THEORY AND RACIAL PROFILING: SHORTCOMINGS AND FUTURE DIRECTIONS IN RESEARCH*

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The volatile political environment that surrounds the issue of "racial profiling" has led local and state police agencies across the nation to start collecting information about traffic and pedestrian stops. The controversy over this issue is overwhelmed by the unsupported assumption that all race-based decision making by police officers is motivated by individual police officers' racial prejudice. This article reviews recently published studies on racial profiling and critiques both their methods and conclusions. Using the conceptual framework for police research presented by Bernard and Engel, it reviews a number of theories that may explain racial disparities in the rates of police stops. The authors argue that to explain police behavior better, theoretical models must guide future data collection efforts.

One of the most salient research and public policy issues that police administrators and researchers face is the use of race as a

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criterion in police decision making during discretionary traffic and field interrogation stops, often described as "racial profiling." The widespread criticism of this practice at the local, state, and national levels reflects public concern that this race-based decision making reflects racial prejudice, either overt or covert, by individual police officers and administrators, including unconscious racism internalized as a form of self-hatred by black police officers. Practically invisible in these public discussions is the fact that the term *racial profiling* originally referred to the use of race as an explicit criterion in "profiles" of offenders that some police organizations issued to guide police officers' decision making. At least some researchers and practitioners continue to defend these profiles, arguing that they are based on accurate facts about the racial distribution of particular offenses (Hersezenhorn, 2000; Kennedy, 1997; Taylor & Whitney, 1999). Other experts have challenged the accuracy of these profiles, and still others have argued that, even if accurate, all race-based decision making is inappropriate (Harris, 1997, 1999a; Kennedy, 1997). But this controversy is overwhelmed in public discussions by the unsupported assumption that all race-based decision making by police officers is motivated by individual police officers' racial prejudice.

In this article, we argue that a similar unsupported assumption has strongly influenced academic research on racial profiling. We review 13 studies that collected data on police-citizen contacts during traffic and field interrogation stops, each of which found racial disparities in the aggregate rates of such stops. The problem with interpreting these findings is that the mere presence of disparity in the aggregate rate of stops does not, in itself, demonstrate racial prejudice, any more than racial disparity in prison populations demonstrates racial prejudice by sentencing judges. Thus, each of the 13 studies grapples with the issue of the appropriate "base rate" (i.e., the expected rate of stops of black drivers, assuming no racial prejudice by police officers whatsoever). Different studies have proposed different "base rates," or "benchmarks," and half the studies concluded that the disparity in the aggregate rate of stops is explained by individual officers' racial prejudice. However, since there is no agreement about what constitutes a reliable and valid base rate, all these conclusions are premature.

Ultimately, the lack of a reliable and valid base rate is related to the fact that these studies had no coherent theoretical framework to guide the data collection efforts or to interpret their results. Specifically, these studies failed to measure any explanatory factors beyond the simple aggregate rate of stops. This diverges from almost all other research on policing conducted in the past 30 years, which
has focused on explaining police behavior. In contrast, the data collection efforts to examine racial profiling have neglected the need to explain how and why officers make decisions.

We begin this article with a brief discussion of racial prejudice and racial profiling, to distinguish between the two and frame the problem. Second, we review 13 recent studies on racial profiling and critique both their methods and their conclusions. Third, we present a conceptual framework for police research based on a recent approach to criminal justice theory presented by Bernard and Engel (2001). Fourth, within the context of this conceptual framework, we review a number of general theories that may explain racial disparities in the rates of police stops, in each case identifying the specific intervening variables involved. Finally, we argue that collecting data on these variables should be the focus of future research on racial profiling, since only in that way can police decision making in traffic and field interrogation stops be explained.

RESEARCH, RACIAL PREJUDICE, AND RACIAL PROFILING

Concern about discretionary decision making based on extra-legal factors has long been central to research in the field of criminal justice. The field itself originated in a series of observational studies conducted by the American Bar Foundation in 1956-57 that “discovered” the widespread use of discretion and the extensive influence of extra-legal variables on that discretion, particularly in the area of policing (Remington, 1990; Walker, 1992). Since that time, criminal justice researchers have focused on determining the relative influence of legal and extra-legal factors on decision making. The bulk of this research was driven by early findings from qualitative ethnographic field studies of the police (Bittner, 1970; Rubinstein, 1973; Skolnick, 1966; Van Maanen, 1974), along with sociological and conflict theories describing the importance of social, economic, and political factors in decision making in the criminal justice system (Black, 1976; Quinney, 1980). The recent emphasis on research surrounding the use of racial profiling can be viewed as an extension of this larger focus that has been historically found in policing research.

Most of the research on criminal justice has documented that the impact of racial prejudice on criminal justice agents’ decision making has been decreasing in prevalence and importance for at least 30 years. Prior to the 1970s, racial prejudice was still the basis for many state and local laws, and many police administrators and police officers argued publicly that racial prejudice was appropriate
and reasonable. Since that time, police departments have made continuing serious managerial efforts to reduce and eliminate prejudicial behavior by police officers (Zatz, 1987), and recent research is no longer consistent with earlier research on the extent to which race per se directly influences police decisions (Sherman, 1980; Zatz, 1987). This recent research suggests that police officers' behavior is predicted primarily by legal and situation-specific factors and that the influence of race and other extra-legal factors is diminishing (Mastrofski, Worden, & Snipes, 1995; Riksheim & Chermak, 1993).

