Subtle Bias in Legal Decision Making: How Attitudes and Social Norms Affect Primary and Peripheral Targets

by

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Abstract

Before the 1990s controlled research using mock jurors consistently found black defendants guilty more often than white. However, more recently, research has generally failed to find this effect. One explanation is that prejudice has been reduced so much that there is no longer an effect. While there does seem to have been a reduction in overt prejudice, it is unlikely that it has decreased to the point that it does not affect verdicts. A more likely explanation is that strong social norms exist concerning prejudice which result in efforts to avoid being (or appearing) biased. Thus, when motivation to reduce prejudice is salient, mock jurors and perhaps real jurors will display little or no prejudice; but when motivation to reduce prejudice is not salient, decision-making becomes spontaneous and whatever prejudice does exist will affect decisions.

In a series of 6 studies, race of defendant, race of witness, and the salience of the importance of being unbiased were varied. Results revealed a complex situation with many factors playing a part. Race of key alibi witness played a key role, with the white witness favoured, and the black witness mistrusted. Outcomes may be partially predicted based on Social Dominance Orientation (SDO). Those high in SDO treat incongruent defendant/witness race pairs more harshly than congruent race pairs. Modern apparently egalitarian outcomes are perhaps due to low prejudice participants’ bias in favour of black defendants while high prejudice participants were biased
against black defendants – effectively cancelling out each others’ verdicts. Those low in SDO
treat incongruent defendant/witness race pair too leniently as compared to congruent race pairs.
When race is made salient, bias is reduced, and though the average results are still essentially
egalitarian, these verdicts are more truly egalitarian – much fairer and less biased when
considered at an individual level. These results also reinforce theories of dual process models of
attitudes. Individuals may have common stereotype knowledge, but separate activation based on
prejudice levels. Both high and low prejudiced individuals can control bias with the proper
motivation.
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Table of Contents

Acknowledgments ........................................................................................................................................ iv
Table of Contents ...................................................................................................................................... vi
List of Tables ........................................................................................................................................... ix
List of Figures .......................................................................................................................................... xi
List of Appendices .................................................................................................................................. xiii
Chapter 1: Subtle Bias in Legal Decision Making .................................................................................. 1

1.1 Bias in the Courtroom ..................................................................................................................... 1
  1.1.1 Past Findings ............................................................................................................................. 1
  1.1.2 Bias in the Courtroom Today ................................................................................................. 5
  1.1.3 Recent Mock Trial Results ...................................................................................................... 8

1.2 On the Nature of Prejudice .......................................................................................................... 13
  1.2.1 The ABCs of Intergroup Attitudes ....................................................................................... 14
  1.2.2 Social Categorization ......................................................................................................... 15
  1.2.3 The Cognitive Miser, Cognitive Monster, and Modern Views of Prejudice Regulation ...... 18
  1.2.4 The Cognitive Miser ........................................................................................................... 19
  1.2.5 The Cognitive Monster and Inevitability of Prejudice ....................................................... 20
  1.2.6 Two Factor Theories and Return to Control ....................................................................... 21

1.3 Social Reasons for the Disappearance of Bias ......................................................................... 27
  1.3.1 The Situation ........................................................................................................................ 28

1.4 Legal Reasons for Disappearance of Bias ................................................................................. 32

1.5 Motivation and Dual Process Models ......................................................................................... 35
1.6 Predictions for the Current Research ................................................................. 38
1.7 Overview of the Current Research ........................................................................ 39

Chapter 2: Race Salience and Legal Decision Making with Dual Process Models ........ 42
2 Dual Process Models ................................................................................................. 42
  2.1 Study 1 .................................................................................................................... 43
    2.1.1 Method ............................................................................................................. 44
    2.1.2 Results ............................................................................................................. 48
    2.1.3 Discussion ....................................................................................................... 52

Chapter 3: Social Dominance Orientation and Legal Decision Making ..................... 55
3 Social Dominance Orientation .................................................................................... 57
  3.1 Studies 2a and 2b ................................................................................................. 59
    3.1.1 Method ............................................................................................................. 60
    3.1.2 Results: Study 2a ........................................................................................... 62
    3.1.3 Discussion: Study 2a ...................................................................................... 74
    3.1.4 Results: Study 2b ........................................................................................... 74
    3.1.5 Discussion: Study 2b ...................................................................................... 78
    3.1.6 General Discussion .......................................................................................... 79

Chapter 4: Increasing Race Salience with Direct Legal Questions about Partiality: Reducing Bias with the Parks Question ................................................................. 82
4 Race Salience via Judicial Instruction ....................................................................... 82
  4.1 Studies 3a, 3b, and 3c ........................................................................................... 83
    4.1.1 Method ............................................................................................................. 84
    4.1.2 Results ............................................................................................................. 91
    4.1.3 Discussion ....................................................................................................... 106

Chapter 5: General Discussion .................................................................................... 110
  5.1 What is the Process by Which Race Salience and Motivation Control Prejudice .... 111
5.2 Applied Ramifications .................................................................................................... 113
5.3 Theoretical Implications ................................................................................................. 113
5.4 Study Limitations............................................................................................................ 114
  5.4.1 Population Studied .............................................................................................. 114
  5.4.2 Trial Medium ...................................................................................................... 115
  5.4.3 Juror versus Jury ................................................................................................. 115
  5.4.4 Variation in Scenario .......................................................................................... 116
5.5 Future Directions ............................................................................................................ 116
5.6 Conclusion ...................................................................................................................... 117
References ................................................................................................................................... 119
Appendices .................................................................................................................................. 144
List of Tables

Table 0.1: Fit of Model (Study 1) ............................................................. 1288

Table 1.1: Logistic Regression Analysis of Race of Defendant and Witness on Verdict ........ 50

Table 1.2: Mean Four-Factor Verdict .......................................................... 51

Table 1.3: Mean Amount of Belief the Defendant is Guilty (centered) ............................. 52

Table 2.1: Percentage of Guilty Verdicts in Study 2a ........................................... 62

Table 2.2: Logistic Regression of SDO, Race of Defendant and Witness on Verdict ............ 65

Table 2.3: Logistic Regression of Defendant and Witness Race on Verdict (Low SDO) ....... 66

Table 2.4: Logistic Regression of Defendant and Witness Race on Verdict (High SDO) ..... 68

Table 2.5: Logistic Regression of Congruency of Race and SDO on Verdict ...................... 69

Table 2.6: Mean Level of Four Factor Guilty Verdicts in Study 2a ................................. 70

Table 2.7: Mean Belief that the Defendant is Guilty in Study 2a .................................... 72

Table 2.8: Percentage of Guilty Verdicts in Study 2b .............................................. 75

Table 2.9: Logistic Regression of Defendant and Witness Race on Verdict in Study 2b ...... 76

Table 2.10: Mean Level of Four Factor Guilty Verdicts in Study 2b ............................... 77

Table 2.11: Mean Belief that the Defendant is Guilty in Study 2b .................................... 78

Table 3.1: Baseline Verdicts and Belief the Defendant is Guilty ...................................... 92

Table 3.2: Verdicts and Belief the Defendant is Guilty in Study 3a ................................. 92

Table 3.3: Effect of Race of Defendant and Witness on Measures of Guilt ....................... 93

Table 3.4: Logistic Regression of Defendant and Witness Race on Verdict (Study 3a) ...... 94
Table 3.5: Logistic Regression of Verdict in Study 3a compared to Verdict in Baseline ............. 96
Table 3.6: Verdicts and Belief the Defendant is Guilty in Study 3b .................................................. 98
Table 3.7: Effect of Race of Defendant and Witness on Measures of Guilt ..................................... 99
Table 3.8: Verdicts and Belief the Defendant is Guilty in Study 3c ...................................................... 101
Table 3.9: Effect of Race of Defendant and Witness on Measures of Guilt ................................. 102
Table 3.10: Logistic Regression of Verdict in Study 3a compared to Verdict in Baseline .......... 104
Table 3.11: Levels of Prejudice ........................................................................................................ 106
List of Figures

Figure 1.1: Effect of Witness Race on Verdict ................................................................. 50
Figure 1.2: Effect of Witness Race on Four Factor Verdict Scale ................................. 51
Figure 1.3: Effect of Race of Witness on Belief of Guilt ............................................... 52
Figure 2.1: Effect of Defendant and Witness Race on Verdict ....................................... 63
Figure 2.2: Effect of Defendant and Witness Race on Verdict when SDO is Low ............ 66
Figure 2.3: Effect of Defendant and Witness Race on Verdict when SDO is High ........... 68
Figure 2.4: Effect of Race Congruency of Defendant and Witness and SDO on Verdict ...... 70
Figure 2.5: Effect of Defendant and Witness Race on Four Verdict Scale ....................... 71
Figure 2.6: Effect of Race on Four Factor Verdict when SDO is Low ............................... 71
Figure 2.7: Effect of Race on Four Factor Verdict when SDO is High ............................. 72
Figure 2.8: Effect of Defendant and Witness Race on Belief of Guilt ............................. 73
Figure 2.9: Effect of Defendant and Witness Race on Belief of Guilt when SDO is High ... 73
Figure 2.10: Effect of Defendant and Witness Race on Verdict ...................................... 76
Figure 2.11: Effect of Defendant and Witness Race on Four Verdict Scale ...................... 77
Figure 2.12: Effect of Defendant Race on Belief of Guilt ................................................ 78
Figure 3.1: Effect of Race of Defendant and Witness on Verdict in Study 3a compared to Baseline Control ...................................................................................................................... 95
Figure 3.2: Effect of Race of Defendant and Witness on Four Factor Verdict in Study 3a compared to Baseline Control ............................................................................................................ 97
Figure 3.3: Effect of Race of Defendant and Witness on Belief of Guilt in Study 3a compared to Baseline Control

Figure 3.4: Effect of Race of Defendant and Witness on Verdict in Study 3b compared to Baseline Control

Figure 3.5: Effect of Race of Defendant and Witness on Four Factor Verdict in Study 3b compared to Baseline Control

Figure 3.6: Effect of Race of Defendant and Witness on Belief of Guilt in Study 3b compared to Baseline Control

Figure 3.7: Effect of Race of Defendant and Witness on Verdict in Study 3c compared to Baseline Control

Figure 3.8: Effect of Race of Defendant and Witness on Four Factor Verdict in Study 3c compared to Baseline Control

Figure 3.9: Effect of Race of Defendant and Witness on Belief of Guilt in Study 3c compared to Baseline Control
List of Appendices

Appendix A: Summary of the Trial of Fred Green ............................................................... 129

Appendix B: Faces within the Trial .................................................................................... 136

Appendix C: Dependant Measures .................................................................................... 139

Appendix D: Participant Demographics Form ................................................................. 140

Appendix E: Consent Form .................................................................................................. 141

Appendix F: Debriefing ......................................................................................................... 142

Appendix G: Study 2 Modifications to Trial Summary ....................................................... 143

Appendix H: Social Dominance Orientation Scale (Sidanius & Pratto, 2001) ................. 144

Appendix I: Study 3 Modifications to Trial Summary ....................................................... 145

Appendix J: New Demographics Form .............................................................................. 152

Appendix K: Internal and External Motivation to Respond without Prejudice Scale (Plant & Devine, 1998) ................................................................. 153
Chapter 1

Subtle Bias in Legal Decision Making

In North America, the right to a fair and impartial jury is fundamental in the justice system. The legal function of the jury is to determine the facts from the evidence presented and use those facts to render a verdict. The jurors must do this impartially, without bias or prejudice, basing their decisions only on an objective evaluation of the evidence presented, rather than on the basis of any extralegal factor. Racial bias is one such extralegal factor that may affect outcomes; and though explicit racial bias has seemingly disappeared from modern mock jury trials, more subtle forms of this bias may still impact the legal process. The belief systems of individual jurors may affect outcomes and are particularly hard to set aside.

This dissertation is concerned specifically with racial bias as an extralegal factor in the decision-making of jurors. The focus is on practical issues concerning court trials. It will explore why research finds less bias now, examining the subtle but significant modern racial bias in juries. It will also examine the process of how that bias occurs, and discuss ways to remove it. Although the focus is on the practical issues, this research will allow the exploration of the various theories of how and when stereotypes lead to bias.

1.1 Bias in the Courtroom

1.1.1 Past Findings

In the context of the legal system, one of the most dangerous types of bias to a fair and impartial trial is negative stereotypes about a group. Usually the focus of such bias is on race or ethnicity, but could include bias against anyone based on any group membership (such as sexual orientation or gender). There is little question that bias in North American society affects many aspects of everyday life. Attitudes related to negative intergroup conflict have been extensively
studied due to their adverse impact on society. Racial bias is generally thought to be one of the major sources of partiality in criminal trials (Alberta Law Reform Institute, 2007). Older meta-analyses of mock trial studies have shown racial bias against both defendants and victims. In the past, white juries tended to convict defendants more when they were a different race than themselves and to be more lenient on defendants when the victim was a different race than themselves. Minority populations, especially Blacks, were consistently found guilty more often and given harsher sentences than their white counterparts during mock trial cases. There was also more discrimination against black victims of crime – white defendants with black victims were found guilty less often than white defendants with white victims (Johnson, 1985; Pfeifer, 1990; Sweeney & Haney, 1992; Mazzella & Feingold, 1994; Mitchell, Haw, Pfeifer, & Meissner, 2005).

There are many examples in the mock trial literature across many types of crime. For example, Gray and Ashmore (1976) had white participants read a description of a crime for defendants already found guilty in a manslaughter case. Their task was to hand down a sentence. Black defendants were given longer sentences than white defendants. McGlynn, Megas, and Benson (1976) found similar results involving the insanity defense. In a mock trial that involved the defendant killing the date of his cheating spouse, participants were asked to give a verdict of guilty or not guilty by reason of insanity. White mock jurors found the black defendant guilty significantly more often than the white defendant (McGlynn et al., 1976).

There is also evidence of bias when the mock trial involved rape. Ugwuegbu (1979) presented white mock jurors with an aggravated and forcible rape trial where the race of the victim and defendant was varied between white and black. Black defendants were found more responsible, guilty more often, and given longer sentences than white defendants, especially if the victim was white and especially in circumstances when the evidence against the defendant
could go either way (it was neither strong or weak) (Ugwuegbu, 1979). In another mock rape trial, Feild (1979) examined verdicts and imposed sentence by white participants acting as mock jurors. The major variables examined included race of defendant, race of victim, and attractiveness of victim. The mock jurors generally treated the black defendant more severely than the white defendant in regards to verdict and sentence. These results where amplified when the victim was white, and when the victim was attractive.

Bernard (1979) studied differences in trial outcomes when varying the ratio of black and white jurors judging an assault and battery case. Participants were asked to render two verdicts; one was individual and one after group deliberation. The mock jury made up exclusively of white participants judging a black defendant was the only jury which returned a unanimous guilty verdict (Bernard, 1979). Foley and Chamblin (1982) also examined differences in black and white mock jurors when the race of the defendant and victim varied in a trial of an adult male accused of sexually abusing an eleven year old child. The black participants placed more guilt on intra-racial offences in general, either white on white or black on black. In contrast, the white participants found the black defendant guilty more often than the white defendant when the victim was white.

Continuing the examination of race of victim, two experiments by Klein and Creech (1982) investigated bias against the victim in court trials using only white participants as mock jurors. The first experiment examined prior probabilities of guilt. It was found that even before a trial there was a prevalent bias against the defendant (regardless of race) when the victim was white. That is, mock jurors were harsher on the defendant when the victim was white and easier on the defendant if the victim was black. In the second experiment, the participants’ beliefs about the meaning of evidence and differential weighting of evidence were examined. A simulated rape trial was created, with excerpts that were previously rated pro-prosecution, pro-acquittal, or
neutral. Klein and Creech found that the pro-prosecution and pro-acquittal excerpts ratings were not distorted by the participants. However, the neutral segments were distorted. When the defendant was black, the white participants interpreted the neutral statements as pro-prosecution when the victim was white and pro-acquittal when the victim was black. In addition, the black defendant was given harsher sentences than the white defendant when the victim was white. These experiments show not only a bias against a black defendant but also against a black victim (Klein & Creech, 1982).

A review of real life rape cases and death penalty in Georgia between the years of 1945 and 1965 found similar results regarding race of defendant and victim. The black defendants who raped white women were significantly more likely to receive the death penalty than all other combinations of defendant and victim race (Wolfgang & Riedel, 1975).

A study examining 600 real life Florida homicide cases from 1976 to 1977 also found similar biases (Radelet, 1981). Considering only stranger homicides, Radelet found that those convicted of murdering whites were far more likely to be sentenced to death than those convicted of murdering blacks. But even this bias was compounded by an additional race bias – people accused of murdering whites were more likely to be indicted for first degree murder. Interestingly, when race of the victim was controlled, the race of the defendant did not correlate strongly with being found guilty or getting the death penalty.

The archival data from real court cases in Canada tend to agree with the American reviews. A review by Avio (1988) discussing the constitutionality of capital punishment suggested the rejection of capital punishment because of a potential difference in execution rate based on race. The data from 1960 to about 1990 showed discrimination against black defendants. Specifically, black defendants were convicted more often and given longer sentences than white defendants.
1.1.2 Bias in the Courtroom Today

In the 1970s and 1980s, research on bias in courtrooms revealed discrimination against non-whites when compared to whites. Whites were found guilty less often, and given lesser sentences when found guilty. Due to increasing focus on the importance of being fair, and the reality that racial bias (among other biases) affects outcomes, courts have made an important point of focusing on, and attempting to eliminate, bias in the courtroom. It seems to have worked. In a recent Toronto Star newspaper article, Justice John Murray (an Ontario Superior Court Judge) suggested rejecting asking jurors about prejudice in the attempt to remove bias as being unnecessary, old fashioned or archaic (Toronto Star, June 12, 2009). Some research on courtroom bias seems to support Murray’s claim. Recent results show an apparently egalitarian stance on verdicts and sentencing, with little or no bias apparent in mock court trials. Indeed, the most recent research no longer finds a clear and consistent racial bias effect on verdicts.

Mock trials involving race of defendant have outcomes that are more fair and impartial today than they were in the past (Sweeney & Haney, 1992; Mazzella & Feingold, 1994; Sommers & Ellsworth, 2000; Sommers & Ellsworth, 2001; Dovidio, Gaertner, Kawakami, & Hodson, 2002; Plant & Devine, 1998; Mitchell, Haw, Pfeifer, & Meissner, 2005). This change from the earlier period could be for many reasons. The first is that prejudice has been reduced so much that it has disappeared or that it is now so low that it does not affect juries. This seems unlikely. There have been great strides in the realm of reducing prejudice, in socially stigmatizing those who still insist on acting blatantly biased, and there are now legal repercussions for acting with discrimination. Nevertheless, it seems apparent that in 2012, prejudice in general has not disappeared. There are many real life examples of discrimination still occurring in society. In the United States information on race is available for each step of the criminal justice system, from stops and arrest all the way to parole (Quigley, 2010). And this
information reveals clear bias when comparing white and black citizens. Evidence shows disproportionate treatment in regards to race. For example, police stop Blacks and Latinos more often than whites. In New York City, where half the population are minorities, 80% of the NYPD stops were of Blacks and Latinos. When Blacks and Latinos are stopped, 85% were frisked; when whites were stopped, only 8% were frisked. Blacks are arrested for drug offenses at rates two to 11 times higher than the rate for whites (Human Rights Watch, 2009 as cited in Quigley, 2010). According to the Human Rights Watch in May 2008 (as cited in Quigley, 2010), whites and blacks take part in approximately equivalent rates of drug offences. But according the 2009 congressional testimony from the Sentencing Project, even though blacks make up about 13% of the US population and 14% of monthly drug users, the people being arrested the most are black – disproportionately high at 37% of arrests (Quigley, 2010). Once arrested, Blacks are more likely to be denied bail or not be able to afford bail as compared to whites. For example, a 1995 review by the New York State Division of Criminal Justice found that in New York blacks are 33% more likely to be detained awaiting felony trials than whites (Quigley, 2010). In March 2010 the U.S. Sentencing Commission found black offenders received sentences 10% longer than white offenders for the same crimes (Quigley, 2010).

In Toronto, there are similar examples. The Toronto Police Services Board made it clear that racial profiling would not be tolerated and the Ontario Human Rights Commission began working with the police. However, in an analysis by the Toronto Star newspaper of Toronto police stops from 2003-2008 they found that black and brown youth are stopped 2.5 times more often than white youth (Rankin, 2012).

If bias and discrimination has not disappeared in real life situations and seems to still affect court trials, how can we explain the results of these mock court trials? Why are the more
modern mock court trials showing reduced discrimination? Where has the bias gone? Perhaps bias has not disappeared but has become more subtle.

The driving components of intergroup conflict – negative stereotypes, prejudice, bias, and discrimination – are certainly still prevalent in North America and, though not as blatant as in the recent past, still have an effect. The pessimistic view is that bias has not disappeared at all, but instead all non-prejudiced responses are just socially driven attempts at impression management (Crosby, Bromley, & Saxe, 1980). But if there are social norms to not act in a biased way, then there must be low-prejudiced people. Though it is believed that internal prejudice has decreased over the years, it certainly has not completely disappeared. The optimistic view that there is no longer racial bias is also almost certainly incorrect. There must be some other reasons that explain the change. It could be a combination of reduction in personal prejudice, more prevalent egalitarian social norms against prejudice, and laws introduced to reduce discrimination. Together these create a focus on a need to reduce bias both internally and control existing bias for prevalent external reasons. According to the Aversive Racism framework by Gaertner and Dovidio (1986), in more modern times, old fashioned blatant racism has been replaced with whites having progressed to believe that racism and discrimination are wrong, but at the same time, upbringing within North American society and culture has reinforced and sustained negative stereotypes regarding blacks. These modern dual motivations create feelings of uneasiness and discomfort in interactions with blacks. This leads people to attempt to act in socially desirable ways and avoid appearing biased, especially in situations where they could be perceived as racist. In fact, when there is additional emphasis on their individual prejudice level, people may even ‘bend over backwards’, responding even more favourably to blacks than to whites (Gaertner & Dovidio, 1981). However, when the situation does not have salient race cues,
whites may rely on stereotypical beliefs about blacks and respond in a biased manner (Frey & Gaertner, 1986; Gaertner & Dovidio, 1986; Hodson, Dovidio, & Gaertner, 2002).

1.1.3 Recent Mock Trial Results

When looking closely at the more recent results, it appears that making race factors salient to the white participants tended to reduce bias. In a study by Fein, Morgan, Norton, and Sommers (1997) participants were exposed to pretrial publicity suggesting the guilt of the defendant. The generic version increased the guilty votes against the defendant. However, if the pretrial publicity specifically mentioned that the defendant was black, and it seemed there were racist motives for writing the article, this decreased the number of guilty votes. In other words, when race was not salient, negative pretrial publicity biased the jury, but when race was made salient, bias ‘disappeared’ in white participants, presumably because jurors were making an effort to control bias. This also supports the theory that bias can be controlled via stereotype inhibition when aware of it or aware of the possibility of bias (Devine, 1989) and the idea that people act in socially desirable ways to avoid appearing biased (Gaertner & Dovidio, 1986).

Skolnick and Shaw (1997) created a criminal case that resembled the O.J. Simpson murder trial. Race and celebrity status were varied between black and white and celebrity or non-celebrity. Participants were asked to render a verdict and impose a sentence. For both black and white participants, celebrity status did not have an impact on sentencing. However, there was a differing effect of race – black participants rated black defendants not guilty more often than white defendants. This bias was less apparent with white participants; they rated white and black defendants’ equally guilty. This lack of bias on the white defendants’ part could be due to the fact that the study was conducted in California, and race was a major point in the real life O.J. Simpson trial that had just recently taken place (Skolnick & Shaw, 1997).
More evidence for the control of bias by white jurors for black and white defendants due to race salience comes from research by Sommers and Ellsworth conducted over the last decade. In a study in 2000, Sommers and Ellsworth had mock jurors read different versions of five racially charged cross-race crimes: a fight between college basketball players where one player attacked the other and used racial language; a gang who mugged a man after his car broke down and told him to go back to his own neighbourhood; a law school applicant who held an admissions secretary hostage at gunpoint because he felt the admissions policy was racist; a man who slapped his younger girlfriend at a bar; and a man who burned down a church. In all of these trials, the race of the defendant and victim was varied so it was either a white on black crime or a black on white crime. Results showed no white juror bias – black defendants were found guilty as often as white defendants. Sommers and Ellsworth postulated that the egalitarian results might be due to modern racism, where if race seems to be a salient factor, jurors are much more careful about not using race to make their decisions.

To explore this further, in their second study Sommers and Ellsworth (2000) expanded on the assault and battery case where the boyfriend slapped his girlfriend in a bar. Four versions were created so as to make race a salient factor or not. The defendant was either black or white and threatened his cross-racial girlfriend before hitting her. In the two non-race salient versions, the defendant said: “you know better than to talk that way about a man in front of his friends”. In the race salient versions the defendant said: “you know better than to talk that way about a black (white) man in front of his friends” (p. 1373). In the conditions where race was not salient, white participants found the black defendant guilty more often and sentenced him to longer time in jail than his white counterpart. However, when race was salient, black and white defendants were found guilty equally often and given equal jail sentences (Sommers & Ellsworth, 2000).
A meta-analysis of the research on racial bias by Mitchell, Haw, Pfeifer, and Meissner (2005) found a significant effect of racial bias, which became more evident when considering certain moderating variables. Specifically they looked at race of defendant, judicial instructions about procedural fairness (burden of proof and reasonable doubt) and whether or not a dichotomous or continuous variable of guilt was used. Across the studies examined, Mitchell and her colleagues found a bias against the defendants when they were black (as compared to when they were white). However, when common judicial instructions were given (which the authors assumed included instructions on burden of proof, reasonable doubt, and some form of case law) bias was reduced. In addition, significant bias was observed more often when using a continuous variable of guilt, rather than a guilty/not guilty dichotomous variable as would be used in real life. This suggests that even if the participants believe the black defendant is guilty more often than the white (as shown in the continuous scale) they will still give fair verdicts especially when also given the jury instructions. This shows the importance of continuing to use the judicial instructions pertaining to a fair and impartial trial, but also suggests that it may still be a good idea to go above and beyond standard instructions and also given specific instructions about racial bias (Mitchell et al., 2005).

Sommers (2006) continued his examination of the effect of making race salient in mock jury studies. He looked at the effect of race salience in combination with deliberation of juries when the racial makeup of the mock jurors was varied between all white or containing black mock juror members. In all conditions, the defendant was black. When judicial instructions made race a salient issue, white participants were more lenient towards the defendant. As well, white participants were also more lenient towards the defendant when race was made salient indirectly by having black members of their jury. This was shown even before deliberation when white
participants in juries containing black members were more lenient toward the black defendant in their individual verdicts.

A large, four year study in England and Wales involving real life jurors being interviewed and taking part in mock juror simulations on racial salience was completed by Thomas and Balmer (2007). The authors found that there was no evidence of bias in an assault case when it was portrayed as racially motivated, but when it was not portrayed as racially motivated, the black defendants were found guilty more often than the white defendants.

