

Color Lines in the Mind: Implicit Prejudice, Discrimination, and the Potential for Change

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In 1959 John Howard Griffin, a White journalist, traveled through the segregated South as a Black man. He darkened his skin with medication, shaved his hair, and exchanged his privileged White life for the life of a working class Black man (Griffin, 1960). The book *Black like Me* chronicles his experiences as he crosses the color line. Griffin's experiences as a Black man ran the gamut from legal segregation in public spaces, to "hate stares" and intimidation that enforced rigid social customs about "appropriate" interracial interactions, to polite but firm refusal of employment. This was a society in which the color line separating Black from White was rigidly upheld; where bigotry was blatant; and where few people publicly questioned the legitimacy of a race-based hierarchy.

A lot has changed in 50 years. Grassroots social movements dedicated to the civil rights of historically disadvantaged groups have produced far-reaching changes in the laws and policies that govern civil society. These legal changes have also shifted social norms and individual attitudes (Albert & Albert, 1984; Chong, 1991; Gitlin, 1987; Levy, 1992; Williams, 1987). The notion that prejudice and discrimination against disadvantaged groups, most notably African Americans and other racial/ethnic minorities, is illegitimate and unethical has become an increasingly mainstream philosophy. These changes in American public opinion are clearly reflected in national surveys that reveal racist attitudes have declined steadily over the past few decades (Brigham, 1972; Karlins, Coffman, & Walters, 1969; Kluegel & Smith, 1986; Maykovich, 1971, 1972; Schuman, Steeh, & Bobo, 1997). In addition to the changed social mores, the color line in American society today has become vastly more complex than the Black-White divide in the 1950s as immigration and globalization have changed the racial/ethnic composition of the American population.

Despite optimistic trends in the direction of dismantled legal barriers, greater diversity, and egalitarian attitudes, other evidence reveals glaring structural inequalities that continue to exist in several areas of everyday life—healthcare, housing, education, employment, and the justice system (Daniels, 2001; Leonhardt, 2002; Portwood, 1995; Raudenbush & Kasim, 1998; Stohlberg, 2002). One reason for the discrepancy between evidence that *individuals' attitudes* have become more egalitarian and other evidence revealing *structural disparities* may be that, until recently, individuals' attitudes have been measured by relying solely on what people say—their self-reported (or conscious) thoughts and opinions. This heavy reliance on conscious attitude measurement has resulted in the underestimation of the pervasiveness of prejudice in two ways. First, because contemporary social norms frown upon overt expressions of prejudice, people may not be willing to report their attitudes honestly, especially if those attitudes violate social norms (Dovidio & Gaertner, 1986; Jones & Sigall, 1972). Second, when asked about their opinions about minority groups, people are likely to be vigilant and thoughtful in their responses whereupon they may draw a sharp distinction between their personal attitudes and societal stereotypes (“society at large is prejudiced against Group X, but I am not”). But when they are not vigilant, this sharp distinction may become blurry; their personal views and societal views may start to overlap and jointly influence people's implicit or unconscious judgments and behavior (Banaji, 2001; Banaji & Greenwald, 1994; Dasgupta, 2004; Greenwald & Banaji, 1995; Nisbett & Wilson, 1977). These reasons prompted social psychologists to develop new theories of unconscious or implicit prejudice and stereotypes and new measurement tools that do not rely so heavily on people's willingness and ability to accurately report their thoughts

and actions (Crosby, Bromley, & Saxe, 1980; Gaertner & Dovidio, 1977; Jones & Sigall, 1972; also see Nisbett & Wilson, 1977).

Attitudes and beliefs are considered to be *unconscious* or *implicit* when people express them without being fully aware of what they are saying and its implications or without having the ability to control and change their responses at will (Bargh, 1994, 1997; Greenwald & Banaji, 1995). One might ask—how can attitudes be measured without people’s awareness and control? This is a reasonable question given that the most common way to measure attitudes is by asking people to reflect on their opinions and then report how they feel about a particular group or issue using questionnaires or interviews. There is a different way of conceptualizing attitudes: that is, at a basic level an attitude is simply a mental association between a group and a good or bad feeling. These mental associations vary in psychological strength. Some attitudes are strong and therefore “pop into mind” quickly and easily whereas other attitudes are weak and take longer to come to mind. For example if a person holds a strong negative attitude toward a group, when s/he sees a member of that group, the negative evaluation should come to mind quickly and automatically. By contrast, if a person holds a weak negative attitude toward a group, when s/he encounters a group member, the negative evaluation should come to mind much more slowly. In other words, *the speed with which good or bad evaluations come to mind* can serve as an indirect indicator of people’s attitudes toward particular groups without researchers having to rely on people’s self-reports of how they feel.

