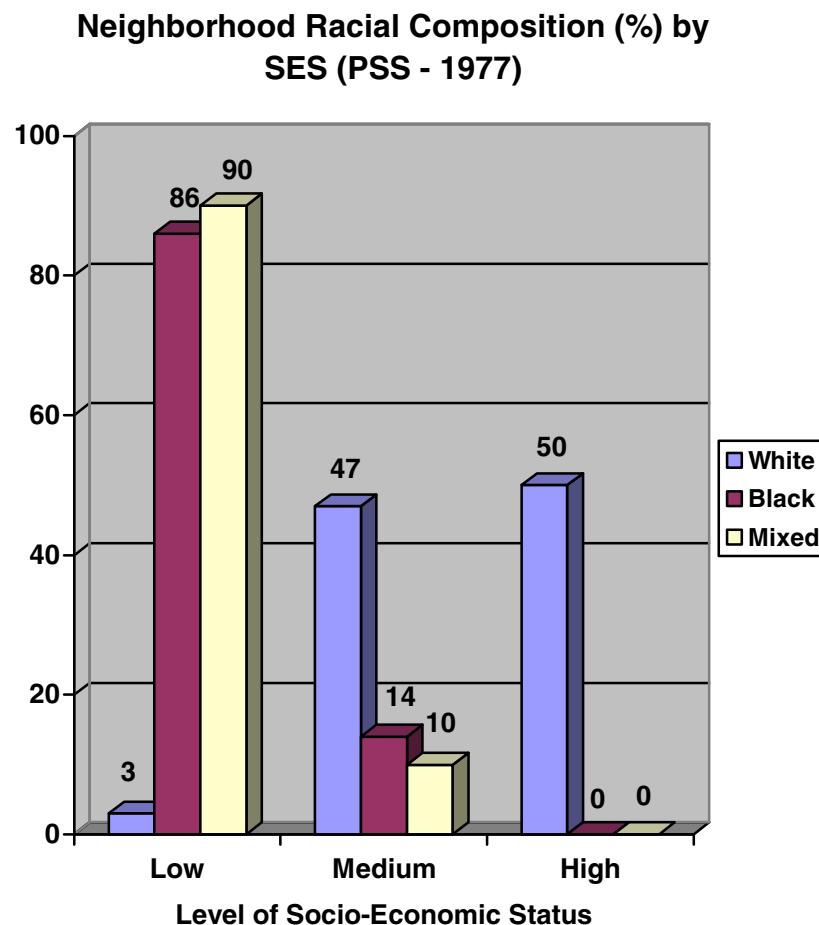
*From Reisig and Parks (2004)

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