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The impact of automatic and deliberative processing on ingroup-outgroup biases in moral judgments.

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THE IMPACT OF AUTOMATIC AND DELIBERATIVE PROCESSING ON INGROUP-OUTGROUP BIASES IN MORAL JUDGMENTS

A Thesis Presented

by

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DEDICATION

To my parents because of whom I learned perseverance and determination, and my patient husband.

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CHAPTER 1

Introduction

On any given day, we make countless judgments about the behavior of those around us. Are they acceptable or unacceptable, good or bad, moral or immoral? We rarely spend time pondering our decisions and often base our behaviors on the judgments we make. These immediate and automatic judgments provide us with a much-needed social compass that allows us to navigate through our day-to-day lives. We are able to use information about others' morality to help us decide those we should trust, those we should help and, most importantly, those we should avoid. As many have pointed out, by doing so we are able to preserve group cohesion. We are able to decide which members of the group deserve to remain within the group and who needs to be isolated for the greater good of the group (De Waal, 1996, 2003; Janoff–Bulman & Sheikh, 2006).

Nowhere is this more apparent than when it comes to our strong moral attitudes. Studies on morality have also shown evidence of discrimination against people who hold opposite moral attitudes (Mullen & Skitka, 2006). Not only do individuals who violate our moral codes elicit reactions of negative affect, but the behaviors that are elicited are characterized by intolerance for these people. Evidence of intolerance of others who violate our moral codes is clear in studies conducted in the realm of the moral mandate effect. Moral mandates are strong moral convictions that are different from other strong attitudes (Mullen & Skitka, 2006). Studies on the moral mandate effect show that when individuals create social relationships, it is with others who have similar moral mandates, and when they find out that another individual has beliefs that violate their own moral mandates, they show intolerance of the other and create more social distance from the

other (Skitka, Bauman & Sargis, 2005). Furthermore, these studies also show that when groups of individuals who are heterogeneous in moral mandates are asked to come up with a procedure to solve a problem, the discussion is often characterized by hostility, tension and defensiveness. Participants in the morally heterogeneous groups also report more dissatisfaction and unhappiness with the group and the discussion (Skitka. et at., 2005).

Moral Judgments

Psychologists have tried to describe the processes and mechanisms that are behind the moral judgments that we make. The explanations provided by psychologists like Piaget and Kohlberg (1981 & 1984) are based on a rational cognitive model; suggesting that the moral decisions of people are the result of moral reasoning that develops as a part of human development. The rational model of morality conceptualizes morality as being created by the child attempting to understand the world around him or her (Kohlberg, 1981 & 1984; Piaget as cited by Haidt & Bjorklund, 2006). Most fundamentally, this rational model proposes that morality is universally motivated by rational deliberative reasoning. The process begins with the individual facing a dilemma. In response to the dilemma, the individual will engage in deliberative reasoning, weigh aspects of the situation and respond in an appropriate manner. With the acceptance of the role of automacity in a wide range of human behavior (see, e.g., Chaiken & Trope, 1996), this rational model of morality has begun to be questioned.

A fundamental critique of the rationalist model of morality, represented by the social intuitionist model (see Haidt, 2001), involves the mental processing of moral judgments. The rationalist model postulates that individual moral reasoning takes place as

a result of an eliciting event acting upon both affect and reasoning simultaneously, that then leads to moral judgment. Therefore, the model also proposes that if argument and logic are employed, it should be readily possible to change another individual's moral reasoning (Haidt, 2001). However, Haidt's (2001) social intuitionist model purports a different process of moral "reasoning." The process begins with the same eliciting event. However, in this particular model the event's effects are felt first in the individual's intuition and affect, which then leads to moral behavior and is followed by post hoc reasoning to explain one's response (Haidt, 2001).

The Haidt social intuitionist model has sparked considerable interest. The new approach has been best illustrated by the phenomenon of moral dumfounding (Haidt, 2001). Haidt and his colleagues studied participants' responses to a wide range of situations that would be generally deemed moral dilemmas. The studies included scenarios such as a consensual incestual relationship between two adult siblings, using a chicken carcass for sexual gratification that you may eat later, and using the national flag to clean the toilet (Haidt, Koller & Dias, 1993). They argued that their participants' unfavorable reactions were not a result of deliberative and rational moral reasoning, but an automatic emotional response to what they were reading. They further claimed participants would follow these reactions with reasoning that was essentially used to justify the manner in which they had responded to the scenarios (Shweder & Haidt, 1994). Reading the scenarios seemed to cause emotional arousal in the participants. Their explanations for their reactions appeared to follow later (Haidt, 2001), and in many cases the participants were "dumbfounded," in that they struggled to explain their responses. Haidt argues that this represents how cognitive processing takes place when an individual

is faced with making a moral judgment. The initial automatic reaction or intuition of the individual is largely based on emotion and then reasoning is used to make sense of the "judgment" that he or she has already made.

Dual Process Theories

This question of how responses differ based on the type of cognitive processing used has been addressed by dual process theories in psychology. Such theories have become central in many domains of social psychology, from attitudes to stereotyping to group processes (for a review, see Chaiken & Trope, 1999). Basically, two distinct modes of information processing are distinguished: automatic versus controlled processing.

The basic principle of these theories is that all information processing is the result of the rational controlled processing system or the automatic processing system. Automatic processing is identified as a bottom–up system where the response to information comes first (Moskowitz, Skurnik & Galinsky, 1999). Automatic cognitive processes are thought to be involuntary, autonomous, and effortless and do not need the doer to expend energy on the processing of information. In this case, activity is initiated by cues in the environment or in the situation (Moskowitz et. al., 1999).

