Abstract

The centrality of race to our history and the substantial racial inequalities that continue to pervade society ensure that "race" remains an extraordinarily salient and meaningful social category. Explicit racial prejudice, however, is only part of the problem. Equally important - and likely more pervasive - is the phenomenon of implicit racial prejudice: the cognitive processes whereby, despite even our best intentions, the human mind automatically classifies information in racial categories and against disfavoured social groups. Empirical research shows convincingly that these biases against socially disfavoured groups are (i) pervasive; (ii) often diverge from consciously reported attitudes and beliefs; and (iii) influence consequential behaviour towards the subjects of these biases. The existence of implicit racial prejudices poses a challenge to legal theory and practice. From the standpoint of a legal system that seeks to forbid differential treatment based upon race or other protected traits, if people are in fact treated differently, and worse, because of their race or other protected trait, then the fundamental principle of anti-discrimination has been violated. It hardly matters that the source of the differential treatment is implicit rather than conscious bias. This article investigates the relevance of this research to the law by means of an empirical account of how implicit racial bias could affect the criminal trial trajectory in the areas of policing, prosecutorial discretion and judicial decision-making. It is the author's hypothesis that this mostly American research also applies to South Africa. The empirical evidence of implicit biases in every country tested shows that people are systematically implicitly biased in favour of socially privileged groups. Even after 1994 South Africa – similar to the US – continues to be characterised by a pronounced social hierarchy in which Whites overwhelmingly have the highest social status. The author argues that the law should normatively take cognizance of this issue. After all, the mere fact that we may not be aware of, much less consciously intend, race-contingent behaviour does not magically erase the harm. The article concludes by addressing the question of the appropriate response of the law and legal role players to the problem of implicit racial bias.

Keywords

Racial bias; Implicit racial bias; Racism; Implicit Association Test; Prosecutorial Discretion; Judicial Decision-making
The more one sees of human fate
and the more one examines its secret springs of action,
the more one is impressed by
the strength of unconscious motives
and the limitation of free choice.
- Carl Gustav Jung

1 Introduction

The impetus for this research was the concluding remarks of Justice Johann van der Westhuizen in his farewell speech on the occasion of his retirement from the Constitutional Court:\(^2\)

[O]ur country will emerge from the suffocating depths of racism ... I wish that all of us, before we solemnly declare: “I am not a racist,” would pause and look deep into our hearts and souls and our motives. The world is not black or white ... Few of us have been left untouched by our past.

A conventional starting point for thinking about racial bias might be that it involves perceiving someone differently on the basis of race. A racially “unbiased” person, in this view, would thus view race as a matter of mere superficial physiology and accord to race no more significance than eye colour or hair colour, for example. However, as appealing as this concept might be in the abstract, it bears no relation to reality. Very few of us can claim to be "non-racial" or "race blind" in this sense.

For most of South African history racial discrimination was not only legally permissible, but also openly espoused. All South Africans share a common historical and cultural heritage in which overt racial discrimination has played a dominant role. Racial discrimination is, in the words of Charles Lawrence, \(^3\) "a malady that we all share, because we have been scarred by a common history". The centrality of race to our history and the substantial racial inequalities that continue to pervade society make race an extraordinarily salient and meaningful social category.\(^4\)

Racial stereotypes are the product of extensive cultural and societal learning.\(^5\) Thus, virtually no person can grow up in a society without having

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\(^{1}\) As quoted in Irwin and Real 2010 *McGeorge L Rev* 1.


\(^{3}\) Lawrence 1987 *Stan L Rev* 330; Blasi 2001 *UCLA L Rev* 1280.

\(^{4}\) See Banks, Eberhardt and Ross 2006 *Cal L Rev* 1184.

\(^{5}\) Rudman 2004 *Curr Dir Psychol Sci* 79-81.
learned the stereotypes assigned to the major ethnic groups. Moreover, we learn cultural attitudes and beliefs about race very early in life - as young as three years old - at a time when it is difficult to separate the perceptions of a teacher (usually a parent) from our own. At this early stage, we learn not so much through an intellectual understanding of what our parents tell us about race, as through emotional understanding of who our parents are and what we see our parents do. We adopt our parents' beliefs about the societal context in which we live because we experience them as our own. Not only do our stereotypes become socially ingrained at an early age, but they also become resistant to change, although we may grow up to hold explicit non-biased views of the world.

While historical experience has made racism an integral part of our culture, our society has more recently embraced an ideal that rejects racial discrimination as illegal and immoral. In the course of the last 25 years the problem of overt discrimination has received immense attention from politicians, policymakers, lawyers, judges, and academics. In post 1994 South Africa discrimination is prohibited, as a matter of constitutional and statutory law, in a wide range of settings. As has become clear from media reports and court cases, especially in the lead-up to the municipal elections of 2016, few terms generate greater anxiety, concern, resentment and passion in South African society than the term "racism". To be accused of racial discrimination is to be tarred with a great sin, often with grave legal consequences.

