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## ONCE A THIEF, ALWAYS A THIEF?

## HOW TIME, IMPLICIT THEORIES, AND RACE AFFECT MORAL JUDGMENTS

by

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Bachelor of Arts, University of Waterloo, 2013

### THESIS

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#### Abstract

How can a person judge another individual's moral character? One way may be to look to their moral and immoral actions. However, should all actions be weighed equally, whether they occurred in the near or distant past? Moral actions do not occur in a temporal vacuum, yet relatively little research has examined the role of time in moral judgment. We expected that people would weigh a previous immoral act differently depending on when it occurred and on their beliefs about personal malleability. Individuals differ in their implicit theories about the degree to which human characteristics, such as moral character or personality, are malleable (Dweck, Chiu, & Hong, 1995). Entity theorists believe that personal characteristics remain stable and fixed throughout one's life, while incremental theorists believe that these characteristics can change over time. We predicted that incremental theorists would attenuate harsh moral judgments to a greater degree with the passage of time. We also expected that motivated reasoning could influence moral judgments, and examined this by varying race of the offender and assessing prejudice levels. Three studies were designed to examine how implicit theories about personal mutability, time, and offender race affect moral judgments. Participants read about an offender's past commission of a crime. In Study 1, incremental theorists were more forgiving of the offender and held less punitive beliefs regardless of time (3 or 10 years ago), and that modern racism predicted negative reactions to offenders perceived as Black (but not White), greater subjective recency, and a tendency to shift to a more entity perspective. Study 2 attempted to manipulate offender race, but was unable to do so effectively. In Study 3, offenders who committed crimes in the distant past (3 and 10 years) were judged more positively than those from the recent past (a few months ago), and preliminary evidence that incremental theorists are more positive towards the offender than entity theorists in the distant (but not

recent) condition. After using a more overt race manipulation, however, modern racism did not systematically predict judgments about a Black offender, nor did it predict shifts in implicit theories.

Keywords: implicit theories, moral judgments, time

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In 1999, a man was convicted of robbing a Burger King. He was sentenced to 13 years in prison, and was told to wait at his home, where he had been released on bail, to be taken to jail. He waited. For years, Cornealious "Mike" Anderson waited to be taken to prison. At one point, he asked his lawyer when he would be jailed, and was told to keep waiting. After some time passed, he wondered if his sentence had been revoked, and started to rebuild his life, changing himself from a young robber to a husband, father, business owner, and respected member of the community. Then, 13 years after his original sentence, when his release date would have been, the justice system noticed their error, and did what they would do to any criminal on the loose: they arrested him (Lussenhop, 2013; Bever, 2014).

There was a public uproar once this case hit the media. Time had passed, the public protested. He had clearly changed. He had spent the amount of time he would have been imprisoned becoming a productive, law-abiding member of society. The justice system disagreed. Everyone needed to follow the law, they said, and this person had yet to pay his debt to society for this crime regardless of the changes he went through in the interim. There had been no public outcry when his initial sentence was announced; no one thought it was inappropriate for this man to serve thirteen years in prison. Why, then, was this any different now?

This case is intriguing not only for its legal and societal implications, but because it poses some fundamental questions about human behaviours and beliefs about morality and immoral acts, and the role of time in these judgments. Can people change? At what point do we believe that change has occurred? How long does one's responsibility for undesirable acts extend? Does the passage of time matter, or should it be irrelevant? What other factors influence the degree to which we weigh the passage of time into judgments of change? These questions, among others, form the basis of this research. Through the lens of this real-world event, we intend to examine how people's beliefs about the possibility of change, and the passage of time, come to influence their moral judgments of others.

#### **Implicit Theories of Change**

Implicit theories of change are the assumptions people make about the malleability of human characteristics, such as intelligence or personality (Dweck, Chiu, & Hong, 1995). Entity theorists believe that one's personal characteristics remain fixed throughout life, whereas incremental theorists believe that personal characteristics can change<sup>1</sup>. People may also hold different implicit theories for different domains: some characteristics may be seen as more fixed than others. Questions of change and stability are particularly relevant when thinking about morality. One way to infer a person's moral character, or to predict their future moral behaviour, is to look at their past moral or immoral actions. To what extent, however, are those past actions reflective of a stable "core" characteristic called morality, or to what degree might one's moral character have changed? These are the questions that research into implicit theories of change attempts to answer. What domains of implicit theories are most pertinent when it comes to making moral judgments about a person? People can hold implicit theories about the nature of morality itself - whether morality is fixed or fluid (Chiu, Dweck, Tong, & Fu, 1997). However we reasoned that general person theories (whether a person's basic character and personality changes or is fixed over time) might also be closely tied to people's judgments of moral transgressions (Dweck et al., 1995). Though personality, or "the kind of person" one is, is not as