People may be implicitly biased in their thoughts and actions even if their explicit attitudes are unbiased. Because individuals are often unaware of their subtle bias and cannot easily correct such thoughts and actions, implicitly biased actions may occur repeatedly,

accumulating over time and across individuals. As a result, the negative effects of biased actions may add up quickly to produce large structural disparities in employment, housing, healthcare delivery, treatment by the criminal justice system, etc. Because each instance of bias is subtle, seemingly innocuous, and clearly not explicit bigotry, at face value it appears as though the days of prejudice and discrimination are in the past. But one just has to scratch below the surface to discover that current inequalities on many socioeconomic and sociopolitical indicators may be traced back to many small actions favoring historically privileged groups (White Americans) over less privileged groups (African Americans, Latinos, Asian Americans, and immigrants).

Implicit attitudes are typically measured using computer-driven rapid response tasks that capture the speed with which good versus bad thoughts come to mind when people are shown individuals who belong to particular groups. In one such task, the Implicit Association Test (IAT), participants see faces of individuals (e.g., African Americans and White Americans) and words with good or bad meaning (e.g., joy versus death) flash briefly on a computer screen one at a time (Greenwald, McGhee, & Schwartz, 1998). As these pictures and words appear on the screen participants are instructed to group them rapidly by pressing one of two computer keys. In one part of the IAT they are instructed to group together Black faces and good words by pressing the same key and White faces and bad words by pressing a different key. In another part of the IAT, the groupings are reversed: now they are instructed to group Black faces and bad words using one key and White faces and good words using a different key. The basic premise of the IAT is that if participants unconsciously associate bad concepts more strongly with Black than White Americans, then the task in which they have to group together Black with bad and White with good ought to be subjectively easier and

yield faster responses than the task in which they have to group together Black with good and White with bad. The difference in the speed of response to these two tasks in terms of reaction time provides a measure of implicit racial preference for Whites compared to Blacks.

Implicit Preference and Prejudice along Color Lines: Research Evidence and Practical Applications

Initial investigations of the nature of implicit prejudice and stereotypes focused entirely on the attitudes held by members of advantaged groups toward members of disadvantaged groups. The primary prediction of this early research was that individuals who belong to socially advantaged groups would favor their own group at the expense of other (less advantaged) groups in terms of evaluations, judgments, and behavior. This prediction is consistent with social identity theory which argues that when people strongly identify with their ingroup and when their self-esteem is linked to the perceived worthiness of their ingroup, they will tend to favor their ingroup and sometimes derogate other outgroups (Abrams & Hogg, 1988, 1990; Bourhis, 1994; Bourhis, Turner, & Gagnon, 1997; Oakes & Turner, 1980; Rubin & Hewstone, 1998; Tajfel, 1981; Tajfel & Turner, 1986; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987).

By now almost a hundred studies have documented individuals' tendency to rapidly associate positive characteristics with ingroups more than outgroups (i.e., ingroup favoritism) as well as the tendency to associate negative characteristics with outgroups more than ingroups (i.e., outgroup derogation). For example, White Americans, on average, implicitly prefer their own group over African Americans. That is, they are faster at associating good

concepts (joy, peace) with Whites compared to Blacks; likewise they are faster at associating bad concepts (death, vomit) with Blacks compared to Whites (Dasgupta, McGhee, Greenwald, & Banaji, 2000; Dasgupta & Greenwald, 2001; Devine, 1989; Dovidio, Kawakami, & Gaertner, 2002; Fazio, Jackson, Dunton, & Williams, 1995; Greenwald et al., 1998; Kawakami, Dion, & Dovidio, 1998; McConnell & Leibold, 2001; Nosek, Banaji, & Greenwald, 2002; Rudman, Ashmore, & Gary, 2001; von Hippel, Sekaquaptewa, & Vargas, 1997; Wittenbrink, Judd, & Park, 1997, 2001).

The pervasiveness of implicit bias along color lines is not limited to pure negative evaluations (disliking); it also emerges in the form of group-specific stereotypes. For example, race-based stereotypes link Black men with hostility, danger, and crime; people learn these stereotypes passively through exposure to mass media, peer opinions, etc. Once learned, these stereotypes automatically influence their judgments of Black men in crime-relevant situations. For example, people are more likely to misidentify objects seen for a split second in the presence of Black men as deadly weapons rather than innocuous tools; however, they are more likely to misidentify the same objects seen in the presence of White men as innocuous tools rather than deadly weapons (Correll, Park, Judd, & Wittenbrink, 2002; Greenwald, Oakes, & Hoffman, 2003; Payne, 2001). The biasing influence of implicit racial stereotypes on weapon misidentification occurs even when people have the conscious goal to avoid using racial stereotypes to make their judgments, and it occurs regardless of participants' own race (both White and Black Americans show the same effect; Correll et al., 2002; Payne, Lambert, & Jacoby, 2002).

These simple laboratory experiments about race-based errors in weapon identification have a clear and disturbing parallel in the real world. Such errors distort people's rapid

judgments about who is armed and dangerous and can lead to fatal mistakes such as the fatal shooting of Amadou Diallo, a West African man, in 1999. Four New York City police officers searching for a rape suspect knocked on Amadou Diallo's door to question him. When he came to the door he reached inside his jacket, at which point the officers shot at him 41 times, hitting him with 19 bullets. The object Diallo was reaching for turned out to be his wallet. What led to this tragic incident? Were these police officers overly racist or is it possible that their split second decision about what Diallo was pulling out of his pocket was unconsciously triggered by stereotypes linking Black men with crime? The answer to these questions are critical because it determines whether the best way to eliminate such costly human errors involves changing police officers' conscious racial attitudes by instituting sensitivity training or by changing their unconscious associations about race and crime.