On the other hand, controlled processing involves much more attention on the part of the actor. It involves top–down processing where all information is taken into consideration in deciding on a response. The actor is conscious of the information that is presented by the environment and expends mental energy in trying to organize and make sense of that information. Therefore, in controlled processing, rather than being merely prompted by the environment, the actor becomes an active agent (Moskowitz et. al., 1999). In the realm of morality, this is similar to what had been proposed by Kohlberg,

while the intuition that is an integral part of Haidt's model seems to be driven by automatic processing.

Psychologists have looked at several different phenomena using dual process theories. In the area of persuasion, the Elaboration Likelihood Model (ELM; Petty & Cacciopo, 1984) gives a glimpse of how the two systems, the automatic and the deliberative, work in attitude change. In the many studies that were conducted using this framework, it was found that central (rational, deliberative) versus peripheral (automatic) processing interacted with several variables such as the expertise of the person and the strength of the argument in leading to attitude change (Petty & Wegener, 1999). For example, Petty and Cacciopo (1984) found that when a person likes the source of a message, then the person comes to a more automatic judgment about the message, that is being presented and will be more susceptible to persuasion. Similarly, when the stakes are low and the message being presented is of low value to the person, then too, a more automatic response will occur. However, when the person has little confidence about his or her ability to process the information or is highly motivated then he or she may resort to more careful deliberative processing (Petty and Cacciopo, 1984). Other studies have shown that in cases where people have emotion-based automatic responses, once they are asked to think carefully about the fact that their judgments may be biased by emotion, people do correct for these biases (Ottati & Isbell, 1996).

Studies have found that using either automatic or controlled processing has an impact on a wide range of judgments and behaviors. Automatic cognitive processing has been linked to many cognitive biases (Lerner & Goldberg, 1999). In addition, more recent work on implicit stereotyping builds on the idea of automatic responses to

environmental stimuli (Greenwald & Banaji, 1995). Among the many studies conducted on implicit attitudes, there has been much evidence of negative automatic attitudes towards a wide range of different groups in the U.S., including African Americans/Blacks, homosexuals and AIDS patients. Furthermore, it has been found that these implicit attitudes are often better predictors than explicit self-report measures of how people behave towards members of the other group (Dasgupta, 2004). It appears that the automatic attitudes are in some sense "corrected" for when participants respond to explicit self-report measures, which involve more deliberative processing.

As in many of these studies, what many scholars in the area of morality have found is that both automatic and deliberative processes are involved in moral reasoning. As in the moral dumbfounding experiments, researchers have found evidence supporting Haidt's intuitionist claims. Thus, studies using standard hypotheticals largely derived from the work of moral philosophy have shown the automatic nature of many moral judgments. In particular, the many studies conducted using the trolley versus footbridge dilemmas have found very clear differences in how people respond to turning the switch vs. pushing someone onto the tracks (e.g. Greene & Haidt, 2002). It is clear that the majority of participants have an automatic negative response to pushing a person off the footbridge to stop the train, whereas they react more favorably to turning a switch to achieve the same end. The fact that in both cases a man does die as a direct result of the action does not seem to make a difference. Interestingly, the participants are unable to explain the reasons for their choices (Greene & Haidt, 2002, Greene, Nystrom, Engell, Darley & Cohen, 2004).

However, while these studies speak to the importance of the automatic process in moral judgments, so far there has been no research that specifically looks at the function of these two systems in the area of morality. More specifically, there has been no study that has looked at the differences in moral judgments based on automatic versus deliberative information processing. Taking into consideration the robust findings in dual process theories, we hypothesized that moral judgments are indeed made as automatic responses to information, but that these moral judgments may look different when participants are provided with an opportunity to rationally deliberate about these judgments.

Intergroup bias

The literature on stereotyping and dual process approaches also speaks to how individuals outside our group boundaries are often viewed more negatively as a result of automatic processing. This leads to the question of how the dual processes might function when moral judgments are made about others of different groups. The area of intergroup bias has contributed towards an understanding of how members of different groups are treated in a wide variety of situations (Frey & Tropp, 2006; Hewstone, Rubin and Willis, 2002). However, the role of moral judgments in the intergroup context has received little attention thus far.

Some of the earliest research on intergroup bias was Tajfel and Turner's (e.g., 1986 & Turner, 1987) studies using the minimal group paradigm. These researchers found that when asked to distribute resources, participants often favored members of their own group even when the groups were randomly created in the laboratory (Tajfel & Turner, 1986, Turner, 1987). There have been numerous studies that have followed these

initial investigations showing the more intricate workings of the phenomenon and supporting the ingroup favoritism effect. In studies , it has been shown that not all groups are treated in the same manner. Reactions to outgroups can range from mild neutral feelings to severe negative emotions like anger, contempt and disgust (Brewer, 1999). While in most instances when asked to distribute resources individuals exhibit intergroup bias, when asked to mete out punishment, this effect is much less clear-cut. In other words, when individuals were asked to punish a member of an outgroup, there was little difference in the levels of punishment given to ingroup as opposed to outgroup members (Hewstone et al., 2002).

Therefore, in an exploratory attempt, the current study looked at the moral judgments in an intergroup context and focused on the impact of automatic and deliberative processing on intergroup biases. Two tentative hypotheses were tested: Whether an outgroup member would be judged more harshly in the automatic condition, and whether there would be less correction of the automatic response for outgroup than ingroup members in the deliberative condition.