The majority of studies have examined general racial bias but have not investigated prejudice levels of the participants. A study by Kemmelmeier (2005) took a different approach to the apparently egalitarian results in the literature using social dominance orientation (SDO) of participants as a level of prejudice. Social Dominance Orientation (SDO) is defined as the degree to which individuals desire and support group-based hierarchy and the domination of “inferior” groups by “superior” groups (Sidanius & Pratto, 2001). Kemmelmeier replicated the two non-race salient versions from the second study of Sommers and Ellsworth (2000) where either a white man assaulted his black girlfriend or a black man assaulted his white girlfriend. The basic findings of the study showed no main effect for the race of the defendant as in Sommers and Ellsworth. However, there was an interesting effect of SDO. When participants were high in SDO, they found the black defendant guilty more often than the white. When participants were low in SDO, they found the black defendant guilty less often than the white. Combining these two results effectively cancelled out obvious juror bias, but reveals it is still a problem in mock court trials for at least some participants (Kemmelmeier, 2005). In fact, clearly both high and low SDO participants showed bias but some were biased against black defendants and some biased in favour of them.
Cohn, Bucolo, Pride, and Sommers (2009) also examined levels of prejudice and its effect on verdicts. Specifically, they were interested in whether even highly racist participants would reduce their bias towards a black defendant when race was made a salient factor. The case involved a black defendant charged with vehicular manslaughter. In the race salience condition, the defendant’s wife recalled some of the white witnesses using racial slurs. The authors found that making race salient reduced white juror racial bias towards the defendant and participants rated the defendant’s case stronger. When race was not made salient, participants’ racist beliefs correlated with the verdict – the more racist participants were, the more often they found the defendant guilty and rated the defendant’s case as weaker.

So far researchers have explored reduction of bias when mock jurors were given judicial instructions about procedure fairness, when race was made more salient through judicial instructions about prejudice, when there were obvious racial issues in the actual court case, and in more subtle ways with racial composition of the jury. In a study by Bucolo and Cohn (2010), the authors examined a practical real world court strategy, namely the defence ‘playing the race card’ with racially salient opening and closing statements. When the race card was not used, ratings of guilt were not significantly different between white and black defendants. When the race card was used, white jurors rated black defendants significantly less guilty. Interestingly, in a split from Cohn and her colleagues (2009) there was still an effect of prejudice levels independent of the effect of making race salient in the case. High prejudiced participants were still more likely than low prejudice participants to find the black defendant guilty.

The general conclusion from these studies is that making race factors salient to white participants tended to reduce bias or even to produce what might be called reverse bias, in favour of black defendants. This goes directly against Justice John Murray’s idea that the racial bias rule should be rejected or is old fashioned or archaic. In fact, as in the Canadian judicial system,
merely bringing up race as an issue may be an effective, simple way to help reduce bias in court trials. For those still higher in prejudice, discrimination has gone underground – hidden by individuals fearful of looking racist in a society that no longer (for the most part) accepts overt displays of racial bias. Aversive racism, combined with politically correct bending over backwards to appear to be non-prejudiced (by both high and low prejudiced people) has reduced and masked prejudice.

One concern that arises is that these individuals who hide their prejudices may still act in a discriminatory way when in a situation where race is not necessarily salient. In court trials, it is important to make the importance of being fair and impartial in regards to race issues salient in an attempt to remove bias before the decision making process starts, to have a fairer end result. As people “fake good” (or perhaps more accurately “deny bad”) when asked directly about their biases, it is worrying that they could slip through the cracks and be an integral part of the decision making process. The problem for court trials is removing potential bias from court proceedings – either by removing biased people or reducing the impact of their potential prejudices. The fear (or reality) is that people may lie when asked about being prejudiced, or lie about their ability to control their prejudices, or not even know about their prejudices to begin with.

1.2 On the Nature of Prejudice

In the past 65 years, there have been significant changes in social and political attitudes in North America concerning prejudice and discrimination. Though it is believed that prejudice has decreased over the years, and a general reduction in stereotypes and prejudice could account for the reduction of discrimination in court trials, prejudice certainly has not completely disappeared. Thirty years ago, social norms expressing disapproval of overt discrimination and racism were
less prevalent then they are today. Now, the need to be unprejudiced has become a social norm in a great deal of our society. Current social values against racism, combined with making the issue of race salient, seem to work against bias in the courtroom. The existence of these more prevalent egalitarian social norms, and laws introduced to reduce discrimination, have made explicit displays of racism and discrimination based on race both illegal and socially improper.

1.2.1 The ABCs of Intergroup Attitudes

Gordon Allport (1954) made a concerted effort to ground the field of prejudice in some well-defined and shared definitions concerning the components of intergroup conflict (negative stereotypes, prejudice, bias, and discrimination). The semantic knowledge of assumed information about a group is called a stereotype. Stereotypes are cognitive schemas that allow for easy and efficient organization of information about people based on their membership in certain groups (Allport, 1954; 1988). Research shows that the majority of people in a shared culture or society have a common semantic knowledge of stereotypes (Ehrlich, 1973; Devine, 1989; Lepore & Brown, 1997; Kawakami, Dion, & Dovidio, 1998). In North America, if any randomly selected person who grew up with and was exposed to North American culture was asked about stereotypes, they most likely would be able to recognize or reveal the common supposed characteristics of a group. If carefully asked what the average person (though not necessarily what they themselves endorse) thought of as good examples of the good and bad characteristics about black people, Muslims, women, men, Asians, women drivers, or even Asian women drivers there would be considerable agreement in their answers. These answers would be based on the common knowledge within a culture or, at the very least, a sub-culture within the broader society. This is due to constant exposure to media and cultural norms (Devine, 1989; Bargh, Chen, & Burrows, 1996). Moreover, people provide very similar stereotypes regardless of whether or not they personally accept them. For example, when asked to come up with common
stereotypes about blacks, both high and low prejudice participants come up with very similar lists (Devine, 1989; Lepore & Brown, 1997). However, just because people have knowledge of stereotypes does not necessarily mean they will endorse them. When asked about endorsement of the lists, high prejudice individuals agreed more with the negative stereotypes, and low prejudice individuals did not (Devine, 1989; Devine & Elliot, 1995; Lepore & Brown, 1997).

The emotional endorsement of these stereotypes, the belief that these generic categorizations are true, is called prejudice. When a person hates or dislikes a member of group, based on group but not individual characteristics, this is prejudice. Presumably prejudice in the general population ranges from extremely unprejudiced to extremely prejudiced.

Thurstone’s (1934) general definition of attitudes states that “the essential feature of attitude is a preparation or readiness for response…not behaviour, but the precondition of behaviour”. Logically, in outgroup attitudes, bias is the precondition for discrimination. Bias is complex, and there are a few routes to bias. You can be biased due to automatic activation of stereotypes or by the endorsement of those stereotypes (prejudice). Bias may lead to behaviour. Discrimination is the final behavioural outcome – the inappropriate and unjustified biased treatment of an individual based solely on their group membership (Allport, 1954; 1988). The most intuitive way that bias occurs would be due to prejudice: a stereotype is activated, it is endorsed, and it is used to treat a target unfairly. At its simplest level, if people have a prejudice against a group, then they would act in a biased way toward that group; if they are not prejudiced, they would not act in a biased way towards the group. Of course, within the social psychology of prejudice, the simplest route is not always the way it works.

1.2.2 Social Categorization

Categorization in human thinking is a short cut that is necessary to reduce the complexity of the social world (Devine, 1995). Allport noted that the human mind must think with the aid of
categories and once formed, these categories are the basis for normal prejudgment (1954). These cognitive shortcuts are usually a good thing, simplifying our lives and allowing us to make decisions quickly without constantly having to create new attitudes on the spot. We learn from our past. For example, we start to categorize the difference between good and bad, positive and negative, early on in life – so we quickly learn what to approach and explore, and what to avoid. Categorization helps us in everyday situations. For example, a familiar category is dogs. We can usually tell that an animal is a dog rather than a cat or some other medium-sized four-footed creature. When an animal that seems to fit the category dog approaches us, we tend to react in terms of how we feel about dogs in general. If we like dogs and are not afraid of them, we may pet the dog (because we know dogs usually like that) or give it our hand to smell (because we know that it is often a good idea). But even people who generally have positive feelings toward dogs may have a separate category of dogs that they consider potentially dangerous (for instance pit bulls or mastiffs). When they see a dog that seems to fit that category, they are more cautious and may even avoid being near the dog. Regardless of how they feel about dogs and about specific types of dogs, having the category means that people do not have to decide each time that this four-footed animal is probably someone’s pet and is probably not dangerous and probably will like being scratched behind its ears; or that this animal that fits the pit bull category is potentially vicious and should not be scratched behind its ears.

However, categorization can have negative consequences for several reasons. The most obvious is that the categorization is wrong. That is not a medium size, nice-looking dog walking up to you, but a wild jackal or even more likely a wild dog. It might like to be scratched behind its ears, but you might also lose a hand trying to. Similarly, though with the opposite effect, that dog that you thought was a pit bull and was therefore dangerous was actually another variety that is very friendly and gentle so there was no reason to run away or to be frightened. Or in the
extreme, someone might be fearful and scared of all dogs, regardless of size or looks, because of a bad experience in the past.

A second way that categorization may lead to mistakes is that the beliefs about members of the category are wrong. Pit bulls (as we are often told by those who love them) are not especially dangerous so we should not be afraid of them. Putting them in the category of dangerous animals might be unfair to them.

Probably the most important reason that categorization leads to mistakes is that it causes one to treat all members of the category the same. Individual pit bulls may be dangerous, but the group as a whole should not be categorized as such. Assuming that a particular creature is friendly and gentle because it is a dog can have disastrous outcome if the dog turns out to be vicious; assuming that all pit bulls are dangerous and should be banned or even euthanized (as is done in some jurisdictions) can be unfair to the dogs and terrible for their devoted owners.

Social categorization can create attitudes which, if activated, influence individuals to react to a situation in a similar manner to what they did previously (Gawronski, 2007). Both positive and especially the negative consequences of categorization apply to social situations and in particular to social groups. The components of these attitudes can influence numerous aspects of everyday interactions, ways of thinking, and the judgments of people in complex and sometimes counterintuitive ways. People seem to have a strong tendency to divide other people into all sorts of categories. Doing this often facilitates social interactions, but it also has the potential to have adverse effects. Some categorizations may be based on real differences, but categorization can lead to consequences that do not appear to be based on real similarities or differences. When we treat individuals based on perceived group traits, it is doing those individuals a disservice because we are not giving them a chance to make their own impression. The problem is that we form these categorizations largely automatically and use them in the
same way, but sometimes we over-categorize, sometimes we do it wrong, and sometimes we misinterpret what category someone or something fits into. Having negative stereotypes (a preconceived social categorization about a particular social group) and treating everyone in that group the same way can lead to bias.

Bias and beliefs stem from social categorizations people make to ease knowledge assimilation and decision making in potentially complex situations, and these attitudes are related to subsequent behaviour. Beliefs could influence how people perceive the world, their expectations about what they are going to hear, their selective attention to facts presented, and their perception of those facts. Expectancies can guide attention – they could affect what and how people remember, and their interpretation of the information. Beliefs could affect how information is integrated into a whole. People tend to notice information that apparently proves their belief, while ignoring information that does not (e.g. Fazio, 1986). But do people all have similar stereotypes and similar activation? Logically the semantic knowledge base should be similarly learned across a culture, but will that inevitably lead to prejudice and bias? Is it possible that even with similar knowledge, the activation of that base knowledge may be different, or the control of it may be different, depending on the person, and the situation?

1.2.3 The Cognitive Miser, Cognitive Monster, and Modern Views of Prejudice Regulation

There are quite different views of how stereotypes affect behaviour. Stereotype activation is seen by some as an automatic process (Fazio, Jackson, Dunton, & Williams, 1995; Bargh, Chen & Burrows, 1996). According to this view, the mere presence of a representative of a group or even mention of the group is thought to activate the stereotype of that group. Fazio (2007) believes that the associated attitude-evaluation is activated automatically and inescapably from
memory on the mere observation or mention of the attitude object (also Bargh, Chen, & Burrows, 1996). These evaluations can be activated without intent and even if the person is engaging in another activity. When activated, it is not necessarily to a level of conscious awareness but is activated to a level that will influence perception which in turn influences processing, judgment, and behaviour. An even stronger view is held by Bargh who favours the inevitability theory which is that whether conscious or not, the mere activation of the stereotype inevitably affects thoughts and behaviour (Bargh, 1989). Bargh (1999) believed that research overestimated the ability to control automatically activated stereotypes— and therefore underestimated the impact of these stereotypes on social interactions.

There are those who take quite a different point of view. In contrast to the idea that activation and effect are automatic, theories about control of prejudice conceive of different routes to subsequent expression of bias with differing weights with regards to automatic versus conscious influences. One view is that stereotype knowledge and activation is common, but whether this activation affects behaviour depends on various factors, including whether the stereotype is consciously accepted, whether the person is aware it has been activated, and the extent to which the person wants to avoid being prejudiced (Devine, 1989). Another view is that while stereotype knowledge is common, automatic activation may be different depending on level of prejudice (Lepore & Brown, 1997; Kawakami, Dion, & Dovidio, 1998; Fazio, 1990).

1.2.4 The Cognitive Miser

In the 1960s it was assumed that people were very deliberate in all of their decision making, and were, for the most part, in control of perception and judgment. By the 1970s there was reservation about the idea that people were always in conscious control of their thoughts. In fact, Taylor and Fiske (1978) made a case for people often acting “mindlessly” in their behaviour and decision making, reacting using habit and heuristics based on situations learned from past
behaviour. They proposed that people have limited cognitive resources – engaging in effortful thought all the time would use up mental and attentional capacity. Therefore it is necessary to strategically use mental resources sparingly or in a “miserly” fashion – relying on simplifying techniques such as heuristic decision rules, categorization, and stereotypes. In that way, people could conserve their limited cognitive resources and intentionally choose what to focus on for more deliberate thought processes. However, even though Taylor and Fiske believed that people predominately react spontaneously in situations, they also believed that people can quite quickly become more deliberate and engage in effortful processing when not being deliberate would have significant costs (Taylor & Fiske, 1978; Bargh, 1999). The important idea here was that people were using stereotypes or categories on purpose, as an adaptive way to deal with limited cognitive resources.

1.2.5 The Cognitive Monster and Inevitability of Prejudice

In the 1980s new theories and research about decision making emerged. Decision making was no longer believed to be a strategic choice, but instead an unintentional, automatic process (Bargh, 1989; Bargh, 1999). In fact, it was shown that the mere perception of outgroup characteristics was enough to cause stereotype activation. In the inevitability theory of prejudice, prejudice is an unavoidable consequence of ordinary categorization (stereotyping) processes, such that as long as stereotypes exist, prejudice will follow (Billig, 1985; Devine, 1989). If you have mere knowledge of common stereotypes about a group, which has been shown to be the case by Devine (1989), this means you will be prejudiced. This in turn was thought to unintentionally influence judgments about an outgroup member outside of awareness (Bargh, 1989). In this scenario, prejudice is a cognitive inevitability – a cognitive “monster” (Billig, 1985; Bargh, 1989; Bargh, 1999). In a common culture, everyone has stereotype knowledge, and anyone with stereotype knowledge will activate it as a shortcut in the mere presence of a
stereotyped group member, and when the stereotype is activated, it will influence judgments about that group member (Billig, 1985; Bargh, 1989; Bargh, 1999). In response to the inevitability of prejudice theory, Fiske (1989) proposed that the mind does not work by cognition alone. With motivation, people can overcome the influences of stereotypes because control processes have the ability to take over and inhibit automatic processes.

1.2.6 Two Factor Theories and Return to Control

The Fiske (1989) and Devine (1989) two component theories made a compelling argument that intentional control is a possibility again, but the control was now theoretically different. It was originally thought in the 1960s that the initial use of all categories and stereotypes was under strategic control, and then in the 1970s people deliberately chose which select ones to use, followed in the early 1980s with the no control of stereotypes, inevitability of prejudice approach. Both Fiske and Devine went another route – though stereotypes may be automatic, the subsequent influence of the already activated category or stereotype was believed to be controllable. Unfortunately this depends on the person being aware of the potential influence of automatically activated stereotypes plus the person having the motivation and ability to attempt to control their decision making. Therefore, if the person has a personal choice and sets goals not to be prejudiced, as well as the time and cognitive resources, then it is possible to overcome automatically activated stereotypes.

Devine (1989) explored the idea that stereotype activation and stereotype application may be two distinct components. She conducted three studies to disprove the inevitability of prejudice perspective (that as long as stereotypes exist, prejudice will follow) and replaced it with the theory that argued that stereotypes and prejudice, though potentially overlapping, are distinct cognitive structures. She postulated that only activation was automatic and inevitable – application in perception and judgment are under motivational control. Stereotype activation and
personal beliefs may be incongruent; stereotypes are automatically activated but beliefs are voluntary and can be used – with sufficient time, cognitive capacity, and proper motivation. For all three studies, Devine’s participants were pretested to determine their prejudice levels using the Modern Racism Scale (McConahay, Hardee, & Batts, 1981).

In her first study, Devine had participants list all the black stereotypes they knew of in North American culture, regardless of their own endorsement. Results revealed that there was a common semantic knowledge of black stereotypes, regardless of personal prejudice levels.

In a second study, Devine (1989) subliminally primed participants with both black category and black stereotypic traits. The category primes were social categories that should activate the black stereotypic traits, words like Blacks and Negroes. The trait primes were words associated with the black category prime, words like poor, lazy, and athletic. She found that both high and low prejudice participants reacted in a similar way as compared to participants who were primed less. Those primed with stereotypes believed the target was more hostile – both high and low prejudice participants acted in a biased way. Devine theorized that if stereotype activation was at an unconscious level of awareness, and therefore participants were not able to consciously control them, they could cause bias. In a third study, Devine (1989) allowed for conscious decision making. In a replication of the first study, Devine (1989) asked high and low prejudice participants to list all the black stereotypes they knew, but once they completed this task she also asked them how much they endorsed the stereotypes. With this extra conscious time to react (and therefore potentially control their responses) the low prejudiced participants endorsed more positive than negative beliefs about black targets as compared to high prejudiced participants who endorsed more negative than positive beliefs. Devine (1989) demonstrated that though stereotype knowledge is widespread and does not differ between high and low prejudice
individuals, with motivation (in this case internal prejudice level) the activated stereotypes can be controlled so as to not affect explicit endorsement.

Bargh (1989) was skeptical of this theory. He wondered how often all these conditions could be met in the real world. If a person admitted the possibility of unconscious influence, then they also must have the motivation and ability to control it. They need enough time and the cognitive resources to decide to engage in deliberate processing. In addition, they need to know what the unconscious activation was to be able to correct for it. Bargh believed the potential for one of these conditions not being met is realistically quite high; therefore people cannot actually correct for automatic stereotypes after they have been activated (Bargh, 1989; Bargh, 1999).

Yet in reality, not everyone is equally discriminatory against outgroups, or even equally biased. What if there were situations that preemptively stopped stereotypes from being automatically activated? And what if, even if the stereotype activation is automatic and inevitable (as Devine postulated) there are differences in the nature of the implementation of the stereotype from the common semantic knowledge. Lepore and Brown (1997) and Fazio (1990; 1995) have shown that automatic activation of stereotypes does not occur the same for everyone, despite common culture, and even though individuals appear to possess similar semantic knowledge of the stereotypes. There are individual differences in stereotype trait use upon activation of group representation (Lepore & Brown, 1997). Like any attitude, the more it is activated, the stronger it becomes, and the stronger it becomes, the faster we can activate, and use it (Fazio, 1990). Over time, a well-intentioned individual, motivated to be nonprejudicial and egalitarian, can consciously strengthen good automatic judgments and weaken negative automatic judgments, resulting in the development of chronic inhibition/reduction of negative stereotypes (Fazio, 1990; Fazio, 1995; Cunningham, Zelazo, Packer, & Van Bavel, 2007). The inevitability of use of negative stereotypes as primes by the low prejudiced participants in
Devine’s second study might not have actually occurred – there was a potential confound apparent, and another explanation.

Devine (1989) primed the black category stereotype along with stereotypic trait associations, and the majority of the trait associations were negative. This potentially activated negativity in general, not necessarily black negativity, and it was this that caused the effect rather than prejudice against Blacks. This raises the potential that though semantic stereotype knowledge is similar between high and low prejudice individuals, perhaps the actual stereotype activation might be different. Low prejudiced people, when exposed to the social category “black” even as a subliminal prime may activate positive rather than negative associations which would be potentially explained by Fazio’s (1990) associative network model of attitudes. It argued that the more a learned association is activated (negative for high prejudice and positive for low prejudice) the stronger that association is, and the stronger the association is, the faster the association will be activated, and the stronger the attitude. Conversely, the more a learned association is inhibited or discredited, the weaker that particular association will be.

Lepore and Brown (1997) addressed this problem in a series of studies that replicated and modified the original Devine (1989) studies. Lepore and Brown were able to replicate the first Devine study, finding that both high and low prejudiced participants had similar semantic knowledge of black stereotypes. In the second study, Lepore and Brown primed participants with only the category of black rather than the individual black trait associations. There are two possible results: if stereotype activation is the same regardless of prejudice level, the mere presence of the subliminal category should activate the black stereotype trait associations. If this occurs, both high and low prejudiced participants should act the same after the category prime as shown in the original study (Devine, study 2, 1989). However, if there is differential stereotype activation, then the category prime may cause only the high prejudiced participants to activate
the negative stereotype traits, and consequently form a more negative impression of the target. The latter result was confirmed with the results. Lepore and Brown found that high prejudice participants formed a more negative and less positive impression of the target, and low prejudice participants had the opposite reaction. This result gives credence to the idea that though stereotype knowledge is the same, activation is different (Lepore & Brown, 1997). In a third study by Lepore and Brown, they replicated Devine’s (1989) second study by priming high and low prejudice participants with both category and stereotypic associations and found that both groups then formed more negative associations with the target. The findings from this third study demonstrate that the low prejudice participants in Devine’s second study were influenced by the presented negative traits and not by negative stereotype traits activated by the ‘black’ social category.

This gives support to the idea that category activation has differing activation depending on context, motivation, or prejudice levels. When a category is activated, though high and low prejudiced people have similar semantic knowledge of the category, this does not necessarily mean every association in the network is activated with equal strength. Perhaps the weights of the associations differ with high prejudice people emphasizing negative links and inhibiting positive links and low prejudice people emphasizing positive links and inhibiting negative links. These differences in association strength may be due to previous activation and learning. From the Lepore and Brown (1997) study this seems to be the case, but automatic activation could be further examined from a speed of activation standpoint. Neither Devine or Lepore and Brown tested for speed of stereotype activation of the category prime, but rather examined whether the stereotype was activated in general. If there is differential activation, even at an implicit level, there would be divergent automatic stereotype activation in high and low prejudiced people due to the differential strength of node associations. If stereotype activation is being controlled after
universal activation (and therefore is the same activation in both high and low prejudiced participants) then a subliminal prime, at an unconscious level of awareness, should result in the same stereotype activation in both high and low prejudiced participants. To test this idea, Kawakami, Dion, and Dovidio (1998) primed high and low prejudice participants with category activation (in this case with white or black category activation, or a control). Participants had to pronounce a target word after the prime was presented, the prediction being that the prime would facilitate pronunciation of positive or negative stereotypic trait words (as compared to non-stereotypic words) depending on the prejudice level of the participant. To manipulate whether the task was implicit or explicit, the authors showed the stimulus prime for either 80ms (well under conscious threshold) or for a full 2000ms (well within conscious awareness). With the longer prime presentation, participants should have more opportunity for conscious control over processing.

If it is the same knowledge, same activation, but different control then the high and low participants should only differ in their outcomes in the conscious awareness condition. However, if it is same knowledge, but different activation, then the outcomes should be different for high and low prejudiced participants in both the subliminal and conscious conditions.

When comparing across the implicit and explicit presentation conditions, the high prejudiced participants’ reaction times in the pronunciation of negative black stereotype words was facilitated by being primed by the black category. However, low prejudiced participants were not facilitated by the black category prime when pronouncing negative stereotypic words not only in the explicit condition, but also in the implicit condition (Kawakami et al., 1998). These results reveal that though semantic knowledge of stereotypes is similar across prejudice levels, activation (even implicit activation) differs between low and high prejudiced people. This
is further evidence that demonstrates that the weights or strength of activation flows differently in high and low prejudiced people.

To come to terms with the results of these studies and Bargh’s theories, instead of thinking in terms of high and low prejudice when integrating all of this information, it is important to think of prejudice on a continuum. Everyone in a common culture starts with a set basis for a stereotype learned through common semantic knowledge associations. If a person is moving on that continuum to a higher or lower prejudice level, they can change the strength of the associations within the stereotype knowledge (and therefore activation) through endorsement due to motivation to become less (or more) prejudiced. Some people, especially if they are high or low on the prejudice endorsement continuum, may have very strong, accessible stereotypes (positive or negative). Bargh posited stereotypes are activated automatically and are not under control. This is probably not true. At least under some conditions, as research shows people can control and moderate their reactions. First, if a person does not accept the stereotype, it is less likely (maybe unlikely) to have an effect. Second, if the person is aware of the chance of prejudice, and is motivated not to show it, they can prevent it. Third, if the person is under cognitive pressure (distracted or under time constraint) they may lack the resources to avoid the prejudice caused by the stereotype if it is more chronic.

1.3 Social Reasons for the Disappearance of Bias

There are many motivations to change an individual’s initial automatic assessment. As stereotype knowledge is generally universal (within a culture), endorsement is a key moderator. Semantic knowledge of a stereotype certainly does not necessarily mean endorsement or even similar activation. In addition, many current theorists have suggested that activated stereotypes are not necessarily unconscious, and are not necessarily endorsed as accurate, so they could
potentially have different effects on decision making depending on the personal and social circumstances (Wilson, Lindsey & Schooler, 2000; Gawronski & Bodenhausen, 2006). Even if stereotypes are endorsed (i.e., the person is indeed prejudiced) this also does not necessarily produce discrimination. In reality most people do not react in such a straight-forward manner; being biased does not necessarily mean you are going to act in a discriminatory way. The significant change to prejudice against blacks in social norms in Canada over the last 30 years is most likely a result of people being motivated to not be racist. The internal motivation to respond without prejudice results from standards that are personally important and non-prejudiced. External motivation to respond without prejudice results more from social pressure to comply with non-prejudiced norms than because of personal beliefs (Plant & Devine, 1998). It must be recalled that social norms are a powerful motivator to act in an unbiased way (Crandall, Eshleman & O’Brien, 2002; Plant & Devine, 1998). If there is a salient reason not to be prejudiced (e.g., perhaps they are out in public and there are people around that are assumed to be unprejudiced) or overlying social norms in society, even the prejudiced person might act in a non-discriminatory way to conform to social norms not to be prejudiced.

1.3.1 The Situation

One crucial aspect to consider is the situation. In a situation where the target person does not fit into the stereotype, the stereotype activation may not occur in the usual way. To take an extreme example, if a person came upon a black target in a law office wearing a suit and tie and carrying a briefcase, there may be different stereotype activation than if a person came across the same target carrying a gun in a dark alley.

In early research on the subject, Allport (1954) stated that discrimination will be used indirectly or in predominately private settings and used much less in public settings or situations where it may cause embarrassment or loss of social standing. Social norms are powerful
motivators and seem to outweigh personal attitudes when it comes to dominant reactions, especially in public situations. Kunda (1990) make a case for motivated reasoning when it benefits the situation. Crandall, Eshleman and O’Brien (2002) found that the correlation between normative appropriateness of prejudice and expressed level of prejudice was extremely high. If it is acceptable in society to be biased (for example against rapists) people feel comfortable expressing that prejudice. However, if it is not acceptable, for example when the prejudice is against a stigmatized group, then endorsement decreases, usually regardless of personal prejudice levels (Plant & Devine, 1998).