<sup>&</sup>lt;sup>1</sup> Implicit theories are measured on a continuous scale, and a person's beliefs can range anywhere from a strong belief in fixedness to a strong belief in malleability, with a wide degree of variability between those two points. However, it is common for two dichotomous theories, entity and incremental theory, to be described, with each representing relatively stronger beliefs in fixedness (entity theory) or malleability (incremental theory). Throughout this paper we will sometimes refer to these dichotomous labels, but recognize that we are describing beliefs on a continuum.

directly reflective of one's moral character, morality is sometimes conceived as a facet of personality and overall character. Statistically, people's general person implicit theories and their theories of morality are typically highly intercorrelated (Ward & Wilson, 2015).

Though various domains of implicit theories have been studied in depth (e.g., Dweck et al., 1995; Blackwell, Trzesniewsky, & Dweck, 2007; Job, Walton, Bernecker, & Dweck, 2015; Greenwald et al., 2002), relatively less has been established about the role of implicit theories in a moral context. Indeed, the research that has been done has shown mixed results. Entity theorists have been shown to be more punitive of bad behaviour than incremental theorists (Chiu, Dweck, Tong, & Fu, 1997), and show more negative affect after reading about transgressions (Miller, Burgoon & Hall, 2007). Entity theorists also tend to believe that punishment is more important than rehabilitation, while incremental theorists tend to endorse the opposite view (Gervey, Chiu, Hong & Dweck, 1999). These attitudes toward crime and punishment are supported by the basic suppositions underpinning the implicit theory. Specifically, because an entity theorist doubts that a person's morality or personality can change, negative behaviours are a sign of a greater, permanent personality flaw, and rehabilitation cannot change this fact. On the other hand, incremental theorists' assumptions about the possibility of personal change would support a belief that rehabilitation is possible even after serious immoral acts. However, not all evidence suggests that incremental theorists will be automatically more forgiving following transgressions. Ng and Tong (2013) found that incremental theorists demonstrated less forgiveness than entity theorists after an interpersonal transgression. They argued that this pattern was due to the tendency of incremental theorists to attribute a higher level of responsibility to transgressors. An entity theorist who believes a person cannot change may also see that person as less responsible for their innate, fixed qualities, while an incremental theorist

may see a moral or personal failure as reflective of a person's choices, not characteristics. Supporting this view, Kammrath and Peetz (2012) reported that incremental theorists are more upset by romantic partners who commit the interpersonal transgression of breaking a promise to change, while entity theorists, who never truly expected the promised change, are more accepting. In sum then, although the literature is limited, there is reason to believe that incremental theorists could be more forgiving of a past transgression (perhaps especially in situations where there has been enough time or evidence of change), yet on the other hand incremental theorists might judge more harshly an actor who they see as having personal control over an immoral choice yet choosing not to change. Although the current studies are not designed to disentangle these inconsistencies, our theorizing falls more in line with the notion that incremental theorists may show more willingness to forgive or accept the possibility that once a thief does not mean always a thief. There may be important exceptions to this rule – for instance, in situations where a perpetrator is judged in the moment of a deliberate harm, incremental theorists' belief in personal control could override their belief in change. Additionally, we suspect that repeated offenses (as is often the case with romantic partners lobbying for change) may be judged harshly by incremental theorists who could interpret lack of change as a choice. Neither of these circumstances characterize the current studies, which instead focus on a one-time moral transgression and situate it in the past.

Despite the inconsistencies in the previous literature, the existing research does share one major consistency: it focuses on moral transgressions (whether written scenarios or memories) in the present or the very recent past, and as such is largely removed from any systematic investigation of the temporal context. It makes good sense to imagine that the passage of time would matter here – if a moral transgression occurs in the moment, people's implicit theories

may play a different role than when an immoral act occurred in the relatively distant past. Ward and Wilson (2015) found that incremental (but not entity) theorists were more critical of their subjectively distant selves, showing evidence that incremental and entity theorists may make divergent judgments based on the real or felt passage of time. One reason for the outcry over Anderson's story of arrest after 13 years has to do with the passage of time – and the apparent rehabilitation that occurred over those years. Because of it, we reasoned that this real world event would offer an interesting, engaging context in which to study how people's implicit theories related to moral judgments over time.