For this particular study, we chose a behavior that is clearly immoral but which is also prevalent among college students in the US: plagiarism. The technology available to college students has made it easier to engage in such behavior. There is a booming market for term papers and other material that can be bought online and then passed off as one's own work. A survey conducted in 21 colleges across the US by the Center for Academic Integrity of Duke University in 1999 found that two thirds of the 2100 participants surveyed had indulged in some form of plagiarism (Muha, 2000). Since then, the problem has only gotten worse with the greater accessibility of the Internet. A

nationwide study conducted at Rutgers University found that 54% percent of students admitted to plagiarizing from the Internet and 74% admitted to having engaged in some serious cheating at least once in the school year (Strichez, 2001). Furthermore, statistics from our own university show the prevalence of plagiarism. In an academic dishonesty attitudes survey conducted in the spring of 2006 with UMass, Amherst undergraduates, the majority of students strongly disapproved of academic dishonesty (54.2%). When asked whether they had personally submitted the work of someone else as their own, 95% of the participants reported that they had never done this. When asked if they have ever submitted a paper they purchased online, 96% of participants say they had never done this. Interestingly, however, when asked if they knew of an instance when friends had submitted a paper that was not their own work, 21% said they did, and in addition 20% of the students admitted to having copied a few sentences from a source that they found online without citing it in their paper.

We believed that in general participants would judge plagiarism to be wrong. However, we predicted that in the automatic condition plagiarism would be judged more harshly than in the deliberative and the control conditions (the control condition also allowed for controlled, deliberative processing, although this was not made an explicit part of the instructions). This was based on students' familiarity with plagiarism and the likelihood that they might be expected to correct for their initial gut reactions, especially in the case of fellow students.

In summary, this study used standard, accepted methods developed by psychologists to study dual process models. The automatic condition involved cognitive overload, whereby participants were essentially unable to engage in effortful processing.

In the deliberative processing condition participants were asked to specifically spend time deliberating about their responses. We also manipulated group membership via ethnic identity: White versus Arab-American. The main hypotheses in this study were that the target would be judged more harshly in the automatic condition than in the deliberative condition. This would be due to some correction in the initial judgment when asked to engage in more deliberative processing. Furthermore, we tested for an exploratory hypothesis regarding group membership differences. We believed that across the conditions, an outgroup member's behavior would be judged more harshly than an ingroup member's behavior. We therefore expected more negative judgments of the ourgroup member in the automatic condition and less correction in the deliberative condition as well.

Method

The study was conducted as a 2 (ingroup, outgroup) X 3 (automatic condition, deliberative condition, and control condition) between-subjects experiment.

Participants

Participants were recruited through the Experimentrak system in the Psychology Department at the University of Massachusetts, Amherst. A total 206 participants took part in the experiment. No monetary compensation was available, but participants were awarded credit towards a class of their choosing in return for taking part in the study.

Our sample consisted of 57 male and 149 female students (28% and 72% of the sample, respectively). These participants ranged in age from 18 to 31 years. The majority of participants were White (173 or 84% of the sample), but the sample also included five African-Americans, nine Asian-Americans and seven Hispanics/ Latinos. Seven

participants were dropped from the analysis for not following instructions (see below). The initial data analysis was conducted omitting African-Americans, Asian-Americans and Hispanics/Latinos, but it was found that the results did not change when the data were reanalyzed including these participants. Therefore, the following analyses were based on the complete data set. The same was done for outliers. Outliers were identified based on the relationship between the cognitive processing condition and all main variables. They were included in the analyses since they did not make a difference in the results.

Materials

Participants were told that they were taking part in a nationwide study investigating attitudes towards plagiarism. Each participant was provided with a folder (see Appendix 1) that was supposedly the case file of a student who was suspected of plagiarism. The development of all stimulus materials for the study was based on a real case of plagiarism (with all identifying information removed) provided by the UMass campus ombudsperson's office. The cover sheet provided the student's name and student number, which were blacked out supposedly to protect the student's identity, class information and subject, the name of the complainant (crossed out), the nature of the complaint and whether the student had been previously charged with any similar misconduct (no). Background information about the student included the manipulation of ingroup/outgroup status (race/ethnicity: White versus Arab-American), as discussed below.

The complaint was that parts of the final paper submitted for the class had been copied from already published work. The student in his appeal admitted that the paper

was plagiarized but said that he did not do it purposely and that he had found xeroxed material in a library book he had used. The student also described himself as a hard-working student who had still not declared a major and who works off-campus to help pay for college. The file also contained very lengthy excerpts from the said paper and the published material (see Appendix 1).

In addition, the file contained passages from two reference letters, presumably from two individuals providing character references for the student. The letter for the outgroup Arab-American student was from the head of the Islamic school where the student was involved as a volunteer tutor. This particular letter was used to reinforce the manipulation of ingroup/outgroup status. The second letter was from the president of an on–campus student organization. This was used to create ambiguity about the student. This letter stated that the student had been involved in protests against the state government to prevent tuition increases at his college. The same information was provided for the ingroup, White American student, who was also a volunteer tutor in an area school (letter provided from principal) and had also been involved in protests against the state government to prevent tuition hikes.

After reading through the materials in the folder, participants were asked to complete several items that assessed the morality or immorality of the target and target's conduct. The target's behavior was assessed using an 8-item bipolar scale that included items such as immoral-moral, bad-good, inexcusable–excusable. The items were constructed as 7-point rating scales (see Appendix 1). Reliability analyses found that the very last item on the scale, uncommon–common, did not fit with the others (i.e., substantially reduced scale reliability) and therefore was eliminated from the scale. The

other seven items were combined and averaged to create the Behavior Scale ($\alpha = .90$). An Exploratory Factor Analysis showed that these seven items loaded on one scale.