In contrast to racial prejudice, racial profiling is relatively recent. The first racial profile originated with the attempt to interdict the flow of drugs from Miami up Interstate 95 to the cities of the Northeast (Harris, 1999a). In 1985, the Florida Department of Highway Safety and Motor Vehicles issued guidelines for police on “The Common Characteristics of Drug Couriers,” in which race/ethnicity was explicitly mentioned as one characteristic. On the basis of this profile, police would make “pretextual stops” (i.e., stops using some legal pretext, such as an illegal lane change) and attempt to establish a legal basis to search for illegal drugs. Advocates of this policy argued that it produced more efficient crime control than random stops, measured in terms of detecting and seizing illegal drugs and arresting drug couriers.

Others, however, challenged the factual basis for the drug-courier profile itself, arguing that traffic stops of black drivers produce no more arrests or drug seizures than traffic stops of white drivers and that the profile itself creates a self-fulfilling prophecy because it results in higher arrests, convictions, and imprisonments of blacks (Harris, 1997, 1999a; Kennedy, 1997). Still others have defended the factual basis of these policies, arguing that at least some race-based decision making by police is appropriate (Herszenhorn, 2000; Kennedy, 1997; Taylor & Whitney, 1999).

CURRENT RESEARCH ON RACIAL PROFILING

The methodological and empirical issues involved in data collection and interpretation in research on racial profiling are numerous and complex (for a review, see Ramirez, McDevitt, & Farrell, 2000). In this section, we examine 13 reports of data collection efforts on racial profiling published since 1996. Table 1 summarizes each of the 13 studies conducted by various local and state police

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1 Note, however, that the Civil Rights Act of 1964 nullified many of these laws that were based on racial discrimination and prejudice.
agencies, briefly describing when and where data collection occurred, whether the collection was mandated or voluntary, whether data analysis was conducted internally or externally, what types of data were collected, what base rates were used, and how the researchers interpreted their findings.

*Types of Data Collected*

The volatile political environment that surrounds the issue of racial profiling has led local and state police agencies across the nation to start collecting information about traffic and pedestrian stops. Some police departments have voluntarily implemented data collection strategies, while other city and state agencies were mandated by the courts or legislative statute to comply with such efforts (Ramirez et al., 2000). As Table 1 indicates, of the 13 studies, 7 were initiated voluntarily and 6 were mandated—4 by the courts and 2 by recent legislative acts.

The question of what data police agencies should collect varies with the definition of racial profiling. Although the term racial profiling has been used primarily to describe the perceived phenomenon that officers initiate traffic stops based on the race of the driver and occupants of the vehicle, Ramirez et al. (2000) argued that all decisions made by officers based solely or partially on the race of the suspect should be considered racial profiling. Table 1, however, demonstrates that the data collected on officers' decisions varied widely. For example, the study in San Jose collected data pertaining only to the initial stop decision (Lansdowne, 2000; Walker, 2001). Note, however, that this and other research is often retrospective, rather than prospective. That is, researchers were limited by data that had been collected previously by police departments for other purposes. More ambitious research designs have allowed for the investigation of officers' decision making after stops have been initiated. For example, eight of the published studies collected data for initial stops and specific dispositions subsequent to the stops. Specifically, researchers collected information for stops followed by citations in Ohio (Harris, 1999b); stops following by searches or detentions in Maryland (Lamberth, 1996), New Jersey (Verniero & Zoubek, 1999), New York City (Spitzer, 1999), and Philadelphia (America Civil Liberties Union, ACLU, 2000). Other studies focused on arrest dispositions; for example, in Washington, researchers collected data for stops followed by searches or arrests (Washington State Patrol, WSP, 2001); in New Jersey, information was recorded for stops followed by citations and arrests (State of
<table>
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<tr>
<th>Site and Year Published</th>
<th>When Data Collected</th>
<th>Voluntary or Mandated</th>
<th>External/Internal Data Analysis</th>
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<th>Findings and Conclusions</th>
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<tr>
<td>Maryland (1996)</td>
<td>Jan 1995-Sept 1996</td>
<td>Mandated by civil lawsuit settlement</td>
<td>External research team (Lamberth)</td>
<td>All stops on I-95 by state police followed by searches.</td>
<td>% law-violating drivers (&gt; 55 mph), used rolling survey</td>
<td>Blacks represent 17.5% of violating pop. and 72% of stops and searches. Blacks &amp; whites violate traffic code at same rate. Conclude police action is discriminatory.</td>
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<tr>
<td>New Jersey (1999)</td>
<td>1997-1998</td>
<td>Mandated by consent decree</td>
<td>External (Attorney General Verniero)</td>
<td>2 years of stops 4 years of searches on NJ Turnpike</td>
<td>% population</td>
<td>Blacks more likely to be ticketed and searched than whites. Conclude that there was differential treatment by race.</td>
</tr>
<tr>
<td>Ohio (1999)</td>
<td>Jan-Dec 1998</td>
<td>Voluntary (requested by State Legislators)</td>
<td>External research team (Harris)</td>
<td>Stops resulting in citations</td>
<td>% driving-age population</td>
<td>Blacks in 4 Ohio cities were twice as likely to be ticketed as whites. Lack race-neutral explanation for disparity; conclude likely discrimination.</td>
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<tr>
<td>North Carolina (2000)</td>
<td>Jan-Dec 1998</td>
<td>Voluntary in anticipation of mandatory legislation</td>
<td>External research team (Zingraff et al.)</td>
<td>Stops, citations, written warnings, searches/seizures detentions and arrests</td>
<td>Estimated % of licensed drivers in a district</td>
<td>Blacks more likely to be issued citation, given written warning, and searched. Clear disparities, but plan to collect more data to determine if discrimination.</td>
</tr>
<tr>
<td>Site and Year Published</td>
<td>When Data Collected</td>
<td>Voluntary or Mandated</td>
<td>External/Internal Data Analysis</td>
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<td>San Diego (2000)</td>
<td>Jan-June 2000</td>
<td>Voluntary (PD Chief)</td>
<td>External research team (Cordner et al.)</td>
<td>Stope, citations, searches/seizures, verbal and written warnings, and arrests</td>
<td>% driving-age population</td>
<td>Hispanics &amp; blacks overrepresented in stops, searches and arrests. Conducting further analysis &amp; data collection to explain disparity.</td>
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<tr>
<td>San Jose (2000)</td>
<td>July-Sept 1999</td>
<td>Voluntary (PD Chief)</td>
<td>Internal (SJPD Crime Analysis Unit)</td>
<td>Initial stops</td>
<td>% population</td>
<td>Latinos and blacks disproportionately stopped. Disparity attributed to concentration of minorities in neighborhoods with high police presence.</td>
</tr>
<tr>
<td>Connecticut (2001)</td>
<td>Jan-June 2000</td>
<td>Mandated by legislative act</td>
<td>External research team (Cox et al.)</td>
<td>Stope, citations, searches, written and verbal warnings, and arrests</td>
<td>% population</td>
<td>Small disparity in stops, limited to few agencies. Towns bordering high % minority stop higher % minority drivers. Conclude not systematic discrimination.</td>
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<tr>
<td>Washington (2001)</td>
<td>May 1-Oct 31, 2000</td>
<td>Mandated by legislative act</td>
<td>External (Criminal Justice Training Commission)</td>
<td>Stope, arrests, and searches</td>
<td>% driving-age population &amp; % drivers causing traffic accidents</td>
<td>Only minor disparity in stops, larger disparities for arrests &amp; searches. Conclude that more detailed analyses are needed to determine reasons for disparity.</td>
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<tr>
<td>Richmond (2001)</td>
<td>Feb 14-Mar 31, 2001</td>
<td>Voluntary (Department)</td>
<td>External (Richmond Dept. of Information Technology)</td>
<td>Stope, warnings, searches/seizures, arrests</td>
<td>% driving-age population</td>
<td>Minorities disproportionately stopped. No significant differences in searches. Blacks more likely than whites to be warned than arrested. Conclude officers of both races disproportionately target minorities in traffic stops.</td>
</tr>
</tbody>
</table>