In some situations, negative stereotypes should only be activated and used when relevant or warranted for some motivational reason. For example, in a study by Sinclair and Kunda (1999) even high prejudiced participants controlled biased responses when they were praised by a black target. The target could fit into two separate independent categories: black or doctor. When praised by the black doctor, even high prejudice participants activated the ‘doctor’ category, and inhibited the ‘black’ category. However, when the black doctor criticized them, high prejudice participants activated the negative black stereotype and inhibited the esteemed doctor stereotype. In this last situation, they then proceeded to disparage the target, rating him as incompetent, presumably to play down the target’s criticism as being unimportant (Sinclair & Kunda, 1999).

The situational context is also important. In two studies by Wittenbrink, Judd, and Park (2001) situational cues were manipulated using both conscious and automatic processing conditions. In the first study, a black race Implicit Association Test (IAT) measured automatic implicit associations of the participants before and after watching a movie clip featuring black targets. The IAT before the movie clip gave a baseline level of how much the participants activated an association of black with negative. Next, the participants were randomly assigned to
watch one of two movie clips involving black targets. For half of the participants, the setting of the clip was a family barbecue, for the other half, a gang incident. When primed with the family barbecue, negative implicit associations significantly dropped, while those primed with the gang violence maintained their implicit reaction. In the second study, an evaluative priming experiment was created with not only black and white faces as primes, but varied background cues as well. The primes were either at a church, or on a rundown street corner. Reaction times to evaluating good and bad target words were measured. When the black prime was standing on a street corner, results revealed a strong negative reaction. Participants were slower to respond when the black face was paired with good words and faster to respond when the black face was paired with bad words. However, when the prime was at a church, the opposite occurred, the same black faces now sped up responses when paired with the positive target words (Wittenbrink et al., 2001).

McConahay and Hough (1976) suggested that modern discrimination can also occur if the circumstances are ambiguous enough to allow for a non-racist justification. When specific instructions to guide decision making occur, ambiguity was eliminated and the discrimination disappeared; but if no instructions were given about using only the facts, or to disregard race, discrimination may occur (McConahay and Hough, 1976; Gaertner & Dovidio, 1986; Dovidio et al., 2002; Hill & Pfeifer, 1992; Pfeifer & Ogloff, 2003). For example, as noted earlier, in the studies by Sommers and Ellsworth (2000), in the conditions where race was not salient, white participants found the black defendant guilty more often and sentenced him to longer time in jail than his white counterpart. However, when race was salient, black and white defendants were found guilty equally often (Sommers & Ellsworth, 2000). Making race salient, especially in a decision making realm, may make people aware of social norms and legal reasons not to act prejudiced. This is an additional explanation as to why bias has disappeared in mock court trials.
Presumably when people are aware that they might act in a prejudiced way, they are motivated to avoid it and are able to block it.

Over and above this, people may ‘bend over backwards’ to appear especially non-prejudiced when worried specifically about how their individual responses might appear, and when primed about times in the past where they may have been biased. In a study by Son Hing, Li, and Zanna (2002) low prejudiced participants and aversive racists (in this study those low in explicit prejudice but high in implicit prejudice against Asians) wrote an antiracism essay. In addition, half of the participants were randomly assigned to write about two occurrences where they reacted in a negative way about an Asian and thought they should not have reacted that way. The other half of the participants were a control and wrote nothing in addition. It was thought that those participants that were high in aversive racism, and wrote both about antiracism and then about times when they acted biased would feel dissonance and uncomfortable. In a final part of the study, participants then were asked to participate in an anonymous ballot for cutting funding to various student groups. The low prejudiced participants were fair in cuts regardless of student group. The participants high in aversive racism primed for guilt made much fewer cuts to the Asian student group than the low prejudiced participants, indicating that they bent over backwards for the group (Son Hing et al., 2002).

It could be that being more aware of legal and social disapproval of open racism has led people either to be less prejudiced or to practice more covert prejudice (Pfeifer & Bernstein, 2003). Plant and Devine (1998) examined stereotype endorsement of blacks as a function of internal motivation to respond without prejudice, external motivation to respond without prejudice, and private versus public domain. Participants with high personal internal motivation not to endorse prejudice (IMS) scored low in general on stereotype endorsement in both private and public domains when compared to those with low personal motivation. Those with low
personal motivation reported stronger endorsement of stereotypes when in a private versus a public domain, and these effects were driven by external motivation to respond without prejudice (EMS). Only those low in IMS who were also high in EMS varied their answers based on private versus public setting – changing their behaviours because they were worried about the opinions of others. Dovidio and Gaertner (2000) looked at changes in racism over time between two groups of students attending the same college 10 years apart, attending in either 1988-89 or 1998-99 academic years. Self-reported prejudice was lower for the 1998-99 samples, but the pattern of subtle discrimination was equivalent across the samples.

1.4 Legal Reasons for Disappearance of Bias

The right to a fair and impartial trial in North America is very important. If the justice system were seen as allowing the outcomes of trials to be based on bias rather than evidence and law, it would lose credibility. The aim of any court is to ensure a fair trial. The question is how to eliminate potential bias. There are at least two ways to go about ensuring a trial with impartial jurors. In the United States there is a presumption that jurors are inherently biased and must be challenged. The challenging of the jurors is called the voir dire, a routine procedure used before trial where every potential juror may be questioned as to their potential preconceptions and prejudice. Due to the presumption of bias, there is no need for justification of the challenge. The questioning is sometimes lengthy and can cover a wide range of topics – potential jurors can be questioned at length about personal and private matters, such as religious affiliation, annual income, personal attitudes, beliefs and involvement in crimes (Vidmar & Melnitzer, 1984; Vidmar, 1996).

In Canada there is a somewhat different approach. There is a presumption that jurors will follow their oath to listen to the evidence with an open mind and decide the case fairly and
impartially. In the United States they usually do not have routine publication bans. In comparison, Canada has routine publication bans on preliminary trials to attempt to reduce bias in the potential juror pool and to guarantee the right to a fair trial for the defendant. However, even with reasonable limits on media, there still may be a realistic concern that, for a particular case, this presumption of impartiality in Canada does not hold. The Supreme Court of Canada made it clear in *R. v. Sherratt* (1991) that impartiality is an important and mandatory characteristic of all members of a jury. Impartiality in court trials was defined in the landmark case of *R. v. Parks* (1993). In the Parks case, it was argued that because the defendant was black and the victim was white, the defendant might not be able to get a fair trial due to the air of reality of prevalent undertones of black bias in the country. In Canada due to the precedent set by the Parks trial, if it is thought that a case may be influenced by some form of bias, the lawyers may request a pre-trial examination of potential jurors called a *Challenge for Cause*. The Challenge for Cause in Canada is a legal mechanism in place to challenge jurors as to whether they would be impartial with respect to a particular issue. If the judge agrees that a reasonable inference of potential bias in the population can be established, then a Challenge for Cause can occur. The lawyers are allowed to ask potential jurors a straightforward question about their ability to judge the evidence in this case without bias, prejudice, or partiality (*R. v. Parks*, 1993).

The Challenge for Cause is informed by Section 15.1 of the Canadian Charter of Rights and Freedoms which states:

“Every individual is equal before and under the law and has the right to the equal protection and equal benefit of the law without discrimination and, in particular, without discrimination based on race, national or ethnic origin, colour, religion, sex, age or mental or physical disability”. (p. 3)
The statement ‘in particular’ shows that this list is not exhaustive, the language purposely leaving
the door open for legal cases. And, through legal cases, other aspects have been included, such as
sexual orientation and marriage.

In the Parks case, two components of impartiality were addressed: an attitudinal
component – if a potential juror has a predetermined bias; and a behavioural component – if the
potential juror would allow this attitude to bias their judgment on the guilt or innocence of the
defendant. A partial juror is one who is biased and who will discriminate against one of the
parties to the litigation based on that bias (R. v. Parks, 1993). Jurors must not be biased, or if
biased they must be able to set aside any bias and decide the case on the evidence presented at
trial alone. The important consideration is not only if the person is prejudiced – but if they have
the ability to ignore those prejudices for the purposes of the trial. A common version of the Parks
Question is: “As the judge will tell you, in deciding whether or not the prosecution has proven
the charge against an accused a juror must judge the evidence of the witnesses without bias,
prejudice or partiality: Would your ability to judge the evidence in the case without bias,
prejudice or partiality be affected by the fact that the person charged is a black man?”

It is thought that this could present a problem where potential jurors feel compelled to give the
socially desirable response that they are not prejudiced (Seltzer, Venuiti, & Lopes, 1991) and
incorrectly report they would not be affected by potential biases (Kerr, Kramer, Carroll, &
Alfini, 1991; Nisbett & Wilson, 1977). However, just answering questions about partiality could
operate as a further means in which social norms about prejudice are made salient for jurors. It
may be that motivation to look socially desirable may actually be enough to reduce or
temporarily remove potential bias (Nickerson, Mayo, & Smith, 1986). If this is the case, then the
Challenge for Cause process works not only to remove jurors who are forthright about their
prejudices, but it may sensitize those not being as honest and the remaining jurors about their
duty to be impartial (Balch, Griffiths, Hall, & Winfree, 1976; R. v. Koh, Lu & Lim, 1998; Schuller, Kazoleas, & Kawakami, 2009). This legal reasoning closely resembles many social psychology dual process models of attitudes, where increased salience of motivational factors (in this case the social norms and legal reasons not to be prejudiced in public) increases deliberate forms of decision making.

1.5 Motivation and Dual Process Models

In general, Dual Process Theories consist of an implicit automatic process (potentially under the threshold of conscious awareness) and an explicit controlled conscious process. These models demonstrate how the application of attitudes can occur from two different routes, or as a result of two different but potentially interrelated processes. Both expressed explicit attitudes (and behaviour) and implicit attitudes can change with persuasion or education, though implicit processes may take longer to change (Eagly & Chaiken, 2007).

Eagly and Chaiken (2007) believe an attitude is a storehouse of all past experience with the attitude object; it can be activated as a whole or in part, moderated by major external cues like social norms and situational pressures. Preliminary, implicit knowledge is activated automatically by the attitude object. This information is not necessarily unconscious or regarded as accurate. Implicit automatic attitudes are then activated and the explicitly stated attitudes derived from evaluative judgments that are endorsed (whether for internal or external reasons). A primary motivator for explicitly stated attitudes is the need to be subjectively accurate (Petty & Cacioppo, 1986; Wilson et al., 2000; Gawronski, & Bodenhausen, 2006).

In Fazio’s (1991) Motivation and Opportunity as Determinants (MODE) model, decision making runs on a continuum ranging from higher likelihood of deliberation (based on our motivations) to a more spontaneous route (based on our automatic attitudes). Many factors and moderators influence whether people engage in more spontaneous decision making or a more
deliberate process. Most theorists, including Fazio, agree that the number of ideas a person can scrutinize is limited, so there is a tendency to focus more deliberately on issues that are personally relevant; the rest of the time we make use of the spontaneous route.

According to MODE, automatically activated attitudes serve as the starting point for our decision making. When either motivation or opportunity to deliberate is lacking, automatic attitude evaluations more directly influence judgments, verbal expressions, decisions, and overt behaviour. The spontaneous route usually involves decisions based on automatic attitudes primed by the situation, where the person does not necessarily even reflect on the attitudes (Fazio & Towles-Schwen, 1999). In fact, the attitude activation and subsequent selective-perception requires no conscious effort or intent and if the activated attitude is strong or personally relevant, it is predicted that there will be greater consistency in behaviour (Fazio & Towles-Schwen, 1999). This of course is the main function of categorization, that prior acquired knowledge simplifies our appraisals. If there is no motivation to deliberate, it is therefore fairly easy to predict behaviour based on relevant, prevalent attitudes (in the case of discrimination, on a person’s endorsed biases). According to MODE spontaneous automatic activation and responding should correspond to implicit attitudes (Fazio, 2007). The deliberate route is much more cognitively effortful. The decision is based on the costs and benefits of potential behaviours. This deliberation forms the basis of intention, which can predict behaviour (Fazio & Towles-Schwen, 1999).

Similarly, in Conrey and Smith’s (2007) distributed connectionist model, they suggested that to make a judgment, people start with spontaneously activated nodes about the object in the given context (which could be the attitude in total or just specific aspects important to the situation). If the person has both motivation and enough time, the initial response may develop based on deliberation and social context. Different aspects of the attitude evaluation may
activate, and current ones be inhibited. While this is occurring, the person may intentionally activate relevant representations and engage in complex reasoning. Their final decision will be closer to the deliberately activated attitude-evaluation (if different), rather than the automatically activated one.

Cunningham, Zelazo, Packer, & Van Bavel’s (2007) Iterative Cycle uses connectionist models of brain activation to further this line of reasoning. A person starts with a spontaneous reaction and with motivation and time begins to think and rethink their decision by inhibiting irrelevant aspects and activating relevant aspects. The evaluation is constantly adjusted and updated during each additional iteration using any further relevant contextual and motivational information so the person will finally come to a decision in line with the stimulus, detail, context, and current goals. The extent of processing (number of iterations) depends on a number of personal and situational factors: cognitive ability, motivation and opportunity, as well as prefrontal cortex functionality. People are motivated to be correct (which can increase deliberation) and motivated to reduce cognitive demands (simplify and create an easier decision) which can decrease deliberation. The struggle between the motivations creates a decision between the initial automatic response and the more controlled deliberation (Cunningham et al., 2007).

Dual process models generally agree that with more opportunity and motivation spontaneous decisions can be overridden with deliberation. When people have or are given the proper motivation and opportunity to deliberate (like personal motivation or social motivations) the validity of their automatic appraisals can be endorsed for use based on more explicit attitudes. This serves as a correcting influence on the original automatic evaluations (unless the original are deemed correct). Specifically, behaviour can be influenced not only by attitudes but
also by external sources in addition to the attitude (Conroy & Smith, 2007; Cunningham et al., 2007; Fazio, 2007).

1.6 Predictions for the Current Research

Looking at the perspective of both high and low prejudice individuals, it is theorized that the apparently egalitarian results in current research involving court trials are perhaps due to a number of factors: the internal effect of lowered prejudice in personal motivations, the personal motivation to respond without prejudice for social reasons, and the external direct role of legal emphasis on fairness and importance of social norms. In addition, in the current research, it is hypothesized that if these factors are an influence, it will give greater weight to the idea that though prejudice is a subtle and ongoing problem in society it does not have the same activation and inevitable use in all individuals (such as Billig (1985) or Bargh (1999) theorized). Instead, the newer two component and dual process models arguing differential activation and use of stereotype knowledge will be observed. When external factors are not as salient, the current seemingly egalitarian results can be explained by the balancing out of the results of low prejudiced participants (who bend over backwards to appear unprejudiced against blacks, making them discriminate against whites) and the results of the high prejudiced participants (who will follow traditional bias and be more discriminatory against black targets compared to whites) (Kemmelmeier, 2005). It is predicted that decision making can be made more actually egalitarian when race is made salient directly, through a racially salient case, or with judicial instructions in cases that are not directly racial in nature, but involve black defendants. When social norms and legal reasons to be unprejudiced are made more salient, it is predicted that bias will be controlled, reducing discriminatory results against defendants (Sommers & Ellsworth, 2000; 2001).
1.7 Overview of the Current Research

A series of six studies was conducted for this dissertation to examine bias in court trials, including the control of bias, and the newer more subtle bias in line with the changes in social norms in society. Using the reasoning behind the reduction and control of bias in the theoretical framework put forth in this dissertation, these studies examined hidden bias in novel ways from the means suggested in the literature. Specifically this dissertation explores different aspects of race salience as a means of reduction of bias, along with the moderating effects of prejudice levels affecting results by balancing out verdicts and balancing out belief of guilt between high and low prejudiced individuals. This research examined participants’ attitudes about bias from a personal and social norm standpoint. Race salience was manipulated/observed in multiple ways: by having direct and indirect targets for bias, weighing participants’ motivation to act in accordance with social norms, and directly manipulating race salience with legal questions about bias affecting their decision making. This research adds support for more complex theories that propose differential activation and control of stereotypes and bias.

The first study (Study 1) examined whether more subtle forms of bias were present and could be observed in a classic mock trial. The study started with the assumption that people in general are motivated to appear or to be unbiased. If so, they should make an effort (deliberate or otherwise) to treat a black defendant the same as a white defendant. But if bias still exists, the salience of race for activating motivation to appear unbiased may be less readily apparent for the witness and it is predicted that bias would appear in the treatment and perception of a witness other than the defendant. Thus, the study examined whether an important witness who was black would be judged less positively than a witness who was white, and that this differential judgment would affect the outcome for the primary target. Specifically, it examined whether the race of a key alibi witness would affect the verdict for a defendant, regardless of the race of the defendant.
The next studies (Study 2a and 2b) examined the role of prejudice levels of the participants when making decisions about a primary target based on the word of a secondary (peripheral) target. Again using a court trial as the paradigm, the outcome for a defendant was observed based on race of the defendant and the race of the alibi witness when participants were high and low in social dominance orientation (a specific hierarchical based prejudice system). This will examine differential use of stereotypes and bias by high and low prejudiced individuals, and the effects of race of defendant, witness, and the interaction of these race variables have on bias use.

Finally, it is argued that the “limitations” of the current Canadian bias removal system actually have a very important secondary effect which renders its inability to completely remove biased jurors unimportant – namely it removes bias (regardless of level of prejudice of the individual) by making race issues salient, and reminding individuals of the societal and legal importance of not being biased. In a society where people are more willing to hide their prejudice in social settings, then logically they are also more likely to behave in a less biased way as well. The final three studies (3a, 3b, & 3c) examined motivation to respond without prejudice when race was made salient using judicial instructions. A similar court design was used with the addition of a Parks type question aimed at increasing race salience by indicating the importance of being fair and unbiased. The studies examined if bias could be reduced, and egalitarian results free of bias could be observed.

These studies reveal that though bias has seemingly disappeared in modern court trials, bias still exists and impacts court trials in subtle ways. Bias exists against secondary players at trial (the key alibi witness for one) and this can impact verdicts. In addition, the apparently egalitarian results are sometimes averages of high prejudiced individuals acting biased and low prejudiced people bending over backwards (reverse bias), so we must still be mindful of the
effects of bias and always make sure to poll jurors to create impartial trials. The results also show that a reduction in both forms of bias (normal and reverse bias) is possible when the importance of acting non-biased is made salient.
Chapter 2
Race Salience and Legal Decision Making with Dual Process Models

2 Dual Process Models

There are many motivations to control prejudice: personal unprejudiced views; a desire to avoid conflict or confrontation, or to conform to perceived social norms (Dunton & Fazio, 1997; Plant & Devine, 1998; Fazio & Towles-Schwen, 1999). In legal decision making like a court trial, in addition to a motivation to make the correct decision, the motivational goals in the deliberate route could include a motivation to appear unprejudiced (Fazio & Towles-Schwen, 1999). When race is an important consideration, decision making may focus not only on making an accurate decision but perhaps more importantly that the decision is perceived as not being prejudiced. This motivation could even lead to over-correcting for potentially activated negative stereotypes, leading to over compensation and bias in favour of the outgroup – a bending over backwards effect (Gaertner & Dovidio, 1981; Fazio & Towles-Schwen, 1999; Son Hing et al., 2002). If there is no motivation to control bias (either due to low salience of social norms or low personal motivation to yield to social norms) then the model predicts that automatically activated attitudes should directly influence judgments. This does not imply that prevailing negative cultural stereotypes will be activated, instead dual process models predict that relevant automatic personal attitudes are activated – whether they are strongly negative or strongly positive (Fazio & Towles-Schwen, 1999).

The model suggests that when faced with situations in which prejudice could affect judgments, people may use both types of strategies. In particular, to the extent that they are aware of a motivation to be unprejudiced, they will use the deliberate route in decision making, whereas if they are less aware, the spontaneous route will operate. If several targets are being
judged, and one is of primary and the other of secondary importance, deliberate processes may
determine reactions to the primary and spontaneous processes to the secondary. Moreover, when
cognitive resources are taxed by the need to attend to multiple demands, the opportunity to
engage in controlled processing may be limited (Sanbonmatsu & Kardes, 1988). As this
opportunity decreases, behaviour should be influenced less by motivational concerns (like race
salience) and more directly and singly by any automatically activated evaluations (Fazio &
Towles-Schwen, 1999). In this situation, the focus on a primary target is a competing task
demand that would interfere with their ability to deliberate for the secondary target. Due to this,
they may use a more spontaneous route when considering the secondary target, and be affected
by stereotype activation or previously held attitudes. If so, underlying prejudice will be
suppressed more for the primary target but will emerge for the secondary target. Ironically, if this
peripheral target is important in the decision making process about the primary target, the
participant may inadvertantly discriminate against the primary target due to bias caused by
stereotype activation or prejudice of the secondary target.

2.1 Study 1

To test this analysis, the present study examined discrimination not only involving the
defendant in a mock criminal trial, but in regards to his key alibi witness. Participants were asked
to act as mock jurors and give a verdict where the circumstantial evidence in the case made the
outcome ambiguous. The trial was written so that the basis for the verdict depended on whether
the mock juror participant believed the testimony of the key alibi witness for the defence. The
alibi witness, in this case a respected member of the community and friend of the defendant,
stated he was having coffee with the defendant at the time of the crime so that there was no way
the defendant could have committed the crime. There were 4 possible conditions for a mock
juror to react to: two conditions where the defendant and key alibi witness were the same race (both black or both white) and two conditions where they were not the same race. The prediction is that the race of the defendant should not affect verdicts (because of deliberative processing), but that the race of the witness should affect the verdict (because of spontaneous processing). Specifically, it is predicted that the key alibi witness, who introduces evidence for the defendant, will be believed more when they are white (the defendant will be found guilty less often) and believed less when they are black (the defendant will be found guilty more often).

2.1.1 Method

Participants and Design

Participants were 150 students (37 male, 113 female) enrolled in the first-year psychology course on the St. George Campus of the University of Toronto. The study was an experimental 2 (race of defendant) x 2 (race of alibi witness) between-participants design (~38 students for each condition). Participants received course credit towards their final grade in Introduction to Psychology.

Materials

Mock trial transcripts. Participants were given one of four possible mock trial transcripts that corresponded to their experimental condition (A through D). Each summary had identical text describing the murder/armed robbery trial of the defendant Fred Green. Each transcript included pictures of all people involved in the trial (including the Judge, lawyers, witnesses, and defendant) imbedded within the text and presented when the relevant person was addressing the court or jury. The race of the defendant and alibi witness varied in the four versions (see Appendix A).
In condition A, participants received a trial with both the defendant and defendant’s key alibi witness shown as being white. In condition B the defendant was white and the witness was black. In condition C the defendant was black and the witness was white. In condition D both the defendant and witness were black.

**Pictures within trial.** FACES 4.0, a computer program created by IQ Biometrix, Inc., was used to develop and create the headshots of the people comprising the court trial. FACES 4.0 is used by law enforcement agencies (including police, Department of Defense, CIA, and FBI) throughout North America as a suspect composite (sketch artist) program. It also is used on the television show *America’s Most Wanted*.

The defendant Fred Green, regardless of race, was created with the same face structure, head shape, chin, ears, facial lines, and shadowing. Facial characteristics such as lips, nose, eye colour, and hair were modified to create a white and a black version of the face. The white face had grey eyes, a narrower nose, thinner lips, and brown straight hair. The black face had brown eyes, a wider nose, fuller lips, and brown afro style hair. Both versions had similar short messy hair styles. Black and white versions of Witness Henry Wallace were created in a similar fashion to Fred Green. Both versions of Henry Wallace had a clean-cut, conservative style. In this way, facial features such as attractiveness, size, and shape could be controlled for while still having black and white versions of the same face. The rest of the faces appearing in the trial were kept constant in all conditions and consisted of varying neutral white males.

As Faces 4.0 creates detailed realistic but grey-scale pictures, colour was added to the faces using the Photoshop Creative Suite computer program. For each face presented, colour was added to each feature (eyes, lips, skin, and hair) individually and carefully edited to create a realistic colour palette.
The completed faces were then shown to a pre-experiment group to determine if the faces did indeed “look” white or black and to rate facial features. This was done to ensure all factors other than race (such as attractiveness, age, and likeability) were controlled for and taken into account. The raters agreed that the “black” face was black and the “white” face was white and that there were no substantial differences in the other measures. To the extent possible, the faces presented the same people with the only difference being that one was white and the other was black (see Appendix B).

**Dependent Measures.** An experimenter-derived, paper and pencil measure was used to obtain the outcome variables in this study. The main dependent measure was a verdict of guilty or not guilty. Follow up measures related to this main measure were asked. If the participant responded not guilty, participants were asked to give one of three reasons as to why they did not think the defendant was guilty: that he probably was guilty but there was not enough evidence, that he may be guilty but the participant was not sure, or that he was innocent. Also, participants were asked to mark on a 86mm line how likely they thought that the defendant was guilty, ranging from definitely innocent to definitely guilty. Participants were asked how certain they were of their verdict on a 6 point scale ranging from absolutely certain to not at all certain. Participants were asked to write in what piece of evidence against the defendant was most important and to explain why they voted as they did (see Appendix C).

Finally a background questionnaire including age, gender, and race was administered (see Appendix D).

**Procedure**

Groups of four to eight participants signed up for specific time slots on the University of Toronto Psychology Experiment website. For each group in each time slot, participants were randomly seated to work individually in a large conference room. The participants were
informed that the study was investigating what factors contribute to the jury decision making process. Participants were randomly placed in one of the four conditions. The only difference between the conditions was the pictured race of the defendant and defendant alibi witness presented along with the mock trial. Before beginning the experiment, participants were given a consent form to read and sign (see Appendix E).

Participants were given one of four mock trial summaries and read only the trial summary corresponding to the condition they were in. During introductory remarks to the group, race of the defendant and the alibi witness was not mentioned so the participants were not alerted to the true nature of the study. Participants were not told there were different conditions to the study. A cover story was given to explain that because this was “only” a Master’s thesis project, a mock trial video could not be made so they would have to read the trial – but at least pictures were included to make the trial a little more interesting. This was to preclude participants wondering if there was any special reason for pictures.

When the participants finished reading the trial, they were given a questionnaire about the trial that included the participant’s verdict and some questions about why the participant answered the way they did. Finally, participants completed a background questionnaire including their age, sex, and race. This was administered last and after participants finished the questionnaire to rule out the possibility that a question about their race would alert them to the nature of the study.

Participants were asked if they were suspicious about the true nature of the study and asked if they knew race was relevant. None of the participants guessed race was of importance. Participants were then fully debriefed (see Appendix F), pledged to secrecy and allowed to go.
2.1.2 Results

The main dependent measure for this study was the verdict given by the participants against black and white defendants with black and white alibi witnesses. As race was made indirectly salient in the study by presenting colour pictures of the faces of all key players in the trial, it was expected that the race of the defendant would not play a role in determining guilt. The key independent variable of interest was the race of the witness. The research hypothesis posed to the data was that the likelihood that a defendant is found guilty is related to the race of the witness. Thus the outcome variable, verdict, was the defendants being given guilty verdicts (1 = guilty, 0 = not guilty), where the two predictors were race of the defendant and race of the witness. The race predictor for both defendant and witness was coded as 1 = white and 0 = black. The race distribution for defendants was nearly even with 52% (n = 78) black and 48% (n = 72) white. The race distribution for witnesses was even with 50% (n = 75) black and 50% (n = 75) white.