These questions have motivated recent research in social psychology. Some preliminary data suggest that race bias in decisions to shoot may be reduced when individuals have more contact with African Americans which is likely to weaken racial stereotypes (Correll et al., 2002), and when they gain extensive practice at making accurate decisions in simulated situations where the race of the suspect is unrelated to the presence of a weapon (Plant & Peruche, 2005; Plant, Peruche, & Butz, 2005). However, other related studies demonstrate that although police officers with extensive training in law enforcement show less implicit race bias in decisions to "shoot" in crime-related simulations compared to civilians from the same community, such bias is not completely erased even in the case of trained police officers (Correll, et al., 2005). Thus, the conditions required to completely eliminate error-riddled decisions to shoot remains an open issue for now and is being pursued by several researchers.

Although one might tacitly assume that all individuals who are categorized into a particular racial minority group are equally likely to be targets of implicit stereotyping, recent research reveals that is not the case. Individuals who have more Afrocentric facial features (darker skin color, broader nose, and fuller lips) are more likely to be targets of implicit bias than others who have more Eurocentric facial features (lighter skin color, narrow nose and lips) (Blair, Judd, & Fallman, 2004; Blair, Judd, & Sadler, 2002; Livingston & Brewer, 2002). Interestingly, both Black and White individuals with Afrocentric facial features (regardless of their racial group) are unconsciously judged in terms of Black stereotypes compared to other Black and White individuals with Eurocentric facial features (Blair et al., 2002). Feature-based stereotyping occurs even when people are instructed to avoid stereotyping, which suggests that stereotypic beliefs influence first impressions of others without perceivers' awareness and cannot be easily corrected by activating conscious intentions to avoid prejudice.

What might be the consequence of race-based stereotypes of physical appearance in the real world? A recent archival study suggests that such stereotypes may have implicitly influenced sentencing decisions for defendants convicted of felonies (Blair, Judd, & Chapleau, 2004). An analysis of a random sample of inmate records in the state of Florida revealed that, although Black and White inmates who had equivalent criminal histories received roughly equivalent sentences, inmates with more Afrocentric features (regardless of their race) received harsher sentences than those with less Afrocentric features even though the felonies they committed were equivalent in seriousness as judged by Florida's 10-point felony rating system. Like the laboratory findings described above, these archival findings

based on real world convictions suggest that racial stereotyping based on the facial features of offenders is a form of bias that is largely overlooked.

Variations in skin color and Afrocentric features among Black Americans also influence individuals' socioeconomic and professional outcomes in life. Sociological research has found that light complexioned African Americans command higher status jobs and higher incomes than their darker complexioned counterparts, even after family background variables are controlled (Hill, 2000; Keith & Herring, 1991). For example, using a national sample of Black women and men from the National Survey of Black Americans (1979-1980), Keith and Herring (1991) found even after taking into account demographic and family variables such as parental education, parental socioeconomic status (SES), urban/rural differences, age, marital status, etc., African Americans with darker complexions had fewer years of formal education; they were less likely to be employed in high-level professional positions; and they had lower personal and family income than their lighter complexioned peers. Using different methodology, Hill (2000) found conceptually similar results. One explanation for the association between dark complexion and decreased socioeconomic success is that Afrocentric physical appearance may automatically activate negative racial stereotypes about lesser competence in the mind of perceivers which in turn may lead to disparate treatment. This argument is consistent with evidence that darker complexioned African Americans typically report more instances of discrimination than their lighter complexioned peers (Klonoff & Landrine, 2000). Analogous to Blair et al.'s controlled laboratory studies, in many cases, perceivers may be unaware that the presence or absence of Afrocentric physical appearance (rather than race per se) influenced their impressions of Black individuals.

Because of the long history of Black oppression in the United States, not surprisingly most of the research on implicit bias has focused on Whites' implicit bias against Blacks and its implications in the real world. However, as the demographics of the United States became increasingly varied in the 20th century due to immigration from Latin America and Asia, research ventured into new territory by examining Americans' implicit attitudes toward Latinos, Asians, and immigrants. This research shows that implicit bias is not limited to Whites' attitudes toward Blacks. Rather, White Americans also implicitly favor their own group over Latinos and Asians (Ashburn-Nardo, Voils, & Monteith, 2001; Devos & Banaji, 2005; Ottaway, Hayden, & Oakes, 2001; Rudman, Greenwald, & Mellott, 1999; Son Hing, Li, & Zanna, 2002; Uhlmann, Dasgupta, Elgueta, Greenwald, & Swanson, 2002).