* New York City's report analyzed pedestrian stops only. Philadelphia's report analyzed pedestrian and car stops. For all other studies, "stops" refers only to traffic stops by the police.
New Jersey v. Pedro Soto, 1996); and in Richmond, researchers collected data on stops followed by warnings, searches, or arrests (M. R. Smith & Petrocelli, 2001).

Some of the more recent studies detailed in Table 1 have extended data collection efforts to a considerably broader spectrum of officers' behavior, following the suggestions of Ramirez et al. (2000). For example, in North Carolina, researchers collected information on officers' decisions regarding stops, citations, written warnings, searches, seizures, detentions, and arrests (Zingraff et al., 2000). Similarly, studies in San Diego (Cordner, Williams, & Zuniga, 2000), Texas (Texas Department of Public Safety, TDPS, 2000) and Connecticut (Cox, Pease, Miller, & Tyson, 2001) have also gathered information for a more inclusive list of potential stop dispositions.

The "Base Rate" Problem

Researchers have noted that once data have been collected on traffic and field interrogation stops made by police, interpretation of those data is particularly troublesome because of issues related to what they have described as "the base rate problem" (Cox et al., 2001; Ekstrand, 2000; Ramirez et al., 2000; Walker, 2001; Zingraff et al., 2000). That is, once researchers have determined how often officers stop, question, warn, search, cite, and arrest nonwhite suspects, they must create ratios, or comparisons, to some other population. It is this comparison that is problematic for researchers. Should these rates be created by comparing the percentage of suspects stopped by police who are nonwhite to the percentage of nonwhite citizens in the population, the percentage of nonwhite drivers, the percentage of nonwhite drivers who engage in traffic offenses or other illegal behavior, or some other denominator?

Implementing research designs that capture racial differences in driving behavior is more difficult than using population figures or information from driver's licenses, which are readily available from the U.S. Bureau of the Census or state Departments of Motor Vehicles (W. R. Smith et al., 2000). Given the difficulty associated with collecting data on driving behavior, researchers have typically relied on demographic proxies for their comparison base rates. As can be seen in Table 1, 6 of the 13 published studies used racial percentages of the population as the standard of comparison (ACLU, 2000; Cox et al., 2001; Lansdowne, 2000; Spitzer, 1999; TDPS, 2000; Verniero & Zoubek, 1999).² Four others used racial stops.

² Spitzer (1999), however, examined pedestrian stops, rather than traffic stops.
percentages of the driving-age population (Cordner et al., 2000; Harris, 1999b; M. R. Smith & Petrocelli, 2001; Zingraff et al., 2000).

In an interesting set of multivariate analyses of the data on New York City pedestrian stops, Fagan and Davies (2000) used several population-based measures of poverty and crime rates to predict the rate of stops for white, black, and Hispanic citizens by precinct. They concluded, “policing is not about disorderly places, nor about improving quality of life, but about policing poor people in poor places” (p. 457). This set of analyses represents the most promising approach to date of explaining officers’ behavior at the aggregate level.

For traffic stops, some researchers have defended the use of population figures by suggesting that no research has indicated that blacks violate the traffic code more often or to a more serious degree than do whites, that blacks behave more suspiciously or disrespectfully during a traffic stop than whites, or that blacks drive specific sections of highways any more or less than do whites (ACLU; 2000; Lamberth, 1996, Verniero & Zoubek, 1999). One cannot dismiss the possibility, however, that particular types of citizens (e.g., young black males) drive more aggressively and are more likely to violate traffic laws and/or commit more serious violations. Although a national survey by the National Highway Traffic Safety Administration observed both gender and age differences in driving frequency, speeding, and other unsafe driving behavior (Boyle, Dienstfrey, & Sothoron, 1998), few studies have examined differences in law-violating driving behavior based on race or ethnicity.