The scale items related to the target were constructed to capture the perceived warmth, competence and morality of the target (see Appendix 1). An Exploratory Factor Analysis showed that these items loaded on three separate scales as expected.Like the earlier scale, the items were assessed on a 7-point rating scale and were anchored with adjectives including incompetent-competent, unfriendly–friendly and bad–good (see Appendix 1). The items incompetent–competent, unskillful–skillful, unconfident–confident and unintelligent–intelligent were combined to create the Competence subscale ($\alpha = .79$). The items unsociable–sociable, bad natured–good natured, unfriendly–friendly and cold–warm were combined to create the Warmth subscale ($\alpha = .80$). And the items untrustworthy–trustworthy, ill intentioned–well intentioned, immoral–moral and dishonest–honest were combined to create the Morality subscale ($\alpha = .87$).

Participants were also asked to judge the guilt/innocence of the target and to make an appropriate recommendation in response to the plagiarism charge. The possible punishments were chosen out of eight options. They were scored 1 = "no action at all; student should receive no punishment" to 8 = "the student should be expelled from school and not allowed to return." The other six options were re-writing the paper and having the new grade count, re-writing the paper and having the new grade and an "F' averaged, receiving an F for the paper with no re–write option, failing the course, suspension for a semester and suspension for a year. Punishment scores therefore ranged from 1 to 8 from the most lenient to the harshest. Participants were also asked to rate the fairness/unfairness of each of these punishments. For this particular scale participants

were asked to rate each punishment as being either unfair because it was too easy (anchored by –3) or unfair because it was too harsh (anchored by 3). The midpoint was 0, which was "fair." These, together with the morality items, served as the main dependent measures for the study.

Participants were also asked to complete the Social Dominance Scale (Sidanius & Pratto, 1994), which served as a measure of a participant's attitudes towards equality among groups ($\alpha = .85$). Next, participants were asked to complete a demographic questionnaire. Finally, participants were asked to respond to a questionnaire that was a manipulation test to ensure that the participants had paid attention to the information they had been reading. They were asked to identify the target's gender and ethnicity and were also asked to write down the professional positions of the two persons who had provided the character references for the student. In addition, this questionnaire also included an adaptation of the PANAS scale (positive affect subscale, $\alpha = .83$ and the negative affect subscale $\alpha = .85$) which was analyzed to make sure that the participants' responses were not a reflection of emotions that were aroused while reading the material. The Social Dominance Orientation Scale and the PANAS were found not to be correlated to any of the other measures and also no significant effect when used in an MANOVA and regression analysis. Therefore, these scales will not be discussed further.

Procedure

Participants were brought into the laboratory where they were asked to sign a consent form. Participants were then provided with the case files. In any given session, participants were randomly assigned to either the ingroup or outgroup condition and

therefore received different versions of the case file. Similarly, they were also randomly assigned to the automatic, control or deliberative conditions.

In the automatic processing condition, participants were told (in a letter attached to the folder) that the researchers had been asked by other colleagues in the Psychology Department to conduct one of their studies together with the current study. The experimenter apologized for the inconvenience. The additional study was presented as a cognitive psychology experiment on memory. This pseudo–study was used to create cognitive overload. Participants were asked to memorize and remember a 10-digit number, while reading the information on the target, and report it immediately before they started completing the dependent measures. This method is widely used to create cognitive load. In past studies that use this method participants who did not report at least the first four digits of the number correctly, were left out of the analysis. Thus, seven participants who did not follow instructions and were unable to report the first four digits of the number were removed from the final analysis.

In the deliberative condition, participants were asked to write about their reactions to the student's behavior (i.e., plagiarism) on a lined page that was provided for reactions, before completing the dependent measures. They then completed the dependent measures. In the control condition, participants were not asked to engage in either of these activities. Once the participants had completed all sections of the study, they were debriefed and thanked for their participation.

Results

Prior to running the main analysis (a MANOVA with all the main study variables) an examination of the fairness ratings for the eight punishments was conducted to

determine whether there was a way of appropriately combining the items. A punishment choice could be judged to be unfair in two ways: either because it was too easy or because it was too difficult. Averaging across the items failed to provide an accurate picture of participants' responses. In turn, we looked at the means of the individual items and found that the first four were seen as unfair because they were too easy and the last four were seen as unfair because they were too harsh (see Table 1).

Table 1: Means (standard deviations within parenthesis) for items of the fairness ratings of the punishments choices

	Automatic	Deliberative	Control
No action at all; the student should receive no punishment	-2.87 (.33)	-2.75 (.52)	-2.25 (1.06)
The student should re-write the paper and should only have only the new grade count	-2.29 (0.84)	-1.86 (1.10)	-1.75 (1.16)
The student should re-write paper and the new grade and an "F" should be averaged	-1.25 (1.10)	-.62 (1.07)	-.70 (1.12)
The student should receive an "F' for the paper (with no opportunity to re-write)	-.18 (1.21)	.30 (.99)	.35 (1.17)
The student should fail the course	.85 (1.18)	1.12 (1.23)	1.11 (1.28)
The student should be suspended from school for a semester	1.70 (1.32)	1.98 (1.20)	1.96 (1.35)
The student should be suspended from school for a year	2.20 (1.18)	2.37 (1.00)	2.40 (1.36)
The student should be expelled from school and not be allowed to return	2.72 (.93)	2.69 (1.00)	2.54 (1.36)

Further, a 2 (ingroup, outgroup) X 3 (automatic, deliberative, control) MANOVA found a main effect of condition on the first four but not on the last four items. Therefore, the first four items were combined to create a subscale which we called Lenient Punishment ($\alpha = .77$) and the last four were combined to create a subscale that we called

Harsh Punishment (α = .90). These were used as two measures indicating participants' ratings of fairness.