A two-alternative forced-choice (2AFC) judgment was used to obtain the trial verdict from the participants, who could choose guilty or not guilty. When the defendant was white and the witness was white 24% of the verdicts were guilty. When the defendant was black and the witness was white 20% of the verdicts were guilty. When the defendant was white and the witness was black 34% of the verdicts were guilty. When the defendant was black and the witness was black 41% of the verdicts were guilty.

A two-predictor logistic model was fitted to the data to test the research hypothesis regarding the relationship between the likelihood that a defendant with a black witness is given a guilty verdict. The logistic regression analysis was carried out by the Binary Logistic Regression Logistic procedure in SPSS version 17.0.0 (PASW (Predictive Analytics SoftWare) Statistics, 2008) in the Windows 7 environment. The result showed that:
Predicted logit of (Verdict) = -0.383 + (-0.271)*Defendant Race + (-1.034)*Witness Race + (0.509)*Interaction of Defendant and Witness Race.

According to the model (and as expected) the log of the odds of a defendant given a guilty verdict was not significantly related to race of defendant ($\chi^2 (1, N = 150) = 0.32, ns$). In addition, there was no interaction between race of defendant and race of witness ($\chi^2 (1, N = 150) = 0.47, ns$). However, more importantly and consistent with the hypothesis, the log of the odds of a defendant given a guilty verdict was negatively related to race of witness ($\chi^2 (1, N = 150) = 4.00, p = .05$; see Table 1.1). In other words, it did not matter whether the defendant was black or white, but if the witness was white, the defendant was found guilty less often, and when the witness was black the defendant was found guilty more often (see Figure 1.1). In fact, the odds of a defendant with a black witness being found guilty were $2.81 (= e^{1.034};$ see Table 1.1) times greater than the odds for a defendant with a white witness. The probability of a defendant with a black witness being given a guilty verdict is higher than that of a defendant with a white witness.

Goodness-of-fit statistics assess the fit of a logistic model against actual outcomes (i.e., whether a guilty verdict is given to a defendant). One inferential test and two descriptive measures are presented in Table 1.2. The inferential goodness-of-fit test is the Hosmer–Lemeshow (H–L) test that yielded a $\chi^2 (2) of 0.000 and was insignificant ($p > .05$), suggesting that the model was fit to the data well. In other words, the null hypothesis of a good model fit to data was reasonable. The logistic regression results supported the research hypothesis: the probability that a defendant is found guilty is related to the race of the witness.
Table 1.1: Logistic Regression Analysis of Race of Defendant and Witness on Verdict

<table>
<thead>
<tr>
<th>Predictor</th>
<th>$\beta$</th>
<th>S.E.</th>
<th>Wald’s $\chi^2$</th>
<th>df</th>
<th>p</th>
<th>Exp($\beta$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-.383</td>
<td>.335</td>
<td>1.308</td>
<td>1</td>
<td>.253</td>
<td>.682</td>
</tr>
<tr>
<td>Defendant Race (1 = white, 0 = black)</td>
<td>-.271</td>
<td>.479</td>
<td>.320</td>
<td>1</td>
<td>.571</td>
<td>.763</td>
</tr>
<tr>
<td>Witness Race (1 = white, 0 = black)</td>
<td>-1.034</td>
<td>.517</td>
<td>3.999</td>
<td>1</td>
<td>.046</td>
<td>.356</td>
</tr>
<tr>
<td>Defendant Race by Witness Race</td>
<td>.509</td>
<td>.740</td>
<td>.474</td>
<td>1</td>
<td>.491</td>
<td>1.664</td>
</tr>
<tr>
<td>Test</td>
<td></td>
<td></td>
<td>$\chi^2$</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Goodness-of-fit test Hosmer &amp; Lemeshow</td>
<td>0.00</td>
<td>2</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Cox and Snell $R^2 = 0.034$. Nagelkerke $R^2 = 0.048$

Figure 1.1: Effect of Witness Race on Verdict

The follow up measures were consistent with these findings. If the participant responded not guilty, they were asked to give one of three reasons as to why they did not think the defendant was guilty: that he probably was guilty but there was not enough evidence, that he may be guilty but the participant was not sure, or that he was innocent. This response was coded on a scale of 0 to 3 (0 being innocent and 3 being guilty) (see Table 1.2).
Table 1.2: Mean Four-Factor Verdict

<table>
<thead>
<tr>
<th>Race of Defendant/ Witness</th>
<th>Mean(SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>white/white</td>
<td>1.76 (0.92)</td>
</tr>
<tr>
<td>white/black</td>
<td>1.95 (0.95)</td>
</tr>
<tr>
<td>black/white</td>
<td>1.66 (1.01)</td>
</tr>
<tr>
<td>black/black</td>
<td>2.14 (0.89)</td>
</tr>
</tbody>
</table>

An ANOVA revealed no effect of race of defendant ($F(1,149) = 0.07, ns$) or an interaction ($F(1,149) = 0.90, ns$) but did reveal a significant main effect of race of witness ($F(1,148) = 4.50, p = 0.04$). This is between a small and medium effect size $\eta^2 = 0.03$. If the witness was white, the defendant was found guilty less often ($M = 1.71, sd = .92$) than if the witness was black ($M = 2.04, sd = .95$) (see Figure 1.2).

Figure 1.2: Effect of Witness Race on Four Factor Verdict Scale

Participants were asked to rate how guilty they believed the defendant was, regardless of verdict. Raw scores were centered on the midpoint, with ratings below zero indicating innocence and ratings above zero indicating guilt. Scores could range from -43 (definitely innocent) to +43 (definitely guilty) (see Table 1.3).
Table 1.3: Mean Amount of Belief the Defendant is Guilty (centered)

<table>
<thead>
<tr>
<th>Race of Defendant/ Witness</th>
<th>Mean(SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>white/white</td>
<td>6.29(18.93)</td>
</tr>
<tr>
<td>white/black</td>
<td>8.16(18.27)</td>
</tr>
<tr>
<td>black/white</td>
<td>0.95(20.10)</td>
</tr>
<tr>
<td>black/black</td>
<td>9.54(16.12)</td>
</tr>
</tbody>
</table>

An ANOVA showed a similar pattern to the previous two dependent measures. There was no main effect of race of defendant \( (F(1,149) = 0.43, ns) \) or an interaction effect \( (F(1,149) = 1.24, ns) \), but there was a marginally significant main effect for race of witness \( (F(1,149) = 3.00, p = .09) \). This is between a small and medium effect size \( \eta^2 = 0.02 \). This showed once again that if the witness was white, the defendant was considered to be guilty less often than if the witness was black (see Figure 1.3).

Figure 1.3: Effect of Race of Witness on Belief of Guilt

2.1.3 Discussion

There was no difference in verdicts handed down for black or white defendants; however, when the key alibi witness was white, regardless of the race of the defendant, the defendant was found guilty less often than when the witness was black. This revealed the predicted extra-legal bias against the black witness which in turn affected the defendant. It was
theorized that this was due to attention and motivation about bias being focused on the defendant not the witness. It is understandable to keep focus on the primary target, which allowed the secondary target to be processed peripherally with cognitive shortcuts, in this case, giving more weight to the testimony of the white witness.

The study demonstrated several important points. First, it replicated the more recent trend of studies that find white and black defendants were found guilty equally often. Second, it demonstrated the effects of stereotype activation when the attention of the mock juror was diverted. Race was made salient indirectly by presenting pictures of the defendant and witnesses. The participant was asked to focus on the trial and to think about all the facts when deciding the verdict of the defendant. It is assumed the participants took their jobs seriously and tried to do their job to the best of their ability. In the case of the defendant, race was more relevant because the trial was tied directly to the defendant. The results show no bias when the defendant was black as compared to when the defendant is white. Presumably the more salient race of the defendant combined with the social aspect of the trial triggered a stance that one should be unprejudiced. However, in regards to the key alibi witness, participants were presumably less concerned about prejudice because they were not asked to judge the witness, and because it was one witness within several. Because of this, it is suggested deliberative processing was not activated and spontaneous processing determined the outcome. From these results, it seems the testimony of the black witness is given less weight or is believed less than the testimony of the white witness.

Finally, during exploration of outcome, it is observed that having a white witness seems to be of particular importance when the defendant was black. The pattern shows a trend for the black defendant with the white witness has a best chance of being found not guilty out of all four
conditions, and a black defendant with a black witness has the best chance for being found guilty.

These are truly worrisome outcomes. Impartiality in court trials should indicate the use of only the trial evidence and relevant case law to decide a trial outcome. Defendants and witnesses should be treated fairly and equally. A white witness should not be given greater weight, and a black witness should not be given lesser weight when trying to decide a verdict. Frequently, important witnesses for the defence such as an alibi witness are known to the defendant and therefore have a strong probability of being the same race or ethnicity as the defendant. Even though jurors are motivated not to be biased against the defendant, they may be inadvertently biased in verdicts due to bias against the witness. The defendant is the main focus, and therefore motivation to be unbiased for the witness may be reduced due to divided attention. This could be just as detrimental or even more detrimental to the defendant’s case, and would not be a fair and impartial trial as set out by R v. Sherratt (1991) and R v. Parks (1993).

This leads to a question of how the discrimination is caused. Is it by unconscious stereotype activation or actual implicit prejudice? Is it inadvertent or intentional? If bias occurs for the witness due to more spontaneous processing, is the increased bias universal, regardless of prejudice levels (due to automatic stereotype activation) or is the effect moderated by prejudice levels (more bias for high prejudiced participants, less bias for low prejudiced participants)? The next two studies (Studies 2a and 2b) examine how explicit prejudice levels might impact the verdict in relation to both the defendant and the key alibi witness.
Chapter 3  
Social Dominance Orientation and Legal Decision Making

Social Dominance Theory (SDT) (Sidanius & Pratto, 2001) argues that the major forms of intergroup conflict derive from a basic human predisposition to form and maintain hierarchical and group-based systems of social organization. Hierarchies are created by the combination of stereotypes and individual bias, institutional bias, and intergroup processes of both the dominant and lower groups (Pratto, Sidanius, & Levin, 2006). Sidanius and Pratto suggest that there are three major systems for group-based dominance. The first two are age and gender (older having more status than younger and males having more power than females). The third is an arbitrary system within the relevant culture of the population of interest (Sidanius & Pratto, 1999; Pratto, Sidanius, & Levin, 2006). The third system is defined by social distinctions connected to power, but dependent on the context (and culture). Examples include (but are not limited to) nationality (Canadian versus American), race (black versus white), ethnicity (Arab versus Kurdish), religion (Christian versus Jewish), or even job status (police have higher status than psychologists) (Pratto, Sidanius, & Levin, 2006).

Social Dominance Theory has an underlying basis in learned cultural norms shared by all the groups of a particular culture. Sidanius and Pratto call the specific aspects of shared culture that perpetuate social dominance “legitimizing myths” (Sidanius & Pratto, 1999; Sidanius & Pratto, 2001; Pratto, Sidanius, & Levin, 2006). Legitimizing myths are consensually held stereotypes, values, and attitudes regarding the relevant groups in the context. There are two ways legitimizing myths can affect social dominance: by increasing or decreasing the distinction between groups (hierarchy-enhancing and hierarchy-attenuating) (Sidanius & Pratto, 1999). The theory hypothesizes that societies reduce conflict between groups by creating a consensus on
myths that promote the superiority of one group over others. Instead of completely removing conflict, it attempts to stabilize it (Pratto, Sidanius, Stallworth, & Malle, 1994).

Hierarchy-enhancing legitimizing myths provide justification for inequality between groups. A relevant example within the context of this dissertation of such myth is stereotypes that define one group as inferior to the other. The common basis of the legitimizing myth is the idea that placement in the hierarchy is deserved due to intrinsic factors within the groups (Sidanius, Pratto, & Levin, 2006). For those that subscribe to them, these myths have been used in an attempt to justify or argue that inequality is acceptable (Pratto, Sidanius, & Levin, 2006). Of course, not all people accept bias in society. Hierarchy-attenuating beliefs provide ideologies that denounce prejudice and support humanitarian-egalitarian ideals to argue that everyone and every group should be given equal status and be treated equally (Sidanius & Pratto, 1999). These would be beliefs like internal motivation to respond without prejudice or social norms in society condemning inequality.

Although it might be assumed that high status groups would endorse hierarchy-enhancing myths and lower status groups would endorse hierarchy-attenuating beliefs, this is not always the case. Belief in social dominance is not limited to the dominant group; negative stereotypes may be endorsed by subordinate groups, leading to stabilizing group hierarchies and maintaining dominance (Sidanius & Pratto, 1999). Within stable hierarchies (for those that endorse social dominance regardless of high or low group status) there is usually consensus about legitimizing myths (Sidanius & Pratto, 1999; Pratto, Sidanius, & Levin, 2006). There appears to be asymmetrical ingroup bias with both the higher and lower groups favouring the higher status group (Sidanius & Pratto, 1999). Social Dominance theory, however, predicts that ingroup favouritism varies depending on group status (Sidanius & Pratto, 1999). Dominant groups will display strong ingroup favouritism as compared to lesser ingroup favouritism by subordinate
groups, so much so that subordinate groups will sometimes favour the higher status outgroup. The more a stereotype is endorsed, the stronger the effect (Pratto, Sidanius, & Levin, 2006). An example of this could be seen in the Clark doll experiments where black children favoured white dolls (Clark & Clark, 1939).

3 Social Dominance Orientation

Social Dominance Orientation (SDO) is defined as the degree to which individuals desire and support group-based hierarchy and the domination of “inferior” groups by “superior” groups. As a general orientation, Social Dominance pertains to whatever group distinctions are salient within a given context (Sidanius & Pratto, 2001). The endorsement of social dominance is a result of endorsement of stereotypes and legitimizing myths that support inequality. Those high in social dominance orientation are motivated by better outcomes for dominants over subordinates (Sidanius & Pratto, 1999). They are more likely to endorse stereotypes and less likely to endorse egalitarian ideals.

Examination of the psychometric properties of the SDO scales show they have high levels of internal and test-retest reliability, construct validity, and discriminant validity (Pratto et al., 1994). SDO has discriminant validity compared to interpersonal dominance in Americans (see Pratto et al., 1994). Sidanius and Pratto (1999) found a median reliability of 0.82 for the SDO scale across 30 independent samples of 6977 participants from eight different nations (the USA, Canada, Mexico, Taiwan, Israel, Palestine, China, and New Zealand).

SDO also has high construct validity. It is correlated to ethnic prejudice against a range of different minority groups across a number of different countries and cultures, including the USA, Canada, Mexico, Israel, Taiwan, China, and New Zealand (average $r = 0.41$). It is also correlated to sexism (average $r = 0.51$) and to a range of hierarchy-enhancing ideologies such as rape myths
(r = 0.43); nationalism (r = 0.51); patriotism (r = 0.35); and political conservatism (r = 0.28). SDO correlates with opposition to both immigration (r = 0.30) and extending civil and economic rights to gays (r = 0.38) and women (r = 0.39) (see e.g., Pratto et al., 1994; Sidanius & Pratto, 1999; Pratto, Sidanius, Levin, 2006). SDO is also a powerful predictor of prejudice against blacks, gays, women, correlating well for both student (r = 0.48) and adult (r = 0.53) populations (see Pratto, Sidanius, Levin, 2006).

Altemeyer (1998) found similar results with English Canadian participants regarding prejudice assessing attitudes towards homosexuals, blacks, women, Native Canadians, Quebecois, and generalized ethnocentrism. SDO had a correlation with the global prejudice measure accounting for 50% of the variance in global prejudice.

Those high in SDO theoretically should want to dissociate with those considered lower (Pratto, Sidanius, Stallworth, & Malle, 1994). In addition, those high in SDO would also be more likely to punish an individual for violating group hierarchies – theoretically regardless of whether they are part of the dominant or subordinate group (Sidanius & Pratto, 1999; Pratto, Sidanius, & Levin, 2006). This might mean that those high in SDO would view individuals who interact with, or are friends with, individuals from outside their group as violating hierarchies, and therefore merit punishment. It could also be that those who have friends in outgroups are seen as not endorsing SDT, and therefore an outgroup member (as compared to those viewed as endorsing SDT who would be ingroup members) which also would potentially merit punishment.

The opposite is true for those with low SDO. They are less likely to support stereotypes or dominance of one group over another. Inclusiveness is important; people with low SDO should generally identify more with those being inclusive than people that have a high SDO. Additionally, due to historical and present day treatment of subordinate groups, those with low SDO may even attempt to readdress the balance by overcompensating and treating the
subordinate group with extra deference (Pratto, Sidanius, & Levin, 2006). This could also result in low SDO individuals looking upon those with friends outside their own group as agreeing with their views and therefore potential ingroup members. These individuals potentially would be treated more positively.

3.1 Studies 2a and 2b

Social dominance orientation is a possible explanation for the more recent research showing that black and white defendants were found guilty equally often in mock trials. It could be that low SDO show pro-black bias, while high SDO show anti-black bias, thus balancing the effect of bias (Kemmelmeier, 2005). A similar court paradigm to that in Study 1 was used to explore the decision-making process. The next two studies (Studies 2a and 2b) examined prejudice levels of participants to see if there were differences between high and low prejudiced individuals in verdicts for defendants and bias for the key witness.

Study 1 showed that for the decision making involving the secondary target (the witness) bias occurred. It was thought this was due to using a more spontaneous decision making process. When specifically looking at high and low prejudiced participants, there were two possible outcomes. The two groups might have the same reaction, presumably due to automatic, uncontrollable stereotype activation and use as Bargh would predict. Or the high and low prejudiced participants might have different reactions due to more controlled activation and decision making. SDO was used as the measure of prejudice level.

Kemmelmeier (2005) showed that on average, verdicts were seemingly egalitarian because the anti-black bias of the high SDO is balanced out the effects of the pro-black bias of the low SDO. It was predicted in the current study that in general, it will appear there is no bias against the defendant. However, within the paradigm currently used, there is also the question of
how high and low prejudiced participants will react to congruent and incongruent race pairs of
defendant and key alibi witness (who are friends).

It was expected that participants with high SDO would act in a traditional anti-black
prejudiced way. They might also discriminate against ingroup members who interact with
outgroup members (as in the incongruent race conditions in the mock trial) (Sidanius & Pratto,
1999). It was not clear what to predict regarding the low SDO participants. Potentially the low
SDO participants will be extra cautious to be fair. They may bend over backwards for the black
defendant. A final option when considering both the defendant and the witness pairs is that they
may be more lenient when the defendant and witness race pairs are incongruent, as these black-
white friendships show that these particular targets are low in prejudice as well.

3.1.1 Method

Design

Study 2 was designed to be a follow up of Study 1 with a few variables modified to have
a trial presented that was more neutral as to whether or not the defendant was guilty or not guilty.
Study 2b was designed to be a replication and follow up of Study 2a with jury deliberation
added.

Both studies had experimental 2(race of defendant) x 2(race of alibi witness) between-
participants designs. Participants’ Social Dominance Orientation (SDO) was measured in a non-
experimental mass testing session that took place in their introduction to psychology class.
Students were not told it was linked to any experimental study. Sign up for the experiment was
for groups of up to eight. Participants received course credit towards their final grade in
Introduction to Psychology.
Participants

Study 2a. Participants were 150 students enrolled in the first-year psychology course on the St. George Campus of the University of Toronto.

Study 2b. Participants were 297 students enrolled in the first-year psychology course on the St. George Campus of the University of Toronto.

Materials

Materials and Procedures were a modified replication of Study 1. Changes to the study are mentioned below.

Mock trial transcripts. Participants were given one of four possible mock trial transcripts that corresponded to their experimental condition (A through D). Each summary had identical text describing the murder/armed robbery trial of the defendant Fred Green. Each transcript included pictures of all people involved in the trial (including the Judge, lawyers, witnesses, and defendant) imbedded within the text and presented when the relevant person was addressing the court or jury. Modified from Study 1, Study 2a and 2b had extra circumstantial evidence (the weapon used with a partial fingerprint that could match the defendant) and a fingerprint expert witness. This extra evidence was added to the trial to increase the likelihood of guilty verdicts overall to closer to 50/50 and create a case that hinged more on believing the alibi witness (see Appendix G).

As before, the race of the defendant and alibi witness varied in the four versions between black and white. There were two race congruent conditions, and two race incongruent conditions.

Dependent Measures. As in Study 1, a dichotomous verdict (guilty/not guilty), four factor verdict, and a continuous scale of belief of guilt of the defendant were measured.

SDO Scale. The modified, non group specific, short 8-item version of Sidanius and Pratto’s (1999) Social Dominance Orientation (SDO) scale was used to measure each
participant’s level of SDO. Participants were asked to rate their agreement or disagreement with the statements on a 7 point scale ranging from 1 (strongly disagree) to 7 (strongly agree). Sample items included: ‘Some groups of people are simply inferior to other groups’ and ‘It’s OK if some groups have more of a chance in life than others’ (see Appendix H).

**Demographics Form.** A background questionnaire to measure demographics including age, gender, and race of participant.

**Debriefing Sheet.** An information sheet that detailed the background of the research project and explained the manipulations and general hypothesis of the study.

**Procedure**

The procedure for Study 2a and 2b was identical to Study 1. However, in Study 2b, after the similar procedure had been completed, but before debriefing, participants were given jury deliberation instructions and left to discuss the case for 20 minutes and then come up with a unanimous verdict.

### 3.1.2 Results: Study 2a

The main dependent measure for this study was the verdict given by the participants (1 = guilty, 0 = not guilty), where the two predictors were race of the defendant and race of the witness. The race predictor for both defendant and witness was coded as 1 = white and 0 = black. The race distribution for defendants was nearly even with 49% (n = 74) black and 51% (n = 76) white. The race distribution for witnesses was even with 50% (n = 75) black and 50% (n = 75) white. Table 2.1 presents the percentage voting guilty in each of the conditions.

**Table 2.1: Percentage of Guilty Verdicts in Study 2a**

<table>
<thead>
<tr>
<th>Race of Defendant/ Witness</th>
<th>% Guilty</th>
</tr>
</thead>
<tbody>
<tr>
<td>white/white</td>
<td>48%</td>
</tr>
<tr>
<td>white/black</td>
<td>42%</td>
</tr>
<tr>
<td>black/white</td>
<td>49%</td>
</tr>
<tr>
<td>black/black</td>
<td>31%</td>
</tr>
</tbody>
</table>
A two-predictor logistic model was fitted to the data to test the research hypothesis regarding the relationship between the likelihood that black and white defendants with black and white witnesses are given a guilty verdict. The result showed that

\[
\text{Predicted logit of (Verdict)} = -0.811 + (0.474)\times\text{Defendant Race} + (0.754)\times\text{Witness Race} + (-0.517)\times\text{Interaction of Defendant and Witness Race}. \text{ (see Figure 2.1).}
\]

As expected the log of the odds of a defendant given a guilty verdict was not significantly related to race of defendant ($\chi^2 (1, N = 150) = 0.96, \text{ns}$) and there was no interaction effect of defendant and witness ($\chi^2 (1, N = 150) = 0.60, \text{ns}$). However, the log of the odds of a defendant given a guilty verdict was marginally related to race of witness ($\chi^2 (1, N = 150) = 2.42, p = 0.12$).

**Figure 2.1: Effect of Defendant and Witness Race on Verdict**

However, it was the opposite effect from that in Study 1. The defendants with a black witness were found guilty less often than defendants with a white witness. The odds of a defendant with a white witness being found guilty were $2.13 (\approx e^{0.754})$ times greater than the odds for a defendant with a black witness. Though again, this was a marginal difference.
SDO was added to the logistic regression. The outcome variable, verdict, was the defendants being given guilty verdicts (0 = not guilty, 1 = guilty). The three predictors were race of the defendant, race of the witness, and the participants’ SDO score. The race predictor for both defendant and witness was coded as 0 = black and 1 = white. The race distribution for defendants was nearly even with 46% (n = 61) black and 54% (n = 71) white. The race distribution for witnesses was nearly even with 51% (n = 67) black and 49% (n = 65) white. The SDO score was coded as 0 = low and 1 = high. The distribution of SDO was nearly even with 51% (n = 67) low and 49% (n = 65) high.

A three-predictor logistic model was fitted to the data to examine the relationship between the likelihood that a defendant was given a guilty verdict and the three predictor variables. The result showed that

\[
\text{Predicted logit of (Verdict)} = 0.336 + (-0.875)\times \text{Defendant Race} + (-0.742)\times \text{Witness Race} \\
+ (-1.783)\times \text{SDO} + (1.766)\times \text{Interaction of Defendant and Witness Race} + \\
(2.456)\times \text{Interaction of SDO and Defendant Race} + (2.659)\times \text{Interaction of SDO and Witness Race} + (-4.328)\times \text{Interaction of SDO, Defendant Race and Witness Race.}
\]

According to the model the log of the odds of a defendant given a guilty verdict was not significantly related to race of defendant or race of witness. However, SDO was related to verdict, as well as all the higher order interactions (see table 2.2).

The Hosmer–Lemeshow (H–L) inferential goodness-of-fit test yielded a $\chi^2 (6)$ of 0.000 and was insignificant ($p > .05$), suggesting that the model was fit to the data well.
Table 2.2: Logistic Regression of SDO, Race of Defendant and Witness on Verdict

<table>
<thead>
<tr>
<th>Predictor</th>
<th>β</th>
<th>S.E.</th>
<th>Wald’s $\chi^2$</th>
<th>df</th>
<th>p</th>
<th>Exp(β)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>.336</td>
<td>.586</td>
<td>.330</td>
<td>1</td>
<td>.566</td>
<td>1.400</td>
</tr>
<tr>
<td>Defendant Race (1 = white, 0 = black)</td>
<td>-.875</td>
<td>.754</td>
<td>1.347</td>
<td>1</td>
<td>.246</td>
<td>.417</td>
</tr>
<tr>
<td>Witness Race (1 = white, 0 = black)</td>
<td>-.742</td>
<td>.788</td>
<td>.887</td>
<td>1</td>
<td>.346</td>
<td>.476</td>
</tr>
<tr>
<td>SDO (0 = low, 1 = high)</td>
<td>-1.783</td>
<td>.807</td>
<td>4.880</td>
<td>1</td>
<td>.027</td>
<td>.168</td>
</tr>
<tr>
<td>Defendant Race x Witness Race</td>
<td>1.766</td>
<td>1.024</td>
<td>2.975</td>
<td>1</td>
<td>.085</td>
<td>5.850</td>
</tr>
<tr>
<td>SDO x Defendant Race</td>
<td>2.456</td>
<td>1.070</td>
<td>5.264</td>
<td>1</td>
<td>.022</td>
<td>11.657</td>
</tr>
<tr>
<td>SDO x Witness Race</td>
<td>2.659</td>
<td>1.120</td>
<td>5.636</td>
<td>1</td>
<td>.018</td>
<td>14.280</td>
</tr>
<tr>
<td>SDO x Defendant Race x Witness Race</td>
<td>-4.328</td>
<td>1.489</td>
<td>8.448</td>
<td>1</td>
<td>.004</td>
<td>.013</td>
</tr>
</tbody>
</table>

Test

<table>
<thead>
<tr>
<th>Test</th>
<th>$\chi^2$</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goodness-of-fit test Hosmer &amp; Lemeshow</td>
<td>0.00</td>
<td>6</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Cox and Snell $R^2 = 0.090$. Nagelkerke $R^2 = 0.120$

To better examine the results, SDO was split between low and high and two logistic regressions were run. As before, the outcome variable, verdict, was the defendants being given guilty verdicts (0 = not guilty, 1 = guilty). The two predictors were race of the defendant and race of the witness. The race predictor for both defendant and witness was coded as 0 = black and 1 = white. In the low SDO participants, the race distribution for defendants was 40% ($n = 27$) black and 60% ($n = 40$) white. The race distribution for witnesses was 46% ($n = 31$) black and 54% ($n = 36$) white. The result showed that:

Predicted logit of (Verdict) = 0.336 + (-0.875)*Defendant Race + (-0.742)*Witness Race + (1.766)*Interaction of Defendant and Witness

According to the model the log of the odds of a defendant given a guilty verdict was not significantly related to race of defendant or race of witness. However, as predicted by the SDO literature for low SDO people, the log of the odds of a defendant given a guilty verdict was significantly related to the interaction of race of defendant and race of witness (see Table 2.3). The odds of a defendant with a congruent race witness being found guilty were 5.85 ($= e^{1.766}$); see
Table 2.3) times greater than the odds for a defendant with an incongruent race witness. The probability of a defendant with a race incongruent witness being given a guilty verdict is lower than that of a defendant with an incongruent race witness. The race incongruent pairs were found guilty less often than race congruent pairs (see Figure 2.2).