Despite the lack of previous research in the area of illegal driving behavior, other national transportation and travel surveys have indicated that racial differences do exist for driving frequency. For example, minorities were more likely than whites to use public transit, rather than personal-use vehicles, as their primary means of transportation (Bureau of Transportation Statistics, 1997). Furthermore, the Nationwide Personal Transportation Survey (Federal Highway Administration, 1995) found that blacks were considerably more likely to live in households without vehicles. Similarly, blacks were also less likely than both whites and Hispanics to have driver’s licenses (Langan, Greenfeld, Smith, Durose, & Levin, 2001). These findings suggest that blacks may be less likely than whites to be driving overall; thus, racial disparities in traffic dispositions may be more serious than they initially appear.

Nevertheless, the question of whether racial groups differ in their rate and degree of law-violating driving behavior is an important race-neutral explanation of disparity that researchers need to examine fully (Ekstrand, 2000; Zingraff et al., 2000). Lamberth
(1996) initiated the first efforts to establish a base rate of law-violating driving behavior in separate studies in New Jersey and Maryland. In what he described as a rolling survey, observers rode in cars that were driving with the cruise control set at five miles per hour over the speed limit in New Jersey and exactly at the speed limit in Maryland. The observers counted the cars that passed them (i.e., traffic violators) and the cars that they passed (i.e., nonviolators), also recording the race of the driver in each car. Using this technique, Lamberth reported that whites and blacks drove indistinguishably. However, W. R. Smith et al. (2000) noted that, on major highways, most drivers speed to some degree or another. Indeed, Lamberth found that 98% and 93% of drivers in the New Jersey and Maryland studies, respectively, were traffic violators. Thus, the degree of law-violating behavior measured in these two studies probably did not capture all motorists' real risk of being stopped. Research in progress in North Carolina has improved upon Lamberth's technique and provided better estimates of the degree to which drivers violate the speed limit by estimating actual speeds, rather than classifying passing vehicles as violators or nonviolators (W. R. Smith et al., 2000). This research represents the leading example to date of the most accurate base rate of one type of law-violating driving behavior.

An alternative approach proposed by Walker (2001) suggests that early warning (EW) systems could be used to establish peer-based benchmarks for comparisons of officers' rates of stops with the rates of stops of other officers working the same beat and shift. Walker described EW systems as "data-based management information systems that systematically collect and analyze officer performance data for the purpose of identifying those officers who receive an unusually high rate of citizen complaints, are involved in a high rate of use of force incidents, or whose records indicate other forms of problematic behavior" (pp. 82-83). Utilizing these systems, officers whose stop rates of minorities do not conform to their peers' could be identified and their behavior addressed through proper training, reassignment, and the like. While Walker acknowledged that EW systems are not effective for "cases where an entire agency is engaging in racial or ethnic discrimination," he suggested that these systems could establish effective benchmarks for determining racial profiling behavior for individual officers (p. 87).

Interpreting Research Findings

Current research on racial profiling has generally found differences in the rates of particular police actions for white and nonwhite citizens; indeed, all 13 studies described in Table 1 noted at
least minor disparities for some, if not all, measured police actions. Six of these studies concluded that such differences in the rates for white and nonwhite citizens likely reflected racial discrimination by police officers (ACLU, 2000; Harris, 1999b; Lamberth, 1996; State of New Jersey v. Pedro Soto, 1996; Spitzer, 1999; Verniero & Zoubek, 1999). Other studies, however, acknowledged that these studies did not collect the type of data that are necessary to rule out alternative and legitimate, race-neutral explanations for disparity. Recognizing this methodological weakness, these 7 studies were more conservative in their interpretations of data discrepancies, suggesting the disparities between racial groups did not necessarily imply discrimination (Cordner et al., 2000; Cox et al., 2001; Lansdowne, 2000; M. R. Smith & Petrocelli, 2001; TDPS, 2000; WSP, 2001; Zingraff et al., 2000). Specifically, these studies suggested that measuring alternative, race-neutral factors, including differences in driving behavior and neighborhood characteristics such as high police presence, may explain the disparity.

A national survey administered by the Bureau of Justice Statistics as a supplement to the National Crime Victimization Survey reported that “black drivers were more likely than white drivers to be stopped at least once in 1999: 12.3% of blacks versus 10.4% of whites” (Langan et al., 2001, p. 13). This study concluded, however, that because no information was collected on law-violating behavior, the differences reported could not be attributed to racial profiling. Nevertheless, differences in aggregate rates were also found for police stops, citations, arrests, searches, and the use of force; for each of these outcomes, the rates for blacks and Hispanics were higher than those for whites. Langan and his colleagues did not test or speculate about the potential reasons for these reported differences. As a result, few policy implications can be derived from their initial report.

Ultimately, the problem with interpreting these results is that these traffic and field-interrogation data have been collected without the guidance of any theoretical frameworks. Researchers have simply counted things—the number of traffic stops, citations, and searches conducted by police against white and nonwhite suspects. Instead, the research should be conducted under the larger theoretical context of explaining behavior. Problems with the interpretation of empirical data are due partially to data collection efforts that have not addressed why officers might engage in decision making based on citizens’ race.
Bernard and Ritti (1990) argued that activities in social science must involve an explicit theory to be considered scientific research. They contended that while purely descriptive research may be interesting and useful, it is not scientific research. They defined a scientific theory as “a set of concepts bound together by explicit relationships and causal priorities” (p. 5). Using this definition, to date, the information generated regarding racial profiling should not be considered scientific research; none of the studies previously reviewed explicitly stated relationships between concepts that are temporally ordered. Rather, the underlying theory guiding racial profiling research is implicit. It is implied that officers make decisions on the basis of citizens’ race, but the potential reasons for this hypothesized relationship are not particularly clear. This implicit theory is based on what Bernard and Engel (2001) described as the prescriptive ideal in criminal justice research (i.e., what ought to be, as opposed to what actually is). Bernard and Engel argued that all criminal justice research takes place against the backdrop of prescriptive ideals, but that it is important to make these prescriptive ideals explicit, rather than to leave them as implicit value orientations contained in the research.