A MANOVA for cognitive processing condition and ingroup-outgroup condition was conducted using the main study variables: Punishment, Behavior, Competence, Morality, Warmth, Lenient Punishment and Harsh Punishment (correlations between variables are reported in a correlation matrix, Table 2). It was found that there were no significant differences by ingroup–outgroup status (Wilks lambda $F[7] = .513$, $p = .82$);There was also no interaction between cognitive processing condition and ingroup–out group condition (Wilks lambda, $F[14] = .647$, $p = .82$).

However, the MANOVA revealed there was a significant main effect for cognitive processing condition (Wilks lambda, $F[14] = 316$, $p = .046$). ANOVAs found significant differences based on cognitive processing condition on the Punishment chosen ($F[2, 198] = 5.8$, $p = .003$) and Lenient Punishment fairness measure ($F[2,198] = 6.5$, $p = .002$). Post hoc (SNK) analyses found that in both cases the deliberative and control conditions did not differ, but both differed from the automatic condition. In the automatic condition, Punishment was harsher and Lenient Punishments was rated as more unfair because these punishments were judged to be too easy on the target (see Table 2)

Table 2: Means (Standard deviations in parenthesis) for main variables for the automatic, control and deliberative conditions.

	Automatic	Deliberative	Control	F-value	P-value
Punishment	4.29 (100)	3.83 (1.13)	3.58 (0.97)	5.880	.003
Behavior	2.02 (0.89)	2.25 (0.98)	2.33 (0.88)	1.574	.210
Warmth	4.48 (0.84)	4.55 (1.04)	4.63 (0.88)	.106	.900
Morality	3.29 (1.23)	3.44 (1.32)	3.29 (1.27)	.460	.632
Competence	4.32 (1.28)	4.42 (1.19)	4.42 (1.09)	.6	.941
Lenient punishment	-1.65 (0.72)	-1.23 (0.75)	-1.31 (0.81)	6.5	.002
Harsh punishment	1.87 (1.00)	2.04 (1.00)	2.00 (1.08)	.9	.408

On average participants in the automatic condition scored 4.29 and participants in the deliberative and control condition scored 3.83 and 3.58, respectively. In other words, those in the automatic condition fell between the student receiving an "F" for the paper (with no opportunity to re-write) and the student failing the course. However those in the deliberative and control conditions fell between the student rewriting the paper and having the new grade and an "F" for the initial paper averaged and the student getting an "F" for the paper (with no opportunity to rewrite). Furthermore, on a scale from –3 to 3, with –3 being unfair because the punishments were too lenient, participants in the automatic condition averaged –1.65, while those in the deliberative condition averaged –1.23 and those in the control condition averaged –1.31. Therefore, those in the automatic condition were harsher in their judgment of the lenient punishments than those in the control and deliberative conditions, as they saw these punishments to be too lenient on

the target. Interestingly however, there were no significant condition differences on how the person was perceived (Warmth, Competence, Morality) or how the behavior was perceived (Behavior).

Although the perceptions of the target and the behavior did not differ by processing condition or ingroup–outgroup status, they were nevertheless associated with the punishment variables that differed by condition (see Table 3).

Table 3: Correlation matrix for main variables

		A	B	C	D	E	F	G
A	Punishment	1						
B	Lenient punishment	-.738**	1					
C	Harsh punishment	-.358**	.234**	1				
D	Behavior	-.501**	.609**	.241**	1			
E	Competence	-208**	.243**	.140	.664**	1		
F	Warmth	-.244**	.268**	.162*	.695**	.707**	1	
G	Morality	-.441**	.463**	.221**	.620**	.130	.190*	1

**= $p < .01$,*= $p < .05$

It was found that Competence ($r = -.208$, $p < .01$), Morality ($r = -.441$, $p < .01$) and Warmth ($r = -.244$, $p < .01$) were all highly related to Punishment suggested (see Table 2). The less warm, competent and moral the target was perceived, the harsher the punishment that was recommended. However, when all three measures were entered into a multiple regression analysis, only judgments of morality predicted the punishment (ß = -.25, SE = .10, $p = .013$) (See Table 4).

Table 4: Regression analysis of the effect of the perception of the target on the recommended punishment.

	Beta	SE
Competence	.109	.416
Warmth	.122	.114
Morality	-.246**	.101

All reported betas are unstandardized co-efficients. * $p < .05$, **$p < .001$

In addition, correlational analyses showed that the Behavior score was also significantly associated with Punishment ($r = -501$, $p < .01$), Lenient Punishment ($r = .609$, $p < .01$), Harsh Punishment ($r = 241$, $p < .01$),) Competence ($r = .664$, $p < .01$), Warmth ($r = .695$, $p < .01$) and Morality ($r = .620$, $p < .01$) (see Table 2). When Behavior was added into a regression analysis predicting punishment, it was found that the behavior measure was the only significant predictor of the punishment that was suggested ($ß = -.338$, SE = .105 , $p = .001$) (See Table 5).