The Hosmer–Lemeshow (H–L) inferential goodness-of-fit test yielded a $\chi^2 (2)$ of 0.000 and was insignificant ($p > .05$), suggesting that the model was fit to the data well. In other words, the null hypothesis of a good model fit to data was reasonable.

### Table 2.3: Logistic Regression of Defendant and Witness Race on Verdict (Low SDO)

<table>
<thead>
<tr>
<th>Predictor</th>
<th>$\beta$</th>
<th>S.E.</th>
<th>Wald’s $\chi^2$</th>
<th>df</th>
<th>$p$</th>
<th>Exp($\beta$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>.336</td>
<td>.586</td>
<td>.330</td>
<td>1</td>
<td>.566</td>
<td>1.400</td>
</tr>
<tr>
<td>Defendant Race (1 = white, 0 = black)</td>
<td>-.875</td>
<td>.754</td>
<td>1.347</td>
<td>1</td>
<td>.246</td>
<td>.417</td>
</tr>
<tr>
<td>Witness Race (1 = white, 0 = black)</td>
<td>-.742</td>
<td>.788</td>
<td>.887</td>
<td>1</td>
<td>.346</td>
<td>.476</td>
</tr>
<tr>
<td>Defendant Race x Witness Race</td>
<td>1.766</td>
<td>1.024</td>
<td>2.975</td>
<td>1</td>
<td>.085</td>
<td>5.850</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Test</th>
<th>$\chi^2$</th>
<th>df</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goodness-of-fit test Hosmer &amp; Lemeshow</td>
<td>0.00</td>
<td>2</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Cox and Snell $R^2 = 0.050$. Nagelkerke $R^2 = 0.067$

Figure 2.2: Effect of Defendant and Witness Race on Verdict when SDO is Low
When SDO was high, the opposite effects occurred. In the high SDO participants, the race distribution for defendants was 52% \((n = 34)\) black and 48% \((n = 31)\) white. The race distribution for witnesses was 55% \((n = 36)\) black and 45% \((n = 29)\) white. The logistic regression analysis was carried showed that:

\[
\text{Predicted logit of (Verdict) } = -1.447 + (1.580)\text{Defendant Race} + (1.917)\text{Witness Race} + (-2.561)\text{Interaction of Defendant and Witness}
\]

According to the model the log of the odds of a defendant given a guilty verdict was significantly related to race of defendant and race of witness. Additionally, as predicted by the SDO literature for high SDO people, the log of the odds of a defendant given a guilty verdict was significantly related to the interaction of race of defendant and race of witness (see Table 2.4). The odds of a defendant with an incongruent race witness being found guilty were 12.95 \(= e^{2.561}\), see Table 2.4) times greater than the odds for a defendant with a congruent race witness. The probability of a defendant with a race incongruent witness being given a guilty verdict is greater than that of a defendant with a congruent race witness. The race incongruent pairs were found guilty more often than race congruent pairs (see Figure 2.3).

The Hosmer–Lemeshow (H–L) inferential goodness-of-fit test yielded a \(\chi^2 (2)\) of 0.000 and was insignificant \((p > .05)\), suggesting that the model was fit to the data well. In other words, the null hypothesis of a good model fit to data was reasonable.
Table 2.4: Logistic Regression of Defendant and Witness Race on Verdict (High SDO)

<table>
<thead>
<tr>
<th>Predictor</th>
<th>$\beta$</th>
<th>S.E.</th>
<th>Wald's $\chi^2$</th>
<th>df</th>
<th>$p$</th>
<th>Exp($\beta$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-1.447</td>
<td>.556</td>
<td>6.779</td>
<td>1</td>
<td>.009</td>
<td>.235</td>
</tr>
<tr>
<td>Defendant Race (1 = white, 0 = black)</td>
<td>1.580</td>
<td>.759</td>
<td>4.331</td>
<td>1</td>
<td>.037</td>
<td>4.857</td>
</tr>
<tr>
<td>Witness Race (1 = white, 0 = black)</td>
<td>1.917</td>
<td>.796</td>
<td>5.798</td>
<td>1</td>
<td>.016</td>
<td>6.800</td>
</tr>
<tr>
<td>Defendant Race x Witness Race</td>
<td>-2.561</td>
<td>1.081</td>
<td>5.615</td>
<td>1</td>
<td>.018</td>
<td>.077</td>
</tr>
</tbody>
</table>

Test

<table>
<thead>
<tr>
<th>Test</th>
<th>$\chi^2$</th>
<th>df</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goodness-of-fit test Hosmer &amp; Lemeshow</td>
<td>0.00</td>
<td>2</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Cox and Snell $R^2 = 0.113$. Nagelkerke $R^2 = 0.153$

Figure 2.3: Effect of Defendant and Witness Race on Verdict when SDO is High

Collapsing pairs in terms of congruency and incongruency (and ignoring race) produced a significant effect interaction between congruency and SDO ($\chi^2 (1, N=132) = 9.05, p = .003$) (see Figure 2.4). As before, the outcome variable, verdict, was the defendants being given guilty verdicts (0 = not guilty, 1 = guilty). The two predictors were congruency of race of the defendant and race of the witness. The congruency predictor was coded as 0 = congruent and 1 = incongruent. The congruency distribution was nearly even with 53% ($n = 70$) congruent and 47%
(n = 62) incongruent. The SDO score was coded as 0 = low and 1 = high. The distribution of SDO was nearly even with 51% (n = 67) low and 49% (n = 65) high.

The logistic regression analysis showed that:

Predicted logit of (Verdict) = 0.431 + (-0.910)*Congruency + (-1.424)*SDO + (2.191)*Interaction of Congruency and SDO

According to the model the log of the odds of a defendant given a guilty verdict was significantly related to congruency race pairs and SDO. Additionally, the log of the odds of a defendant given a guilty verdict was significantly related to the interaction of congruency of race of defendant and race of witness (see Table 2.5). The low SDO found incongruent pairs guilty less often and the high SDO found the incongruent pairs guilty more often. The odds of these defendants being found guilty were $8.94 (= e^{2.191};$ see Table 2.5) times greater than the odds for a low SDO incongruent pair or a high SDO congruent pair to be found guilty. The probability of a defendant with a race incongruent witness being given a guilty verdict is greater than that of a defendant with a congruent race witness. That is, regardless of race of defendant and witness, low SDO participants voted guilty less often when witness and defendant were incongruent, while high SDO voted guilty more often when the pairs were incongruent (see Figure 2.4).

**Table 2.5: Logistic Regression of Congruency of Race and SDO on Verdict**

<table>
<thead>
<tr>
<th>Predictor</th>
<th>β</th>
<th>S.E.</th>
<th>Wald’s $\chi^2$</th>
<th>df</th>
<th>p</th>
<th>Exp(β)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>.431</td>
<td>.356</td>
<td>1.462</td>
<td>1</td>
<td>.227</td>
<td>1.538</td>
</tr>
<tr>
<td>Defendant Race (1 = white, 0 = black)</td>
<td>-.910</td>
<td>.501</td>
<td>3.296</td>
<td>1</td>
<td>.069</td>
<td>.402</td>
</tr>
<tr>
<td>Witness Race (1 = white, 0 = black)</td>
<td>-1.424</td>
<td>.514</td>
<td>7.683</td>
<td>1</td>
<td>.006</td>
<td>.241</td>
</tr>
<tr>
<td>Defendant Race x Witness Race</td>
<td>2.191</td>
<td>.731</td>
<td>8.986</td>
<td>1</td>
<td>.003</td>
<td>8.947</td>
</tr>
</tbody>
</table>

Test: $\chi^2$  df  p

| Goodness-of-fit test Hosmer & Lemeshow | 0.00 | 2  | 1.00 |

Cox and Snell $R^2 = 0.077$. Nagelkerke $R^2 = 0.103$
The Hosmer–Lemeshow (H–L) inferential goodness-of-fit test yielded a \( \chi^2 (2) \) of 0.000 and was insignificant (\( p > .05 \)), suggesting that the model was fit to the data well. In other words, the null hypothesis of a good model fit to data was reasonable.

**Figure 2.4: Effect of Race Congruency of Defendant and Witness and SDO on Verdict**

The follow up measures produced somewhat different results (see Table 2.6).

**Table 2.6: Mean Level of Four Factor Guilty Verdicts in Study 2a**

<table>
<thead>
<tr>
<th>Race of Defendant/ Witness</th>
<th>N</th>
<th>Mean(SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>white/white</td>
<td>40</td>
<td>2.15 (0.98)</td>
</tr>
<tr>
<td>white/black</td>
<td>36</td>
<td>2.19 (0.82)</td>
</tr>
<tr>
<td>black/white</td>
<td>35</td>
<td>2.20 (0.96)</td>
</tr>
<tr>
<td>black/black</td>
<td>39</td>
<td>1.72 (1.12)</td>
</tr>
</tbody>
</table>

There were no significant main effects for the four-factor measure. An ANOVA revealed no effect of race of defendant (\( F(1,149) = 1.77, ns \), or race of witness (\( F(1,149) = 1.86, ns \), but revealed a marginally significant interaction effect (\( F(1,149) = 2.70, p = 0.10 \)). This is between a small and medium effect size \( \eta^2 = 0.02 \). Incongruent race pairs were found guilty more often than congruent race pairs (see Figure 2.5).
When SDO was added to the ANOVA, analysis revealed a significant interaction between defendant race, witness race, and SDO \( F(1,131) = 7.10, p = .009 \). This is a medium effect size \( \eta^2 = 0.05 \). When SDO was low, defendants with a black witness were found guilty less often than defendants with a white witness (see Figure 2.6).

When SDO was high, race incongruent pairs were found guilty more often than race congruent pairs. This was close to a large effect size \( \eta^2 = 1.06 \). (see Figure 2.7).
The third dependent variable was a rating of how guilty they believed the defendant was, regardless of verdict. Scores could range from -43 (definitely innocent) to +43 (definitely guilty) (see Table 2.7).

Table 2.7: Mean Belief that the Defendant is Guilty in Study 2a

<table>
<thead>
<tr>
<th>Race of Defendant/ Witness</th>
<th>Mean(SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>white/white</td>
<td>9.85(18.47)</td>
</tr>
<tr>
<td>white/black</td>
<td>13.14(17.04)</td>
</tr>
<tr>
<td>black/white</td>
<td>12.63(19.85)</td>
</tr>
<tr>
<td>black/black</td>
<td>5.10(23.31)</td>
</tr>
</tbody>
</table>

An ANOVA revealed no main effect of race of defendant \( (F(1,148) = 0.65, \text{ns}) \) or witness \( (F(1,148) = 0.42, \text{ns}) \), but there was a marginally significant interaction effect \( (F(1,148) = 2.75, p = .10) \) This is between a small and medium effect size \( \eta^2 = 0.02 \). Incongruent race pairs were found guilty more often than congruent race pairs (see Figure 2.8).
When SDO was added to the ANOVA, analysis revealed a main effect of SDO ($F(1,130) = 3.76, p = .05$) (effect size $\eta^2 = 0.03$). There were no other significant effects or interactions.

When SDO was low, there were no significant effects. When SDO was high race incongruent pairs were found guilty more than race congruent pairs (effect size $\eta^2 = 0.03$) (see Figure 2.9).
3.1.3 Discussion: Study 2a

To summarize, it was found that without including SDO, there were only marginal effects. Specifically, there was a marginal effect on the witness race such that when the witness was black, the defendants were given less guilty verdicts. Though consistent with the general finding from Study 1 that witness and not defendant would have an effect, it is inconsistent in that the defendants with the white witness were found guilty more often in Study 2a. This could be due to evidence at trial being more balanced, so the case is more difficult to decide, and the participants fall back on extra-legal race stereotypes to help make their decision. For the other two dependant measures, there are no main effects of defendant or witness race. Instead, there are marginal interaction effects for both DVs, the incongruent race pairs were found guilty more often. When looking at SDO orientation, results across all three dependant measures are similar and as predicted from the literature. In general, the participants with high SDO treat the incongruent race pairs harshly and the congruent pairs leniently, and the participants with low SDO react in the opposite way. Depending on the dependant measure, the low SDO either treat the incongruent race pairs leniently, or bend over backwards and find the black defendant guilty less often than the white.

3.1.4 Results: Study 2b

The group deliberations did not work out because there were not enough groups of participants to perform proper data analyses. Deliberations were only run when four or more participants were present, resulting in only five group verdicts per condition. The congruent race pairs were found guilty less often (only 10% of the verdicts were guilty) than the incongruent race pairs (50% of the verdicts were guilty). However, with only 5 verdicts per condition, there are insufficient data to draw any conclusions. Therefore, the data for Study 2b simply serve to replicate Study 2a.
The main dependent measure for this study was the verdict given by the participants (1 = guilty, 0 = not guilty), where the two predictors were race of the defendant and race of the witness. The race predictor for both defendant and witness was coded as 0 = white and 1 = black. The race distribution for defendants was nearly even with 47% ($n = 140$) black and 53% ($n = 157$) white. The race distribution for witnesses was basically even with 50% ($n = 148$) black and 50% ($n = 149$) white. Table 2.8 presents the percentage voting guilty in each of the conditions.

**Table 2.8: Percentage of Guilty Verdicts in Study 2b**

<table>
<thead>
<tr>
<th>Race of Defendant/ Witness</th>
<th>% Guilty</th>
</tr>
</thead>
<tbody>
<tr>
<td>white/white</td>
<td>35%</td>
</tr>
<tr>
<td>white/black</td>
<td>51%</td>
</tr>
<tr>
<td>black/white</td>
<td>39%</td>
</tr>
<tr>
<td>black/black</td>
<td>38%</td>
</tr>
</tbody>
</table>

A two-predictor logistic model was fitted to the data to test the research hypothesis regarding the relationship between the likelihood that black and white defendants with black and white witnesses are given a guilty verdict. The result showed that:

Predicted logit of (Verdict) = -0.619 + (0.177)*Defendant Race + (0.645)*Witness Race + (-0.692)*Interaction of Defendant and Witness Race. (see Figure 2.10).

According to the model the log of the odds of a defendant given a guilty verdict was not significantly related to race of defendant or interaction between race of defendant and witness. However, the log of the odds of a defendant given a guilty verdict was significantly related to the race of witness (see Table 2.9). The odds of a defendant with a black witness being found guilty were 1.90 ($= e^{0.645}$; see Table 2.9) times greater than the odds for a defendant with a white witness. The probability of a defendant with a black witness being given a guilty verdict is higher than that of a defendant with a white witness. Consistent with the results of Study 1, it seems in general if the witness was black, the defendant was found guilty more often (see Figure 2.10).
The Hosmer–Lemeshow (H–L) inferential goodness-of-fit test yielded a $\chi^2 (2)$ of 0.000 and was insignificant ($p > .05$), suggesting that the model was fit to the data well. In other words, the null hypothesis of a good model fit to data was reasonable.

**Table 2.9: Logistic Regression of Defendant and Witness Race on Verdict in Study 2b**

<table>
<thead>
<tr>
<th>Predictor</th>
<th>$\beta$</th>
<th>S.E.</th>
<th>Wald’s $\chi^2$</th>
<th>$df$</th>
<th>$p$</th>
<th>Exp($\beta$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-.619</td>
<td>.234</td>
<td>6.974</td>
<td>1</td>
<td>.008</td>
<td>.538</td>
</tr>
<tr>
<td>Defendant Race (0 = white, 1 = black)</td>
<td>.177</td>
<td>.340</td>
<td>.271</td>
<td>1</td>
<td>.603</td>
<td>1.194</td>
</tr>
<tr>
<td>Witness Race (0 = white, 1 = black)</td>
<td>.645</td>
<td>.327</td>
<td>3.892</td>
<td>1</td>
<td>.049</td>
<td>1.906</td>
</tr>
<tr>
<td>Defendant Race x Witness Race</td>
<td>-.692</td>
<td>.477</td>
<td>2.102</td>
<td>1</td>
<td>.147</td>
<td>.501</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Test</th>
<th>$\chi^2$</th>
<th>$df$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goodness-of-fit test Hosmer &amp; Lemeshow</td>
<td>0.00</td>
<td>2</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Cox and Snell $R^2 = 0.015$. Nagelkerke $R^2 = 0.020$

**Figure 2.10: Effect of Defendant and Witness Race on Verdict**

When SDO was added to the logistic regression, analysis revealed no significant effects or interactions between race of defendant, race of witness, and SDO.

The follow-up measures were consistent with these findings (see Table 2.10).
Table 2.10: Mean Level of Four Factor Guilty Verdicts in Study 2b

<table>
<thead>
<tr>
<th>Race of Defendant/ Witness</th>
<th>Mean(SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>white/white</td>
<td>1.93(0.99)</td>
</tr>
<tr>
<td>white/black</td>
<td>2.32(0.85)</td>
</tr>
<tr>
<td>black/white</td>
<td>1.94(1.04)</td>
</tr>
<tr>
<td>black/black</td>
<td>2.01(0.96)</td>
</tr>
</tbody>
</table>

An ANOVA revealed no effect of race of defendant \((F(1,295) = 1.61, \text{ns})\), or an interaction \((F(1,295) = 2.02, \text{ns})\), but there was a main effect of race of witness \((F(1,295) = 4.26, p = .04)\). This is a small effect size \(\eta^2 = 0.01\). The defendants with the white witness were found guilty less often than the defendants with the black witnesses (see Figure 2.11).

**Figure 2.11: Effect of Defendant and Witness Race on Four Verdict Scale**

When SDO was added to the ANOVA, analysis revealed a marginal main effect of race of defendant \((F(1,242) = 3.01, p = .08)\) and witness \((F(1,242) = 3.20, p = .08)\) (both small effects sizes \(\eta^2 = 0.01\)) but no main effect for SDO \((F(1,242) = 0.04, \text{ns})\) or interaction \((F(1,242) = 1.52, \text{ns})\). The black defendants were found guilty more than the white defendants and the defendants with white witnesses were found guilty less often than those with a black witness.

Participants were asked to rate how guilty they believed the defendant was, regardless of verdict. Raw scores were centered on the midpoint, with ratings below zero indicating innocence.
and ratings above zero indicating guilt. Scores could range from -43 (definitely innocent) to +43 (definitely guilty) (see Table 2.11).

**Table 2.11: Mean Belief that the Defendant is Guilty in Study 2b**

<table>
<thead>
<tr>
<th>Race of Defendant/ Witness</th>
<th>Mean(SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>white/white</td>
<td>10.98(18.22)</td>
</tr>
<tr>
<td>white/black</td>
<td>13.71(16.48)</td>
</tr>
<tr>
<td>black/white</td>
<td>7.04(18.91)</td>
</tr>
<tr>
<td>black/black</td>
<td>9.00(18.21)</td>
</tr>
</tbody>
</table>

There was a main effect of race of defendant ($F(1,296) = 3.98, p = .05$) (a small effect size $\eta^2 = 0.01$) but not for witness ($F(1,296) = 1.10, ns$), or an interaction effect ($F(1,296) = 0.01, ns$). The black defendant was believed to be guilty less than the white (see Figure 2.12).

**Figure 2.12: Effect of Defendant Race on Belief of Guilt**

![Graph showing the effect of defendant race on belief of guilt]

Adding SDO to the ANOVA revealed no significant effect involving SDO.

**3.1.5 Discussion: Study 2b**

To summarize, it was found that there is generally no effect of the race of defendant on verdict and that when the witness was black, the defendants were given more guilty verdicts. In addition, for the continuous measure of belief of guilt, the participants believed the black defendant was less guilty than the white defendant, even though it did not seem to affect their
verdicts. This is consistent with the general finding from Study 1 but different from what was found in Study 2a. Across dependant measures, those defendants (especially the white defendant) with a black witness are given more guilty verdicts. When looking at SDO orientation, results across all three dependant measures were much less clear in Study 2b.

3.1.6 General Discussion

The key findings of Studies 2a and 2b were consistent with the idea that the race of defendant has little effect but the race of the witness does (though they did not exactly match the findings from Study 1). The question is why did Study 2a differ from Study 1 and Study 2b. This could have been due to the complex nature of bias in court trials, or possibly due to the introduction of extra evidence in these two studies to increase the baseline guilty ratio to closer to 50/50. Study 2a found an effect of the witness (though marginal) but it was the opposite effect. Those defendants in Study 2a with a black witness were found guilty less often than those with a white witness, and seemed to be especially prevalent when the defendant was also black. The results of Study 2b more closely replicated the results of Study 1, with defendants with black witnesses being found guilty more often than those with white witnesses, and seemed especially prevalent when the defendant was white. Looking at the figures, the pattern of results in Study 2a seems to be driven by the black defendant with the black witness (they are the cell found guilty the least). In Study 2b, it is the white defendant with the black witness that is found guilty the most often. So it could be argued that these are complementary results. There is still no effect of the defendant, but an effect on the verdict from the witness in both cases. It could also be argued this follows the pattern of incongruent being found guilty more often and congruent being found guilty less often. This carries across the other dependant variables. Together, the findings from Study 2a and 2b reveal that congruency of the race of the defendant and witness impacts verdict.
In addition, another finding of Study 2 is the interaction of SDO status and whether the race of the defendant was the same as the race of the witness. In general in Study 2a the low SDO participants, who presumably do not endorse social hierarchies (whom we might consider as less prejudiced), apparently gave more weight to the witness when he was a different race from the accused. Same race pairs were given less verdicts of guilt. In contrast, the high SDO participants, who do endorse social hierarchies, gave more weight to the witness when his race was the same as the accused, opposite race pairs were given more verdicts of guilt. This result is consistent with the predictions that violations of hierarchies should result in punishment by those high in SDO regardless of whether the violator is a member of an ingroup or outgroup. The incongruent pairs violate hierarchies by being friends with individuals from outside their racial group. For someone high in SDO, this would first indicate the target willing to be friends with someone outside their group must not endorse hierarchies. It is also consistent with the prediction that participants should not punish members of the group supposedly lower on the group based hierarchy (in this case the black defendant) if they are staying within their hierarchical and group-based systems of social organization. Though it was predicted that any defendant with a black witness would be treated better by participants low in SDO, instead low SDO participants found race incongruent pairs guilty less often than race congruent. Overall, it is also consistent with the idea that high and low prejudiced bias (bias and reverse bias) cancel each other out when looking at averaged results.

In Study 2b, the results of the SDO analyses are less clear. The trends showed that generally higher SDO drove the black defendants to be found guilty more than the white defendants and the defendants with white witnesses were found guilty less often than those with a black witness (which is more in line with traditional prejudice).
In general, the SDO results lend some support indirectly to the theory that automatic prejudices are perhaps different for high and low prejudiced people, or at least that prejudice can be controlled with more conscious thought. Though there is no measure of implicit prejudice in these studies, there is an aspect of deliberate versus spontaneous processing when coming to decisions about the defendant versus the witness. Regardless of prejudice, decision making for the defendant is more carefully egalitarian, but when prejudice is taken into account, the high and low SDO participants tend to have verdicts more in line with their beliefs. In a study by Richeson and Shelton (2003) for example, participants had an interaction with either a white or black confederate and then completed a Stroop colour naming task. For those higher in prejudice, their performance on the Stroop task was impaired after the interaction, but only when the interaction was with the black confederate, not after an interaction with the white confederate. For those low in prejudice, Stroop task performance was not affected by interaction with either the black or white confederate. This may indicate that being egalitarian for the black defendant impacts the higher prejudiced participants’ ability when it comes to the witness.
Chapter 4  
Increasing Race Salience with Direct Legal Questions about Partiality: Reducing Bias with the Parks Question

The literature on mock trial cases as reviewed to date had revealed seemingly egalitarian results in mock criminal trials involving black and white defendants. Dual process theories of decision making would predict that the more deliberate a decision maker is (and less spontaneous) the more they will judge the case based on the evidence and not on extra-legal factors like bias. But these apparently egalitarian results are not completely due to reduction of prejudice in society. Instead, the cause is most likely due to a combination of motivations, both external (social norms) and internal (personal beliefs). Kunda and Spencer (2003) recognized that in addition to the two regular motivations to use the deliberate decision making route (motivation to correctly understand the situation and motivation to appear positive to others) there was one more main motivating goal in decision making when considering stereotype activation and application: a very real motivation to avoid prejudice. When mock court trials do not have salient race cues, whites may spontaneously rely on stereotypic beliefs about blacks and respond in a biased manner (Frey & Gaertner, 1986; Gaertner & Dovidio, 1986; Hodson, Dovidio, & Gaertner, 2002). However, when race is a factor in mock criminal trials, these motivations set more deliberate processing in motion (Sommers & Ellsworth, 2000, 2001). All three of these motivations come into play when race is directly made salient.

4 Race Salience via Judicial Instruction

Dual process theories would predict that race salience causes the decision maker to deliberate more because of the three overlapping motivations. One way race may be made salient is the real world use of voir dire or challenge for cause concerning race. With judicial
instructions about procedural fairness concerning burden of proof, reasonable doubt, and some form of case law (with no mention of race) black and white defendants were found guilty equally often (Mitchell et al., 2005; see, for example, Pfeifer and Ogloff, 1991). This finding suggests that asking potential jurors whether they can be unbiased jurors is another way to make race salient. It seems logical to assume that when combined, judicial instructions directly concerning racial bias in general or within the potential juror should shift the jurors into the more deliberate route, where they will try to be less biased and judge the cause only on the evidence at hand. If so, the challenge for cause in the Canadian system may have a positive effect even if it is limited in its ability to detect and eliminate biased jurors. By making race issues salient, and reminding individuals of the societal and legal importance of not being biased, it may cause jurors to be more vigilant about not being biased. The challenge for cause explicitly raises the issue of bias and may therefore result in less bias.

4.1 Studies 3a, 3b, and 3c

A final series of three studies were created to assess the effect of increasing the salience of race through judicial instructions and questions. The basic idea was that greater salience would increase the motivation of jurors to be unbiased and would shift their decision making to greater use of the deliberate route. Using a court based scenario, race of defendant and witness was varied, along with the addition of a Parks type question aimed at increasing the salience of the importance of being fair and unbiased. The essential factors were salience of race of both the defendant and witness and making race salient through judicial instructions.

It was observed in the previous studies that participants were more biased against the secondary target (the witness) than the defendant, perhaps because motivation to be unbiased would be more salient for the primary target of focus. In addition, it was observed that the
interaction between the race of the defendant and witness also had an effect based on prejudice levels of the participants – high SDO giving defendants with racially incongruent witnesses more guilty verdicts and the low SDO giving the incongruent pairs fewer guilty verdicts.