As Bernard and Ritti (1990) noted, research that operates under implicit theory is problematic for a number of reasons. Specifically, theories that are not explicitly stated often lead to “sloppy” investigations, misleading and/or meaningless conclusions, the failure to include crucial variables, and a limited understanding of the phenomenon being studied. All these potential consequences have occurred in the study of racial profiling. Although each of the 13 empirical studies reviewed previously reported some type of disparity in the aggregate rates of traffic stops for white and nonwhite citizens, no study to date has been able to explain empirically the causes of this phenomenon. This is a critical issue, since much of this research is meant to inform police administrators and influence their policies.

In this article, we use a conceptual approach proposed by Bernard and Engel (2001) for organizing criminal justice theory and research to develop a theoretical framework for research on racial profiling. According to Bernard and Engel, criminal justice theory and research should be categorized first according to the type of dependent variable. There are three broad types of dependent variables: the behavior of individual criminal justice agents (e.g., police
officers, judges, correctional officers), the behavior of criminal justice agencies (e.g., police departments, courthouse work groups, correctional institutions), and the aggregate-level characteristics of the entire criminal justice system or its component parts (e.g., policing, sentencing, imprisonment rates and policy changes).

In the case of research on racial profiling, the first dependent variable is the behavior of individual police officers. Research on this dependent variable would address questions such as these: Why do police officers in general stop more black citizens than white citizens? Why do some officers exhibit more racial disproportionality while others exhibit less? Have there been changes in racial disproportionality over time? The second dependent variable is the behavior of different police departments and would address questions such as these: Do some police departments have high rates of racial profiling and others have low rates? If so, what explains these differences? Is proximity to I-95, for example, or a southern location, associated with greater disproportionality in racial stops? The third dependent variable is aggregate rates of officer and departmental behavior. Research at this level could identify trends in disproportionality and would address such questions as these: Has race-based decision making been transformed in the past 40 years from one based primarily on individual racial prejudice to one based mainly on race-based departmental policies?

In the following section, we review theories from several social science disciplines and perspectives (e.g., sociology, conflict, social psychology, interactionist perspectives, and organization and management perspectives) and apply their theoretical constructs to explain the three dependent variables just identified: (1) individual police officers’ behavior, (2) behavior of police departments, and (3) aggregate rates of behavior. Each of these perspectives highlights different explanations of the phenomenon, and, as a result, each has different policy implications. The theories we review are not meant as an exhaustive list of those that could be used to explain the behavior in question. Rather, several specific theories are identified for each dependent variable as a way to illustrate the use of theories in this line of research. Finally, we argue for the absolute need for future research to use theory to guide data collection efforts and interpretations of the empirical findings, as well as to inform policy decisions.

**Explaining Race-based Decision Making by Individual Officers**

The most widely used explanation of the differences in the rates of traffic and field stops for white and nonwhite citizens is
that officers act on the basis of prejudicial attitudes. This explana-
tion is based on the widely accepted relationship between attitudes
and behavior. For example, in their theory of reasoned action, Ajzen
and Fishbein (1977, 1980) argued that attitudes and subjective
norms independently influence intentions, which, in turn, influence
behavior.3 According to this theory, a person’s intentions, and
therefore his or her behavior, are a function of two basic determi-
nants—one reflecting personal influence (attitudes) and the other
reflecting social influence (subjective norms). Attitudes toward be-
behavior are based on “the person’s beliefs that the behavior leads to
certain outcomes and his evaluations of those outcomes,” while sub-
ject norms are based on “the person’s belief that specific individuals
or groups think he should or should not perform the behavior and
his motivation to comply with the specific referents” (Ajzen & Fish-
bein, 1980, p. 8).

The theory that attitudes influence behavior is intuitively comp-
pelling. As Worden (1989, p. 670) suggested, “to maintain that peo-
ple act in ways that are inconsistent with their attitudes seems
patently absurd.” Yet, most quantitative research on police behav-
ior has found only weak relationships between officers’ attitudes
and their behavior (Meyers, Heeren, & Hingson, 1989; D. A. Smith
& Klein, 1983; Snipes & Mastrofski, 1990; Stith, 1990; Worden,
1989). This small body of quantitative research is consistent with a
much larger body of social-psychological research on attitude-be-
behavior consistency, which has suggested that the estimated rela-
tionships between attitudes and behavior are counterintuitively
small (for review, see Schuman & Johnson, 1976).

Many of the empirical studies that reported differences in the
frequency of police contact with white and nonwhite citizens have
been held up as scientific evidence that discrimination exists be-
cause of racist attitudes of police officers. As we previously argued,
however, differences in aggregate rates tell only that differences ex-
ist; researchers have not measured why they exist. To examine the
theory that officers’ attitudes influence their decision making, re-
searchers need to measure both officers’ attitudes and social influ-
ences that may mediate the relationship between attitudes and

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3 While the theory of reasoned action argues that attitudes influence behavior
indirectly through intentions, empirical research has suggested that the role of in-
tentions varies across situations. In stressful situations or those that require a more
immediate response, the formation of intentions is likely to be less (Bagozzi & Yi,
1989; Liska, 1984). Bagozzi and Yi found that the mediating role of intentions was
reduced when intentions were poorly formed, resulting in a stronger direct relation-
ship between attitudes and behavior. Applying this theory to the police, one could
argue that many of the situations officers handle are stressful and require immedi-
ate decision making (Bittner, 1970). Therefore, one might expect officers’ intentions
to be poorly formed, leading to a stronger direct relationship between attitudes and
behavior.
behavior. None of the 13 studies we reviewed included surveys of officers or debriefing protocols in their data collection efforts. Also absent in the research on racial profiling are any measures of subjective norms. Surveys and debriefing protocols can enhance our understanding of the factors that influence the relationship between officers’ attitudes and their behavior (Mastrofski & Parks, 1990). Until researchers incorporate the collection of attitudinal data into their data collection strategies, they must stop attributing officers’ behavior to officers’ attitudes.