Specifically, Whites exhibit implicit bias against Latin American facial features and dark skin and show preference for European facial features and light skin. Such preference for "Europeanness" extends beyond esthetic preferences. Specifically, Latinos of European appearance enjoy far better socioeconomic outcomes in the United States than Latinos of native appearance. This socioeconomic difference in the experience of Latinos as a function of skin color was vividly documented in an article in the *New York Times* which described the experience of Cuban immigrants in the U.S. using as examples two friends of similar socioeconomic background who moved to the U.S. at the same time. The person whose appearance was mulatto and others like him experienced greater economic difficulty post-immigration than his friend whose appearance was European and others like him. Such differences in socioeconomic standing are often evident years after immigration (Ojito, 2000).

Whites' implicit attitudes toward Asian Americans reveal a different sort of bias that may be labeled, in shorthand, as the perpetual foreigner status. Although a core value in American society explicitly endorsed by most Americans and the bedrock of Anglo-American jurisprudence is the right to equal treatment for all American citizens, such values have not necessarily been internalized at an implicit level. This is illustrated by people's strong propensity to equate American with White: when research participants are asked to think of who is American, Whites come to their mind more quickly and automatically than Asian Americans. Even when people are shown images of Asian American celebrities (e.g., Connie Chung, Michael Chang) compared to White European celebrities (e.g., Hugh Grant, Katarina Witt), Asian American celebrities are implicitly perceived to be more foreign and less American than their European counterparts (Devos & Banaji, 2005). In other words, Asian Americans remain perpetual foreigners in the eyes of American society despite their American nationality. This perpetual foreigner status may explain why Asian Americans are sometimes treated with suspicion about their national allegiance in situations involving perceived threats to national security. Consider the case of countless Japanese Americans who were forced into internment camps during World War II because they were suspected of being potential spies for Japan or the recent case of Wen Ho Lee, a Chinese American scientist at the Los Alamos laboratory who was accused of spying for China but eventually acquitted because of lack of evidence. These examples of implicit anti-Asian bias reveal a different form of negative stereotyping than other types of racial bias described earlier.

The prevalence of implicit preference for groups in power and bias against powerless groups is not limited to the United States. Similar findings have also been obtained in Britain, Germany, and Australia where members of the majority group (White Britons, Germans, and

Australians) tend to implicitly favor their ingroup over racial/ethnic minorities such as aborigines in Australia, Blacks in Britain, and Turks in Germany (Gawronski, Geschke, & Banse, 2003; Lepore & Brown, 1997; Locke, Macleod, & Walker, 1994).

From Implicit Bias in the Mind to Outward Action

In the past two decades, most of the laboratory research on implicit prejudice and stereotypes has revolved around demonstrating that members of majority groups implicitly favor their own group over outgroups even though their explicit or self-reported attitudes often reveal greater support for equality. These findings raise the question: is it possible that implicit biases are merely private thoughts that remain confined to the mind? Or do they affect people's outward actions in ways that are demonstrably harmful? If implicit prejudice and stereotypes do affect behavior, then it is easier to make the argument that these attitudes are likely to perpetuate social inequities and hierarchies despite tolerant explicit attitudes.

By now at least 30 studies have demonstrated that implicit attitudes influence people's judgments, decisions, and actions in insidious ways. For example, one study found that people's implicit racial attitudes, as measured by a rapid computer task, predicted their later nonverbal behavior (or "body language") toward a Black person (Fazio et al., 1995). The more implicit race bias participants exhibited on the computer task, the less friendly was their body language toward a Black interaction partner: implicitly prejudiced participants smiled less, made less eye contact, and were less comfortable with the Black person compared to less prejudiced participants. Implicit prejudice also correlated with participants' opinions about a particular racially divisive incident in recent American history—that is, the degree to which they attributed responsibility for the 1990 Los Angeles riots that occurred

after the Rodney King trial around issues of police brutality to the local African American community. The same participants' explicit racial attitudes, however, did not correlate with their nonverbal behavior or attributions of responsibility. Other related research has demonstrated that the more implicit racial prejudice participants harbor, the more uncomfortable and anxious they appear during interracial interactions as rated both by Black interaction partners and by third party observers (e.g., participants make more speech errors, terminate the conversation more quickly, etc.) (Dovidio, Kawakami, Johnson, Johnson, & Howard, 1997; McConnell & Leibold, 2001).

Understanding the link between implicit prejudice and subtle behavior may shed light on why everyday interracial interactions sometimes go awry with Black and White individuals coming away with very different impressions about their interactions with each other (Dovidio, Kawakami, & Gaertner, 2002). Dovidio and colleagues found that when Black and White individuals interacted with each other, their opinions about interaction quality were based on very different types of information—Black individuals were more influenced by the subtle cues being communicated by their White partners (i.e., their implicit racial attitudes and nonverbal behavior) whereas White individuals were more influenced by the overt cues they were communicating (i.e., their own explicit racial attitudes and verbal behavior).