However, as Justice van der Westhuizen recognised, explicit racial bias is only part of the problem. Equally important - and likely more pervasive and insidious - are the unexpressed, hidden biases that remain in peoples' hearts and minds. This is the phenomenon of implicit racial bias - the cognitive processes whereby, despite even our best intentions, the human mind automatically classifies information in racial categories and against disfavoured social groups. In this context, a clarifying comment on terminology might be in order. The denomination "explicit" emphasises

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6 Ehrlich Social Psychology of Prejudice 35.  
7 Levinson and Young 2010 Duke J Gender L & Pol'y 5.  
8 Lawrence 1987 Stan L Rev 337-338.  
10 Levinson and Young 2010 Duke J Gender L & Pol'y 6.  
11 See Kang et al 2012 UCLA L Rev 1126; Smith and Levinson 2011 Seattle U L Rev 797; Levinson, Cai and Young 2010 OSJCL 1. The concept of "implicit bias" is rooted in the science of "implicit social cognition", which posits that actors do not always have conscious, intentional control over the mental processes of social perception, impression formation and judgment of individuals and groups. Greenwald and Krieger 2006 Cal L Rev 946; Kang and Banaji 2006 Cal L Rev 1064.
awareness of having a thought or feeling, and thus refers to the kind of biases that people knowingly - sometimes openly - embrace.12 "Implicit", by contrast, emphasises unawareness of having a thought or feeling, and thus denotes stereotypical associations so subtle that people who hold them often are not even aware of them. Furthermore, a person might even reject that implicit thought or feeling as inaccurate or inappropriate upon conscious reflection.13

This distinction is important because conventional wisdom holds that attitudes and stereotypes about social groups are only explicit in the sense that human actors are guided solely by their explicit beliefs and their conscious intention to act.14 However, just as scientific experimentation has demonstrated that Aristotle's physics did not accurately describe the behaviour of objects, modern social psychology has found that many common understandings of human social behaviour are simply wrong.15 Human behaviour is not largely under conscious control. To the contrary, our behaviour is often guided by racial and other stereotypes of which we are completely unaware.16 Consequently, these implicit biases leak into our everyday behaviour, such as whom we befriend, whose work we value and whom we favour, while we remain largely oblivious of their influence.17

During the past two decades scientists working across the boundaries of neuroscience, cognitive and social psychology, and behavioural economics have provided convincing evidence of the existence of implicit biases with regard to numerous social categories such as race, gender, disability, age and sexual orientation.18 Moreover, as set forth below, a considerable, well-respected and actively accumulating body of research evidence has established that these biases against out-groups and socially disfavoured groups are (i) pervasive; (ii) often diverge from consciously reported attitudes and beliefs; and (iii) influence consequential behaviour towards the subjects of these biases.

The goal of this article is to introduce South African legal professionals and scholars to implicit racial bias and its consequences, especially in the context of the law. I start with a succinct summary of the underlying science. Next I discuss the relevance of this body of research to the law, with specific

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17 Kang and Lane 2010 UCLA L Rev 467-468.
focus on implicit bias leading up to and in the courtroom. In this regard I give
an empirical account of how implicit racial bias may potentially influence the
criminal litigation trajectory. Then I consider the legal-normative issues
surrounding implicit racial bias and the relevance of the research to the
South African context. I conclude by addressing the question of the
appropriate response of the law and legal role players to this problem.

2 Empirical evidence of implicit racial bias

In the past one way in which social psychologists sought to measure the
nature and content of Americans’ racial biases was to ask them directly
through self-report surveys. However, researchers quickly found that they
ran into an opacity problem. Given the prevailing social norms in favour of
racial equality, individuals were generally reluctant to show their
ambivalence, anxiety or resentment towards specific racial categories.19 But
even more troubling than the problem of deception was that of ignorance.
Researchers found that people were not necessarily withholding their "true"
attitudes and beliefs, but rather they were unable to know the content of
their own minds. They showed remarkably poor introspective access to their
true racial attitudes and stereotypes.20 As one journalist put it:21

It wasn't just that people lied to psychologists - when it came to certain
sensitive topics, they often lied to themselves.

Implicit biases may be unconscious, but they are not immeasurable.
Psychologists have turned to innovative indirect experimental measures
that bypassed the mind's access to conscious cognition to test whether
people are indeed biased against members of certain groups in ways that
often defy their own self-awareness.22 Among these23 the widely accepted
and extensively validated Implicit Association Test (IAT) has become the
state-of-the-art measurement tool.24

21 Vedantam 2005 http://www.washingtonpost.com/we-dyn/articles/A27067-2005Jan
21.html.
23.
23 In addition to the IAT, which is the focus of this article, researchers have also used
subliminal priming techniques, linguistic cues, physiological instruments (measuring,
for instance, cardio-vascular responses), micro-facial movements and neurological
activity. For further information on these experimental tools, see eg Rachlinski et al
2009 Notre Dame L Rev 1198 (especially n 9); Kang and Lane 2010 UCLA L Rev 471.
The IAT is a computerised sorting task designed to examine how strongly an attitude object (such as a racial group) and an evaluative dimension (good or bad) are associated in a person's mind.\(^{25}\) Although IATs have been used in a wide variety of social categories (e.g. gender, age, nationality, body weight and sexual orientation), the Race IAT has attracted the most scholarly and popular attention.\(^{26}\)

