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Rethinking Profiling: A Cognitive Model of Bias and Its Legal Implications

Sometimes referred to as “Driving While Black,” but actually encompassing any time that law enforcement uses a person’s race as the basis for acting, racial profiling has become a matter of serious public concern.¹ Academic debate of profiling has taken a variety of forms but often returns to a basic question regarding the rationality of police officers’ behavior. Critics argue that profiling is an irrational behavior motivated by racial stereotypes, which results in disproportionate harm to minority communities.² Supporters respond that profiling is an efficient use of limited enforcement resources, and that profiling rests on a sound statistical foundation demonstrating that certain minorities are likely to engage in illegal activity at levels higher than other groups.³ Responding to this debate, regulators have

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¹ See, e.g., Carol Eisenberg, *Imams Seek an Apology*, NEWSDAY, Nov. 28, 2006, at A21 (discussing the removal of six Muslim imams from a US Airways flight after the imams were seen laying out mats and praying in the Minneapolis-St. Paul International Airport); Rick Hampson, *In New York City, Outrage Mounts over Police Tactics*, USA TODAY, Mar. 26, 1999, at 8A (discussing the forty-one shots fired at an unarmed African immigrant by four Caucasian police officers); Robert D. McFadden, *Police Kill Man After a Bachelor Party in Queens*, N.Y. TIMES, Nov. 26, 2006, at 1 (discussing the killing of an unarmed African American man on his wedding day after New York City police officers fired over fifty rounds of ammunition at him).

² See *infra* notes 15–17 and accompanying text.

³ See *infra* notes 13–14 and accompanying text.

spent substantial resources in an attempt to determine the soundness of the statistical support for profiling.

Interestingly, the debate over the behavior of profiling has not been accompanied by a discussion of the way in which race actually is used to determine whether or not individuals are likely to engage in illegal activity. Rather, most commentators proceed from a basic model of profiling that sees law enforcement officers as rational individuals applying statistical information to the goals of enforcing the law.⁴ According to this view, the problem lies either in the invalidity of officers' information or officers' learned distaste for certain minorities.⁵ The purpose of this Article is to suggest a different vision of profiling and to discuss the implications of that vision on the debate over profiling and regulatory responses.

The Article argues that profiling is not the result of conscious and rational action. Rather, profiling is an implicit process that results from the cognitive process of categorization. The process of categorization helps individuals cope with the variety of stimuli that surround them on a day-to-day basis. Without the ability to group stimuli into categories, individuals would be overwhelmed in their efforts to process information and function in the world.

Categorization, however, is not a process over which people have conscious control. Moreover, the cognitive process of creating categories leads individuals to overemphasize certain core traits of category members. Thus, profiling cannot be treated as simply a problem of misinformation or the distastes of a few "bad apples." Instead, profiling is an inescapable process that, by its nature, results in overestimation of the likelihood that members of a racial category will act in accordance with such alleged core traits as criminality. Of course, if the process is an inescapable one, then different mechanisms are necessary to control profiling. This Article looks to the developing body of implicit bias research to respond to this concern.

Part I of this Article provides a short introduction to the problem of profiling and states' regulatory responses. Part II describes the model of rational behavior that underlies the traditional conception of both profiling and regulatory

⁴ For a discussion of the different perspectives, see *infra* Part I.

⁵ See *infra* notes 38–40 and accompanying text.

responses. Part II then provides a new model of “implicit” profiling based primarily on the cognitive processes of categorization, and discusses the way in which this cognitive model reframes the basic profiling debate. Assuming the implicit processes involved in profiling, Part III considers alternative regulatory responses to profiling.

I

THE PROBLEM OF PROFILING AND THE CURRENT REGULATORY RESPONSE

Racial profiling has been at the forefront of academic and political debate in recent years.⁶ The practice of profiling is extremely hard to capture in any single definition.⁷ In general, profiling occurs when law enforcement officials initiate action based on an individual’s race, ethnicity, or national origin rather than the individual’s behavior.⁸ Examples of profiling behavior include disproportionate traffic stops and searches of minorities,⁹ increased stops and searches of individuals of Middle Eastern descent by customs agents, and increased incidence of shooting unarmed African Americans.¹⁰ For purposes of consistency, this Article illustrates its analysis with the example of disproportionate traffic stops of minorities, based on police officers’ assumptions that minorities carry and use drugs at levels disproportionate to whites.

⁶ See, e.g., R. Richard Banks, *Racial Profiling and Antiterrorism Efforts*, 89 CORNELL L. REV. 1201, 1201–03 (2004); Yoram Margalioth & Tomer Blumkin, *Targeting the Majority: Redesigning Racial Profiling*, 24 YALE L. & POL’Y REV. 317, 317–20 (2006); Floyd D. Weatherspoon, *Racial Profiling of African-American Males: Stopped, Searched, and Stripped of Constitutional Protection*, 38 J. MARSHALL L. REV. 439, 439–43 (2004).

⁷ For a detailed analysis of the different definitions of profiling and their limitations, see Mathias Risse & Richard Zeckhauser, *Racial Profiling*, 32 PHIL. & PUB. AFF. 131, 135–38 (2004).

⁸ See *id.* at 136–38.

⁹ This is often referred to as the crime of “Driving While Black.” See, e.g., Katherine Y. Barnes, *Assessing the Counterfactual: The Efficacy of Drug Interdiction Absent Racial Profiling*, 54 DUKE L.J. 1089, 1095 (2005). See generally David A. Harris, *The Stories, the Statistics, and the Law: Why “Driving While Black” Matters*, 84 MINN. L. REV. 265 (1999); Katheryn K. Russell, “Driving While Black”: *Corollary Phenomena and Collateral Consequences*, 40 B.C. L. REV. 717 (1999).

¹⁰ See, e.g., Eisenberg, *supra* note 1; Hampson, *supra* note 1; McFadden, *supra* note 1.