A second perspective that can be used to explain officers’ behavior is also based in social psychology, but applies an interactionist perspective. Tedeschi and Felson’s (1994) theory of coercive actions suggests that the social dynamics involved during interactions between officers and citizens may influence officers’ behavior. Applying this perspective, one could speculate that these dynamics vary for white and nonwhite citizens and officers. Specifically, Tedeschi and Felson suggested that a person’s need to establish or protect his or her social identity often leads to the use of coercive actions. Citizens may be more likely to challenge officers’ authority if they felt their identities were being challenged, their freedoms were being restricted, or politeness norms were violated (also see P. Brown & Levinson, 1987). Although this theory does not directly explain why minority citizens are initially stopped, it does apply to officers’ behaviors once the stop has been made.

Scholars have speculated about the relationship between citizens’ characteristics—especially race—and their antagonistic, disrespectful, and hostile behavior toward the police. For example, many have suggested that nonwhite suspects, particularly young black males, are more likely to be disrespectful toward the police. The perceived relationship between demeanor and race has been used to explain higher arrest rates for young black males. As Walker (1999, pp. 226-227) proposed, “to the extent that officers stereotype young African-American males as potential suspects, they may provoke higher rates of antagonistic behavior that, in turn, results in higher rates of arrest.” Studies of racial profiling could be greatly enhanced if they included measures of suspects’ demeanor, which has been shown in prior research to influence officers’ actions (Lundman, 1994; Worden & Shepard, 1996).

Prior ethnographic and empirical examinations of police behavior have also suggested that other situational factors are important and strong predictors of police behavior. Sherman’s (1980) review of the quantitative literature, updated by Riksheim and Chermak (1993), indicated that situational characteristics—including suspects’ characteristics (e.g., sex, age, intoxication, and demeanor),
characteristics of the police-citizen encounter (e.g., location, time of day, and presence of bystanders or other officers), and legal characteristics (e.g., seriousness of the offense and strength of the evidence)—are relatively strong predictors of police behavior. It is possible that some of these factors are correlated with suspects' race or ethnicity.

Data collection efforts should also thoroughly examine legal characteristics prior to and during traffic and field interrogation stops. Past research has continually found that officers' discretion is heavily influenced by the seriousness of the offense and the amount or strength of the evidence available (Klinger, 1996). This is especially true during police-invoked law enforcement situations, in which officers have more discretion (Wilson, 1968). The level of discretion varies dramatically with the nature, type, and seriousness of the particular incident. For example, officers have less discretion in situations in which speeding motorists drive by them traveling 30 miles per hour over the speed limit, compared to those traveling 10 miles per hour above the posted limit. Therefore, data collection must include information on the reason for the field interrogation or traffic stop, the level of seriousness of the offense, and the amount of evidence available to the officer. The relative influence of citizens' race during low and medium discretionary situations compared to high discretionary situations will be important for identifying and explaining the use of racial profiling.

Another perspective that could be applied to explain differences in officers' behavior is expectancy theory. Expectancy theory is a framework that examines the output and effort of workers in organizations (Campbell & Pritchard, 1976; Mitchell, 1974). Although this theory has been used to explain individual officers' behavior (DeJong, Mastrofski, & Parks, 2001; Mastrofski, Ritti, & Snipes, 1994), it may also apply to police organizations. Expectancy theory suggests that workers' perceptions of the value of particular work activities are altered by various factors. As these factors change, workers' perceptions of the value of their work changes, and, as a result, their behavior changes. As summarized by DeJong et al. (2001), factors that influence workers' perceptions include effort-performance expectancy (i.e., workers perceive they are capable of performing the task), instrumentality of performance (i.e., workers know what superiors expect them to accomplish), performance-reward expectancy (i.e., workers know what they need to do to be rewarded), and reward-cost balance (i.e., the value of rewards is high enough to motivate workers).

Applying this theory to police behavior, as these factors change, officers' willingness to perform work activities (e.g., make traffic
and pedestrian stops and issue citations) will also change. This theory can also be applied to explain the racial disparity in stops made by police officers in particular departments. If officers perceive that their supervisors expect them to be aggressive on the streets by stopping vehicles, searching citizens, and producing arrests and that this behavior is highly rewarded in their organization, they are more likely to perform these activities (DeJong et al., 2001; Engel & Worden, 2000). Furthermore, if officers perceive that minority citizens are more likely to be involved in the drug trade and that aggressively stopping their cars will lead to more arrests, then they may be more likely to stop nonwhite citizens disproportionately. Expectancy theory suggests that researchers need to measure not only the perceptions of officers and the expectations of their supervisors, but the reward structures of police organizations. As we describe next, the influence of organizational and managerial factors is likely to vary significantly across police departments.