The Race IAT requires participants to pair images or words on a computer screen into one of two categories by pressing a response key as quickly as possible. Each category consists of the pairing of a racial group ("Black" or "White") with positive or negative attributes (such as "violent", "kind", "motivated", "lazy", "joy", "agony", "love" and "evil"). In one iteration, participants have to pair Black with negative attributes and White with positive attributes (a so-called "stereotype-congruent" pairing). Then, in another iteration participants have to pair Black with positive attributes and White with negative attributes (a so-called "stereotype incongruent" pairing).\(^{27}\)

The IAT measures implicit bias in a simple yet compelling fashion. Because the test is performed on a computer, minute differences in the speed of sorting (measured in milliseconds) can be recorded and compared across iterations. The core idea is that stronger cognitive associations between items will allow them to be grouped together more quickly and easily, which leads to shorter response times.\(^{28}\) For example, faster and more accurate performance on iterations in which "White" and "good" items are grouped together than on iterations in which "Black" and "good" are paired indicates a stronger association between "White" and "good".\(^{29}\) The time differential

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\(^{25}\) Vedantam 2005 http://www.washingtonpost.com/we-dyn/articles/A27067-2005Jan21.html; Kang 2005 Harv L Rev 1510. Gladwell explains the premise of the IAT thus: "We make connections much more quickly between pairs of ideas that are already related in our minds than we do between pairs of ideas that are unfamiliar to us." Gladwell Blink 77. Because closely associated concepts are easily linked together in our minds, we will be faster to respond to a related pair of concepts - eg "hammer and nail" - than to an uncoupled pair - eg "hammer and cotton ball". Vedantam 2005 http://www.washingtonpost.com/we-dyn/articles/A27067-2005Jan21.html.

\(^{26}\) Banks, Eberhardt and Ross 2006 Cal L Rev 1182; Levinson and Young 2010 Duke J Gender L & Pol'y 20.


\(^{29}\) Kelly and Roedder 2008 Philosophy Compass 525.
between the two iterations is referred to as "response latency," and constitutes the measure of implicit bias.\(^\text{30}\)

The IAT is considered to be a valid measure of implicit bias, because it requires participants to make snap judgments that are reactive, rather than reasoned judgements (i.e., quick generalisations, rather than subtle distinctions), and is thus without the moderating influence of introspection and deliberation.\(^\text{31}\)

2.1 **Implicit racial bias is systematic, robust and pervasive**

In 1998 researchers from three United States universities (Harvard, Virginia, and Washington) started *Project Implicit*, a public website that administers the IAT.\(^\text{32}\) *Project Implicit* has collected the largest repository of implicit social cognition data with over 7 000 000 IATs completed.\(^\text{33}\) This enormous accumulated dataset has allowed researchers to draw conclusions about the pervasiveness of implicit biases.\(^\text{34}\) Since 1998, when the IAT was officially introduced, hundreds of peer-reviewed scientific publications have produced largely consistent results.\(^\text{35}\)

Implicit racial bias is systematic, robust and pervasive. Most white Americans\(^\text{36}\) strongly favour the "White/good" and "Black/bad" pairing on

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\(^\text{30}\) Rachlinski et al 2009 *Notre Dame L Rev* 1199.
\(^\text{32}\) Casey, Burke and Leben *Minding the Court* 10. See Project Implicit Date Unknown https://www.projectimplicit.net/index.html. At *Project Implicit*, visitors can complete IATs in more than 15 categories, such as weight, age, race, religion, sexual orientation, and socio-economic status.
\(^\text{34}\) Greenwald and Krieger 2006 *Cal L Rev* 955.
\(^\text{35}\) Research has shown the IAT to be methodologically rigorous and largely immune to fakery. Many researchers were impressed that, when they repeatedly administered the test to themselves, their measures of implicit bias remained remarkably consistent over time. Greenwald and Krieger 2006 *Cal L Rev* 963. Also, researchers have determined that the implicit biases documented through IAT research are not the product of the order in which participants undertake the tasks, their handiness, or any other artefact of the experimental method. Rachlinski et al 2009 *Notre Dame L Rev* 1200; Kang and Lane 2010 *UCLA L Rev* 473. I believe that the data are clear and overwhelming. The focus of this article is therefore on interpretations and conclusions, rather than on methodological issues.
\(^\text{36}\) Thus far, approximately 90% of test takers have been American. Lee 2008 *UC Davis L Rev* 539. However, implicit bias has also been found against "outgroups" in other countries, eg Aborigines in Australia, Turkish immigrants in Germany (see Dasgupta 2004 *Soc Justice Res* 147) and Koreans in Japan (see Kang *Implicit Bias* 3).
the IAT.  

Although the focus of this contribution is on race, it should be noted that social cognitionists have documented the existence of implicit biases against numerous social categories. Notably, participants have systematically preferred, and thus have shown implicit bias in favour of, socially privileged groups: young over old, light-skinned over dark-skinned, non-Arab non-Muslims over Arab Muslims, abled over disabled, thin over obese, and straight over gay.