The debate on racial profiling in large part has been framed in terms of profiling's rationality.¹¹ In essence, the arguments about rationality are claims about the empirical support for using race in determining whether to stop and/or search an individual.¹² On one side, advocates of profiling argue that profiling is a rational use of information to achieve important and valid policing goals. In contrast, opponents argue that profiling arises from invidious stereotypes and results in disproportionate stops and arrests of minorities.

Supporters of profiling substantiate their claim of rationality by relying on data that demonstrate the disproportionate arrest and conviction of minorities for narcotics offenses.¹³ If racial minorities do commit crimes at higher rates than whites, proponents argue, it is a rational and efficient response to use race in determining whom to stop or search.¹⁴ Put simply, the logic of profiling suggests that, if minorities commit more crimes, they should be stopped and searched more often.

Critics of profiling argue that, to the extent the arrest and conviction data suggest minorities commit crimes at higher rates than majorities, such data are simply the result of the greater number of police searches of minorities.¹⁵ A simple example illustrates this argument: assume that the same percentage of minorities and whites traffics drugs. If minorities are stopped at higher rates than whites, this results in a larger number of convictions of minorities for trafficking. The larger number of minority convictions will feed perceptions that minorities traffic drugs more than whites and even more attention will be focused on stopping and searching minorities. The result of this self-

¹¹ See, e.g., R. Richard Banks, *Beyond Profiling: Race, Policing, and the Drug War*, 56 STAN. L. REV. 571, 577–80 (2003); Barnes, *supra* note 9, at 1100; William M. Carter, Jr., *A Thirteenth Amendment Framework for Combating Racial Profiling*, 39 HARV. C.R.-C.L. L. REV. 17, 17–18 (2004); Bernard E. Harcourt, *Rethinking Racial Profiling: A Critique of the Economics, Civil Liberties, and Constitutional Literature, and of Criminal Profiling More Generally*, 71 U. CHI. L. REV. 1275, 1276–77 (2004).

¹² Carter, *supra* note 11, at 17–18.

¹³ Banks, *supra* note 11, at 577–78.

¹⁴ See Harcourt, *supra* note 11, at 1276–77.

¹⁵ See, e.g., DAVID COLE, NO EQUAL JUSTICE 20–21 (1999); Scott L. Johnson, *The Self-Fulfilling Prophecy of Police Profiles*, in THE SYSTEM IN BLACK AND WHITE 93, 93 (Michael W. Markowitz & Delores D. Jones-Brown eds., 2000); Tracy Maclin, *The Fourth Amendment on the Freeway*, 3 RUTGERS RACE & L. REV. 117, 121–23 (2001).

fulfilling prophecy is more frequent searches and arrests of minorities.

Support for this critique is found in data suggesting that minorities' general drug use rates are no greater than whites' drug use rates and that blacks and Hispanics are stopped and searched at much greater rates than whites.¹⁶ If minorities do not use drugs at higher rates than whites, critics argue, then profiling is not a rational behavior directed at efficient use of limited resources to minimize crime.¹⁷

Arguments about the morality of profiling also rest on fairness concerns that arise from disproportionate mistreatment of minorities by law enforcement. If, for example, forty percent of the drug-using population is comprised of minorities, when law enforcement chooses to spend more than forty percent of its efforts searching minorities, these minorities are subjected to a greater burden relative to the rest of the population. Of course, the fact that individuals are singled out for such unequal treatment based solely on their race or national origin increases concerns regarding equal treatment.¹⁸

The complexity of the investigative process makes it more difficult to determine if law enforcement is violating the requirement of equal treatment. For example, Professors Risse and Zeckhauser recognize the validity of arguments based on proportional treatment but take issue with claims that proportionality requirements only can be satisfied if minorities are searched at rates equal to their likelihood of violating the

¹⁶ See, e.g., DAVID A. HARRIS, PROFILES IN INJUSTICE: WHY RACIAL PROFILING CANNOT WORK 13 (2002); Albert W. Alschuler, *Racial Profiling and the Constitution*, 2002 U. CHI. LEGAL F. 163, 230–31; Samuel R. Gross & Katherine Y. Barnes, *Road Work: Racial Profiling and Drug Interdiction on the Highway*, 101 MICH. L. REV. 651, 670 (2002).

¹⁷ Examples of publications that take issue with claims of efficiency include: HARRIS, *supra* note 16, at 14–15; Gross & Barnes, *supra* note 16, at 670; Samuel R. Gross & Debra Livingston, *Racial Profiling Under Attack*, 102 COLUM. L. REV. 1413, 1421–23 (2002).

¹⁸ See FREDERICK SCHAUER, PROFILES, PROBABILITIES, AND STEREOTYPES 175–97 (2003) (discussing the relationship between the moral concerns raised by claims of racial profiling and the claim that profiling is nothing more than acting on statistical evidence).

law.¹⁹ Risse and Zeckhauser present a simple example of the problem:

Suppose we know that 10 percent of a group of individuals engages in an illegal activity, but only 5 percent of the population at large does so. Targeting all inspections to the high-risk group, as opposed to the general population,²⁰ doubles the number of criminals caught per inspection made.

Thus, there is some support for a strategy that stops only members of the ten-percent group.

But the investigation of illegal activity has other important goals. For example, if police only pursue the most likely perpetrators, others might increase their willingness to commit crime. Thus, the goal of any investigation strategy must include conducting enough searches of low-risk groups to dissuade them from increasing their criminal activity.²¹ Hence, it is difficult to assess claims that members of a particular group have been investigated “disproportionately” simply because their stoppage rate does not correlate with their rate of participation in a particular illegal activity. Nevertheless, Risse and Zeckhauser agree that complaints regarding disproportionate screening “cannot be brushed aside” and disproportionate screening “must be condemned.”²²

Regardless of the complexity of such an inquiry, most state governments responding to profiling focus on collecting data on the number of stops and arrests of minorities.²³ Although the source of states’ responses vary—some are the result of legislation while others result from consent decrees that settle discrimination lawsuits—the core requirement of gathering data remains widespread.²⁴ In addition to requiring law enforcement

¹⁹ Risse & Zeckhauser, *supra* note 7, at 140 (“Individuals have a legitimate complaint if profiling occurs in a manner disproportionate to [the goal of the investigation].”).