**Explaining Race-based Decision Making by Police Departments**

Organization and management theories offer other explanations for police behavior. In hierarchical paramilitary organizations, one may suppose that officers' choices are constrained by bureaucratic forces, including the preferences of their immediate supervisors and higher-level managers. According to Wilson (1968, p. 86), during police-invoked law enforcement situations, officers have high levels of discretion, but “the rate and form of police interventions in these situations can be strongly influenced by the policy of the administrator.” Police administrators determine officers’ performance on the basis of what Wilson described as “goal-oriented” measures and “means-oriented” measures—both of which are available from police-invoked law enforcement situations. Administrators can determine if the substantive law enforcement goal has been achieved (e.g., changes in the levels of drug trafficking) or if the means to achieve a goal have been established (e.g., the number of traffic citations issued).

Van Maanen (1983, 1984) further described the potential influence that field supervisors have over subordinate officers by collecting “institutional display and documentation,” or quantitative measures of work performance, such as arrest and traffic citations. With this information, administrators have an opportunity to influence officers’ behavior through rewards, incentives, and discipline. Specifically, under the “exchange” or “bargaining” model of supervision, supervisors and officers are mutually dependent: supervisors rely on their subordinates to be productive and to “lay low and stay
out of trouble," while officers rely on their supervisors for small favors (e.g., preferred work schedules, assignments, partners, beats, and cars) and for protection from departmental discipline (Maxfield, Allen, & Antunes, 1981; Van Maanen, 1983). Through such reciprocity, rather than the formal chain of command, supervisors can influence officers' behavior (M. K. Brown, 1988; Manning, 1977; Rubinstein, 1973; Van Maanen, 1983). Therefore, one may hypothesize that supervisors' priorities will be reflected in officers' behavior. One may also expect that officers who work for organizations, administrators, or even individual field supervisors who emphasize means-oriented measures would have higher rates of stops, citations, and arrests. These organizational influences may interact with neighborhood contexts (e.g., neighborhood disadvantage) to produce higher rates of police productivity in minority neighborhoods.

The behavior of police organizations can also be explained by utilizing Crank and Langworthy's (1992) institutional perspective. These scholars argued that the incorporation of powerful myths into the activities and structure of police organizations provides legitimacy, stability, and protection from powers outside the institutional environment. However, legitimacy problems that result from conflicting institutional myths can lead to organizational crises. These crises are then handled through "ceremonial rituals" that publicly degrade the police department and legitimate a new administration. Crank and Langworthy used this institutional perspective of policing to explain police appearances; specialized law enforcement units; preventive patrol and rapid response systems; and, in later work, community policing (Crank, 1994; Crank & Langworthy, 1996).

This institutional perspective can also be used to explain departmental policies of profiling. Specifically, the myth of the effectiveness of racial profiles to control serious crime and drug trafficking is incorporated into the structure and activities of police departments. Because departments are initially rewarded for being "tough on crime" or waging "the war on drugs," the activities associated with tactics of targeting particular types of citizens become institutionalized. Eventually, however, the myth that the police are equally enforcing the laws comes into direct conflict with profiling activities. Departments then become susceptible to organizational crises, which are resolved through the firing of administrative personnel and the ceremonial replacement of a new administration that is committed to correcting the perceived illegitimate practices. The behavior of the police department is altered while undergoing these organizational changes.
In describing the adoption of community policing policies, Crank and Langworthy (1996, p. 215) suggested that "seductive efforts on the part of state and federal agencies to induce the adoption of organizational elements via grants and other financed-assisting strategies" often led to the adoption of "organizational elements—structures, goals, policies, and tactics—that embody the interests of powerful institutional actors." These propositions could also be used to describe the adoption of racial profiling tactics by local police departments after engaging in training offered by the Drug Enforcement Administration (DEA) as part of Operation Pipeline. According to Harris (1999a, p. 5), "the techniques taught and widely encouraged by the DEA as part of Operation Pipeline have been instrumental in spreading the use of pretext stops . . . some of the training materials used and produced in conjunction with Pipeline and other associated programs have implicitly (if not explicitly) encouraged the targeting of minority motorists."

**Explaining Race-based Trend Differences in Aggregate Rates**

In addition to individual and departmental behaviors, differences in aggregate rates of traffic stops can be explained by several theories. Two of these theories—conflict theory and Black's theory of law—are examined next.

Based in conflict theory, Turk's (1969) theory of norm resistance described the relationship between two groups in society—*authorities* and *subjects*—and suggested that complementary social norms exist for each group. For authorities, social norms of domination, or norms of decision making, are developed. Likewise, subjects develop social norms of deference, or norms of accepting and obeying the decision making of authorities. The relationship between authorities and subjects is dependent on the establishment and continuation of these norms. According to Turk, the conflict between authorities and subjects will be the greatest when the subjects' norms of deference do not match those of the authorities. That is, norm resistance is most likely to occur when authorities and subjects act consistently with their respective cultural norms (i.e., values), since these cultural norms are often conflicting.

Although Lanza-Kaduce and Greenleaf (1994) argued that Turk's theory of norm resistance could be used to explain conflict during police-citizen encounters, Turk's theory is largely structural. Turk suggested that the levels of *organization* and *sophistication* of authorities and subjects in society predict the overt conflict between them. This theory, in part, explains the conflict between subjects and authorities in society as being due to dissimilarities in their
cultural norms and characteristics and can be used to explain racial profiling at the aggregate level.

Black’s (1976) theory of law may also guide examinations of racial profiling. Black argued that law is a quantifiable variable and that it is possible to explain both the quantity and style of law in all situations. Identifying five groups of predictor variables (stratification, morphology, culture, organization, and social control), he theorized about the direction of the relationships between these variables and the quantity and style of law. Applying Black’s theory to racial profiling, one may expect higher levels of stratification in society to result in higher levels of the quantity of law applied to those citizens. That is, citizens with larger disparities in the “distribution of the material conditions” would likely experience higher rates of police intervention.