Besides nonverbal behavior, implicit race bias in the mind also influences people's behavior in simulated job interviews when they are asked to play the role of employers who are preparing to interview potential job candidates of varying racial backgrounds. Sekaquaptewa and colleagues found that participants who implicitly favored White Americans over African Americans were more likely to ask racially stereotypic interview

questions to Black compared to White job candidates during simulated job interviews (Sekaquaptewa, Espinoza, Thompson, Vargas, & von Hippel, 2003). Moreover, implicitly biased racial attitudes also influence how people interpret another person's ambiguous behavior. Implicitly biased people are more likely to use stereotypes to resolve ambiguity and "fill in the blanks" while evaluating a Black person compared to less biased participants (Rudman & Lee, 2003, Experiment 2).

Collectively, these data suggest that implicit preferences and prejudices are not merely private thoughts that remain confined to the mind. Rather, they affect people's outward actions in ways that may perpetuate and aggravate structural inequalities in situations such as the workplace. If implicit bias in the minds of employers unintentionally emerges in their nonverbal behavior and in the types of stereotypic questions they ask of Black job candidates (Dovidio et al., 1997; Fazio et al., 1995; McConnell & Leibold, 2001; Sekaquaptewa et al., 2003), and if those job candidates are finely attuned to such subtle cues (Dovidio et al., 2002), it is reasonable to predict that these job interviews are unlikely to yield job offers from employers or job acceptances from the Black candidates compared to interviews with White candidates. More generally, although the interracial interactions in employment settings may appear to be racially neutral in terms of what people verbalize overtly, there may be an undercurrent of racial bias that is less detectable in everyday situations but that can be clearly measured in controlled studies.

Summary

The first generation of research on implicit attitudes and beliefs has demonstrated that members of historically advantaged groups often unconsciously favor their ingroups

over less advantaged outgroups. Moreover, such implicit preferences and prejudices creep into people's behavior. These findings tell a clear story that has been replicated many times. Although this single-minded research focus has been enormously productive in revealing the existence of unconscious bias despite the scarcity of willingly expressed bias, the story is clearly not complete without considering how members of disadvantaged groups perceive their own group. A close inspection of the research reviewed above already contains hints that individuals who belong to disadvantaged groups do not always implicitly favor their ingroup in a manner that is a mirror image of their advantaged counterparts.

Implicit preference for outgroups

Social identity theory and most other social psychological theories of intergroup relations posit that people have a strong tendency to favor their ingroup in terms of their attitudes, beliefs, and behavior (e.g., self-categorization theory, Turner et al., 1987; social dominance theory, Sidanius & Pratto, 1999; realistic conflict theory, Sherif, 1967). While this is often true, people also have other reactions to in- and outgroups particularly in the context of power and status differences between groups. For example, system justification theory argues that people's attitudes and behavior may sometimes reflect the tendency to legitimize existing social hierarchies even at the expense of personal and group interest (Jost & Banaji, 1994; Jost, Banaji, & Nosek, 2004). In other words, in the case of individuals who belong to advantaged or dominant groups, their tendency to implicitly favor their ingroup relative to competing outgroups may be jointly influenced by their desire to preserve current social hierarchies (system justifying motive) and the desire to protect their own self-esteem (ego-justifying motive). In the case of individuals who belong to disadvantaged or

subordinate groups, the two motivations work in opposition—the desire to protect self-esteem ought to elicit ingroup favoritism, but the desire to maintain current social arrangements ought to elicit *outgroup favoritism*. Put differently, there may be two independent sources of implicit attitudes. The first source, consistent with social identity theory, relies on group membership. To the extent that people’s group membership is a meaningful source of self-beliefs and self-esteem, it should promote implicit preference for the ingroup relative to out-groups. The second source, consistent with system justification theory, is the mainstream culture’s imposition of greater or lesser value on particular groups. Thus, for members of disadvantaged social groups, implicit liking for their own ingroup may be attenuated by the negative cultural representation of their group, whereas for members of advantaged groups, implicit liking for their ingroup may be exacerbated by the positive cultural representation of their group.

Consistent with system justification theory, a number of studies have revealed outgroup favoritism (or sometimes, less ingroup favoritism) in the case of disadvantaged groups, especially when people’s attitudes and beliefs are assessed using indirect measures rather than self-report measures. For instance, Livingston (2002) measured the extent to which African Americans believe that the mainstream American culture regards their ingroup negatively and examined the extent to which such beliefs correlated with Black participants’ implicit and explicit racial attitudes. He found that the more negativity African Americans perceived in the mainstream culture’s opinion of their ingroup, the *less* they liked their ingroup at an implicit level, but the *more* they liked their ingroup at an explicit level. In other words, when the mainstream culture’s opinion of one’s own group is negative, one can reject

those negative stereotypes consciously; however, those stereotypes creep into and bias one's unconscious opinions about one's ingroup.