In essence, the IAT "measures the thumbprint of culture on our minds". Members of socially dominant groups (eg the young, Whites, heterosexuals) overwhelmingly show a preference for their own group ("in-group favouritism"). By contrast, members of socially derogated groups (eg the elderly, Blacks, homosexuals) seem to internalise the broader cultural evaluation of their groups, and show subdued in-group preference. In fact, they often show no in-group preference at all, or sometimes even a preference for other, more socially advantaged groups. For example, Blacks in the United States and South Africa show no overall implicit preference for members of their in-group - approximately one-third show implicit preference for Blacks, approximately one-third show implicit preference for Whites, and approximately one-third show no implicit preference at all.

Recent advances in brain imaging techniques have enabled researchers to confirm scientifically that the implicit racial bias suggested by the IAT predicts fear responses among volunteers. Neuroscientists in collaboration with social cognitionists have used functional magnetic resonance imaging

37 According to the data gathered from Project Implicit, 71.5% of White participants favoured European Americans. The majority of participants are thus said to have an implicit bias against African Americans.
40 Mazarin Banaji, one of the creators of the IAT, as quoted in Vedantam 2005 http://www.washingtonpost.com/we-dyn/articles/A27067-2005Jan21.html.
41 "70% and up is not a rare finding ..." Lane, Kang and Banaji 2007 Annu Rev Law Soc Sci 435. In addition, more than a hundred studies have documented people's tendency to automatically associate positive characteristics with their in-groups more easily that with out-groups, as well as their tendency to associate negative characteristics with out-groups more easily than with in-groups. Kang 2005 Harv L Rev 1512.
(fMRI) to measure activity in the amygdala, an almond-shaped subcortical structure within our brains. Brain imaging research suggests that amygdala activity reflects arousal triggered by fast unconscious assessment of potential threat.46

In one experiment Phelps47 demonstrated greater activation of the amygdala - indicating fear or other negative emotional arousal - of White participants in response to subliminal48 photographic images of unfamiliar Black faces as compared to unfamiliar White faces. After the fMRI scan, subjects took the Race IAT. Phelps found a significant correlation between amygdala activation and participants' IAT scores. The subjects with the strongest negative implicit attitudes towards Blacks also showed the greatest amygdala activation.49 Interestingly, other fMRI experiments have found that both Black and White subjects show greater amygdala activity when exposed to unfamiliar Black faces than when exposed to White faces.50

2.2 Implicit racial biases often diverge from consciously reported attitudes and beliefs

One of the most remarkable features of implicit bias is the possibility that people might not be aware of their own biases. That is because introspection and our explicit normative and political commitments poorly predict the cognitive processes running beneath the surface.51 In using the IAT in conjunction with more direct, self-report measures,52 researchers have consistently shown that we often harbour implicit biases that are diametrically opposed to our explicitly stated and consciously avowed attitudes.53 Thus, our implicit mental processes might draw on racial meanings that, upon conscious consideration, we would expressly disavow. According to US legal scholar, Jerry Kang, "[i]t is as if some 'Trojan Horse' virus had hijacked a portion of our brain."54

45 Lee 2008 UC Davis L Rev 540.
48 I.e., too quickly for participants to notice them.
51 Kang 2005 Harv L Rev 1508.
52 Such as the Modern Racism Scale, for example.
54 Kang 2005 Harv L Rev 1508.
This divergence between our implicit and explicit racial attitudes is referred to in the scholarly literature as "dissociation".\(^55\) White participants on the Race IAT showed some explicit preference for their in-group over Blacks. Their explicit preference, however, "paled in comparison to their implicit preference".\(^56\) These results were confirmed by fMRI research. White participants who self-reported non-prejudiced beliefs nevertheless displayed significant amygdala activation when subliminally exposed to unfamiliar Black faces.\(^57\) Conversely, Blacks showed "very strong" favouritism towards their in-group on explicit, self-report measures. However, on the Race IAT, as stated above, Blacks showed considerably greater implicit favouritism towards Whites.\(^58\)

Many people are both surprised and chagrined at the fact that, even though they sincerely profess egalitarian or anti-racist views, they might nevertheless harbour implicit racial biases.\(^59\) "There is nothing more painful to me at this stage in my life", the famous US civil rights leader, Jesse Jackson, once told an audience, "than to walk down the street and hear footsteps and start thinking robbery - then to look around and see someone white and feel relieved".\(^60\) Dr Mahzarin Banaji of Harvard, one of the pioneering IAT researchers and herself a member of two socially disfavoured groups (dark-skinned and female), expressed her dismay at discovering that she had a pro-White bias on the Race IAT (even after, incredulous of the result of her first test, she took it again several times). "I was deeply embarrassed", she reported to the *Washington Post*. "I was humbled in a way that few experiences in my life have humbled me".\(^61\)

To explain this phenomenon of dissociation between our explicit and implicit racial attitudes, scientists draw attention to the fact that, in making