It is assumed from the previous studies that participants used the deliberate processing route when they directly assessed the defendant as the primary target, but used a more spontaneous processing route when assessing the weight of the information provided by the witness as the secondary target, or the combination of the defendant and witness. It is predicted that if participants can be shifted to a more deliberative route in general, bias against the secondary target (and consequently the negative appraisal of the primary target) can be reduced or removed. Making participants more aware of their processing route could be as simple as asking them to pay more attention to the importance of the witness. It is predicted that making the process of decision-making salient, especially when mentioning the possibility of bias, should be enough to allow the participants to deliberate more about both targets and reduce bias compared to those participants who are not given any additional instruction. Because all considerations should now be in the deliberate route, social norms should be the main motivation and overrule any personal internal factors, if they are not compatible with the social norms.

The Parks questions should raise race as an issue and make jurors less likely to show bias against blacks. This may even include black witnesses. The effects may be influenced by SDO as they may be mediated by this factor.

4.1.1 Method

Design

Study 3 consisted of three distinct studies (3a, 3b, & 3c) that were analyzed separately and compared to a baseline control condition. In the baseline control condition, 25 participants
read the trial summary with no faces (and therefore no race cues) and no Parks Question (so therefore no judicial race salience manipulation) provided.

**Study 3a** consisted of a 2x2 design examining race of the defendant and witness (two race congruent conditions and two race incongruent conditions), but did not directly manipulate race salience (did not ask the Parks Question).

**Study 3b** consisted of a 2x2 design with four conditions that also manipulated race of defendant and witness. For the two conditions that had black defendants, race salience was heightened by asking the Parks question to be fair in regards to the fact the defendant was black. For the two conditions that had white defendants, a control question was asked about being fair and impartial without mentioning race. Though this design seems unbalanced, in real-life the Parks question would not be used when the defendant was white.

**Study 3c** consisted of a 2x2 design with four conditions that manipulated race of defendant and witness, and manipulated race salience for every condition by asking the Parks question in regards to the race of both the defendant and the witness. Though in real life the Parks question would not be asked in regards to a white defendant, it was asked for every defendant and witness in this study for complete balance, and because previous research revealed bias for incongruent race pairs.

**Participants**

Participants were 385 undergraduate students enrolled in an introductory psychology course at the University of Toronto and were recruited via phone call (based on high and low SDO and high and low EMS and IMS based on upper and lower quartile cut offs) and computer sign up. Participants’ Social Dominance Orientation (SDO), Internal Motivation to respond without Prejudice (IMS), and External Motivation to respond without Prejudice (EMS) was measured in a non-experimental mass testing in PSY100. Sign up for the experiment was for
groups of up to eight. Participants received course credit towards their final grade in Intro to Psychology. Participants were randomly assigned to the control condition, or Study 3a, 3b, or 3c. Though during recruitment participants were purposely called based on prejudice levels, final descriptive statistics revealed that the majority of participants that signed up, and showed up, for the study were low prejudice, and of those who signed up via computer most did not complete mass testing and therefore we did not have their prejudice scores. Since there were not enough high prejudiced participants, the planned analyses of how prejudice scores related to verdicts prejudice predictions could not be done.

**Control baseline.** There were 25 participants, 14 female, 11 male with a mean age 19. Racial and ethnic background was 56% East and Southeast Asian, 28% European, 8% South Asian, and 8% Middle Eastern. Internal Prejudice levels of participants were as follows: SDO ($M = 2.67, SD = 0.85$ (scale of 1 to 7)); IMS ($M = 4.78, SD = 1.49$ (scale of 1 to 9)). Mean level of compliance with social norms was EMS ($M = 6.69, SD = 2.01$ (scale of 1 to 9)).

**Study 3a.** There were 112 participants made up of 65 female, 47 male, with a mean age 19. Racial and ethnic background was 40% East and Southeast Asian, 31% European, 13% South Asian, and <5% each of African, Caribbean, Latin American, Middle Eastern, and other. Internal Prejudice levels of participants were as follows: SDO ($M = 2.33, SD = 1.13$ (scale of 1 to 7)); IMS ($M = 6.57, SD = 1.82$ (scale of 1 to 9)). Mean level of motivation to comply with social norms was EMS ($M = 4.51, SD = 1.85$ (scale of 1 to 9)).

**Study 3b.** There were 119 participants made up of 78 female, 41 male, with a mean age 19. Racial and ethnic background was 36% East and Southeast Asian, 35% European, 12% South Asian, and <5% each of African, Caribbean, Latin American, Middle Eastern, and other. Internal Prejudice levels of participants were as follows: SDO ($M = 2.57, SD = 1.10$ (scale of 1 to 7));
IMS ($M = 7.04, SD = 1.31$) (scale of 1 to 9). Mean level of motivation to comply with social norms was EMS ($M = 4.98, SD = 1.67$) (scale of 1 to 9).

**Study 3c.** There were 129 participants made up of 86 female, 43 male, with a mean age 19. Racial and ethnic background was 30% East and Southeast Asian, 41% European, 12% South Asian, and <5% each of African, Caribbean, Latin American, Middle Eastern, and other. Internal Prejudice levels of participants were as follows: SDO ($M = 2.19, SD = 1.00$) (scale of 1 to 7)); IMS ($M = 6.87, SD = 1.73$) (scale of 1 to 9). Mean level of motivation to comply with social norms was EMS ($M = 4.55, SD = 1.81$) (scale of 1 to 9).

Across all participants, a two-tailed test showed that SDO correlated negatively with IMS ($r = -.354, p = 0.01$). As people become higher in SDO, they get lower in IMS; these results are consistent with the literature. Also as predicted from the literature, EMS does not correlate with either IMS or SDO.

**Materials**

*Mock trial transcripts.* Each trial summary had identical text describing the murder/armed robbery trial of the defendant Fred Green. The basic version was the control condition. It contained no pictures (and no mention of race), and no race salience manipulation (no Parks Question). Experimental conditions across Study 3a, 3b, and 3c included pictures of all individuals involved in the trial (including the Judge, lawyers, witnesses, and defendant) embedded within the text and presented when the relevant person addresses the court or jury. The race of the defendant and alibi witness varied in the trials, creating two race congruent trials and two race incongruent trials. There were 13 versions of the trial in total, four in each of the studies, and the control baseline. This was the same basic trial as used in Study 2, though with the addition of some new faces and the presentation order slightly rearranged to more closely mimic the proceedings of a real trial (see Appendix I).
**Parks Question.** To induce race salience, versions of the Parks Question were asked in later two studies.

*Control Baseline and Study 3a.* Race salience was not induced and Parks Question was not asked.

*Study 3b.* The standard Parks question currently asked in Canadian court cases involving race focuses on the race of the defendant. In Study 3b, when the race of the defendant was black, the participants read the following question before they read the trial transcript: “As the judge will tell you, in deciding whether or not the prosecution has proven the charge against an accused a juror must judge the evidence of the witnesses without bias, prejudice or partiality: Would your ability to judge the evidence in the case without bias, prejudice or partiality be affected by the fact that the person charged is a black man?” This was controlled for the white defendants by asking a similar question that instead of race, focused on fairness in general: “Would your ability to judge the evidence in the case be affected by any opinions or beliefs that you could not set aside about the person charged?”

*Study 3c.* In the final study, race salience of both the defendant and the witness was induced. As compared to Study 3b, these conditions had a question based *both* on the race of the defendant and the race of the witness, including the white targets: “As the judge will tell you, in deciding whether or not the prosecution has proven the charge against an accused a juror must judge the evidence of the witnesses without bias, prejudice or partiality: Would your ability to judge the evidence in the case without bias, prejudice or partiality be affected by the fact that the person charged is a black (or white) man and his alibi witness is a black (or white) man?”

**Dependent Measures.** Participants were asked to indicate their verdict (e.g. guilty/not guilty) on a separate sheet. The main dependent measure was a verdict of guilty or not guilty. Follow-up measures related to this main measure were asked. If the participant responded not
guilty, participants were asked to give one of three reasons as to why they did not think the defendant was guilty: that he probably was guilty but there was not enough evidence, that he may be guilty but the participant was not sure, or that he was innocent. Also, participants were asked to mark on a 86mm line how likely they thought that the defendant was guilty, ranging from definitely innocent to definitely guilty.

**Demographics Form.** A new demographics questionnaire was used to collect age and ethnicity information about the participants, as well as their country and city of origin, and the length of time they have lived in Canada (see Appendix J)

**SDO Scale.** Sidanius and Pratto’s (1999) 8-item Social Dominance Orientation (SDO) scale was used to measure each participant’s level of SDO.

**IMS and EMS.** Plant and Devine’s (1998) 10-item motivation to respond without prejudice scale was used to measure internal and external motivation to respond without prejudice (IMS and EMS). Participants rated their agreement or disagreement with the statements on a 7 point scale ranging from: strongly disagree to strongly agree. Example items of IMS include: I attempt to act in nonprejudiced ways toward people of a different race because it is personally important to me; and According to my personal values, using stereotypes about people of a different race is OK. Example items of EMS include: I attempt to appear nonprejudiced toward people of a different race in order to avoid disapproval from others; and I try to act nonprejudiced toward people of a different race because of pressure from others (see Appendix K).

**Procedure**

Groups were tested in groups of one to eight in one of two large experimental rooms by two different experimenters.
The procedure followed the same basic format as Studies 1-2. Upon entering the experiment room, participants were randomly seated, welcomed, and briefly introduced to the procedures of the study by the experimenter. Each participant was asked to read and sign the consent form. Each participant was instructed to complete all steps of this study individually.

When the signed consent forms had been collected, each participant was randomly given one of the thirteen versions of the trial transcript corresponding to which study they were in. Participants were not informed that there were different experimental conditions or different studies. Each participant was asked to read the trial summary, decide on a verdict, and indicate the reason and strength of their decisions. Participants then filled out a background questionnaire, were debriefed, and allowed to leave after being thanked for their time.

**Control Baseline.** Participants completed the study as outlined above. The control baseline transcript had no pictures of the players included (and therefore no race manipulation). Control participants were not asked the Parks Question (and therefore had no race salience manipulation).

**Study 3a.** Participants completed the study as outlined above. However, they had the faces of all the people involved in the trial included. There were four randomly assigned race conditions manipulating the race of both the defendant and the witness between black and white.

**Study 3b.** Participants completed the study as outlined above with the same faces as in Study 3a. As well, participants had a race salience manipulation via the Parks Question. Before they read the trial transcript, they were given a challenge for cause on a separate sheet of paper. If the defendant was black (regardless of witness race) they were asked the version of the Parks involving race of the defendant. If the defendant was white (regardless of witness race) they were asked a generic challenge focusing on fairness, which did not mention race.
**Study 3c.** Participants completed the study as outlined above with the same faces as in Study 3a. As well, participants also had a race salience manipulation via the Parks Question but it differed from Study 3b. Before they read the trial transcript, they were given a challenge for cause on a separate sheet of paper. Participants were asked a challenge for cause Parks Question about both the race of the defendant and race of the witness based on the particular races in their condition.

### 4.1.2 Results

The main dependent variable of interest and focus in all studies was a two-alternative forced-choice judgment (guilty or not guilty) which most closely resembles real court trials verdict. Follow up dependent variables were a continuous scale which measured belief of guilt (participants’ belief of how guilty the defendant was, regardless of their verdict) and a four factor verdict with equal appearing intervals. In all cases race of defendant and witness and their interaction were the main independent variables of interest.

The main independent personality variables: internal motivation to control prejudice (IMS), social dominance orientation (SDO), and external motivation to control prejudice (EMS), were examined as mediator variables on race effects.

**Baseline Control Condition**

The control condition focused on the crime and had no mention of race and no pictures of the defendant or witness. This means that the participants in this study could decide a verdict based only on the trial evidence. Baseline verdicts were 56% not guilty and 44% guilty. If the participant responded not guilty, they were asked to give one of three reasons why they did not vote guilty, creating the four factor verdict baseline. Participants responded as follows: 44% said he was guilty, 20% that he probably was guilty but there was not enough evidence, 28% that he may be guilty but the participant was not sure, and only 8% thought that the defendant was
innocent (mean of 2.00 (SD = 1.0). Finally, a continuous scale measuring the belief the
defendant was guilty was obtained and was centered on zero (with belief of guilt above zero and
belief of innocence below zero) the participants in the control condition had a mean of 8.56 (SD
= 19.5). This condition was intended to provide a baseline against which to compare conditions
where the race was manipulated. It was found that this baseline number of guilty verdicts was
always the highest number of guilty votes across all studies, and sometimes significantly so (see
Table 3.1).

Table 3.1: Baseline Verdicts and Belief the Defendant is Guilty

<table>
<thead>
<tr>
<th>Race of Defendant/ Witness</th>
<th>N</th>
<th>Percent Guilty</th>
<th>Mean Belief of Guilt (SD)</th>
<th>Mean Four Factor Verdict (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>baseline (no race)</td>
<td>25</td>
<td>44</td>
<td>8.56 (19.5)</td>
<td>2.00 (1.0)</td>
</tr>
</tbody>
</table>

Study 3a: No Parks Question

In the absence of race salience manipulation, it was predicted that bias would be observed
in Study 3a. Because the majority of these participants were low prejudice, the bias would most
likely consist of a reverse bias in favour of the black defendant, so the scores would be lower
than baseline (see Table 3.2).

Table 3.2: Verdicts and Belief the Defendant is Guilty in Study 3a

<table>
<thead>
<tr>
<th>Race of Defendant/ Witness</th>
<th>N</th>
<th>Percent Guilty</th>
<th>Mean Four Factor Verdict (SD)</th>
<th>Mean Belief of Guilt (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>white/white</td>
<td>30</td>
<td>33.3</td>
<td>1.87 (1.1)</td>
<td>6.33 (23.0)</td>
</tr>
<tr>
<td>black/black</td>
<td>24</td>
<td>29.2</td>
<td>1.63 (1.0)</td>
<td>4.25 (20.8)</td>
</tr>
<tr>
<td>white/black</td>
<td>32</td>
<td>21.9</td>
<td>1.69 (0.9)</td>
<td>3.41 (17.3)</td>
</tr>
<tr>
<td>black/white</td>
<td>26</td>
<td>7.7</td>
<td>0.85 (0.9)</td>
<td>-10.73 (19.0)</td>
</tr>
</tbody>
</table>

Comparing Conditions within Study 3a. The verdict was analyzed using binary logistic
regression, with regressors of race of defendant and race of witness. The continuous belief of
guilt scale and four-factor verdict variable were analyzed using univariate general linear model
analysis of variance, with fixed factors of race of defendant and race of witness. Results were
similar for all three dependent measures (see Table 3.3).
Table 3.3: Effect of Race of Defendant and Witness on Measures of Guilt

<table>
<thead>
<tr>
<th>Effect</th>
<th>Dependent Variable</th>
<th>Statistic</th>
<th>Sig.</th>
<th>η²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Defendant Race</td>
<td>Verdict</td>
<td>$\chi^2$ (1, N=112) = 5.00</td>
<td>0.03</td>
<td>.037</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$F(1, 111) = 4.50$</td>
<td>0.04</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Belief of Guilt</td>
<td>$F(1, 111) = 8.15$</td>
<td>0.005</td>
<td>.065</td>
</tr>
<tr>
<td></td>
<td>Four Factor Verdict</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Witness Race</td>
<td>Verdict</td>
<td>$\chi^2$ (1, N=112) = 3.66</td>
<td>0.06</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>$F(1, 111) = 2.49$</td>
<td>0.1</td>
<td>.020</td>
</tr>
<tr>
<td></td>
<td>Belief of Guilt</td>
<td>$F(1, 111) = 2.50$</td>
<td>0.1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Four Factor Verdict</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Defendant Race x Witness Race</td>
<td>Verdict</td>
<td>$\chi^2$ (1, N=112) = 4.41</td>
<td>0.04</td>
<td>.046</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$F(1, 111) = 5.48$</td>
<td>0.02</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Belief of Guilt</td>
<td>$F(1, 111) = 6.38$</td>
<td>0.01</td>
<td>.051</td>
</tr>
<tr>
<td></td>
<td>Four Factor Verdict</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The main dependent measure for this study was the verdict given by the participants (1 = guilty, 0 = not guilty), where the two predictors were race of the defendant and race of the witness. The race predictor for defendant was coded as 0 = black and 1 = white and witness was coded as 0 = white and 1 = black. The race distribution for defendants was nearly even with 45% ($n=50$) black and 55% ($n=62$) white. The race distribution for witnesses was even with 50% ($n=56$) black and 50% ($n=56$) white. Table 2.8 presents the percentage voting guilty in each of the conditions.

A two-predictor logistic model was fitted to the data to test the research hypothesis regarding the relationship between the likelihood that black and white defendants with black and white witnesses are given a guilty verdict. The result showed that

Predicted logit of (Verdict) = -2.485 + (1.792)*Defendant Race + (1.598)*Witness Race + (-2.177)*Interaction of Defendant and Witness Race.

According to the model the log of the odds of a defendant given a guilty verdict was significantly related to race of defendant, race of witness, and the interaction between race of defendant and witness (see Table 3.4). Consistent with the literature for low SDO, the log of the odds of a defendant given a guilty verdict was significantly related to the interaction of race of defendant and race of witness. The odds of a defendant with a congruent race witness being
found guilty were 8.82 ($= e^{2.177}$; see Table 3.4) times greater than the odds for a defendant with an incongruent race witness. The race incongruent pairs were found guilty less often than race congruent pairs.

The Hosmer–Lemeshow (H–L) inferential goodness-of-fit test yielded a $\chi^2 (2)$ of 0.000 and was insignificant ($p > .05$), suggesting that the model was fit to the data well. In other words, the null hypothesis of a good model fit to data was reasonable.

Table 3.4: Logistic Regression of Defendant and Witness Race on Verdict (Study 3a)

<table>
<thead>
<tr>
<th>Predictor</th>
<th>$\beta$</th>
<th>S.E.</th>
<th>Wald’s $\chi^2$</th>
<th>df</th>
<th>p</th>
<th>Exp($\beta$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-2.485</td>
<td>.736</td>
<td>11.400</td>
<td>1</td>
<td>.001</td>
<td>.083</td>
</tr>
<tr>
<td>Defendant Race (0 = white, 1 = black)</td>
<td>1.792</td>
<td>.832</td>
<td>4.642</td>
<td>1</td>
<td>.031</td>
<td>6.000</td>
</tr>
<tr>
<td>Witness Race (0 = white, 1 = black)</td>
<td>1.598</td>
<td>.862</td>
<td>3.434</td>
<td>1</td>
<td>.064</td>
<td>4.941</td>
</tr>
<tr>
<td>Defendant Race x Witness Race</td>
<td>-2.177</td>
<td>1.037</td>
<td>4.405</td>
<td>1</td>
<td>.036</td>
<td>.113</td>
</tr>
</tbody>
</table>

Test

<table>
<thead>
<tr>
<th>$\chi^2$</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goodness-of-fit test Hosmer &amp; Lemeshow</td>
<td>0.00</td>
<td>2</td>
</tr>
</tbody>
</table>

Cox and Snell $R^2 = 0.015$. Nagelkerke $R^2 = 0.020$

There was a main effect for race of defendant and a marginal effect of race of witness which were qualified by a significant interaction between race of defendant and witness. The incongruent pairs were found guilty less often than race congruent pairs. This was especially apparent when the witness was white. When the witness was white, the black defendant (incongruent pair) was found guilty less often than when the defendant was white (congruent pair). When the witness was black, there seemed to be little difference between the verdicts, though it tended to be the white defendant (incongruent pair) was found guilty less often than the black defendant (congruent pair).

**Study 3a compared to Baseline Control.** When Study 3a was compared to the baseline control, it was predicted that there should be a difference between the conditions and baseline
control due to the pictures (and therefore race) being added to the study. The dichotomous verdict variable was analyzed by binary logistic regression (see Figure 3.1).

**Figure 3.1: Effect of Race of Defendant and Witness on Verdict in Study 3a compared to Baseline Control**

In all four conditions in Study 3a, there were fewer guilty verdicts than in the control condition in which race was not mentioned ($\chi^2 (1, N=137) = 4.29, p = .04$). The dependent measure was the verdict given by the participants (1 = guilty, 0 = not guilty), the predictor was study condition. The study predictor was coded as 0 = control and 1 = experimental. The distribution for conditions was 18% ($n = 25$) control and 82% ($n = 112$) experimental.

A one-predictor logistic model was fitted to the data to test the research hypothesis regarding a difference in verdicts in general between the control and Study 3a. The result showed that:

\[
\text{Predicted logit of (Verdict) = -1.196 + (0.955)*Study Condition}
\]

According to the model the log of the odds of a defendant given a guilty verdict was significantly related to study condition (see Table 3.5). The log of the odds of a defendant given
a guilty verdict was significantly related to condition. The odds of a defendant in the control condition being found guilty were \(2.60 = e^{0.955}\); see Table 3.5) times greater than the odds for a defendant in Study 3a. The defendants in general in Study 3a were found guilty less often than the defendants in the control baseline.

Table 3.5: Logistic Regression of Verdict in Study 3a compared to Verdict in Baseline

<table>
<thead>
<tr>
<th>Predictor</th>
<th>(\beta)</th>
<th>S.E.</th>
<th>Wald’s (\chi^2)</th>
<th>df</th>
<th>(p)</th>
<th>Exp((\beta))</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-2.485</td>
<td>.736</td>
<td>11.400</td>
<td>1</td>
<td>.001</td>
<td>.083</td>
</tr>
<tr>
<td>Study Condition (0 = baseline, 1 = Study 3a)</td>
<td>1.792</td>
<td>.832</td>
<td>4.640</td>
<td>1</td>
<td>.031</td>
<td>6.000</td>
</tr>
</tbody>
</table>

Cox and Snell \(R^2 = 0.030\). Nagelkerke \(R^2 = 0.043\)

However, the only condition that was significantly different by itself was when the defendant was black with a white witness (\(\chi^2 (1, N=137) = 7.15, p = .007\)).

The other measures showed similar effects. The effect was found in the four factor verdict (\(F(1,136) = 4.12, p = .04; \eta^2 = 0.032\)). Again the only significant difference from baseline was the black defendant with white witness (\(t(49) = 4.19, p < .001\)) (see Figure 3.2).

For the belief of guilt scale, again all conditions had lower guilt scores than the control but the difference was marginally significant (\(F(1,136) = 2.67, p = 0.10; \eta^2 = 0.019\)). However, when the defendant was black with a white witness there again was a significant difference from the control baseline (\(t(49) = 3.58, p = .001\)) (see Figure 3.3).
Thus Study 3a indicates that making race salient by providing pictures of the defendant and witness led to fewer guilty verdicts and lower ratings of guilt than the control condition in
which no pictures were provided. In addition, there was an indication of both reverse bias for the black defendant and bias for the white witness. The black defendant with the white witness was given the fewest guilty verdicts.

**Study 3b: Does increasing Race Salience Reduce Bias?**

Study 3b introduced a judicial race salience manipulation. When the defendant was black, participants were asked if their ability to judge the evidence would be affected by any biases due to that the fact that the person charged is a black (the Parks Question). When the defendant was white, participants were asked if their ability to judge the evidence would be affected by any opinions of beliefs in general about the defendant (no mention of race). It was predicted that the race salience manipulation would reduce or eliminate bias (see Table 3.6).

<table>
<thead>
<tr>
<th>Race of Defendant/ Witness Parks</th>
<th>N</th>
<th>Percent Guilty</th>
<th>Mean Four Factor Verdict (SD)</th>
<th>Mean Belief of Guilt (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WW</td>
<td>29</td>
<td>34.5</td>
<td>1.97 (1.0)</td>
<td>8.59 (19.01)</td>
</tr>
<tr>
<td>BB</td>
<td>32</td>
<td>25.0</td>
<td>1.44 (1.1)</td>
<td>2.88 (20.9)</td>
</tr>
<tr>
<td>WB</td>
<td>30</td>
<td>33.3</td>
<td>1.63 (1.2)</td>
<td>5.47 (23.9)</td>
</tr>
<tr>
<td>BW</td>
<td>28</td>
<td>21.4</td>
<td>1.64 (0.9)</td>
<td>3.29 (16.3)</td>
</tr>
</tbody>
</table>

**Comparing Conditions within Study 3b.** The verdict was analyzed using binary logistic regression, with regressors of race of defendant and race of witness. As predicted according to the model the log of the odds of a defendant given a guilty verdict was not significantly related to race of defendant, race of witness, and the interaction between race of defendant and witness. These results were duplicated when both the continuous belief of guilt scale and four-factor verdict variable were analyzed using univariate general linear model analysis of variance, with fixed factors of race of defendant and race of witness (see Table 3.7).
Table 3.7: Effect of Race of Defendant and Witness on Measures of Guilt

<table>
<thead>
<tr>
<th>Effect</th>
<th>Dependent Variable</th>
<th>Statistic</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Defendant Race</td>
<td>Verdict</td>
<td>$\chi^2 (1, N=119) = 0.47$</td>
<td>ns</td>
</tr>
<tr>
<td></td>
<td>Belief of Guilt</td>
<td>$F(1, 118) = 1.12$</td>
<td>ns</td>
</tr>
<tr>
<td></td>
<td>Four Factor Verdict</td>
<td>$F(1, 118) = 1.76$</td>
<td>ns</td>
</tr>
<tr>
<td>Witness Race</td>
<td>Verdict</td>
<td>$\chi^2 (1, N=119) = 0.06$</td>
<td>ns</td>
</tr>
<tr>
<td></td>
<td>Belief of Guilt</td>
<td>$F(1, 118) = 0.22$</td>
<td>ns</td>
</tr>
<tr>
<td></td>
<td>Four Factor Verdict</td>
<td>$F(1, 118) = 1.89$</td>
<td>ns</td>
</tr>
<tr>
<td>Defendant Race x Witness Race</td>
<td>Verdict</td>
<td>$\chi^2 (1, N=119) = 0.09$</td>
<td>ns</td>
</tr>
<tr>
<td></td>
<td>Belief of Guilt</td>
<td>$F(1, 118) = 0.13$</td>
<td>ns</td>
</tr>
<tr>
<td></td>
<td>Four Factor Verdict</td>
<td>$F(1, 118) = 0.11$</td>
<td>ns</td>
</tr>
</tbody>
</table>

Study 3b compared to Baseline Control. The dichotomous verdict variable was analyzed by binary logistic regression, using the Parks Question in general as a regressor. In all four conditions in which race was mentioned, there were fewer guilty verdicts than in the control condition in which race was not mentioned, but neither the overall effect nor any individual effect was significant. According to the model the log of the odds of a defendant given a guilty verdict was not significantly related to study condition (see Figure 3.4).

Figure 3.4: Effect of Race of Defendant and Witness on Verdict in Study 3b compared to Baseline Control

![Graph showing the effect of race on verdicts](image)
There were also no significant differences between Study 3b and the baseline control for the four factor verdict measure \( (F(1, 143) = 2.07, p = \text{ns}) \) (see Figure 3.5).

**Figure 3.5: Effect of Race of Defendant and Witness on Four Factor Verdict in Study 3b compared to Baseline Control**

These results were duplicated for the continuous belief of guilt scale and four-factor verdict variable. Again, in all four conditions in Study 3b, belief of guilt and four factor verdicts were lower than in the control condition in which race was not mentioned. However, as predicted, there were no significant differences between Study 3b and the baseline control for the belief of guilt measure \( (F(1, 143) = 0.64, p = \text{ns}) \) (see Figure 3.6).
Figure 3.6: Effect of Race of Defendant and Witness on Belief of Guilt in Study 3b compared to Baseline Control

3c: Does Race Made Salient for Both the Defendant and Witness Have a Similar Effect?