²⁰ *Id.*

²¹ *Id.* at 141; *see also* Harcourt, *supra* note 11, at 1348–54 (developing a model of enforcement that includes the increased demand for crime that comes from a lack of enforcement of a particular group).

²² Risse & Zeckhauser, *supra* note 7, at 142.

²³ *See generally* POLICE FOUND., RACIAL PROFILING: THE STATE OF THE LAW (2005), <http://www.policefoundation.org/pdf/racialprofiling.pdf>.

²⁴ For example, in Arizona, the Department of Public Safety agreed to collect data on traffic stops and vehicle searches as part of a settlement in response to a class-action lawsuit filed by the American Civil Liberties Union (ACLU). *Id.* at 2.

agencies to gather data, some states' responses contain language prohibiting the practice of profiling and, to a lesser extent, requiring law enforcement officials to undertake sensitivity training.

Data gathering takes many different forms but, at a minimum, jurisdictions that have responded to profiling require police to gather information on the race of each person stopped, searched, and arrested.²⁵ By determining the percentage of each racial group that is found to violate the law (the "hit rate"), one can establish a baseline for purposes of comparison. Thus, data collection is intended, at least in part, to settle the threshold debate on whether profiling affects minorities disproportionately. Although the results are not yet conclusive, and some police departments have been unwilling to provide data, there is clear evidence of profiling behavior in some jurisdictions.²⁶

States that prohibit profiling have attempted to do so in different ways. For example, some states prohibit "profiling," other states prohibit using race in law enforcement in any form, and others prohibit profiling not in keeping with the law.²⁷ Other states prohibit racism, while others generally pass the issue down the line—requiring law enforcement officials to develop standards that serve to prohibit the activity.²⁸ Thus,

Similarly, following a class-action settlement, the California Highway Patrol agreed to collect data regarding whether minority motorists are pulled over more often. *See id.* at 3. Connecticut and Illinois laws mandate that state and local law enforcement agencies collect data on profiling. *Id.* at 8, 10.

²⁵ Data collecting processes range from Nebraska's requirement that officers who make traffic stops record the race of the driver on a computer in a patrol car, *id.* at 22, to Illinois's requirement that "police officers . . . record the name, address, sex, and race of any motorists whom they stop" as well as "whether the stop involved a search," *id.* at 10. For a complete analysis of the states' responses to the problem of profiling, see generally *id.*

²⁶ Although many states, such as Connecticut and Maryland, have published reports in compliance with consent decrees or legislation, civil rights advocates complain about the lack of effort of some police agencies in compiling data. For example, police agencies in Harris County, Texas, included in their reports only information on traffic stops that led to citations or arrests. *Id.* at 33.

²⁷ For example, California and Rhode Island ban racial profiling in any form. *Id.* at 4, 31. However, Arizona, West Virginia, and the City of Chicago, Illinois, only ban police from using race or ethnicity to pull someone over. *Id.* at 2, 10–11, 37.

²⁸ For example, Colorado and Kentucky have enacted legislation that prohibits the use of racial profiling by law enforcement agencies. *Id.* at 6, 13. However, Arkansas requires law enforcement agencies to adopt written policies against racial

while their means differ, many jurisdictions aim to stop profiling by law enforcement officials.

A less common component of antiprofiling laws is the requirement that law enforcement officials undertake sensitivity training.²⁹ While vague, such laws generally aim to provide officers with more appreciation and intimate understanding of minorities.

In sum, although determining whether minorities are stopped at a disproportionate rate is difficult given the complexity of the investigative process, virtually all regulatory responses focus on gathering data to determine whether law enforcement officers are acting rationally. Forthcoming data may provide the proof that vindicates one viewpoint over another. If, as initial data suggests, minorities are treated disproportionately, states hope to remedy the problem with prohibitions on officers' behavior, in addition to sensitivity training.

II

MODELS OF PROFILING

A. The Rationality Model

Implied in the discussions of profiling and its potential solutions is a particular view of human rationality that suggests bias is the result of attitudes and conscious decisions to act in a biased manner. The rationality model strongly influenced views of human bias in the last third of the twentieth century³⁰ and correlates with the rational choice theory of behavior. This section elaborates on the rationality model and then compares it to the cognitive model of profiling.

profiling, *id.* at 2, and Florida requires sheriffs' offices and municipal law enforcement agencies to adopt policies and practices prohibiting racism or discrimination, *id.* at 8–9. Although the legislatures of Arkansas and Florida passed racial profiling laws, the adoption of policies and practices that prohibit racism have been left to the law enforcement agencies themselves. *See id.* at 2, 6, 8–9, 13.

²⁹ For example, in New Jersey, all state and local police agencies have enacted sensitivity training programs in an effort to prevent racial profiling. *Id.* at 23. New Jersey officers are kept up to date on court rulings dealing with racial profiling and are given brochures prepared by the New Jersey Association of Chiefs of Police with information about discriminatory stops. *Id.*

³⁰ *See* Anthony G. Greenwald & Linda Hamilton Krieger, *Implicit Bias: Scientific Foundations*, 94 CAL. L. REV. 945, 945 (2006).

The discussion of profiling until now has been dominated by a particular view of prejudice that Professors Krieger and Fiske describe as a form of “intuitive psychology.”³¹ According to this view, one can explain people’s motivations in terms of stable traits or dispositions—in this case a negative disposition toward minorities.³² Under the intuitive model, people consciously choose to discriminate. “[A] person has direct knowledge of the best imaginable kind of the workings of his own mind. Mental states . . . are (or are normally) conscious states . . . and the consciousness which irradiates them can engender no illusions”³³

The intuitive view correlates with the rational choice theory that undergirds law and economics. Rational choice assumes that people are self-interested and choose rationally between alternative opportunities in a way that maximizes utility in accordance with individual preferences.³⁴ As a general matter, preferences are considered relatively stable³⁵ and the rationality of the individual’s actions is based on his or her ability to choose optimal ends.³⁶ Information plays an important role in the process of reasoning from preference to choice; a lack of information constrains the selection of optimal ends.³⁷

³¹ Linda Hamilton Krieger & Susan T. Fiske, *Behavioral Realism in Employment Discrimination Law: Implicit Bias and Disparate Treatment*, 94 CAL. L. REV. 997, 1039 (2006).