Table 5: Regression analysis for effect of Competence, Warmth, Morality and Behavior on the recommended punishment.

	Beta	SE
Competence	.033	.089
Warmth	.053	.114
Morality	-.269	.107
Behavior	-.338**	.105

All reported betas are unstandardized co-efficients. * $p < .05$, **$p < .001$

Discussion

In keeping with our hypotheses, participants in the cognitive load (automatic) condition differed from the control and deliberative conditions in the punishment that they recommended. Those in the automatic condition suggested a harsher punishment than did those in the control and deliberative conditions. In keeping with our initial prediction, participants in all the conditions seemed to agree that plagiarism is wrong. No group of participants actually suggested that the target should not be punished at all. All the punishments suggested involved at least rewriting the paper. In addition, in judging the fairness of the lenient punishments participants in all three conditions averaged well below the midpoint of the scale; that is, all groups perceived the punishments to be unfair because they were too lenient. Further, on the first four punishments that were suggested, which were the most lenient punishments, participants in the automatic condition judged these as more unfair than participants in the control and deliberative conditions, and this perceived unfairness reflected a belief that the punishments were too easy on the transgressing student. As suggested earlier, this finding seems to suggest that participants in the deliberative and control conditions engaged in effortful processing and in essence corrected for their initial response. This could potentially be due to the fact that many students in the college system are very familiar with plagiarism and therefore engaged in the post hoc correction.

Also, it is interesting to note that the control condition, which we suggest is the equivalent of the processing normally used, was more like the deliberative condition than the automatic condition. This suggests that moral judgments that we make maybe more deliberative than the intuitionist model might suggest. At least in the present case in

which students may have been motivated to perceive the behavior less negatively (given their familiarity with plagiarism), their controlled response was not the same as their automatic response. It did not seem to be simply a post hoc explanation of the automatic reaction (Haidt, 2001). Instead, it seems to be a post hoc " correction." The differences that we found between the three conditions seem to point to a process that is similar to that seen in implicit and explicit attitudes and stereotyping. It seems that while automatic moral judgments are possible, like implicit attitudes, deliberative processes are likely to be "natural" as well. This is one area of research that we wish to pursue in order to detect differences in behavioral outcomes based on these differing processes.

Interestingly, the perceptions of the target and the behavior did not differ across the conditions. However, how the target was perceived was highly related to the punishments that were suggested. It is possible that again no difference was detected due to the fact that participants as college students are familiar with plagiarism. Therefore, the behavior of the target did not make an impact on the participants. This will have to be further probed in future studies. However, it was found that when making the judgments about what punishment the target deserved, both perceived warmth and competence of the target were not associated with the punishment that was suggested and how lenient or harsh the punishments were viewed. And the perceived morality of the target was able to significantly predict what punishment was suggested and how harsh or lenient the punishments were perceived to be.

The data did not show the presence of an intergroup bias in the manner in which the target in the ingroup and outgroup conditions was judged. Three possible explanations come to mind. First, the example of plagiarism that was used in this

particular study was a very extreme case. In the case that was chosen for this study, the student had plagiarized almost all of the three pages of the paper that was used as stimulus material. Perhaps it was extreme enough to override any group sentiments that the participants felt. Clearly there are certain behaviors that are deemed so immoral that it may be able to override many of the affiliations we feel. For example, we could argue that if a person were accused of pedophilia, even if he or she is a member of our group, we are likely to judge him or her in the same manner we would someone accused of the same behavior of another group. However, participants' moral judgments were not so extreme as to provide a great deal of support for this explanation.

Second, as mentioned in the introduction, the intergroup bias effect has generally not been found in situations that involve punishment (Hewstone et. al., 2002). Therefore, it is possible that since this was a situation involving punishment the intergroup bias could not be seen.

Third, it is also plausible that reading the case file of a student who was accused of plagiarism made the participants' identities as students more salient than their ethnic identities. This could also be a reason for why we were not able to detect the intergroup bias in the judgments that the students made. These possible explanations are simply tentative assumptions and need to be considered in future studies.

The issue of morality in the intergroup context is one that requires further study. In future research we plan to manipulate group boundaries in a manner that will make use of the salient student identity vs. an identity of an individual perceived to be outside this group. Also, we hope to explore the relationship between moral transgressions of differing levels of intensity and their relationship to intergroup bias.

In addition, one area that was not explored in this study is the extremity of the moral transgression. A moral transgression can be extreme in either its 'shock value' or in the amount of harm it involves. For example in this particular case of plagiarism, another person is not directly harmed by the target's behavior. However, we would like to explore the same variables (cognitive processing and group status) when the situation involves harm to others. We believe that harm to others might elicit the ingroup-outgroup differences we hypothesized in this study. This would be in keeping with the findings in aversive racism (Gaertner & Dovidio, 1986), where studies have shown that even individuals who do not see themselves as prejudiced may nevertheless act in a way that is prejudicial if they are provided with an 'excuse' for doing so. Therefore, though the intergroup bias was not found in this research, in a future study that involves harm it maybe more likely to occur since the harm may provide an 'excuse' for the harsher treatment of those of the outgroup.

Nevertheless, this study provides a first demonstration of processing differences in the moral domain, at least with regard to a familiar immoral behavior. Participants were harsher when providing automatic than controlled responses. Clearly, future research is needed to explore the generalizability of this finding to other populations and other transgressions.