Without a race salience manipulation, bias against the congruent race pairs was observed in Study 3a. Study 3b introduced a judicial race salience manipulation and there was less bias overall (both congruency effects and reverse bias for the black defendant and bias for the white witness was no longer apparent). Study 3c was identical to Study 3b with an addition to the Parks Question that included racial instructions about both defendant and witness. Depending on condition, participants were asked if their ability to judge the evidence would be affected by any biases due to that the fact that the defendant was black (or white) and their key alibi witness was black (or white) (see Table 3.8).

Table 3.8: Verdicts and Belief the Defendant is Guilty in Study 3c

<table>
<thead>
<tr>
<th>Race of Defendant/ Witness Parks</th>
<th>N</th>
<th>Percent Guilty</th>
<th>Mean Belief of Guilt (SD)</th>
<th>Mean Four Factor Verdict (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WW</td>
<td>31</td>
<td>16.1</td>
<td>6.00 (18.7)</td>
<td>1.71 (0.9)</td>
</tr>
<tr>
<td>BB</td>
<td>31</td>
<td>25.8</td>
<td>3.55 (19.8)</td>
<td>1.58 (1.1)</td>
</tr>
<tr>
<td>WB</td>
<td>30</td>
<td>33.3</td>
<td>7.47 (19.0)</td>
<td>1.70 (1.3)</td>
</tr>
<tr>
<td>BW</td>
<td>37</td>
<td>21.6</td>
<td>-2.27 (20.8)</td>
<td>1.41 (1.1)</td>
</tr>
</tbody>
</table>
Comparing Conditions within Study 3c. The verdict was analyzed using binary logistic regression, with regressors of race of defendant and race of witness. As predicted according to the model, the log of the odds of a defendant given a guilty verdict was not significantly related to race of defendant, race of witness, or the interaction between race of defendant and witness. Similar results were found when both the continuous belief of guilt scale and four-factor verdict variable were analyzed using analysis of variance, with fixed factors of race of defendant and race of witness. There was no significant difference in verdicts between conditions, particularly for the black defendant with the white witness as in Study 3a. It should be noted that when the witness was white, there was a consistent trend for the black defendant (the race incongruent pair) to be rated less guilty (and depending on the measure the white defendant also). However, none of these effects approached significance (see Table 3.9).

Table 3.9: Effect of Race of Defendant and Witness on Measures of Guilt

<table>
<thead>
<tr>
<th>Effect</th>
<th>Dependent Variable</th>
<th>Statistic</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Defendant Race</td>
<td>Verdict</td>
<td>$\chi^2 (1, N=129) = 0.62$</td>
<td>ns</td>
</tr>
<tr>
<td></td>
<td>Belief of Guilt</td>
<td>$F(1, 128) = 3.08$</td>
<td>ns</td>
</tr>
<tr>
<td></td>
<td>Four Factor Verdict</td>
<td>$F(1, 128) = 1.24$</td>
<td>ns</td>
</tr>
<tr>
<td>Witness Race</td>
<td>Verdict</td>
<td>$\chi^2 (1, N=129) = 1.50$</td>
<td>ns</td>
</tr>
<tr>
<td></td>
<td>Belief of Guilt</td>
<td>$F(1, 128) = 1.10$</td>
<td>ns</td>
</tr>
<tr>
<td></td>
<td>Four Factor Verdict</td>
<td>$F(1, 128) = 0.19$</td>
<td>ns</td>
</tr>
<tr>
<td>Defendant Race x Witness Race</td>
<td>Verdict</td>
<td>$\chi^2 (1, N=129) = 0.73$</td>
<td>ns</td>
</tr>
<tr>
<td></td>
<td>Belief of Guilt</td>
<td>$F(1, 128) = 0.39$</td>
<td>ns</td>
</tr>
<tr>
<td></td>
<td>Four Factor Verdict</td>
<td>$F(1, 128) = 0.24$</td>
<td>ns</td>
</tr>
</tbody>
</table>

Study 3c compared to Baseline Control. When Study 3c was compared to the baseline control, it was predicted that there should be no difference between the conditions in Study 3c and baseline control. The dichotomous verdict variable was analyzed by binary logistic regression, using the Parks Question in general as a regressor (see Figure 3.7).
The dependent measure was the verdict given by the participants (1 = guilty, 0 = not guilty), the predictor was study condition. The study predictor was coded as 0 = control and 1 = experimental. The distribution for conditions was 16% \((n = 25)\) control and 84% \((n = 129)\) experimental. A one-predictor logistic model was fitted to the data to test the research hypothesis regarding a difference in verdicts in general between the control and Study 3c. The result showed that:

\[
\text{Predicted logit of (Verdict)} = -1.151 + (0.910)\times \text{Study Condition}
\]

According to the model the log of the odds of a defendant given a guilty verdict was significantly related to study condition (see Table 3.10). The log of the odds of a defendant given a guilty verdict was significantly related to condition. The odds of a defendant in the control condition being found guilty were 2.48 \((= e^{0.910})\); see Table 3.10) times greater than the odds for a defendant in Study3c. The defendants in general in Study 3c were found guilty less often than the defendants in the control baseline.
Table 3.10: Logistic Regression of Verdict in Study 3a compared to Verdict in Baseline

<table>
<thead>
<tr>
<th>Predictor</th>
<th>β</th>
<th>S.E.</th>
<th>Wald’s $\chi^2$</th>
<th>df</th>
<th>p</th>
<th>Exp(β)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-1.151</td>
<td>.206</td>
<td>31.199</td>
<td>1</td>
<td>.000</td>
<td>.316</td>
</tr>
<tr>
<td>Study Condition (0 = baseline, 1 = Study 3a)</td>
<td>.910</td>
<td>.453</td>
<td>4.042</td>
<td>1</td>
<td>.044</td>
<td>2.484</td>
</tr>
</tbody>
</table>

Cox and Snell $R^2 = 0.025$. Nagelkerke $R^2 = 0.036$

In all four conditions in Study 3c, there were fewer guilty verdicts than in the control condition ($\chi^2 (1, N=154) = 4.04, p = .04$). However, the difference between experimental condition and control was significant by itself only when the witness was white ($\chi^2 (1, N=154) = 5.61, p = .02$).

These results were similar for the four-factor verdict variable and continuous belief of guilt scale but were less strong (see Figure 3.8).

Figure 3.8: Effect of Race of Defendant and Witness on Four Factor Verdict in Study 3c compared to Baseline Control
Again, in all four conditions in Study 3c, means for the four factor verdict were lower than in the control condition but only marginally so \( (F(1,153) = 3.10, p = .08; \eta^2 = 0.020) \).

However, once again, follow up t-tests revealed that the black defendant with the white witness though not significantly different from the other experimental conditions, was significantly lower than the baseline control \( (t(60) = 2.18, p = .03) \).

In all four conditions in Study 3c, belief of guilt was lower than in the control condition but not significantly so \( (F(1,153) = 1.44, p = \text{ns}) \). For interest, and to observe if the patterns were similar to Studies 1-2, follow up t-tests revealed that the black defendant with the white witness though not significantly different from the other experimental conditions, was significantly lower than the baseline control \( (t(60) = 2.06, p = .04) \) (see Figure 3.9).

**Figure 3.9: Effect of Race of Defendant and Witness on Belief of Guilt in Study 3c compared to Baseline Control**

For all three dependent measures, there was bias in favour of the white witness.

Compared to Study 3a, in Study 3c, the bias observed for the incongruent race pairs is gone, but the negative bias based on witness race remains. That is, the white witness had more effect than the black witness and produced lower ratings of guilt, especially for the black defendant. In other
words, unlike the standard Parks question which removed bias in Study 3b, warning jurors about bias against both defendant and witness though it removed the majority of the interaction bias, it left of residue of bias in favour of the black defendant with the white witness.

**Moderator Variables**

Finally, prejudice levels of participants were examined to observe the effect on verdict and belief of guilt outcomes. Unfortunately for the analysis, only 247 participants in the current studies completed the mass testing session for SDO, IMS, and EMS. Of those that completed the scales, the mean level of SDO was skewed low and the mean level of IMS was skewed high (meaning high internal motivation to control prejudice, so these also indicated low prejudice). There was an approximately normal distribution of EMS across the participants (see Table 3.11).

**Table 3.11: Levels of Prejudice**

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDO</td>
<td>247</td>
<td>1.00</td>
<td>7.00</td>
<td>2.38 (1.06)</td>
</tr>
<tr>
<td>IMS</td>
<td>247</td>
<td>1.00</td>
<td>9.00</td>
<td>6.64 (1.73)</td>
</tr>
<tr>
<td>EMS</td>
<td>247</td>
<td>1.00</td>
<td>9.00</td>
<td>4.85 (1.89)</td>
</tr>
</tbody>
</table>

There were no consistent effects of the moderator variables, and therefore data analyses will not be presented.

**4.1.3 Discussion**

There are certain consistent themes that can be extracted from the results. First, simply adding the variable of race (regardless of white or black) has an effect on verdict outcomes. Across all three studies, participants tended to find defendants less guilty than in the control condition. Second, there is a pattern for incongruent race pairs to be treated better than congruent race pairs (especially in this case, when the majority of participants are low SDO). Third, within this significant interaction, it appears the black defendant to be given fewer guilty votes than the white defendant. When race information is added to the trial in the form of pictures of the faces
of the defendant and witness, there is what might be called a reverse bias in favour of the black defendant. However, this is only significant when race is not made blatantly salient with the Parks Question and happens especially when the witness is white, but was shown to be significant whenever the race of defendant and witness was incongruent. This is consistent with the results of the low prejudiced participants that had been found previously. These biases are reduced when asked either version of the Parks Question. Fourth, there is a pattern for the defendant with a white witness to be given fewer guilty votes than a defendant with a black witness. This seems to be a traditional bias effect. Usually it occurs when the defendant is black (an incongruent race pair). It is worth noting that this witness effect is similar to the results of studies 1 and 2, in which regardless of the race of the defendant, there were fewer guilty verdicts when the witness was white, especially when the race pairs were incongruent and when the participants were low in SDO. Perhaps, thinking of dual process theories, it could be postulated that these participants, the majority of whom are low prejudice, were deliberately bending over backwards for the black defendant, but when it came to the white witness, especially when the defendant was black, were under more motivation and attention was less, so they spontaneously processed the white witness more favourably than a black witness. This is a key finding and is consistent with the earlier studies.

When considering these results, it is important to consider a few issues: comparing against a control baseline with no racial features is artificial – it would never happen in a real trial. However, it does raise the idea that the mere presence of race has a general extralegal effect – perhaps visually seeing the defendant and witnesses should somehow be removed from trials. The baseline, artificial as it is, was used only as a guideline to get a better picture of bias across studies as compared to a set point. In real life, the measure of bias and bias reduction should be made by comparing the biased results in Study 3a (when race is not made directly salient) to how
well they disappear when given instructions that make race salient (in Studies 3b and 3c). This leads to the fourth theme.

A simpler pattern emerges when the baseline control is ignored and just the four variations of defendant and witness race within each study are compared. In Study 3a the incongruent race pairs were found guilty less often than the congruent race pairs (especially the black defendant with the white witness). When race was made salient via the Parks question in Study 3b and Study 3c, it was consistently found that the bias from Study 3a disappeared. In both studies that included the Parks question, in each of the dependent variables measuring verdict and belief of guilt, bias was removed by simply reminding the participants of the potential of bias against the defendant (in Study 3b) and or both the defendant and witness (in Study 3c).

Finally, though comparing the studies shows that bias disappears in Study 3b and 3c as compared to Study 3a, when the baseline control is not ignored, a more nuanced result is revealed when comparing the bias in Study 3b and Study 3c – additional discussion of the source of the bias is needed. The race salience manipulation in Study 3b removed bias compared to both Study 3a and the baseline. But in Study 3c, when the race salience manipulation instructing mock jurors included the white witness, bias for the white witness caused the defendants to be found guilty less often as compared to the baseline control. There was no apparent negative bias against a black defendant or black witness, but there was a bias to believe a white witness more (which of course had the effect of the defendant being found guilty less often). This is a key finding and consistent with the pattern throughout this dissertation. In Study 1 there was a bias for the white witness. In Study 2a and 2b, there were results revealing incongruent race pairs being found guilty more often if the participants were more prejudiced and incongruent race pairs being found guilty less often if the participants were less prejudiced. In study 3, the participants (the majority of which are low prejudiced) have a reverse bias for the black defendant and a bias for
the white witness. This matches the incongruent pair being given fewer guilty verdicts by the low prejudiced participants in the previous studies. The bias for the white witness is quite consistent. It seems that though making race salient removes reverse bias towards the black defendant, the low prejudice participants still find the black defendant guilty less often by being biased for their white defendant. This fits in well with the two-factor theories of prejudice. There is an implication that even when race is made salient, although control is used and reverse bias is removed for the defendant, it is not removed for the white witness.

A clear limitation to these studies is the lack of high prejudice participants for comparison. During recruitment participants were purposely called based on prejudice levels, however, final descriptive statistics revealed that the majority of participants that signed up, and showed up, for the study were low prejudice and of those who signed up via computer disproportionately did not complete mass testing and therefore we did not have their prejudice scores. It is therefore not surprising that the analysis including the personality variables did not find any consistent effects as the range was too small, and the participants were skewed towards low prejudice.

It is also of interest and note that within these low prejudice participants, there does not seem to be any effect of the participant’s own background ethnicity or race. Analysis failed to show any greater or lesser effects due to participant race, but this again could be due to the fact that they are low prejudiced. Perhaps due to the very nature of being low prejudiced, race and ethnic background becomes an irrelevant factor in fair decision making.
Chapter 5
General Discussion

This dissertation began with the observation that whereas some time ago mock jury
studies consistently found evidence of prejudice against black defendants, more recently this
effect has not been found. One explanation of this would be that racial prejudice has disappeared.
This seemed unlikely. Another explanation is that people are less willing to show racial
prejudice. That is, although some people still hold prejudiced views, there is social pressure
against being biased and so they try to behave in an unbiased manner. This line of reasoning led
to a fairly simple idea, which was that people would avoid showing bias against the defendant in
a trial but would be less likely to avoid showing bias against a witness in the trial. The first study
fully supported this analysis. Black and white defendants were found guilty equally often, but
when the main alibi witness was black, the defendant was found guilty more often regardless of
the race of the defendant. Although this was a straightforward and strong result, in subsequent
studies the pattern was not replicated exactly, though many of the results are similar. In many of
the studies, the witness is the focus of the effects. Many of the data showed the white witness
produces less guilty verdicts than the black witness, sometimes only for the black defendant,
sometimes for the white defendant and sometimes for both. Though these results were not always
significant, the pattern was there.

Together, these studies indicated that the situation was considerably more complex than
originally thought, with several other factors playing a role in whether racial bias appeared. In
the first place, prejudice levels of the individual jurors play a role. When prejudice was not part
of the analysis, race of the defendant apparently had no effect. When race was not salient in the
study, the averaged response from jurors in general was unprejudiced. But in the majority of
cases there was a biased response from the participants. The higher prejudiced participants were
prejudiced, and the lower prejudiced participants bent over backwards with reverse bias, which, when prejudice levels were not observed, seemed like no bias at all.

When social dominance orientation (SDO) was used as a measure of prejudice, another factor that seemed to be important was the match between the witness and the defendant in terms of race. For high SDO, when there was race congruence between defendant and witness, the witness was trusted more and therefore the defendant was less likely to be found guilty (regardless of their ingroup or outgroup status). For low SDO, the opposite was true; when the defendant and witness were of different races, the witness was trusted more and therefore the defendant was less likely to be found guilty.

5.1 What is the Process by Which Race Salience and Motivation Control Prejudice

People vary in how strongly they want to avoid appearing prejudiced. Furthermore, this motivation can be mainly external (they do not want others to think they are prejudiced) or internal (they actually do not want to act in a prejudiced manner). This had some interesting effects. When race is not a salient factor, participants responded based on their internal prejudice levels: high prejudiced participants acted biased, low prejudiced participants acted pro-socially. When race was made salient via judicial instruction regarding bias and the race of the defendant (the Parks question), participants generally responded with less bias, perhaps due to worry about others thinking they are prejudiced. The Parks question reduces bias for those who care about social norms. Those low prejudice participants reminded not to be biased by being asked the Parks Question did not show bias against the congruent race pairs or reverse bias in favour of the black defendant. This meant that they found the black defendant guilty more often, but this was actually a fairer response.
Finally, the effort to avoid appearing prejudiced is apparent mainly when race is an issue in the trial. One might have thought that simply having a black defendant would make race salient, but this does not seem to be the case. It has been shown in the literature that race salience can be operationalized several ways: when racism is an obvious direct factor in the case, such as potential racism in pretrial publicity (Fein et al., 1997); when the race of the defendant is an obvious factor (Skolnick & Shaw, 1997); when the crime was potentially racially motivated (Sommers & Ellsworth, 2000; 2001; Thomas & Balmer, 2007; Cohn et al., 2009); or even when race is not necessarily a factor, but the defence brings it up anyways by “playing the race card” to make the point that their client is black (Bucolo & Cohn, 2010). Race can also be made to be a salient factor in indirect ways such as by manipulating the racial composition of the jury (Sommers et al., 2006).

Prejudice levels of participants can also affect verdicts. Kemmelmeier (2005) found that in a non-race salient case, even when the results seemed egalitarian, when SDO was added to the results, the high SDO participants were more biased against the black defendant and the low SDO participants were more biased for the black defendant. The results of this dissertation’s studies 2a and 2b described earlier were consistent with this. Cohn and her colleagues (2009) also found that prejudice had an effect on verdicts, but only when race was not salient. When it was salient, even the highly prejudiced participants reduced their bias. Bucolo and Cohn (2010) found in their ‘playing the race card’ experiment that when race was not necessarily a factor in the mock case, but it was brought up by the defence to attempt to create a sympathy bias, though guilty verdicts reduced for the black defendant in this condition, higher prejudiced participants still found the defendant guilty more often than the low prejudiced participants.

Study 3 demonstrated another way of making race salient. This was to ask jurors the Parks question, which states that the defendant is black and asks whether the juror will be able to
unbiased. Although the question probably is not very effective in screening out biased jurors, it
does seem to make race salient. And, as shown by research on all of the factors mentioned,
making race salient tends to reduce bias.

5.2 Applied Ramifications

Practical applied approaches for use in real life can be gleaned from this information.
From a judicial standpoint, every court case needs to be fair and impartial. In terms of absolute
fairness, it seems that even low prejudiced jurors are being biased – they are compensating for
historical bias against blacks and giving fewer guilty verdicts for blacks than whites. Though
laudable, this is not fair and impartial. So in terms of universal impartiality, the best variable to
use would be a focus on racial prejudice when the case clearly has elements of prejudice, via the
Parks question. As mentioned, the Parks question may not be effective in screening out
prejudiced jurors, but that is not its ultimate use. In fact, if only low prejudiced people were
jurors, it might be that the courts would end up with pro-socially biased cases. The Parks
question is supposed to screen out potentially biased jurors that cannot set aside these biases for
the purposes of the case, indeed, sensitizing jurors – making race salient – should reduce biased
outcomes, and will reduce bias for both high and low prejudiced individuals.

5.3 Theoretical Implications

The other focus of this research was on whether stereotypes automatically and necessarily
cause bias, or whether there are other factors that determine bias. In other words, the studies pit
Bargh’s notion that prejudice is inevitable once a stereotype has been activated against the more
nuanced two-factor theories that stereotype activation and control are separable components
(Fiske, 1989; Devine, 1989) and that even stereotype activation is different in high and low
prejudiced people (Lepore & Brown, 1997; Kawakami et al., 1998; & Fazio, 1990). The results
of every study are inconsistent with the inevitability idea and support the two-factor theory. It is clear throughout the dissertation that participants do not automatically show bias in their verdicts, but that bias appears or does not appear depending on other factors in the situation. Moreover, major factors affecting bias are the extent to which the jurors accept the stereotype as true and the extent to which they wish to avoid appearing biased. It seems clear that when jurors are aware of the possibility of bias (i.e. race has been made salient), at least some make an effort to be unbiased. Indeed, some lean over backwards and are less likely to find a black defendant guilty than a white defendant.

5.4 Study Limitations

5.4.1 Population Studied

Some limitations of the present research must be addressed. First, the participants in all studies were first year psychology university students. To be truly generalizable to real juries, it would be advantageous to reexamine these studies with a more mature, diverse population. However, the majority of mock legal experiments use university students, and it has been shown that they are pretty generalizable to the broad population (Mazzella & Feingold, 1994; Bornstein, 1999; Mitchell et al., 2005). As these participants were in their first year, the literature has shown that they have about the same education (highschool) and prejudice levels (usually prejudice levels are reduced as a result of attending university) as the typical jury member from the general population, and though they are younger, the average age of all the university samples used was about 19, which is old enough to be called for jury duty (Bornstein, 1999; & Mitchell et al., 2005). One point in favour of the university students is that it has been shown that general adult samples in the population are often more influenced by experimental manipulation (showing
larger effect sizes) than university students (Mazzella & Feingold, 1994) so establishing these results with students may give greater weight to the effects shown.

5.4.2 Trial Medium

Second, the current studies used lab settings and written trial transcripts which lack the realism of a real trial situation. A trial transcript was used for convenience and with thought to the length of the experiment. In a meta-analysis by Bornstein (1999) on the ecological validity of mock juror trials, it was found that the trial medium did not have much effect on experimental results, instead it was how realistically the case was set up (vignette versus realistic court presentation). The mock trial transcripts presented to the participants (especially in Study 3a, b, & c) were set up in standard court format, so this hopefully added to the realism and validity of their outcomes.

5.4.3 Juror versus Jury

Third, all of the studies in this dissertation were conducted examining individual juror responses rather than jury. It has been found in the race salience literature that jury deliberation does have an effect separate from race salience that also may reduce bias (Sommers, 2006). However, as this dissertation was examining complex situations and effects, it would have been challenging to recruit and run enough participants (up to 6 or 12 times the number depending on how big the jury would be) to get the same amount of comparable numbers for statistical analysis. Given that this dissertation concerned examining a subtle effect of bias which had seemingly disappeared, running juror studies to first observe the effects were necessary, though in the future it would be interesting and a good idea to examine jury results.
5.4.4 Variation in Scenario

Finally, in all the mock criminal trials, the same scenario was used. This could be problematic as it might be that these results may only be obtained specifically in armed robbery/murder trials. However, as the studies progressed, some variables were changed for this reason. After Study 1 was performed, an extra witness was added to the mock trial to make it more ambiguous as to the outcome of the case, and racial bias was still observed in the results. And finally, in the last studies (3) though the murder trial was the same, the different faces from were used, and similar results observed. Taken together with the various crime scenarios used in this research by other experimenters, it is most likely that these results are generalizable across most crime scenarios.

5.5 Future Directions

Though the problem of these limitations should not pose too much of a problem for the results of this dissertation, that does not necessarily mean that the research should not explore the limitations through further experiments. Suggestions for future directions to address these limitations could include replications with a broader sample of the general population of potential juror members. They could also include more realistic court recreations, with jury deliberations as well. Other paradigms and crimes could also be explored to see if the results are generalizable across all situations with race salience or only some.

Further research could also examine if race salience always reduces negative bias. As shown in study 3, when race salience was made even greater (across Parks Question conditions) low prejudiced participants first reduced their pro-social bias and then increased it. In the meta-analysis by Mazzella and Feingold (1994) they found that sometimes attractiveness (which is one of the greatest advantages a defendant can have) can backfire if the crime was directly related to
the attractiveness (like swindling) and in an experiment by Marques and Yzerbyt (1988) when evidence against the defendant is strong, and they are subjectively part of the juror’s ingroup, they are punished harsher for the crime. It would be interesting to examine if there were situations that increasing race salience might increase negative bias, perhaps in a situation manipulated so it was obvious the black defendant was guilty, especially when considering the low prejudiced person may consider the black defendant part of their ingroup.

In the current studies, it was found that racial bias in criminal trials was considerably more complex than previously thought. Several factors in addition to race of defendant played a role, including prejudice level of the participant, motivation to avoid appearing prejudiced, race of witness, and creating a race salient situation. Even within prejudice levels, when measured by social dominance orientation, it was shown that there was bias in a pro-social manner by the low SDO participants (instead of no bias). As it has been shown throughout this body of research that bias still exists within decision making in criminal trials, the main conclusion is that making race salient with legal questions like the Parks is a very important and necessary step. This should be done every time the defendant or witness is from a stigmatized minority group, even if the case itself is not racially motivated (as this may be the time where bias is used the most).

5.6 Conclusion

This series of studies leads to four main conclusions. First, it is important to note that all of the studies found no overall effect of race of defendant on the likelihood of a guilty verdict. Thus, this trend in the literature is continued in this research. Second, the findings of this dissertation contradict the inevitability of prejudice notion and support the two component and dual process theories. This is because although there is no evidence of prejudice against the defendant, there is quite consistent evidence of the white witness leading to fewer guilty verdicts
than the black witness, and consistent opposing differences in bias for high and low prejudiced participants. Third, the lack of bias found in mock jury studies is due to a variety of factors, all of which tend to cause jurors to avoid being biased. To understand the results one must take into account not only the individuals’ own bias, but also social pressure, strength of motivation not to appear biased, and the specifics of the case. Finally, the one recommendation from the research for the courts is that when race (or any other group that are the target of prejudice) is an important factor, be it defendant, witness, victim, or any other key player at trial, the Parks question should be asked and it would be expected to reduce bias.
References


Kunda, Z., & Spencer, S.J. (2003). When do stereotypes come to mind and when do they color
judgment? A goal-based theoretical framework for stereotype activation and application.

*Psychological Bulletin, 129*(4), 522-544


Table 0.1: Fit of Model (Study 1)

<table>
<thead>
<tr>
<th>Model</th>
<th>Deviance ($G^2$)</th>
<th>df</th>
<th>Change in $G^2$</th>
<th>Change in df</th>
</tr>
</thead>
<tbody>
<tr>
<td>D + W + V</td>
<td>5.66</td>
<td>4</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>D + W x V</td>
<td>0.77</td>
<td>3</td>
<td>4.89*</td>
<td>1</td>
</tr>
<tr>
<td>W + D x V</td>
<td>5.31</td>
<td>3</td>
<td>.35 (ns)</td>
<td>1</td>
</tr>
<tr>
<td>D x W + V</td>
<td>5.65</td>
<td>3</td>
<td>.01 (ns)</td>
<td>1</td>
</tr>
</tbody>
</table>

Where:
D is the defendant’s race
W is the witness’s race
V is the verdict

* compared to theoretical $\chi^2 = 3.82$, $4.89 > 3.82$, $p < .05$.

To confirm this is the best model for the data, and there were no interactions, model fitness was calculated by comparing nested models. The simplest model (additive, $G^2(4) = 5.66$) was compared to more complex models of the relationship between defendant race, witness race, and verdict. When race of the witness is given the greatest importance it had a much smaller deviance ($D+WxV$, $G^2(3) = .77$). The change in deviance was 4.89 with only a one degree of freedom change. This change in deviance is greater than the theoretical $\chi^2 = 3.84$, $p = .05$ and therefore is significantly better than just the additive model.

The fit of this model can also be considered as how much the saturated model could improve on it (saturated model has $G^2 = 0$). If the model has a small deviance ($G^2$) reducing it to zero will only constitute a small improvement. But to get a significantly better model, .77 would have to be further reduced by 3.84. As the model looking at witness ($D+WxV$) is $G^2(3) = .77$, and $G^2$ cannot be a negative number, this is the best model for the data and shows there are no interaction terms.
Appendix A: Summary of the Trial of Fred Green

Fred Green is accused of robbing a liquor store and killing its cashier.