³² *Id.*

³³ *Id.* at 1030 (quoting GILBERT RYLE, *THE CONCEPT OF MIND* 13–14 (1949)).

³⁴ See HAL R. VARIAN, *INTERMEDIATE MICROECONOMICS* 52, 70 (1987).

³⁵ See Krieger & Fiske, *supra* note 31, at 1039 (noting that “people tend to view intergroup bias as though it were a kind of stable disposition, analogous to a personality trait, which expresses itself consistently across time and situation,” and that “economists often describe this bias as a ‘taste for discrimination’” (quoting GARY S. BECKER, *THE ECONOMICS OF DISCRIMINATION* 41 (1957))). See generally ANDREU MAS-COLELL ET AL., *MICROECONOMIC THEORY* (1995).

³⁶ See Edward L. Rubin, *Rational Choice and Rat Choice: Some Thoughts on the Relationship Among Rationality, Market, and Human Beings*, 80 CHI.-KENT L. REV. 1091, 1092 (2005). “If the actor chooses the optimal means to achieve her pre-established ends, she is rational; if she chooses suboptimal means, she is irrational.” *Id.* “The particular claim of rational choice theory is that people are rational in this sense; that is, they choose the optimal means to achieve their ends.” *Id.* “Recall that rationality can be defined as selecting the best method of accomplishing a specified goal.” Terrence Chorvat & Kevin McCabe, *Neuroeconomics and Rationality*, 80 CHI.-KENT L. REV. 1235, 1238 (2005).

³⁷ Rubin, *supra* note 36, at 1094 (“The most serious resource constraint is clearly a lack of information, either because no one has the information or because the information is not available to the decision maker.”).

Consider a simple example of an individual choosing between ten different stocks for a one-year period. If the person has perfect information about future stock performance and a preference to make as much money as possible, one would assume he or she would invest in the stock that provides the greatest return over the year.³⁸ Although nobody has such information³⁹ and it is questionable whether people can ever gather information in such a way,⁴⁰ this basic model assumes that a rational person with the correct information generally will make optimal decisions.

Applying the intuitive framework to the process of profiling leads to a particular understanding of the problem and its solution. The resulting view is that profiling can be addressed either by changing individuals' preferences (or "disposition") by providing "true" information, or by making the satisfaction of one's preferences too costly. In terms of information, the problem of profiling rests on the fact that police have misinformation regarding the propensity of minorities to commit crime. This view might be called the "innocent-officer" view. Assuming that law enforcement officials have a preference for limiting crime,⁴¹ they will be more able to identify perpetrators of crimes if they have better information about criminals. To the extent that officers do not have a proper understanding of the level at which different ethnic or racial groups commit crime,

³⁸ This example is loosely adapted from Rubin's article. *Id.*

³⁹ For a general discussion about how a lack of information affects rational decision making, see JEFFREY L. HARRISON ET AL., *REGULATION AND DEREGULATION: CASES AND MATERIALS* 30–31, 191–208 (2d ed. 2004); RICHARD A. POSNER, *ECONOMIC ANALYSIS OF LAW* 429–38 (4th ed. 1992).

⁴⁰ For discussions of the way in which cognitive biases affect individuals' uses of information, see generally Christine Jolls et al., *A Behavioral Approach to Law and Economics*, 50 *STAN. L. REV.* 1471 (1998); Russell B. Korobkin & Thomas S. Ulen, *Law and Behavioral Science: Removing the Rationality Assumption from Law and Economics*, 88 *CAL. L. REV.* 1051 (2000); Amos Tversky & Daniel Kahneman, *Judgment Under Uncertainty: Heuristics and Biases*, 185 *SCIENCE* 1124 (1974).

⁴¹ This assumption is undermined by literature that suggests individuals have a "taste" or "preference" for racism. See *supra* note 35 and accompanying text. To the extent this is true, even perfect information will not change police behavior. However, a preference for racism can be changed, primarily through education. As discussed below, the literature on implicit bias suggests a basis for police behavior other than a taste for racism. Such literature suggests that implicitly held racial stereotypes inform decision making at a subconscious level. To the extent this is the case, simply changing tastes or providing information will not be enough to prevent profiling.

providing such information will directly affect officers' behavior as to whom they stop and search. The "problem" under such a view is the information, not the individual. The solution is, of course, to provide better information.

However, some commentators argue that the problem may be in law enforcement officers' "taste" or "preference" for racism. This is the view of critics who espouse the "self-fulfilling prophesy" argument discussed above. They argue that profiling is not a universal behavior but rather something that affects only those individuals who developed their tastes for racism from others.⁴²

Under this view, profiling may be solved in a number of different ways. First, the problem is solved by simply prohibiting the profiling behavior and punishing transgressors adequately. This is the classic rational-choice view of the role of law, in which law serves as an external "cost" to the satisfaction of one's preferences.⁴³ For example, to the extent one has a taste for a socially unacceptable behavior—whether wife beating, stealing, or racism—law serves to control the behavior by making acting on such tastes too costly through prohibitions and penalties. Second, the problem can be solved by teaching individuals to change their preferences by means of techniques such as sensitivity training, whereby officers confront and rethink their biases against minorities. In essence, officers are taught to change their tastes.