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\(^56\) Kang 2005 *Harv L Rev* 1513 (emphasis added). The explicit measure revealed an anti-black bias of only 11.8%, but the IAT revealed a significant implicit bias of 71.5%. Greenwald and Krieger 2006 *Cal L Rev* 957 Tbl 1.
\(^57\) Lee 2008 *UC Davis L Rev* 540-541.
\(^59\) Jolls and Sunstein 2006 *Cal L Rev* 994; Kelly and Roedder 2008 *Philosophy Compass* 525-526.
\(^60\) Jackson as quoted in Carpenter 2008 [http://www.affirmact.blogspot.co.za/2008/05/buried-prejudice-bigot-in-your-brain.html](http://www.affirmact.blogspot.co.za/2008/05/buried-prejudice-bigot-in-your-brain.html).
\(^61\) Banaji as quoted in Vedantam 2005 [http://www.washingtonpost.com/wp-dyn/articles/A27067-2005Jan21.html](http://www.washingtonpost.com/wp-dyn/articles/A27067-2005Jan21.html). Malcolm Gladwell, whose book *Blink* did much to popularise the IAT, wrote that the Race IAT left him feeling "mortified". After taking the test four times, he had to face the fact that he had an implicit pro-White bias, even though he is half Black (his mother is Jamaican). Gladwell *Blink* 83-84.
decisions, we employ two cognitive systems - System 1 and System 2. System 1 is rapid, intuitive and error-prone. System 2 is more deliberative, calculative, slower and often more likely to be error-free. Implicit racial bias is just one example where psychological science shows our reasoning capacities to be impaired, and where we have no introspective access to our own impairment (i.e. classic System 1 thinking). Implicit racial bias is, to paraphrase Hobbes, nasty, brutish and short-sighted.

Implicit bias is largely automatic in that it occurs without conscious intention and outside of our awareness. The characteristic in question (skin colour, age, sexual orientation) operates so quickly in the IAT that the test taker does not have any time to deliberate. It is for this reason that many people state in good faith that they are fully committed to the principle of anti-discrimination with respect to the very trait against which they show an implicit bias. Implicit racial bias is insidious precisely because its power is mostly invisible to the self.

The existence of such automatic cognitive processes disturbs us because it questions our self-understanding as entirely rational, freely-choosing, self-legislating actors - a conception of the human mind that has prevailed since Plato. However, as I have indicated elsewhere, we ignore the best scientific evidence if we deny that our behaviour is the product of complex superimpositions of mental processes that range from the controlled, calculated and rational (System 2) to the automatic, unintended and unnoticed (System 1).

Equally disturbing are the studies that show how easily stereotypes are activated. They manifest quickly and automatically any time there is a stereotype-consistent cognitive opportunity. Simply seeing a person

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62 For a more detailed explanation of these two cognitive systems, see Gravett 2017 SALJ 56-58.
63 Gravett 2017 SALJ 56-58.
65 Jolls and Sunstein 2006 Cal L Rev 975.
67 Gravett 2017 SALJ 53-54.
68 Gravett 2017 SALJ 56-58.
belonging to a certain ethnic group, hearing a certain type of music, or subliminal exposure to stereotype-consistent words can activate harmful stereotypes.

2.3 Implicit racial bias predicts harmful discriminatory behaviour and decisions in cross-racial interactions

Does implicit bias represent anything besides "millisecond latencies in stylised laboratory experiments?" In other words, does the Race IAT have predictive validity - does it predict decisions, choices and behaviour in the real world? There is now persuasive evidence that implicit racial bias, as measured by the IAT, predicts disparate behaviour towards individuals mapped to the disfavoured racial category. And, significantly, this occurs notwithstanding explicit contrary commitments in favour of racial equality.

Researchers in a predictive validity meta-analysis showed that those who show a greater bias on the IAT also discriminate more in their actual

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70 In the trial context, studies in the United States have found that even simply showing mock jurors a photograph of a dark-skinned suspect can activate racial stereotypes. For example, Levinson and Young showed mock juror participants one security camera photo of an armed suspect robbing a shop. In the photo, the only racially identifying information was the skin of his forearm. The experimenters artificially manipulated the skin tone. Half the participants saw the photo of the suspect with darker skin, and half the photo of the suspect with lighter skin. Despite the obvious legal irrelevance of the suspect's skin colour to the evidence, the researchers found that the skin tone of the perpetrator in the photo affected the way participants judged trial evidence and rated the defendant's guilt on a guilty/not guilty scale. Levinson and Young 2010 W Va L Rev 337.

71 In a study by Rudman and Lee the researchers primed the participants by either playing pop music or rap music. Simply hearing rap music not only activated the participants' racial stereotypes, but also caused them to rate a Black person's behaviour as less intelligent and more hostile than that of participants who listened to pop music. Rudman and Lee 2002 Group Process Intergr Relat 136-139.