Judicial Instructions:

You are a juror taking part in a criminal court case. The charges include murder and armed robbery. Your job is to make a decision on the guilt or innocence of the defendant based on the information and facts given in the trial. Read the summary of the trial, take into account all facts, and then make your decision. Opening statement to the jury, Crown Attorney.

At 5:20 p.m. Thursday, January 8th a person walked into a LCBO liquor store, robbed the store of $210, and shot the cashier to death. A man, Tim Saunders, who was in the store, saw the whole encounter and screamed for the police. He will identify Green as the killer. A police officer, George Kelly, happened to be passing by. He raced into the store and collided with the gunman as he ran out the door, but the officer did not see the gunman’s face. The officer stopped to help the injured cashier, but it was too late.

Both witnesses identified the man as tall and wearing a dark brown leather coat, this information was sent immediately to police headquarters which forwarded it to all officers. A few minutes later, another officer, Pedro Diaz, in a patrol car spotted the defendant, Fred Green, about 3 blocks away and walking very quickly. Diaz noticed that he fit the description of the gunman. Green was wearing a brown leather coat and is six feet two inches tall. He was taken to the station where it was discovered that he was carrying $225 in cash, almost the same amount taken from the cash register at the liquor store. He initially said he knew nothing about the crime and had no particular reason for why he was walking quickly.

At a lineup, Tim Saunders (the witness from the liquor store) picked Green out as the killer. Officer Kelly also said that he looked like the guilty person. Green was questioned by Officers Kelly and Diaz and when he was presented with the identification of both the witness
and Officer Kelly, the fact that he had almost the same amount of money as stolen from the liquor store, he confessed to the crime.

On the basis of these facts, the prosecution will prove beyond a reasonable doubt that the defendant, Fred Green, was the man who robbed the liquor store and shot the cashier to death.

*Opening statement to the jury, Defense Attorney*

Contrary to what the Crown Attorney will have you believe, this was an obvious case of mistaken identity -- Fred Green just happened to be in the wrong place at the wrong time. The jury will hear that the line-up in which Green was identified was irrelevant, Tim Saunders is far less certain of his identity than the Crown Attorney suggested. Also, although Green did not have a reason for walking so quickly, it isn’t a crime to do so, and was understandable to walk quickly through a neighbourhood which has its liquor stores robbed. Finally, and most important, no weight should be given to the supposed confession since it was given under very trying and coercive circumstances that will be described in detail. In short, Green knew nothing of the murder. As well, Green has an alibi witness who will vouch for his whereabouts at the time of the robbery. All the evidence will prove is that Green was in the general vicinity of the crime and nothing more.

**Summary of Trial**

**The crown case:**

*Witness: Police Officer George Kelley*

Officer Kelly testified that he was on duty and heard what he thought was a shot and a scream so he ran into the store. As he raced in, a man ran out, knocking him to the floor. By the time he recovered, the man had fled. Kelly said he went to check on the clerk, but it was too late, he had been shot in the face and was already dead. He then talked with a man in the store, Tim Saunders, who told him what had happened and described the killer. He quickly called
headquarters and gave them a brief description of the killer. Kelly had not seen his face, but did notice that he was tall and was wearing a dark brown leather coat, which matched what the man in the store stated.

Later Officer Kelly went to the police station where the accused, Fred Green, had been brought in by Officer Diaz. Kelly said that Green looked like the killer and his coat looked like what he remembered the killer had been wearing. A line-up was assembled and the six men were shown to Tim Saunders who picked Green out as the killer.

Kelly and Diaz questioned Green about the crime. Initially Green denied having anything to do with the crime. He said that he was simply in the neighborhood having coffee with a friend. When asked about the amount of cash found in his pocket when he was picked up (which was a similar amount as stolen from the LCBO), Green said that he always carried around a large amount of money.

Confronted with the eye witness identification and inconsistency in his story, Green eventually confessed. His confession was taped, transcribed, and signed by Green.

Cross-examination:

The defense attorney asked Kelly whether he personally was sure that it was Green he had seen in the store. Kelly said that he could not be sure, but he seemed to be the same man. The defense attorney then asked what Green had said when told that he was carrying almost the same amount as stolen from the LCBO. Kelly replied that Green said he always carried about that amount. When asked whether he had checked that out, Kelly said he hadn’t because Green confessed.

*Witness: Tim Saunders, the man in the liquor store*

The second prosecution witness was the man who had been in the store when the killer robbed and shot the cashier. Saunders testified that the man was over six feet tall and was
wearing a brown leather coat. He also said that he had looked at six men in a police lineup and that he had picked Green out as the killer.

Cross-examination:

The defense attorney asked Saunders how good a look he had of the killer's face. He said that he saw him clearly for a few seconds, but that he did get a very good impression of him. He as then asked if he was sure that it was Green that robbed the Liquor Store. Saunders said that although he could not be absolutely certain, he was pretty sure it was Green.

Witness: Police Officer Pedro Diaz

The next witness was the police officer who arrested Green. He said that he had seen Green walking very quickly down the street a few minutes after a bulletin had been issued to apprehend a tall man wearing a brown leather coat. Green ran from him, but he knocked Green to the ground and then brought him to the police station. Green told him that he was on his way home when he heard sirens and saw a policeman coming toward him. He panicked and started running until he was knocked down. The policeman added that Green was wearing a brown leather coat when apprehended, and was six feet two inches tall.

Cross-examination:

When asked if this was plausible that Green had just been walking fast on his way home, Officer Diaz said that this was possible, but he thought it unlikely because if this was the case, he would have had no reason to run from a police officer.

The defense case:

Witness: Henry Wallace, alibi witness, Fred Green's friend

The first defense witness was Henry Wallace, Fred Green’s friend. Fred Wallace is a respected member of the community.
Wallace testified that he had met with Green at 4:15 pm at a busy coffee shop a block from the liquor store for coffee. They met there often and he was sure that they were there from about 4:15 to 5:15. He said he was quite sure of the time, because he glanced at the clock just before they left and even said to Green that it was 5:15 and he (Wallace) had to hurry to get home before his son returned from school. Asked how far the coffee shop was from the liquor store, Wallace said it would take at least ten minutes to get to the store from the shop.

Cross-examination:

The crown attorney asked Wallace whether he was sure of the time he met with Green at the coffee shop. Wallace said he was sure that they both left at exactly 5:15 on the clock on the wall. Asked if the clock was accurate, Wallace said that it had the same time as his own watch, which he knew was very accurate. Asked once more if he were sure he and Green had met on that particular day, Wallace said for sure it was that day.

*Witness: Fred Green, Defendant.*

Green said that he had been having coffee with his friend and afterwards was simply walking quickly because he always did. Green repeated his story of panicking at the sight of the police officer coming at him. He said that he had nothing to do with the crime. He knew it was stupid to run away, but he had done it on impulse. When the policeman knocked him to ground, Green said he hit his head on the sidewalk and scraped his hands and face.

Cross-examination:

On cross-examination, Green again denied being in the store or having anything to do with the crime. The crown attorney asked Green about the confession, why he had given it and signed it if it were not true. He denied giving an honest confession. He said he was under great pressure from the police, had not slept or eaten anything for hours, and he had finally agreed to whatever
they wanted just to get them to stop. He repeated that he had given into the pressure -- that he often acted impulsively and he did it again. But he insisted he did not commit the crime.

Summations

In his summation to the jury, the defense attorney stressed the following: The witnesses' identifications, both by the police officer and the man were poor. All they could say was that the gunman was tall and wearing a brown leather coat. A great many people fit that description. It isn’t a crime to carry large amounts of money or walk fast. The police never found the murder weapon, although they had ample opportunity to search the area. Besides which, there was an excellent, reliable witness who said that Green was having coffee with him and could not possibly have committed the crime. There is certainly more than enough of an element of doubt that a man should not be convicted on this evidence.

The Crown Attorney, in his summation, ridiculed the picture painted by the defense of an innocent man who was a victim of coincidences. The facts were that Green fit the description given by two witnesses, who both saw a tall man, wearing a brown leather coat that fit Green’s description and that Tim Saunders picked Green out of a line up; Green was in the area at the time of the murder/robbery; Green tried to run away when Officer Diaz tried to stop him; Green was carrying almost the same amount of money as stolen from the murdered cashier; and he confessed to the crime. These facts all serve to contradict the defense's argument. Further, the defendant had ample time to discard his gun since he was three blocks from the store before he was arrested.

The alibi witness was surely mistaken about the day they met or the time Green left. In sum, said the Crown Attorney, if the defendant is a victim of circumstances, it is a most incredible chain of circumstances.

_Judicial Instructions:_
The judge, in his charge to the jury, first emphasized the presumption of innocence and
the need for the jury to find guilt beyond a reasonable doubt in order to convict. In defining
reasonable doubt, the court observed that it is rarely possible to prove anything to an absolute
certainty, but the evidence must be such that the jury would be willing to rely and act upon it in
the most important of their own affairs.
Appendix B: Faces within the Trial

Mr. Justice Ronald Delday
Crown Attorney

Defense Attorney
Police Officer George Kelly
Tim Saunders

Police Officer Pedro Diaz
Appendix C: Dependant Measures

Participant Number: ______.

Verdict

Having read this summary of the trial and taking into account all of the evidence as well as the judge's charge to the jury, please answer the following questions.

1. What would your verdict be in this case?
   guilty___ not guilty___

2. If you voted not guilty, was it because
   you think he is probably guilty but there isn't enough evidence to convict him ___
   you think may be guilty but you are not at all sure ___
   you think he is innocent___

3. How likely do you think it is that he is guilty? (put a mark on the line to indicate your feelings)
   definitely innocent ____________________|____________________definitely guilty

4. How certain are you of your verdict?
   not at all certain ____________________|____________________ absolutely certain

5. What piece of evidence against the defendant did you consider most important?

6. Please explain why you voted as you did.
Appendix D: Participant Demographics Form

Please fill out some background information on yourself:

(Please don’t write your name, these sheets will be kept confidential)

Experiment Number:  _________
Participant Number:  _________
Age:  _________
Date of Birth:  _________
Gender:  M / F
Race (ethnicity):  _________
Major (Area of Study):  _________
Time ran (e.g. 12-1):  _________

____________________________________

For Experimenter use only, no need to fill out.

Experimenter’s Name: _____________________________
Condition:  _________
Appendix E: Consent Form

I agree to participate in a study that is investigating jury decision making. I understand that my participation is entirely voluntary: I can leave the experiment at any time and this will have no bearing on any remuneration I receive, nor will it have any other undesirable consequences. The following points have been explained to me:

1. The purpose of this research is to find out what factors contribute to the jury decision making process. I understand I will be asked to make a decision on a person's guilt or innocence based on the mock trial transcript I read. The benefits I may expect from the study are: (a) an appreciation of research on jury decision making, (b) an opportunity to contribute to scientific research, (c) ½% toward my PSY100 final mark.

2. The procedure will be as follows: During a single session, I will read a mock trial transcript and – acting as a juror – fill out a short questionnaire determining the guilt of innocence of the defendant and other reactions to the trial. The researchers do not foresee any risks to me for participating in this study, nor do they expect that I will experience any discomfort or stress.

3. All of the data collected will remain strictly confidential. Only people associated with the study will see my responses. This consent form will be detached from the questionnaire and stored separately. My responses will not be associated with my name; instead, my name will be converted to a code number when the researchers store the data.

4. The experimenter will answer any other questions about the research either now or during the course of the experiment. If I have any other questions or concerns, I can address them to the experimenter or to the research directors: Jonathan Freedman – (416) 978-3142.

5. Upon completion of my participation, I will receive a full written explanation about the rationale and predictions underlying this experiment.

__________________________________________  ______________________________  ____________
Participant’s Printed Name                   Participant’s Signature           Date

__________________________________________  ______________________________
Experimenter Name                             Participant Number
Appendix F: Debriefing

Thank you for participating in this research project. Your participation is invaluable.

The present research falls within the area of Social Psychology. Specifically, this research focuses on the effect of jury bias of the key witnesses or defendant on the outcome of a court trial. Previous research has shown that by modifying the race of the defendant in criminal trial, bias occurs towards defendants of different race than the jury member, which in turn affects the outcome of the trial. It was later found that by just asking the jurors if they could be unprejudiced reduced this effect. Using this information, bias was reduced from trials.

In this study, modifying the race of the witness will be scrutinized to establish if the same effect occurs, and in doing so, hopefully reduce this source of bias in court trials as well.

This experiment was set up with the participant (you) acting as a mock juror trying to decide if the defendant was guilty or not based on the facts. There were 4 different versions of the trial; all exactly the same as written, but with the faces of the defendant and his key alibi witness modified to be either black or white. It was hypothesized that if both the defendant and witness were of different race than the juror, there would be a higher number of guilty verdicts laid down on average than if both defendant and witness were the same race as the mock jury member.

The independent variable then was the race of the defendant and witness, and the dependent measure was the verdict made by the mock jury member. All other features of the trial were controlled so that other than the pictures of the defendant and the alibi witness, everything else was presented in the same way.

If the hypothesis is met, this could lead to follow up studies including modifying gender, studying different races, and other similar factors to observe if the effect can be found with these features instead of the one studied in this session. If shown to have a strong effect, a follow up study could be run to see if the bias could be eliminated from court trials. This would create an impartial and fair trial environment.

References:

Or check out your Gleitman et al. course textbook *Psychology* on pages 382-384 on the section about Group Stereotypes.
Later, while canvassing the area around the LCBO, beat cops assigned to the case discovered a gun later identified as the murder weapon in a sewer grate about halfway between the LCBO and where Fred Green was picked up. A partial fingerprint was recovered that, though degraded, was very similar to Fred Green’s.

Witness: Thomas Massey, Fingerprint Expert.

The last prosecution witness was the forensic officer that analyzed the gun found in the sewer near the LCBO. From bullet casings found at the scene of the crime, the gun was positively identified as the weapon used to kill the LCBO clerk. Though the gun had been thrown in the sewer, Massey was still able to pull a partial print from the handle of the weapon. Using the prints taken from Green when he was booked, Massey was able to find an 8-point match between Fred Green’s index finger and the partial print on the handle. From this he concluded that Green was likely to have handled the gun.

Cross-examination:

When asked, as a fingerprint expert, what the minimum requirement for a fingerprint match was, Massey had to admit that usually there was a minimum of a 12-point match to provide a perfect identification, but 8 points is usually considered quite good. When asked what the chances were that Green was actually the gunman, Massey answered he couldn’t be absolutely certain, but the evidence was quite strong.
Appendix H: Social Dominance Orientation Scale (Sidanius & Pratto, 2001)

Rate your agreement or disagreement with the statements below on a 7 point scale from: A (strongly disagree) to G (strongly agree)

Some groups of people are simply inferior to other groups.

Group equality should be our ideal.

To get ahead in life, it is sometimes necessary to step on other groups.

There should be increased social equality.

It’s OK if some groups have more of a chance in life than others.

Inferior groups should stay in their place.

We should do what we can to equalize conditions for different groups.

We would have fewer problems if we treated people more equally.
Appendix I: Study 3 Modifications to Trial Summary

SUMMARY OF THE TRIAL OF FRED GREEN
Fred Green is accused of robbing a liquor store and killing its cashier.

Judicial Instructions:
You are a juror taking part in a criminal court case. The charges include murder and armed robbery. Your job is to make a decision on the guilt or innocence of the defendant based on the information and facts given in the trial. Read the summary of the trial, take into account all facts, and then make your decision.

Opening statement to the jury,
Crown Attorney.
At 5:20 p.m. Thursday, January 8th a person walked into a LCBO liquor store, robbed the store of $210, and shot the cashier to death. A man, Tim Saunders, who was in the store saw the whole encounter and screamed for the police. He will identify Green as the killer. A police officer, George Kelly, happened to be passing by. He raced into the store and collided with the gunman as he ran out the door, but the officer did not get a good look at the gunman’s face. The officer stopped to help the injured cashier, but it was too late.

Both the witness and the officer identified the man as tall and wearing a dark brown leather coat; this information was sent immediately to police headquarters which forwarded it to all officers. A few minutes later another officer in his patrol car, Peter Tyler, spotted the defendant Fred Green about 3 blocks away and walking very quickly. Tyler noticed that he fit the description of the gunman. Green was wearing a brown leather coat and is six feet two inches tall. He was taken to the station where it was discovered that he was carrying $225 in cash, almost the same amount taken from the cash register at the liquor store. He initially said he knew nothing about the crime and had no particular reason for why he was walking quickly.

At a lineup, Tim Saunders (the witness from the liquor store) picked Green out as the killer. Officer Kelly also said that he looked like the guilty person. Green was questioned by Officers Kelly and Tyler and when he was presented with the identification of both the witness and Officer Kelly, the fact that he had almost the same amount of money as stolen from the liquor store, he confessed to the crime.

Later, while canvassing the area around the LCBO, beat cops assigned to the case discovered a gun later identified as the murder weapon in a sewer grate about half way between the LCBO and where Fred Green was picked up. A partial fingerprint was recovered that, though degraded, was very similar to Fred Green’s.

On the basis of these facts, the prosecution will prove beyond a reasonable doubt that the defendant, Fred Green, was the man who robbed the liquor store and shot the cashier to death.

Summary of Trial
The Crown case:
Witness: Police Officer George Kelley

Officer Kelly testified that he was on duty and heard what he thought was a shot and a scream so he ran into the store. As he raced in, a tall man ran out, knocking him to the floor. By the time he recovered, the man had fled. Kelly said he went to check on the clerk, but it was too late, he had been shot in the face and was already dead. He then talked with a man in the store, Tim Saunders, who told him what had happened and described the killer. He quickly called headquarters and gave them a brief description of the killer. Kelly had not seen his face, but did
notice that he was tall and was wearing a dark brown leather coat, which matched what Tim Saunders stated.

Later Officer Kelly went to the police station where the accused, Fred Green, had been brought in by Officer Tyler. Kelly said that Green looked like the killer and his coat looked like what he remembered the killer had been wearing. A line-up was assembled and six men were shown to Tim Saunders who picked Green out as the killer.

Kelly and Tyler questioned Green about the crime. Initially Green denied having anything to do with the crime. He said that he was simply in the neighborhood having coffee with a friend. When asked about the amount of cash found in his pocket when he was picked up (which was a similar amount as stolen from the LCBO), Green said that he always carried around a large amount of money.

Confronted with the eye witness identification and inconsistency in his story, Green eventually confessed. His confession was taped, transcribed, and signed by Green.

Cross-examination:

The defense attorney asked Kelly whether he was personally sure that it was Green he had seen in the store. Kelly said that he could not be sure, but he seemed to be the same man. The defense attorney then asked what Green had said when told that he was carrying almost the same amount as stolen from the LCBO. Kelly replied that Green said he always carried about that amount. When asked whether he had checked that out, Kelly said he hadn’t because Green confessed.

*Witness: Tim Saunders, the man in the liquor store*

The second prosecution witness was the man who had been in the store when the killer robbed and shot the cashier. Saunders testified that the man was over six feet tall and was wearing a brown leather coat. He also said that he had looked at six men in a police lineup and that he had picked Green out as the killer.

Cross-examination:

The defense attorney asked Saunders how good a look he had of the killer's face. He said that he saw him clearly for a few seconds, but that he did get a very good impression of him. He was then asked if he was sure that it was Green that robbed the Liquor Store. Saunders said that although he could not be absolutely certain, he was pretty sure it was Green.

*Witness: Police Officer Peter Tyler*

Officer Tyler arrested Green. Tyler said that he had seen Green walking very quickly away from the LCBO a few minutes after the bulletin had been issued. Green ran from him, but Tyler knocked him to the ground and arrested him. When questioned, Green told him that he was on his way home when he heard sirens and saw Tyler. He said he panicked and started running. Tyler added that Green was 6 feet 2 inches tall, wearing a brown leather coat, with $225 in his pants.

Cross-examination:

When asked if this was plausible that Green had just been walking fast on his way home, Tyler said that it was possible, but he thought it unlikely because if this was the case, he would have had no reason to run from a police officer.


The last prosecution witness was the forensic officer that analyzed the gun found in the sewer near the LCBO. From bullet casings found at the scene of the crime, the gun was positively identified as the weapon used to kill the LCBO clerk. Though the gun had been thrown in the sewer, Massey was still able to pull a partial print from the handle of the weapon. Using the prints taken from Green when he was booked, Massey was able to find an 8-point match
between Fred Green’s index finger and the partial print on the handle. From this he concluded that Green was likely to have handled the gun.

Cross-examination:

When asked, as a fingerprint expert, what the minimum requirement for a fingerprint match was, Massey had to admit that usually there was a minimum of a 12-point match to provide a perfect identification, but 8 points is usually considered quite good. When asked what the chances were that Green was actually the gunman, Massey answered he couldn’t be absolutely certain, but the evidence was quite strong.

Opening statement to the jury,
Defense Attorney

Contrary to what the Crown Attorney will have you believe, this was an obvious case of mistaken identity – Fred Green just happened to be in the wrong place at the wrong time. The jury will hear that the line-up in which Green was identified was irrelevant, Tim Saunders is far less certain of his identity than the Crown suggested. Also, although Green did not have a reason for walking so quickly, it isn’t a crime to do so, and it was understandable to walk quickly through a neighbourhood which has its liquor stores robbed. Finally, and most importantly, no weight should be given to the supposed confession or the ‘fingerprint’ since, as you will see, the confession was given under very trying and coercive circumstances and the fingerprint does not meet the requisite 12-point positive match. In short, Green knew nothing of the murder. As well, Green has an alibi witness who will vouch for his whereabouts at the time of the robbery. All the evidence will prove is that Green was in the general vicinity of the crime and nothing more.

The Defense case:

Witness: Henry Wallace, alibi witness

The first defense witness was Henry Wallace, Fred Green’s friend. Henry Wallace is a respected member of the community.

Wallace testified that he had met with Green at 4:15 pm at a busy coffee shop a block from the liquor store for coffee. They met there often and Wallace was sure that they were there from about 4:15 to 5:15. He said he was quite sure of the time, because he glanced at the clock just before they left and even said to Green that it was 5:15 and he (Wallace) had to hurry to get home before his son returned from school.

When asked how far the coffee shop was from the liquor store, Wallace said it would take at least ten minutes to get to the store from the shop.

Cross-examination:

The crown attorney asked Wallace whether he was sure of the time he met with Green at the coffee shop. Wallace said he was sure that they both left at exactly 5:15 on the clock on the wall. Asked if the clock was accurate, Wallace said that it had the same time as his own watch, which he knew was very accurate. Asked once more if he was sure he and Green had met on that particular day, Wallace said for sure it was that day.

Witness: Fred Green, Defendant.

Green said that he had been having coffee with his friend Henry Wallace and afterwards was simply walking quickly because he always did. Green repeated his story of panicking at the sight of the police officer coming at him. He said that he had nothing to do with the crime. He knew it was stupid to run away, but he had done it on impulse.

Cross-examination:

On cross-examination, Green again denied being in the store or having anything to do with the crime. The crown attorney asked Green about the confession, why he had given it and signed it if it were not true. He denied giving an honest confession. He said he was under great
pressure from the police, had not slept or eaten anything for hours, and he had finally agreed to whatever they wanted just to get them to stop. He repeated that he had given into the pressure – that he often acted impulsively and had done it again. But he insisted he did not commit the crime.

**Summations:**

In his summation to the jury, the defense attorney stressed the following: The witnesses' identifications, both by the police officer and the man were poor. All they could say was that the gunman was tall and wearing a brown leather coat. A great many people fit that description. It isn’t a crime to carry large amounts of money or walk fast. The police found the murder weapon, and the fingerprints on the gun did not match Fred Green’s. Besides which, there was an excellent, reliable witness who said that Green was having coffee with him and could not possibly have committed the crime. There is certainly more than enough of an element of doubt that a man should not be convicted on this evidence.

The Crown Attorney, in his summation, ridiculed the picture painted by the defense of an innocent man who was a victim of coincidences. The facts were that Green fit the description given by two witnesses, who both saw a tall man, wearing a brown leather coat that fit Green’s description and one of them (Tim Saunders) picked Green out of a line up; Green was in the area at the time of the murder/robbery; Green tried to run away when Officer Tyler tried to stop him; Green was carrying almost the same amount of money as stolen from the murdered cashier; he confessed to the crime, and though his fingerprints didn’t have a complete match to the partial found on the weapon, this could be due to degradation from being in the sewer water.

These facts all serve to contradict the defense's argument. The alibi witness was surely mistaken about the day he met with Green or the time they left. In summary, if the defendant is a victim of circumstances, it is a most incredible chain of circumstances.

**Judicial Instructions:**

In his charge to the jury, the judge first emphasized the presumption of innocence and the need for the jury to find guilt beyond a reasonable doubt in order to convict. In defining reasonable doubt, the court observed that it is rarely possible to prove anything to an absolute certainty, but the evidence must be such that the jury would be willing to rely and act upon it in the most important of their own affairs.
Mr. Justice Ronald Delday

Crown Attorney  Defense Attorney
Officer George Kelly

Tim Saunders

Officer Peter Tyler

Thomas Massey
Alibi Witness Henry Wallace (white)  Defendant Fred Green (white)

Alibi Witness Henry Wallace (black)  Defendant Fred Green (black)
Appendix J: New Demographics Form

1. Circle your sex: Female Male
2. Write your age (in years):_____ 
3. Write how many TOTAL years you have lived in Canada: _____
4. Were you born in Canada (circle one): YES NO
5. Please indicate your ethnic origin by checking ONE of the categories below (arranged alphabetically). Ethnic origin refers to the ethnic or cultural group to which your recent ancestors belonged – not citizenship or nationality. If you have multiple origins, please select the one with which you most strongly identify. If this is not possible, or none of the categories applies to you, then choose “Other”:
   ____: Aboriginal
   ____: African
   ____: Caribbean
   ____: East and Southeast Asia (e.g., China, Japan, Korea and Vietnam)
   ____: European (including British Isles)
   ____: Latin, Central and South American
   ____: Middle Eastern
   ____: Pacific Islands
   ____: South Asia (e.g., India, Pakistan, Bangladesh and Sri Lanka)
   ____: Other (please describe):__________
6. Which is your preferred hand (are you left-handed, right-handed or ambidextrous)?
   ____: Left
   ____: Right
   ____: Ambidextrous (have no preference)
7. Where did you attend highschool?
   City: ______________________
   Province/State: ______________________
   Country: ______________________
Appendix K: Internal and External Motivation to Respond without Prejudice Scale (Plant & Devine, 1998)

Rate your agreement or disagreement with the statements below on a 7 point scale from: A (strongly disagree) to I (strongly agree)

I attempt to act in nonprejudiced ways toward people of a different race because it is personally important to me.

According to my personal values, using stereotypes about people of a different race is OK.

Because of today’s PC (politically correct) standards I try to appear nonprejudiced toward people of a different race.

I am personally motivated by my beliefs to be nonprejudiced toward people of a different race.

Because of my personal values, I believe that using stereotypes about people of a different race is wrong.

I try to hide any negative thoughts about people of a different race in order to avoid negative reactions from others.

If I acted prejudiced toward people of a different race, I would be concerned that others would be angry with me.

Being nonprejudiced toward people of a different race is important to my self-concept.

I attempt to appear nonprejudiced toward people of a different race in order to avoid disapproval from others.

I try to act nonprejudiced toward people of a different race because of pressure from others.