B. *The Cognitive Model*

Surprisingly, while so much of the discussion on profiling is directed toward its rationality, almost no attention has been given to the validity of the notion of rationality that animates the discussion and informs the regulatory responses. This section provides a different view of the process of profiling. The cognitive model, an alternative approach, views profiling as the

⁴² See, e.g., Kenneth G. Dau-Schmidt, *An Economic Analysis of the Criminal Law as a Preference-Shaping Policy*, 1990 DUKE L.J. 1, 14–22 (suggesting that preferences are learned); Susan T. Fiske, *Intent and Ordinary Bias: Unintended Thought and Social Motivation Create Casual Prejudice*, 17 SOC. JUST. RES. 117, 118–19 (2004) (describing this view as rooted in post–World War II Freudian views of behavior and stating that this analysis, while discredited in psychological circles, continues to be used by the lay public in describing bad behavior).

⁴³ See Krieger & Fiske, *supra* note 31, at 1016.

result of primarily cognitive processes, especially the process of categorization. This model reveals the inadequacy of both the current discussion of profiling and the solutions put forth.

Rational actor models have received a substantial amount of criticism in recent years.⁴⁴ Legal scholars have relied on insights from cognitive and social psychology to criticize rational choice theory as failing to consider both the ways in which individuals actually process information⁴⁵ and how social forces and group identity affect individual behavior.⁴⁶ These criticisms can be seen as part of a larger movement in legal scholarship advocating behavioral realism.⁴⁷ Behavioral realists recognize that legal understandings of behavior may diverge from social scientists' understanding of behavior and that the "inconsistencies between the real world and the phenomenological models embedded in law can be highly problematic."⁴⁸ The failure of law to reflect how people behave in the real world has serious negative consequences, including delegitimizing law and reducing its effectiveness.⁴⁹ Advocates of behavioral realism have used social science to inform a wide variety of legal theories, particularly antidiscrimination law and policy.⁵⁰

⁴⁴ See, e.g., Gregory M. Duhl, *Property and Custom: Allocating Space in Public Places*, 79 TEMP. L. REV. 199, 231–36 (2006); Daniel A. Farber, *Toward a New Legal Realism*, 68 U. CHI. L. REV. 279, 281–90 (2001); Michael A. McCann, *It's Not About the Money: The Role of Preferences, Cognitive Biases, and Heuristics Among Professional Athletes*, 71 BROOK. L. REV. 1459, 1468–81 (2006); Ilya Somin, *Voter Knowledge and Constitutional Change: Assessing the New Deal Experience*, 45 WM. & MARY L. REV. 595, 613–17 (2003).

⁴⁵ See Jon D. Hanson & Douglas A. Kysar, *Taking Behavioralism Seriously: Some Evidence of Market Manipulation*, 112 HARV. L. REV. 1420, 1425–26 (1999); Jon D. Hanson & Douglas A. Kysar, *Taking Behavioralism Seriously: The Problem of Market Manipulation*, 74 N.Y.U. L. REV. 630, 634–37 (1999); Korobkin & Ulen, *supra* note 40, at 1060–70.

⁴⁶ See, e.g., Lawrence Lessig, *The Regulation of Social Meaning*, 62 U. CHI. L. REV. 943, 956–57 (1995); Richard H. McAdams, *The Origin, Development, and Regulation of Norms*, 96 MICH. L. REV. 338, 339–40 (1997).

⁴⁷ For a discussion of behavioral realism, see generally Krieger & Fiske, *supra* note 31.

⁴⁸ *Id.* at 999.

⁴⁹ See *id.* at 998–99. One also may ask why behavioral realists believe that social science theories should be privileged over judicial or regulatory intuition. For a discussion, see *id.* at 999–1001.

⁵⁰ *Id.* at 1003 & n.21.

Modern social science's view of racial prejudice diverges substantially from the rational actor or intuitive model.⁵¹ While there are many causes of bias against racial minorities, the cornerstone of the new cognitive understanding lies in the process of categorization.⁵² The process of categorization is "fundamental to the adaptive functioning of the human organism, as it serves to structure the potentially infinite variability of stimuli into a more manageable number of distinct categories."⁵³ Categorization satisfies a basic need for cognitive parsimony.⁵⁴ Because humans cannot process all stimuli in the world at all times, categorizing objects and individuals facilitates understanding and adapting to a complex world.

People create categories by identifying similarities and differences among and between a body of diverse stimuli. Category formation follows the principle of metacontrast.⁵⁵

[The principle of metacontrast] holds that within any given frame of reference (in any situation comprising some definite pool of psychologically significant stimuli), any collection of stimuli is more likely to be categorized as an entity (i.e., grouped as identical) to the degree that the differences between those stimuli on relevant dimensions of comparison (intra-class differences) are perceived as less than the differences between that collection and other stimuli (inter-class differences).⁵⁶

Thus, category formation is a process of comparing similarities and differences along relevant dimensions. Just as groups form due to the perception of shared similarities, groups are delimited by differences from others.

⁵¹ Profiling is a process by which the traits of a stereotypical group member are applied to a particular individual. Interestingly, as William Carter notes, all other elements of profiling are based on an individual's behavior and not his or her group membership. Carter, *supra* note 11, at 22.

⁵² Susan T. Fiske, *What's in a Category? Responsibility, Intent, and the Avoidability of Bias Against Outgroups*, in *THE SOCIAL PSYCHOLOGY OF GOOD AND EVIL* 127, 127–32 (Arthur G. Miller ed., 2004). This Article focuses only on the cognition of categorization, to the exclusion of other factors.

⁵³ MICHAEL A. HOGG & DOMINIC ABRAMS, *SOCIAL IDENTIFICATIONS: A SOCIAL PSYCHOLOGY OF INTERGROUP RELATIONS AND GROUP PROCESSES* 19 (1988).

⁵⁴ *Id.* at 72.

⁵⁵ JOHN C. TURNER ET AL., *REDISCOVERING THE SOCIAL GROUP: A SELF-CATEGORIZATION THEORY* 46–47 (1987).