72 In a well know study, Devine showed participants rapidly flashing words, including stereotypes that were associated with African-Americans, including "Blacks", "Harlem", "poor" and "athletic". Participants who were primed with more of the African-American stereotyped words judged the ambiguous behaviour of the actor in a story as more hostile than participants who were primed with fewer stereotyped words. Devine 1989 J Pers Soc Psychol 9-10.


behaviour.\textsuperscript{76} The dominant interpretation of this evidence is that implicit attitudinal bias is especially important in influencing non-deliberate or spontaneous discriminatory behaviours.\textsuperscript{77} I introduce here only a sample of the most striking experimental results.

In two studies researchers found that, in interacting with Black partners, people with greater implicit biases against Blacks (compared with Whites) showed greater indications of discomfort that seeped out through their non-verbal micro-behaviours, causing the Black interaction partners to rate them as “unfriendly” - they leaned forward less, they turned their bodies slightly away, they were less expressive, maintained less eye-contact, smiled less, made fewer extemporaneous social comments, made more speech errors and speech hesitations, and spoke less.\textsuperscript{78} Thus, the more negative the implicit attitude of a person the more awkward that person’s body language. Researchers have termed this phenomenon “behavioural leakage”.\textsuperscript{79}

Behavioural leakage matters a great deal. Suppose, for example, that the particular interracial interaction is a job interview, and that the interviewee is a Black man. If the White interviewer exhibits unfriendly non-verbal behaviour, the Black interviewee will reciprocate, thus generating a vicious cycle. The interviewee may judge the interviewer as unfriendly and untrustworthy, and that may well instigate less confidence, less comfort and more awkwardness in the interviewee. Before long, this interaction will sour the interview and throw it hopelessly off course without either party recognising the implicit causal forces.\textsuperscript{80}

Even worse, the White interviewer may well believe that the interviewee simply does not “have what it takes”, or that he is standoffish, or that he may not really want the position. The White interviewer may then justify the selection of a White applicant over the equally qualified Black interviewee based on that social interaction as legitimately and objectively “on the

\textsuperscript{76} In this study, the researchers analysed a total of 224 IAT-behaviour correlations, generated from 69 statistically independent samples, involving 14 900 participants, drawn from 21 peer-reviewed published studies and 31 unpublished studies. They found that implicit bias significantly correlates statistically with real-world behaviours, such as being friendly towards a target, allocating resources to socially disfavoured organisations and evaluating job candidates. Poehlman et al \textit{Understanding and Using the Implicit Association Test} 5 as cited in Kang and Banaji 2006 \textit{Cal L Rev} 1072 n 46, Greenwald and Krieger 2006 \textit{Cal L Rev} 961.


\textsuperscript{78} Kang 2005 \textit{Harv L Rev} 1523.

\textsuperscript{79} Kang and Lane 2010 \textit{UCLA L Rev} 483; Gladwell \textit{Blink} 86.
merits".\textsuperscript{81} Even the most thorough investigation of his conscious motives is unlikely to lead the White interviewer to uncover the subjective implicit racial bias that has influenced his decision.\textsuperscript{82}

The conclusion is thus justified that, in the employment context in particular, even these informal differences in treatment may significantly affect employment outcomes. Implicit bias may thus systematically disadvantage Black candidates.\textsuperscript{83} On the broader societal level, behavioural leakage influences the quality of our social interactions and may well cumulatively contribute to the building of a hostile intergroup environment.

Field experiments have provided further confirmation of the influence of implicit racial bias under conditions of real-world employment discrimination. Behavioural economists Bertrand and Mullainathan\textsuperscript{84} responded to more than 1 300 help-wanted advertisements in Boston and Chicago with fictitious résumés that were crafted to be comparably qualified. The sole difference was that half the résumés were randomly assigned African-American-signalling names (e.g. Lakisha or Jamal), while the other half were assigned "White names" (e.g. Emily or Greg). Interviews beforehand with human resource managers had led the researchers to believe that Black applicants would be more likely to get interview calls, because employers explicitly indicated that they were solicitous of qualified applicants of colour and were aggressively pursuing diversity.\textsuperscript{85}

The results, however, were astonishing. The trivial manipulation of the names on the résumés resulted in the résumés bearing "White names" receiving 50% more call-back interviews.\textsuperscript{86} In fact, when accounting for the dual influence of racial name and prior employment experience, the researchers found that a "White name" yielded as many call-back interviews as an additional eight years of experience.\textsuperscript{87}

\textsuperscript{81} The interviewer, having not displayed any behavioural leakage towards the White candidate (but in fact engaged in more extemporaneous social comments, more smiling, fewer speech errors and speech hesitations), may perceive the White candidate as "more articulate", "more collegial", "more thoughtful" and "more of a team player".
\textsuperscript{82} Lawrence 1987 \textit{Stan L Rev} 343.
\textsuperscript{84} Bertrand and Mullainathan \textit{Are Emily and Greg More Employable} 2.
\textsuperscript{85} Vedantam 2005 \url{http://www.washingtonpost.com/we-dyn/articles/A27067-2005Jan21.html}.
\textsuperscript{86} Bertrand and Mullainathan \textit{Are Emily and Greg More Employable} 2. For similar results in Sweden between comparable résumés of Swedish job candidates and Arab Muslim job candidates, see Rooth 2010 \textit{Labour Economics} 523.
\textsuperscript{87} Bertrand and Mullainathan \textit{Are Emily and Greg More Employable} 2.
To study the potential impact of the quality of the résumés, the researchers submitted both standard and higher-quality résumé pairs to employers. A higher-quality White résumé received a statistically significant 30% higher call-back rate than the standard White résumé. However, a higher quality Black résumé received only a statistically insignificant 9% higher call-back rate than the standard Black résumé.88