Taking a different approach, Nosek et al. (2002) measured a large sample of White and Black participants' implicit and explicit racial attitudes via the Internet ($Ns > 17,000$). In terms of implicit attitudes, they found that whereas White Americans exhibited strong implicit ingroup favoritism on average and little individual variability, African Americans exhibited no ingroup favoritism on average, but more individual variability. In terms of explicit racial attitudes however, African Americans as a group reported stronger ingroup favoritism than did White Americans (see also Jost et al., 2004). Similar findings were obtained by Spicer (2000) and Ashburn-Nardo, Knowles, and Monteith (2003); in fact in some of these studies African Americans showed preference for Whites over Blacks implicitly but not explicitly. Along the same lines, as discussed earlier, Black and White participants are equally likely to harbor implicit stereotypes associating African Americans with criminality which is revealed in their tendency to mistakenly "shoot at" Black compared to White fictitious characters in a video game simulating a police chase. In a nutshell, the research summarized above illustrates that negative societal stereotypes affect African Americans' unconscious attitudes toward their own racial group in a negative way. Even though they may reject these stereotypes at a conscious level they cannot always do so at an unconscious level.

Even when group distinction is based on ethnicity or, even more simply, skin color, people sometimes implicitly prefer lighter-complexioned *outgroup members* over darker complexioned *ingroup members*. Within one's own group, people often favor lighter-complexioned individuals over darker-complexioned individuals. For example, my

colleagues and I examined Hispanic American and Chilean participants' implicit attitudes towards Latinos (their ethnic ingroup) versus Anglos (their ethnic outgroup) and found that at an implicit level, Chileans strongly preferred Anglos over Latinos whereas Hispanic Americans did not favor either group on average. More interestingly, both Hispanic Americans and Chileans strongly (and implicitly) favored lighter complexioned ingroup members (called "Blanco" in Spanish) over darker complexioned ingroup members (called "Moreno" in Spanish). Implicit preference for Blancos was evident both among self-identified Moreno as well as Blanco participants in both countries, suggesting that preference for light skin among Latinos is not confined to one particular country (Uhlmann et al., 2002).

The degree of outgroup favoritism manifested by individuals who belong to disadvantaged groups appears to be influenced by several related factors: (a) the greater the power disparity between individuals' ingroup and a comparison outgroup, the less they implicitly like their powerless ingroup and the more they implicitly prefer the outgroup (Rudman, Feinberg, & Fairchild, 2002); (b) individuals who strongly believe that the mainstream culture's opinion of their ingroup is negative are more likely to implicitly internalize those beliefs (Livingston, 2002); and (c) individuals who endorse politically conservative beliefs are less likely to favor their powerless ingroup and more likely to prefer the powerful outgroup (Jost et al., 2004). Each of these factors is likely to produce unconscious preference for powerful outgroups on the part of individuals belonging to less powerful groups.

Can implicit bias be changed?

The pervasiveness of unconscious bias begs the question: can these preferences and prejudices be changed? If so how? Most of the social scientific research on prejudice

reduction has relied heavily on making people aware of their bias, motivating them to change their attitudes, and relying on their willingness to correct negative attitudes. These interventions may not work quite so easily when it comes to unconscious bias that is expressed when people are least aware and vigilant. So, how can we change implicit bias? This question has grabbed social psychologists' attention over the past few years. This new research suggests that three factors may be able to undermine implicit bias in attitudes and behavior: (a) increasing diversity in people's local or immediate environments, (b) enhancing their intrinsic motivation to be egalitarian, and (c) giving people practice at behaving in an unbiased manner.

Increasing the diversity of local environments decreases implicit bias

My collaborators and I have been exploring the role of local environments in attenuating unconscious bias. We started with the assumption that implicit prejudice and stereotypes are learned associations acquired and reinforced by immersion in mainstream cultural contexts where people observe that members of different groups are unequally located in different types of social roles. Some groups occupy more privileged and admired roles in society whereas other groups occupy less privileged and disliked roles. African Americans and other racial minorities automatically activate negative attitudes because people have learned to associate race with negative roles (e.g., the homeless person, the criminal) rather than positive ones (e.g., the parent, the business leader). These negative associations are learned and reinforced because people are typically immersed in environments where they are more likely to see racial minority groups in marginalized social roles and Whites in admired and valued social roles. As a result, when people think of racial

minorities, negative associations pop into mind more quickly and easily than positive associations.

In our research, we asked one broad question: what would happen if we changed the local environment and immersed people in situations that afford more exposure to outgroup members in admired and valued social roles? Local environments may be changed by increasing people's exposure to admired members of disadvantaged groups through the mass media or through personal contact with outgroup members (e.g., friends, co-workers, acquaintances, etc.). To address this question, in one study, we created a situation in the laboratory where some participants were exposed to pictures and biographies of famous and admired African Americans (e.g., Martin Luther King Jr., Denzel Washington, Tiger Woods), whereas others were exposed to similar information about famous and admired White Americans (e.g., John F. Kennedy, Tom Hanks, Peter Jennings), and still others were shown information unrelated to race. We then measured participants' implicit racial attitudes both immediately after the media exposure and again 24 hours later (Dasgupta & Greenwald, 2001). We found that participants who had been immersed in an experimental situation where they had repeatedly seen admired African Americans exhibited significantly less implicit race bias compared to others who were in a situation where they had repeatedly seen admired White Americans or non-racial stimuli. The observed reduction in implicit race bias endured even 24 hours later. Follow-up research using different types of stigmatized groups (gay men and lesbians) has replicated this basic finding and has also revealed that besides media exposure, personal contact with outgroup members plays an important role in attenuating implicit prejudice. People who had prior personal contact with outgroup members in the form of friends, co-workers, etc., showed substantially less implicit prejudice than

others who had little prior contact with outgroup members (Dasgupta & Rivera, in press; see also Dasgupta & Asgari, 2004).