⁵⁶ *Id.*

Categorization carries with it a particular cognitive effect. The process of bringing into focus a complex world results in accentuating shared characteristics within a category and exaggerating differences between categories.⁵⁷ One explanation for the accentuation effect is that individuals do not make judgments in a vacuum.⁵⁸

Tajfel and Wilkes conducted the seminal experiment establishing the existence of the accentuation phenomenon.⁵⁹ They asked subjects to judge the length of eight lines arranged from shortest to longest.⁶⁰ The four shorter lines were labeled “A,” and the four longer lines were labeled “B.”⁶¹ The subjects greatly exaggerated both the difference between the “A” and “B” lines and the similarity of length between lines of the same group.⁶² Such exaggeration did not occur when the lines were unlabeled.⁶³ Likewise, when the A/B labeling was random (not correlated with length), to limit the relevance of the peripheral dimension (grouping as “A” or “B”) to the measure of length, exaggeration also did not occur.⁶⁴ Thus the peripheral dimension of labeling influenced perception of the relevant dimension of line length by causing observers to exaggerate the difference in length between groups and exaggerate similarity within a group.

The process of accentuation—that is, exaggerating “in-group” similarities and “out-group” differences—inherent in categorization results in a conception of the group along prototypical or stereotypical dimensions. Individual characteristics of group members are perceptually de-

⁵⁷ HOGG & ABRAMS, *supra* note 53, at 19. The accentuation effect is well established experimentally. *See, e.g.*, WILLEM DOISE, *GROUPS AND INDIVIDUALS: EXPLANATIONS IN SOCIAL PSYCHOLOGY* 106–12 (Douglas Graham trans., 1978) (reviewing the variety of studies that have found such an effect and also providing new experimental support for the effect); *see also* Henri Tajfel, A.A. Sheikl & R.C. Gardner, *Content of Stereotypes and the Inference of Similarity Between Members of Stereotyped Groups*, 22 *ACTA PSYCHOLOGICA* 191, 191–201 (1964) (establishing the accentuation effect in the contexts of social and physical perception).

⁵⁸ HOGG & ABRAMS, *supra* note 53, at 70.

⁵⁹ *Id.* at 19–20, 70.

⁶⁰ *Id.* at 19–20.

⁶¹ *Id.* at 20.

⁶² *Id.*

⁶³ *Id.*

⁶⁴ *Id.* at 20, 70.

emphasized, while the relevant shared similarities of group members are emphasized and accentuated.⁶⁵ Consider, for example, the group “university professors.” Drawing on the stereotype,⁶⁶ one might expect a professor to be bookish, absentminded, perhaps a bit socially inept, and dressed in a tweed jacket. This is the prototype for the group. But obviously many university professors do not share these traits; some professors even have de-emphasized traits such as physical strength, normally associated with groups such as laborers. Indeed, to the extent someone who acts like a construction worker identifies himself as a university professor, one would perceive him as not “typical.”

The categorization model has significant implications for understanding profiling. As this model demonstrates, law enforcement officials using racial categories to determine the likelihood that an individual might commit a crime may act “rationally” but nevertheless overestimate the likelihood that a person is acting illegally. Here, the term “rationally” does not imply that the overestimation is the result of imperfect information or a learned dislike of minorities, but rather the result of subconscious, cognitive processes. In this sense, the traditional, noncognitive model misperceives the nature of the problem. As an analysis of the process of categorization makes clear, it is virtually impossible not to perceive individual members of negatively stereotyped groups as disproportionately predisposed to commit crimes.

Implicit profiling is not based on direct information, such as when police stop only blacks in an area because a witness indicates the suspect was a black person. Nor is profiling the result of rational individuals misusing information or acting out of learned dislike for minorities. Rather, profiling is the result of applying a prototype (or stereotype) to an individual. Profiling treats an individual not as a unique person with his or her own traits but as an exemplar of a category, such as “Black Person.” In this way, the estimation of traits regarding the group is visited on a particular individual. If a police officer recalls the core or

⁶⁵ *Id.* at 70. In the context of individualistic group formation, stereotypes are seen as the result of bias or misinformation on the part of group members. *Id.* at 86–87.

⁶⁶ For an examination of the sources of stereotypes, see Fiske, *supra* note 52, at 128–32.

salient trait in a racial category such as African Americans as the likelihood to commit crime or use drugs, the result is the officer's overestimation of the likelihood that any specific black person is acting in accordance with the trait.

Critically, the main source of most stereotypical information may not be actual experience but the media. As Professor Fiske explains, "out-group" bias leads individuals to avoid meaningful contact with members of other groups when they have any choice about the company they keep.⁶⁷ Since individuals have limited direct information about other groups, the media becomes the main source of information about other racial groups.⁶⁸ To the extent that media representations of other racial groups differ from their actual behavior, the resulting stereotypes veer further from any realistic image of the group.⁶⁹

Thus, a number of different processes inherent in categorization virtually guarantee that a category prototype will not reflect in any way the propensity of individuals within that category to engage in certain illegal behavior. Constructing the category "black" and using the category to inform determinations about whether a particular black individual is breaking the law likely leads to overestimation that the person is acting that way. Such a result is simply an artifact of the cognitive construction of the category.

This suggests that the use of racial information in the process of policing likely never will be defensible. As Professors Risse and Zeckhauser recognize, if the underlying assumptions regarding the propensity of individuals in a category to act illegally are not statistically sound, the use of categories in enforcement is improper.⁷⁰ Risse and Zeckhauser argue that the official use of racial data does not reflect a valid screening

⁶⁷ *See id.* at 131.

⁶⁸ *Id.* at 131–32.

⁶⁹ Professors Sunstein and Jolls suggest the work of heuristics in some of these cases. *See* Christine Jolls & Cass R. Sunstein, *The Law of Implicit Bias*, 94 CAL. L. REV. 969, 973–75 (2006). For a more complete analysis of how heuristics may affect perceptions of particular outgroups, *see* Alex Geisinger, *Are Norms Efficient? Pluralistic Ignorance, Heuristics, and the Use of Norms as Private Regulation*, 57 ALA. L. REV. 1, 19–29 (2005).