Significantly, employers who explicitly listed "Equal Opportunity Employer" in their advertisement discriminated just as much as the other employers.89 These findings, coupled with very low rates of explicitly endorsed hiring discrimination, strongly suggest that the employment discrimination in this instance was driven by implicit racial bias. In this regard researchers suggest that employers engage in "lexicographic searches". Given the surfeit of résumés passing their desks, human resource managers quickly scan them and many stop reading after seeing a Black name. They never even get to the details. Once the names are mapped to racial categories, a set of negative racial stereotypes and prejudices are automatically activated, thus producing fewer call-back interviews for Black candidates.90

Implicit racial bias might also infect critical medical decisions. For years medical researchers in the United States have sought to determine why White patients with symptoms of myocardial infarctions were twice as likely as Black patients with similar symptoms to receive thrombolytic therapy (a relatively low-cost, low-risk, non-invasive and highly effective procedure).91 This was especially perplexing since Black patients were more likely to be diagnosed with coronary artery disease than White patients.92 Two hundred and ninety one medical interns in the Boston and Atlanta metropolitan areas were randomly assigned to view, read symptom profiles and make diagnosis and treatment recommendations for a hypothetical patient - identified to some of the physicians as a Black man and to others as a White man - who came into the hospital complaining of chest pain.93

The physicians’ self-reported explicit racial attitudes, presumably held with complete sincerity and showing no explicit bias, did not predict racial disparities in their simulated treatment recommendations. However, their degree of implicit bias, as measured by the Race IAT, did. Specifically,
greater implicit racial bias predicted (1) decreased likelihood of recommending thrombolytic therapy for Black patients suffering from coronary artery disease; and (2) increased likelihood of recommending the treatment for comparable White patients.  

The greater disparity between diagnosis and treatment for Blacks relative to Whites was best accounted for by implicit racial bias that activated a stereotype that Blacks were stubborn and non-compliant and therefore likely to refuse treatment. Thus, even when the participants (physicians) made recommendations in a potentially life-threatening context, and were arguably subject to a strong demand that they be "colour-blind," they still engaged in disparate treatment that correlated with their implicit racial biases.  

These findings are disturbing to all of us who believe that we do not let the implicit biases prevalent in our culture influence our individual decision-making.

3 Why the law should take notice of implicit racial bias

"There is no immaculate perception," said Nietzsche. We human beings perceive information in ways that conform to our stereotypes. As has become clear from the scientific research, we are neither perceptually nor cognitively nor behaviourally colour-blind. Most people - even those who explicitly embrace non-discriminatory norms - may systematically discriminate against people from socially disfavoured racial or ethnic groups.

The very existence of implicit racial bias poses a challenge to legal theory and practice. From the standpoint of a legal system that seeks to forbid differential treatment based upon race or other protected traits, if people are in fact treated differently, and worse, because of their race or other protected trait, then the fundamental principle of anti-discrimination has been violated. It hardly matters that the source of the differential treatment is implicit rather than conscious bias.

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96 As quoted in Kang 2005 Harv L Rev 1491.
100 Jolls and Sunstein 2006 Cal L Rev 976.
This is not to discount the fact that explicit racial bias and structural inequality still thrive in many circles. However, these sources of racial bias alone cannot adequately explain why, after more than 20 years of democracy, people of colour in South Africa continue to fare less well than Whites in competitive spheres such as business and academia, as measured by compensation, positions of authority and advancement.\textsuperscript{101} The conclusion is inescapable that the implicit ways in which race alters interpersonal and intergroup interactions are responsible for many of the continuing racial disparities in society.\textsuperscript{102}

For two principal reasons it is critically important to seek to understand implicit racial bias in the context of the legal system. Firstly, the law views itself as seeking to achieve just and fair results. Thus, if cognitive science reveals that the law is failing to do so because it is predicated on erroneous models of human behaviour, then lawyers and legal academics should take notice. This is the premise of the "behavioural realism" movement in the United States.\textsuperscript{103} The behavioural realist approach seeks to bring to the law the insights of behavioural sciences, and posits that the law can better realise its normative aims if it is based on a more accurate understanding of how individuals actually behave and how social institutions function.\textsuperscript{104} Essentially behavioural realists argue that "garbage in" (ie incorrect models of the mind) will produce "garbage out" (ie unfair and inefficient rules and policies). New and better inputs should therefore produce new and better outputs.