Examinations of both Black’s theory and conflict theory require more aggregate levels of data collection than are currently used in racial profiling research. Calnon and Bernard (2000) argued that several explanations exist for aggregate levels of disparity in criminal justice outcomes, including situations involving “discrimination without prejudice.” They suggested that there are alternative sources of discriminatory outcomes—including organizational characteristics like the pressure for efficiency and overall lack of resources—rather than individual prejudice. The misinterpretations of the sources of discrimination have led to policy resolutions that are ineffective in combating the problem of racial profiling, since they do not address the actual source of discriminatory outcomes.

Collectively, each of the theoretical frameworks reviewed here establishes the need for the collection of additional types of data, including situational characteristics (e.g., suspects’ characteristics, characteristics of the police-citizen encounter, and legal characteristics), officers’ characteristics (e.g., sex, race, experience, and attitudes), organizational characteristics (e.g., formal and informal policies, and attitudes and preferences of administrators and first-line supervisors), and community characteristics (e.g., demographic, economic, and political). Unfortunately, much of the data on traffic and pedestrian stops that are currently being collected do not include the bulk of this information, and it is somewhat unrealistic to presume that researchers will have access to much of this information in the near future. However, researchers can begin the

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4 Black (1976) defined stratification as “any uneven distribution of the material conditions of existence” (p. 11); morphology as the “distribution of people in relation to one another” (p. 37); culture as “the symbolic aspect of social life, including expressions of what is true, good, and beautiful” (p. 61); organization as “the corporate aspect of social life, the capacity for collective action” (p. 85); and social control as “the normative aspect of social life” (p. 105).
process of producing theoretically guided empirical inquiries by
first explicitly stating their theories of racial profiling and subse-
quently focusing on explaining race-based differences at different
levels of aggregation.

**DISCUSSION**

Current research on racial profiling has suggested that in some
jurisdictions, officers disproportionately stop nonwhite citizens.
Some studies have characterized these stops as discrimination,
while others have only acknowledged that a disparity exists and
correctly noted that inferences as to the cause of the disparity can-
not be appropriately made with the data available. Unfortunately,
the current research on differential stop patterns by police officers
has not taken us much beyond early systematic observational re-
search of the 1960s–70s that suggested that officers’ discretionary
decision making differed for white and nonwhite citizens (Black,
1980; Sherman, 1980). Indeed, we have not advanced much beyond
Boydstun’s (1975) report on field interrogation stops by the police in
San Diego in 1975, which found that minority citizens were stopped
by the police disproportionately to their population in the
community.

One reason for this failure to progress is the absence of explic-
itely stated theories in studies of racial profiling. Although it is clear
that these studies have operated under the implicit theory of the
prescriptive ideal, confusion arises because the underlying theory
and resulting specific hypotheses are not explicitly stated. As a re-
sult, the literature on racial profiling is misleading, fails to include
crucial explanatory variables, and provides a limited understand-
ing of the phenomenon. Accordingly, no firm policy implications can
be derived from this research.

Once researchers properly utilize theoretical frameworks and
conduct their studies at one of the levels of analysis described by
Bernard and Engel (2001), clearer policy implications will result.
For example, examinations of individual officers’ decision making
that test specific hypotheses generated from theoretical
frameworks may suggest that recruitment and hiring procedures
should be more stringent; similarly, racial sensitivity training
should be mandatory for all officers. In contrast, examining race-
based decision making at the departmental level may suggest that
corrective policies be implemented through changes to the depart-
ment’s rewards and incentives structure, supervisory styles, and
other formal organizational policies.

Finally, examining race-based decision making at the aggre-
gate level returns us to the broader issue of the prescriptive ideal in
criminal justice research. That is, we have argued that the underlying theory guiding racial profiling research is implicit rather than explicit. Thus, it is implied that the disproportionality in aggregate rates of traffic and field stop dispositions is due to officers making decisions based on citizens' race, which is troublesome because of the underlying prescriptive ideal in criminal justice research (i.e., what ought to be, as opposed to what actually is). This issue of the prescriptive ideal in racial profiling needs to be explicitly addressed. The prescriptive ideal currently suggests the total eradication of the racial prejudice of individual police officers in decision making. But beyond this are much more complicated questions about "what ought to be." For example, George Kelling, a leading criminal justice scholar (quoted in Herszenhorn, 2000, p. 41), raised the issue of departmental policies concerning race-based stops for gun searches and seizures in Newark, New Jersey: "The good news is the Portuguese aren't shooting each other," he said. "Unfortunately, the African-Americans are. If I'm going to go looking for guns, am I going to look in the Ironbound?" he asked, referring to a predominantly Portuguese neighborhood in Newark. "Now," he asked, "is that racial profiling or is that good planning?" By opposing "racial profiling" with "good planning," Kelling essentially asked whether this practice is "bad" or "good." That is, he raised a complex argument about appropriate police practices: Assuming the accuracy of the factual basis of the policy (i.e., that blacks are shooting each other, but the Portuguese are not), should police use explicitly race-based policies or not?

Given the catastrophic events of September 11, 2001, our society will be entering a new collective dialogue regarding the proper balance between individual rights and societal protection. Racial and ethnic profiling by law enforcement will undoubtedly be at the forefront of that discussion. The complex issue raised by Kelling—of whether certain forms of profiling are simply "good planning"—will also be at the heart of the debate. Public opinion polls conducted after the terrorist attacks on the World Trade Center and the Pentagon suggest that the public's perception of "what ought to be" in regard to law enforcement and security have dramatically changed (Gallup News Service, 2001). While our politicians and policy makers struggle to maintain the delicate balance between preserving individual rights and maintaining public security, the debate will continue regarding where that line should be drawn. In this vein, researchers need to conduct theoretically guided, methodologically sound inquiries that generate reliable findings to better inform policy. It is only when we seek to explain officers' behavior that we may then take steps to control it.
REFERENCES


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