⁷⁰ Risse & Zeckhauser, *supra* note 7, at 142–43; *see also* SCHAUER, *supra* note 18, at 18–19 (noting that his argument defends only situations where the category reflects statistically sound and morally appropriate generalizations).

mechanism, but rather something akin to police abuse.⁷¹ Of course, the cognitive model suggests that officers' behavior is not intentional. Regardless, unintentional profiling has the same negative effects. It results in the disproportionate treatment of minorities as a result of an overestimation of their likelihood to commit crime.⁷² Indeed, to the extent the prototype "Black Person" is built from media characterizations, it likely has very little relation to reality.

III

RETHINKING THE REGULATORY RESPONSE TO PROFILING

The cognitive model creates problems for those who wish to fashion a regulatory response to profiling. The model reveals bias as the result of both an unavoidable subconscious process and normal information processing. This new view contrasts with the traditional rational actor model, which views bias as the result of a small number of social deviants.⁷³ To the contrary, bias is the result of people's need to process an extraordinary amount of stimuli with limited brain capacity; it is the result of "normal cognition."⁷⁴ Bias is relatively universal⁷⁵ and automatic.⁷⁶ Moreover, bias is not a conscious undertaking.

⁷¹ Risse & Zeckhauser, *supra* note 7, at 142–43.

⁷² One might argue that it is still difficult to establish disproportionate treatment because the complex goals of law enforcement investigations cannot be reduced to a simple numerical trade-off. However, categorization always exaggerates core characteristics, and the media's heavy influence on categorization correlates in no meaningful way with the propensity of minorities to commit crimes. Moreover, categorically derived estimations of the likelihood that an individual exemplar acts illegally bear little relation to the actual likelihood of the individual acting illegally. Hence, the effect of complexity on profiling likely is overstated. Because the process individuals use to make determinations of criminal behavior based on race is "irrational," the difficulty in measuring whether officers act irrationally should not be used to defend such behavior.

⁷³ For a groundbreaking work in the field, see Linda Hamilton Krieger, *The Content of Our Categories: A Cognitive Bias Approach to Discrimination and Equal Employment Opportunity*, 47 STAN. L. REV. 1161 (1995).

⁷⁴ See Fiske, *supra* note 42, at 119.

⁷⁵ *Id.* at 120.

⁷⁶ The automaticity of stereotyping is supported by a number of studies. See Susan T. Fiske, *Stereotyping, Prejudice, and Discrimination*, in 2 THE HANDBOOK OF SOCIAL PSYCHOLOGY 357, 364–75 (Daniel T. Gilbert et al. eds., 4th ed. 1998); C. Neil Macrae & Galen V. Bodenhausen, *Social Cognition: Thinking Categorically About Others*, 51 ANN. REV. PSYCHOL. 93, 96–98 (2000). For a specific discussion of the notion of automaticity, see Fiske, *supra* note 52, at 128. See also Jolls &

Rather, at the subconscious level, people construct categories triggered by cues that make the categories salient.⁷⁷ Once a category is made salient, people cognitively recruit associated stereotypes that trigger prejudices.⁷⁸ This notion of bias as implicit has become “the measure of choice for prejudice.”⁷⁹

What then, can or should be done about profiling? If the cause is subconscious and automatic then even a full prohibition on the behavior is likely to have little meaningful effect.⁸⁰ The purely cognitive picture of profiling, however, likely is not the whole story of the process. As Professor Fiske has explained, the “cognitive revolution” in psychology may have overstated the role of purely cognitive processes in constructing stereotypes.⁸¹ Research by psychologists and others into the other factors that influence stereotyping may provide better means to regulate profiling behavior. Similarly, research into implicit processes also may shed light on the types of responses that can affect even subconscious information processing.

Until such research is complete, a general framework for how to de-bias in the context of profiling must identify mechanisms to decrease the influence of racial categories on enforcement decision making. Much of the following discussion is based on studies directed at “fixing” the problems of implicit bias. These studies demonstrate that certain responses can decrease the impacts of implicit cognition on behavior. However, none of these responses has been shown to eliminate completely the effects of implicit bias on discriminatory behavior.

Sunstein, *supra* note 69, at 973–74 (discussing the psychology of dual process theories in social psychology and describing racial stereotypes as rapid, intuitive, and error prone).

⁷⁷ For a discussion of implicit bias, see Greenwald & Krieger, *supra* note 30, at 950–52.

⁷⁸ Fiske, *supra* note 42, at 119.

⁷⁹ *Id.* at 120 (arguing against such a purely cognitive model of bias and suggesting that the proper model of bias includes considerations of both cognition and motivation).

⁸⁰ Jerry Kang & Mahzarin R. Banaji, *Fair Measures: A Behavioral Realist Revision of “Affirmative Action,”* 94 CAL. L. REV. 1063, 1083–85 (2006). Adding an external cost such as a fine or loss of employment to the prohibition may affect behavior, but, as discussed below, that will not actually target the causes of the problem.

⁸¹ See Fiske, *supra* note 42, at 117–18.

A. Teaching Law Enforcement Officials About Their Biases

A key step in enabling officers to decrease the effect of bias on their decision making is educating them about implicit bias. As Professors Kang and Banaji have recognized:

[I]n order to correct bias, decision makers . . . must be made aware of their own implicit biases. Since so many of us are convinced that we are race- or gender-blind, we tend to dismiss evidence of pervasive implicit bias as somehow inapplicable to ourselves. In other words, we assume that we are somehow exceptional and immune from the cognitive errors that others make.⁸²

A starting place for self-diagnosis is the Implicit Association Test (“IAT”). The test, which measures implicit biases, is available for free on the internet.⁸³ Anecdotal reports suggest that IAT participants experience a pervasive change in self-awareness.⁸⁴ However, promoting awareness of bias will not extinguish it. Bias is rooted in subconscious, cognitive processes; conscious awareness of one’s own bias will not alter the subconscious processes that create it. Rather, awareness provides a means for individuals to be more receptive to other efforts to limit the use of categorical bias in law enforcement and to control their own reliance on stereotypes when acting.