The power of the situation in undermining implicit racial bias has also been demonstrated in other studies that have revealed conceptually similar findings. For example, people exhibit less implicit race bias when a Black experimenter is present in the laboratory situation rather than when a White experimenter is present (Lowery, Hardin, & Sinclair, 2001). Similarly, people exhibit less implicit race bias when they see Black individuals in a positive social situation (e.g., family gathering, church) than a negative situation (e.g., street corner, gang war). Wittenbrink et al. (2001) found that participants who saw a brief video of a Black family gathering showed less implicit bias against African Americans than others who saw a brief video of a gang war where gang members were Black. Likewise, participants who saw Black individuals against the backdrop of a church showed less implicit anti-Black bias than others who saw the same individuals against the backdrop of a graffiti-covered street corner.

Applying these data to the real world, this evidence suggests that if we are serious about erasing implicit prejudice, we should consider changing local environments within institutions such as schools, colleges, businesses, and other workplaces to make them ethnically diverse with a visible representation of minority groups that are typically invisible in mainstream society. Second, the data suggest that individuals from these groups must be particularly visible in socially valued leadership roles such as teachers, professors, managers, business leaders, medical professionals, and so on, instead of being relegated to devalued roles, which is often the case. Third, creating diverse local environments also has the benefit of enhancing opportunities for person-to-person contact between Whites and ethnic

minorities under circumstances in which minority group members are clearly in influential roles rather than subservient roles. Fourth, another environment that can have a powerful effect if it highlights diversity is the mass media because it is often the primary vehicle by which the public learns about who is valued and who is not. Even today, at the dawn of the 21st century, we are more likely to see famous and influential public figures who are White (e.g., business leaders, politicians, celebrities, philanthropists, public intellectuals, etc.) in the news rather than others who are Black, Latino, Native American, or Asian. Similarly, in TV shows, advertisements, and films, we are more likely to see lead characters and roles being played by White than non-White actors. Explicit decisions on the part of media executives to give more air time to racial and ethnic minorities in news media, advertisements, TV shows, and films, is likely to go a long way toward increasing the visibility of these groups and creating unconscious associations linking such groups with positive images.

Such changes in the mass media and in social institutions are most likely to happen with a combination of education (i.e., increasing awareness among individuals who control these institutions) together with incentives. If a small number of decision-makers diversify the social institutions they control, their actions have the potential to produce large scale change by affecting the thoughts and actions of all the people who live and work in those institutions.

Increasing conscious motivation and control over prejudiced responses decreases implicit bias

Although in general implicit prejudice is not easily derailed by conscious motivation, research suggests that some types of motivation (especially internally driven motivation to be nonprejudiced) can attenuate implicit racial prejudice. In other words, people who are

motivated to be nonprejudiced because egalitarian values are important to their sense of self exhibit far less implicit race bias than others who are motivated by the desire to conform to social norms (Devine, Plant, Amodio, Harmon-Jones, & Vance, 2002). Conceptually similar findings have been demonstrated in other studies. For example, people who are consciously committed to egalitarian attitudes do not express implicit negative stereotypes about African Americans compared to others who are less committed to egalitarian attitudes (Lepore & Brown, 1997). Similarly, people who are vigilant and who train themselves to suppress negative stereotypes when they pop into mind can, over time, erase implicit bias from their thoughts (Kawakami, Dovidio, Moll, Hermsen, & Russin, 2000).

Even when stereotypes and prejudices are automatically activated in the mind, whether or not they will bias individuals' outward behavior depends on how motivated they are to correct their biased actions, and how much control they have over the specific action in question. Just as implicit attitudes have been found to be remarkably malleable (e.g., Dasgupta & Greenwald, 2001; Wittenbrink et al., 2001; for a review see Blair, 2002), so too behaviors are also quite malleable depending on the extent to which motivation and control are at play. For example, consider people's nonverbal "body language" such as smiling, eye contact, spatial distance, overall friendliness, and so on. Typically, people are relatively unaware of such nonverbal actions and thus don't try to control or correct them. However, this typical response masks a great deal of individual variability in people's vigilance over their own body language as well as that of others. Some people are more aware of nonverbal behaviors and more practiced at controlling and correcting them in real time while others are less adept at behavior correction. In our research we have found that conscious motivation to be egalitarian and practice at controlling one's nonverbal cues prevent implicit prejudice in

the mind from leaking into action (Dasgupta & Rivera, 2006). Those who are motivated to be egalitarian or who are practiced at controlling their nonverbal behavior do not exhibit behavioral bias. However, others who are less motivated to be egalitarian or less practiced at controlling their nonverbal actions exude negativity in their body language if they harbor biased thoughts.