APPENDIX

MATERIAL

Participation in this study entails completion of a questionnaire regarding college life and some cognitive tasks. The questionnaire and the tasks will take approximately hour to complete, and you will receive two experimental credits in appreciation of your participation. There are no risks to participating in this study. Following the collection of data, your individual identity will be removed from all records and will remain confidential at all times. Every precaution will be taken to ensure the anonymity of all data. It is also your right to discontinue your participation in the study at any time without loss of credit or compensation. (If you have any questions, please contact Ramila Usoof at 545-0290 or Ronnie Janoff-Bulman at 545-0264. If you have any concerns or complaints regarding this study, you can contact the Human Subjects Review Board at 545-3428 or at HumanSubjects@ora.umass.edu.)

I agree to participate in this study. My signature below indicates that I have decided to participate and that I have read and understood the information above.

_____ _____

Print Name Student ID #

_____ _____

Signature Date

We would also like your permission to conduct an experiment in tandem with the present study, for colleagues in the UMass Psychology Department. Some researchers are interested in exploring the mechanisms used when humans are required to engage in two tasks at the same time. Therefore we ask you to please do the following task as you read the material for the present study:

Memorize the following string of numbers. We will ask you to recall and write it down at the end of the task.

365129518

It may be difficult to concentrate on the reading as you try to keep the numbers in mind. Do not be concerned, simply do both tasks together as well as you can.

Thank you for your cooperation.

SOCIAL PSYCHOLOGY DIVISION
DEPARTMENT OF PSYCHOLOGY
UNIVERSITY OF MASSACHUSETTS, AMHERST

Dear Participant,

Thank you for agreeing to participate in this study. This is part of a nationwide survey being conducted by the National Student Integrity Project (NSIP), involving several universities throughout the United States. The NSIP is interested in exploring attitudes towards plagiarism and academic honesty among American college students.

You will be provided information from a case in the NSIP database. However, all identifying information has been removed to protect the privacy of the student. Also, the case files have been created using selected information and excerpts of the actual material to allow for the study to be conducted in an efficient manner.

Your views are very important to this project, so please answer the questions as honestly as possible. Please read through the material that follows. We realize a lot of information is presented, so it may be difficult to concentrate on all the reading. Simply do the best you can.

Thank you for your cooperation.

NATIONAL STUDENT INTEGRITY PROJECT

Dear Student,

Thank you for you help. This folder contains information related to a case of plagiarism. We would like you to read through the material and provide us with your honest opinions.

The folder consists of the following information

1. The student's personal information
2. Complaint letter from the professor
3. Letter of appeal from the student
4. Excerpts of character references provided on behalf of the student
5. Three pages from the students paper
6. The original Burn's article from which the student plagiarized parts of his paper

Thank you for your participation

NATIONAL STUDENT INTEGRITY PROJECT

CASE#: EN2354V5

Name: [redacted]

Gender: Male

Race/Ethnicity: Arab-American

Age: 19

Address: [redacted] USA

University: [redacted], USA

Major: Undeclared

Student #: [redacted]

Year: Freshman

Semester: Spring

Course: ENG 321 (required first year course)

Complainant: [redacted]

COMPLAINT: Plagiarism. Parts of final paper for ENG 321 copied from already published work.

NATIONAL STUDENT INTEGRITY PROJECT

CASE#: EN2354V5

Name: [redacted]

Gender: Male

Race/Ethnicity: White

Age: 19

Address: [redacted], USA

University: [redacted], USA

Major: Undeclared

Student #: [redacted]

Year: Freshman

Semester: Spring

Course: ENG 321 (required first year course)

Complainant: [redacted]

COMPLAINT: Plagiarism. Parts of final paper for ENG 321 copied from already published work.

(Excerpts from letters submitted by the student on his behalf)

From: [redacted]
Imam and Principal
[redacted]

"I have known [redacted] since the fall semester of 2003, when he was a student at the local high school. At that time he began to work in our school as a volunteer tutor for our students. [redacted] was in charge of providing students with additional help in Math and English and was also responsible for helping students complete their homework after school."

"He was, continually, one of our most responsible, conscientious and hard–working volunteers, and he earned the respect and trust of the students he worked with. He also exhibited an ability to work independently."

From: [redacted]
Inter–Community Student Coalition
[redacted]

"[redacted], joined the Inter–Community Student Coalition this past fall. He has since then been an active member of our organization."

"He has worked independently on a number of different projects organized by our group.. His dedication was nowhere more apparent than when we staged a protest march at the state legislature against proposed tuition increases for our University. His legitimate anger and frustration over the issue of tuition increases were visible in his passionate yet constructive efforts to make our protest a success."

"He worked tirelessly to make this event a success, even though he has an extremely busy schedule. He has shown similar dedication at other events that he has been involved in."

(Excerpts from letters submitted by the student on his behalf)

From: [redacted]
Principal
[redacted]

"I have known [redacted] since the fall semester of 2003, when he was a student at the local high school. At that time he began to work in our school as a volunteer tutor for our students. [redacted] was in charge of providing students with additional help in Math and English and was also responsible for helping students complete their homework after school."

"He was, continually, one of our most responsible, conscientious and hard–working volunteers, and he earned the respect and trust of the students he worked with. He also exhibited an ability to work independently."

From: [redacted]
Inter–Community Student Coalition
[redacted]

"[redacted], joined the Inter–Community Student Coalition this past fall. He has since then been an active member of our organization."

"He has worked independently on a number of different projects organized by our group.. His dedication was nowhere more apparent than when we staged a protest march at the state legislature against proposed tuition increases for our University. His legitimate anger and frustration over the issue of tuition increases were visible in his passionate yet constructive efforts to make our protest a success."