B. Decreasing Motivation to Rely on Stereotypes and Making the Stereotypes Less Cognitively Available

One goal of reform efforts is to develop and tailor a response that motivates law enforcement officers to individuate a suspect as much as possible, instead of treating him or her as simply another member of a threatening group.⁸⁵ Recent scholarship suggests that there may be ways to limit law enforcement’s reliance on racial categories. Professor Fiske has argued that, in addition to cognitive factors, consciously controlled motivational factors also affect the use of categories or stereotypes.⁸⁶

⁸² Kang & Banaji, *supra* note 80, at 1090–91 (footnote omitted).

⁸³ See Project Implicit, <https://implicit.harvard.edu/implicit/demo/takeatest.html> (last visited Nov. 13, 2007).

⁸⁴ Kang & Banaji, *supra* note 80, at 1091.

⁸⁵ See Fiske, *supra* note 42, at 123–24 (noting that decreasing the motivation to categorize allows for more individualized analysis of the person).

⁸⁶ *Id.* at 122.

According to Fiske, factors such as a desire to belong to a group, the level of perceived threat to the group, and estimations of how deeply shared a stereotype is among group members can all affect one's willingness to rely on stereotypes.⁸⁷ If Fiske is correct, decreasing the influence of these factors may decrease an officer's willingness to employ stereotypes when enforcing the law. For example, individuals may be more willing to recall and rely on categories or stereotypes if they believe the stereotypical vision is shared widely by other members of the group.⁸⁸ To the extent that such stereotypes are not shared by law enforcement officers, simply informing them that these views are not shared might decrease officers' willingness to rely on stereotypes.

Fiske's research leads to the conclusion that current regulatory efforts to control profiling may actually increase, rather than decrease, racial profiling. If efforts to teach officers about profiling or to coerce them not to use race in their policing are perceived as a threat to the group, such efforts may backfire by causing officers to be more willing to rely on destructive categories as a response to the perceived threat.

Similarly, Professors Sunstein and Jolls suggest that implicit bias can be decreased by forcing officers to focus on individual factors when making decisions.⁸⁹ Professors Greenwald and Krieger note "that attentional focus could attenuate automatic influences on social judgment, if those automatic influences were relatively weak."⁹⁰ Forcing law enforcement officers to focus on behavioral factors could attenuate their reliance on categories. A large number of behaviors have been correlated with certain criminal activity. For example, not maintaining eye contact, shifting in place and other body language, wearing loose-fitting clothes, and wearing sunglasses indoors all have been associated with the likelihood an individual is carrying drugs.⁹¹ Requiring officers to focus on these factors, instead of using the proxy of race, in analyzing the likelihood that someone is breaking the law can serve to crowd out the racial category in decision

⁸⁷ *Id.* at 123–24.

⁸⁸ *See id.*

⁸⁹ *See* Jolls & Sunstein, *supra* note 69, at 980.

⁹⁰ Greenwald & Krieger, *supra* note 30, at 962 (citing Anthony G. Greenwald & Mahzarin R. Banaji, *Implicit Social Cognition: Attitudes, Self-Esteem, and Stereotypes*, 102 *PSYCHOL. REV.* 4, 17 (1995)).

⁹¹ *See* SCHAUER, *supra* note 18, at 168.

making. Making it more difficult to use race cognitively in analyzing the likelihood an individual is engaging in illegal activity will decrease the role of invidious stereotypes on this process.

C. Changing the Makeup of Police Departments to Both Increase Diversity and Partner Members of Different Races

The “Social Contact Hypothesis” suggests that increasing interaction between members of different groups decreases implicit bias.⁹² Significant experimental evidence, including a meta-analysis of over 500 studies, now supports this theory.⁹³ Other studies similarly demonstrate lower attitudinal bias to correlate with the number of contacts one has with other racial groups.⁹⁴ When a person forms new connections with members of a previously devalued group, implicit bias toward that group can decrease rapidly.⁹⁵

To suggest that increasing contact between group members will solve all the problems of profiling may, of course, overstate the case. At least one study, based in part on anecdotal evidence, suggests that certain stereotypes survive interaction with “out-group” members.⁹⁶ Professors Kang and Banaji respond to this problem by suggesting that there is a difference between attitudes and stereotypes and suggesting that interaction positively affects the former but not the latter.⁹⁷ While the existence of such contrary evidence must temper reliance, a wealth of evidence makes clear that intergroup interaction likely has some positive effects on implicit attitudes toward other groups. Encouraging intergroup interaction would thus support efforts to decrease profiling.

In sum, recognizing that profiling is the result of cognitive processes leads to a much different regulatory response to the problem. Current regulations that require gathering information on the amount of race-related stops and arrests, bans on profiling, and sensitivity training likely will have little effect in

⁹² See Kang & Banaji, *supra* note 80, at 1102–03.

⁹³ See *id.*

⁹⁴ See *id.* at 1103.

⁹⁵ Greenwald & Krieger, *supra* note 30, at 964.

⁹⁶ See Kang & Banaji, *supra* note 80, at 1104.

⁹⁷ *Id.* at 1104–05.

meaningfully changing law enforcement behavior. Indeed, the reticence of some law enforcement officials to provide information suggests that such prohibitions have done little to affect whom police officers stop, search, and arrest.⁹⁸

CONCLUSION

Debate about the validity of both profiling and regulatory responses is hampered by an incomplete, and perhaps incorrect, vision of the way in which profiling occurs. The traditional understanding of profiling assumes that such behavior is learned and subject to conscious control. However, decades of research into the way people actually think about racial minorities suggests a different mechanism, based primarily on the cognitive process of categorization. The cognitive model provides a much different understanding of the causes of profiling and potential solutions. It is time for the law to catch up to the social sciences in its understanding of human behavior. Failure to understand how officers actually profile will lead to failure in addressing the problem.

⁹⁸ See *supra* note 26 and accompanying text. For more information on compliance with information requests, see generally POLICE FOUND., *supra* note 23.