In a similar manner, people may be able to prevent implicit bias in the mind from influencing their judgments of others if they possess the requisite motivation and control over their responses. Fazio and his colleagues have found that White participants' motivation to control prejudice significantly affected whether or not their implicit attitudes affected their judgments of Black individuals (Dunton & Fazio, 1997; Olson & Fazio, 2004). Specifically, among participants who were not motivated to avoid bias, greater implicit prejudice in the mind produced less positive judgments about Black undergraduate students. However, among others who were highly motivated to avoid bias, greater implicit prejudice produced more positive judgments of Black students (Dunton & Fazio, 1997). In other words, highly motivated participants overcorrected their judgment to prevent bias in their judgments (also see Olson & Fazio, 2004).

Applying these data to the everyday settings, this evidence suggests that teaching egalitarian values explicitly can serve as a potential remedy for implicit bias. Although implicit prejudice is typically expressed mindlessly without awareness, people have the capacity to make themselves mindful about their thoughts and actions if they are sufficiently concerned about social equality and sufficiently vigilant about monitoring and correcting their thoughts and actions. If mindfulness and egalitarian values are internalized by individuals from an early age through parents, peers, and teachers, these values are likely to

attenuate implicit bias. Moreover, egalitarian values are also learned indirectly when people (both children and adults) are immersed in ethnically diverse environments such as schools, colleges, and universities, which is often the first time that they interact with peers from other ethnic groups.

Conclusion

In the twenty years since the first studies on implicit prejudice and stereotypes we now know a few facts with great clarity. First, societal structure powerfully shapes people's cognitive structure without their conscious awareness. That is, societal inequalities are unknowingly learned and subsequently revealed in individuals' unconscious thoughts and actions even though those individuals may not consciously endorse racist attitudes. Implicit liking for Whites and bias against racial minorities are passively learned if people are immersed in environments where they observe that the individuals who possess and control the distribution of socioeconomic resources are predominantly White and individuals who possess the fewest resources are predominantly Black, Latino, Native American, and Asian. Such observations elicit admiration for Whites and disapproval for minorities which in turn create mental associations linking White-and-good and minority-and-bad. These mental associations are revealed in subtle thoughts and actions when people are not mindful. Because implicit bias operates without awareness, biased thoughts and actions occur repeatedly over time without correction in hiring decisions, healthcare delivery, business transactions, delivery of justice, and so on, in ways that favor White Americans over other groups. Here is a simple example: implicit preference for Whites may create greater camaraderie and an easy interaction between a White employer and a White job candidate

during a job interview compared to a more awkward or stiff interaction between the same employer and a Black job candidate. Assuming that both candidates are equally qualified for the job, the employer may offer the job to the White candidate using as a tie-breaker her overall good feeling from the interview with the White applicant as an indicator of his superior social skills. Given that good social skills are likely to be important for most jobs, such a decision seems reasonable at face value. However, the employer is likely to be unaware that her good feeling stems from implicit White-good associations rather than something about the White candidate himself. If left uncorrected, such actions are likely to occur repeatedly to create racial disparities between who gets offered good jobs (Whites) and who remains unemployed or under-employed (racial minorities).

A second issue highlighted by the research on implicit and explicit bias is the distinction between casually held egalitarian attitudes that people sometimes express because of their desire to conform to current social norms (e.g., political correctness) versus deeply held egalitarian attitudes that they express because of their personal standards and values about equality. People who report egalitarian attitudes because of political correctness are likely to exhibit implicit bias in their thoughts and actions despite their conscious disavowal of prejudice. However, others who report egalitarian attitudes because of their intrinsic personal standards are less likely to exhibit implicit bias because of greater mindfulness and behavior correction. It is latter form of egalitarianism that is important to convey to children and adults alike. This can be accomplished effectively by creating diverse environments in schools, colleges, and workplaces that provide opportunities for lasting interpersonal contact and friendships across racial boundaries. The casually held form of egalitarianism is ephemeral and unlikely to elicit unbiased behavior when social norms are unclear.

Finally, the research shows that implicit bias functions like an equal opportunity virus that infects both Whites and racial minorities. Specifically, at an unconscious level, members of racial minorities sometimes show implicit bias against their own group whereas White Americans show implicit preference for their own group. This is not surprising: if implicit bias is learned silently by immersion in mainstream culture where most people in influential and admired roles are White, it makes sense that both Whites and non-Whites who inhabit that culture will absorb the same biases and preferences. In contrast, both Whites and non-Whites who inhabit more diversified environments where they see African Americans, Asian Americans, Latinos, and other groups in visibly influential roles are less likely to show implicit bias. In other words, simply belonging to a minority group does not make individuals immune to implicit bias. Rather, it is often the choices people make (e.g., environments they choose to enter or avoid, friends they choose, and media they read and watch) that ultimately determine their implicit attitudes about race.

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