"He worked tirelessly to make this event a success, even though he has an extremely busy schedule. He has shown similar dedication at other events that he has been involved in."

We are interested in your reactions to what the student did. Using the scales below, please circle the number that best correspondents to how you view the **student's behavior**.

Immoral	1	2	3	4	5	6	7	**Moral**
Wrong	1	2	3	4	5	6	7	**Right**
Bad	1	2	3	4	5	6	7	**Good**
Unacceptable	1	2	3	4	5	6	7	**Acceptable**
Inexcusable	1	2	3	4	5	6	7	**Excusable**
Dishonest	1	2	3	4	5	6	7	**Honest**
Irresponsible	1	2	3	4	5	6	7	**Responsible**
Uncommon	1	2	3	4	5	6	7	**Common**

For each trait listed below, please circle the number that best indicates what you think about **the student** in this case.

	Not at all						**Extremely**
Competent	1	2	3	4	5	6	7
Sociable	1	2	3	4	5	6	7
Well-intentioned	1	2	3	4	5	6	7
Skillful	1	2	3	4	5	6	7
Trustworthy	1	2	3	4	5	6	7
Good-natured	1	2	3	4	5	6	7
Friendly	1	2	3	4	5	6	7
Confident	1	2	3	4	5	6	7
Moral	1	2	3	4	5	6	7
Intelligent	1	2	3	4	5	6	7
Warm	1	2	3	4	5	6	7
Honest	1	2	3	4	5	6	7

Please write down as many of the numbers in order you can remember from the string of numbers we asked you to memorize at the beginning of this task.

_____

We are interested in your reactions to what the student did. Using the scales below, please circle the number that best correspondents to how you view the **student's behavior**.

Immoral	1	2	3	4	5	6	7	**Moral**
Wrong	1	2	3	4	5	6	7	**Right**
Bad	1	2	3	4	5	6	7	**Good**
Unacceptable	1	2	3	4	5	6	7	**Acceptable**
Inexcusable	1	2	3	4	5	6	7	**Excusable**
Dishonest	1	2	3	4	5	6	7	**Honest**
Irresponsible	1	2	3	4	5	6	7	**Responsible**
Uncommon	1	2	3	4	5	6	7	**Common**

For each trait listed below, please circle the number that best indicates what you think about **the student** in this case.

	Not at all						**Extremely**
Competent	1	2	3	4	5	6	7
Sociable	1	2	3	4	5	6	7
Well-intentioned	1	2	3	4	5	6	7
Skillful	1	2	3	4	5	6	7
Trustworthy	1	2	3	4	5	6	7
Good-natured	1	2	3	4	5	6	7
Friendly	1	2	3	4	5	6	7
Confident	1	2	3	4	5	6	7
Moral	1	2	3	4	5	6	7
Intelligent	1	2	3	4	5	6	7
Warm	1	2	3	4	5	6	7
Honest	1	2	3	4	5	6	7

Please check which of the following actions you believe should be taken in this case. (Check the action you feel is most appropriate.)

____ no action at all; the student should receive no punishment

____ the student should re-write the paper and have only this new grade count

____ the student should re-write the paper and the new grade and an "F' for initial paper should be averaged

____ the student should receive an "F" for the paper (with no opportunity to re-write)

____ the student should fail the course

____ the student should be suspended from school for a semester

____ the student should be suspended from school for a year

____ the student should be expelled from school and not allowed to return

Regardless of your responses above, for each of the actions listed please let us know the extent to which you think it is fair by indicating below whether you think it is too easy or too hard on the student. The midpoint (4) of the scale indicates a fair response.

No action at all; the student should receive no punishment

not at all fair- too easy on the student						not at all fair- too hard on the student
			fair			
-3	-2	-1	0	1	2	3

The student should re-write the paper and have only this new grade count

not at all fair- too easy on the student						not at all fair- too hard on the student
			fair			
-3	-2	-1	0	1	2	3

The student should re-write the paper and the new grade and an "F' for initial paper should be averaged

not at all fair- too easy on the student						not at all fair- too hard on the student
			fair			
-3	-2	-1	0	1	2	3

The student should receive an "F" for the paper (with no opportunity to re-write)

not at all fair-too easy on the student						not at all fair-too hard on the student
-3	-2	-1	0	1	2	3

the student should fail the course

not at all fair-too easy on the student						not at all fair-too hard on the student
-3	-2	-1	0	1	2	3

The student should be suspended from school for a semester

not at all fair-too easy on the student						not at all fair-too hard on the student
-3	-2	-1	0	1	2	3

The student should be suspended from school for a year

not at all fair-too easy on the student						not at all fair-too hard on the student
-3	-2	-1	0	1	2	3

The student should be expelled from school and not allowed to return

not at all fair-too easy on the student						not at all fair-too hard on the student
-3	-2	-1	0	1	2	3

Please describe in as much detail as possible your reactions to the alleged case of plagiarism you've just read.

Demographic questionnaire

1. Gender: Male ☐
   Female ☐

2. Age: ☐

3. What ethnic group do you identify with the most? (Please circle one)

   African American Asian American Hispanic
   Middle Eastern Native American White
   Cape Verdean

   Other (specify) _____

4. What is your religion? (Please circle one)

   Buddhist Catholicism Christianity
   Islam Judaism

   Other (specify) _____

5. How many years of schooling have you completed?

   Freshman Sophomore Junior Senior

   Other _____

6. How would your describe your political affiliation?

   Democrat Republican Independent

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