Secondly, not only does the science of implicit bias provide a more precise and empirically grounded picture of how race functions in our minds and our societies, but it also provides an alternative lens through which lawyers, lawmakers and legal scholars should view human behaviour.\textsuperscript{105} For one thing, this new science can "rattle us out of a complacency enjoyed after the

\begin{footnotesize}
\begin{enumerate}
\item See Mahlakoana \textit{Pretoria News} 2.
\item Rachlinski \textit{et al} 2009 \textit{Notre Dame L Rev} 1197.
\item For a thorough discussion of "behavioural realism," see Krieger and Fiske 2006 \textit{Cal L Rev} 997-1026. In simplified terms, the methodology of "behavioural realism" forces the law to confront an increasingly accurate description of human decision-making and behaviour as provided by cognitive psychology and neuroscience. It identifies naïve theories of human behaviour latent in the law and legal institutions. It then juxtaposes these theories against the best scientific knowledge available to expose gaps between assumptions embedded in the law and reality described by science. Kang and Banaji 2006 \textit{Cal L Rev} 1065.
\item Blasi and Jost 2006 \textit{Cal L Rev} 1120.
\end{enumerate}
\end{footnotesize}
demise of de jure discrimination\textsuperscript{106} and open new avenues for exploring social inequality.

Currently, both in South Africa and the United States, continued calls for equality are often derogated as whining by those who cannot compete in a modern meritocracy. In this view, we all compete in a meritocratic tournament in which individuals are evaluated based upon performance only. Racial disparities are therefore caused only by objective "merit" across racial groups.\textsuperscript{107} Implicit social cognition research disputes this resentful characterisation and forces us to re-examine our individual and collective responsibility for persistent racial inequality.\textsuperscript{108}

In this regard, cognisance of implicit racial bias can affect our understanding of established legal doctrine in many ways. For example, the science of implicit social cognition provides a new and different rationale for affirmative action policies. Rather than viewing affirmative action as a remedy for historical injustice, research showing that individuals may systematically discriminate against socially disfavoured racial groups even without or counter to intent might play a role in justifying affirmative action as a remedy for present and on-going discrimination.\textsuperscript{109}

In addition, implicit social cognition has the potential to influence our understanding of intent in all bodies of law.\textsuperscript{110} Research in the United States finding that people hold implicit associations between African Americans and criminal guilt also calls into question the integrity of criminal law's presumption of innocence and evokes larger questions of racial justice.\textsuperscript{111}

These examples underscore the critical importance of seeking to understand implicit racial bias in the context of the law. It is true that, even if all explicit and implicit biases were magically erased, life today would still bear the burdens of an unjust yesterday.\textsuperscript{112} However, that does not absolve

\textsuperscript{106} Kang 2005 Harv L Rev 1495.
\textsuperscript{107} Kang et al 2010 JELS 887, 912.
\textsuperscript{108} Kang 2005 Harv L Rev 1496.
\textsuperscript{109} Kang and Banaji 2006 Cal L Rev 1096-1098.
\textsuperscript{111} Levinson and his collaborators administered a specially designed IAT, and found that participants displayed a significant association between "Black" and "criminal guilt" compared with "White" and "criminal guilt", confirming their hypothesis that there is an implicit racial bias inherent in the presumption of innocence. Levinson, Cai and Young 2010 OSJCL 3.
\textsuperscript{112} Kang Implicit Bias 6.
us, as faithful stewards of the judicial system, to seek to strive to take all forms of racial bias - including implicit racial bias - seriously.

4. Conclusion

The empirical evidence is overwhelming that implicit racial bias in society is systematic, robust and pervasive. This bias is insidious, because it occurs without conscious intention and outside of our awareness. More than merely being interesting on a socially scientific level, implicit racial bias affects our decisions, choices and behaviour in the real world in fundamental ways, such as in a cross-racial employment interview setting as but one example.

In the context of the legal system in particular, it is critically important to understand implicit racial bias. Firstly, the law views itself as seeking to achieve just and fair results. Thus, if cognitive science reveals that the law is failing to do so because it is predicated on erroneous models of human behaviour, then lawyers and legal academics should take notice. Secondly, not only does the science of implicit bias provide a more precise and empirically grounded picture of how race functions in our minds and our societies, but it also provides an alternative lens through which lawyers, law-makers and legal scholars should view human behaviour.

Cognisance of implicit racial bias can affect our understanding of established legal doctrine in many ways. For example, the science of implicit social cognition provides a new and different rationale for affirmative action policies, and has the potential to influence our understanding of intent in all bodies of law, both public and private.

In the second part of the contribution, I continue the discussion of the relevance to the law of this body of research, with specific focus on implicit bias leading up to and in the courtroom. In this regard I give an empirical account of how implicit bias may potentially influence the criminal litigation trajectory. Next, I illustrate why this mostly United States research is relevant to South Africa. Then I consider some legal-normative issues surrounding implicit bias. I conclude by addressing the question of the appropriate response of the law and legal role players to the problem of implicit racial bias.
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**List of Abbreviations**

Akron L Rev Akron Law Review
Annu Rev Law Soc Sci Annual Review of Law and Social Science
Cal L Rev California Law Review
Curr Dir Psychol Sci Current Directions in Psychological Science
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<thead>
<tr>
<th>Journal/Review Abbreviation</th>
<th>Full Journal/Review Name</th>
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<td>IAT</td>
<td>Implicit Association Test</td>
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