This story elicited powerful reactions on both sides of the debate (e.g., Lussenhop, 2013; Bever, 2014), and we reasoned that implicit theories of malleability could play a central role in explaining the intensity of public outcry, as well as vast differences of opinions between individuals hearing about the same case. Incremental theorists might point to the man's changed behaviour as evidence that, fundamentally, he is not the same person who committed the original crime - his personality and moral essence have changed dramatically. Entity theorists, however, could point to the original crime as evidence of a moral or personality flaw, and argue that because people do not change, that flaw still persists. Stated more generally, we hypothesized that incremental theorists will have more positive judgments of the actor who committed a past immoral act (a crime in this case) overall than entity theorists. We chose to examine this basic question in a qualitatively enriched context to capture how these implicit theories operate in the real world; however we acknowledge that because the specific story we examine involves several complexities in addition to time (unserved sentence, evidence of rehabilitation, no active avoidance of the sentence), we cannot claim to test all instantiations of the more general proposition that implicit theories will matter when it comes to moral judgments situated in time.

#### **Time and Implicit Theories**

As noted previously, immoral actions do not occur in a temporal vacuum, yet often moral judgements are studied as they occur, in the moment, in response to a moral act or scenario (Haidt, 2001; Greene, Sommerville, Nystrom, Darley, & Cohen, 2001; Greene & Haidt, 2002; Graham et al., 2011). One topic that is not well understood is the role of time in people's judgments of morality. The ways that people grapple with the question of time in moral judgment is evident in how people react to even long-past transgressions, from youthful indiscretions to Nazi war crimes coming to light half a century later. How do individuals decide the relevance of past misdeeds to that person's current moral character?

Most work regarding time and morality has focused on differences between past and future actions (e.g., Caruso, 2010); however, some research has looked at the role of time passing in regards to past moral and interpersonal transgressions. Escobedo and Adolphs (2010) analyzed people's moral autobiographical memories, and found that self-nominated memories of their own positive moral events came from more recent periods of time than memories of negative moral events. Wohl and McGrath (2007) found that in interpersonal transgressions, people were more willing to forgive another person if the act was more distant in calendar time. This was also true of acts that felt subjectively distant; that is, acts that feel psychologically farther away from the present, regardless of the length of calendar time that has passed. There has been little systematic analysis, however, of how temporal distance from another's moral transgression will impact people's judgments about the transgressor.

How might the passage of time be related to one's implicit theories of change, in the context of immoral behaviour? We propose that those who hold the two opposing beliefs in change should react differently to the passage of time. For incremental theorists, a greater length

of time should suggest a greater amount of change: if change can occur over time, then the greater length of time that has passed, the higher the likelihood of change (Ward & Wilson, 2015). However, for entity theorists, the passage of time should not matter, or should matter to a lesser extent. If personal characteristics remain fixed throughout life, then additional distance from an immoral event should not indicate a greater possibility of change, as change should not be possible at any time. In other words, while judgments of an offender overall, given more time passing, may be more positive than after less time, judgments made by incremental theorists will be more sensitive to the passage of time than judgments made by entity theorists.

#### **Subjective Time**

We might expect that calendar time – the number of months or years that have passed since an event occurred – will play a role in how a past immoral act is judged. Time, however, is not solely measured by the actual passage of dates on a calendar. People also have a subjective sense of time: that is, how close or distant an event or point in time feels from the present (Wilson & Ross, 2003; Van Boven, Kane, McGraw, & Dale, 2010; Sackett, Meyvis, Nelson, Convers, & Sackett, 2010; Caruso, Van Boven, Chin, & Ward, 2013). These two aspects of time are often highly related, with events that happened yesterday also feeling closer than the events of a year ago. It is an imperfect relationship, however, and objective and subjective time can often be at odds with one another. For example, people feel subjectively farther away from personal failures than from successes that occurred in the same time period (Ross & Wilson, 2002).

In earlier studies, we have found that the actual passage of time since a moral or interpersonal transgression is less important than one's subjective sense of time when making judgments about the actions of others. Presenting moral transgressions as having occurred in the recent or distant past was not as important to participant judgments of immoral acts as how recent or distant those transgressions subjectively felt (Williams & Wilson, 2014). The subjective distance a participant felt from a moral transgression was a far better predictor than objective, calendar distance for how harshly the act would be judged, particularly for severe acts. This means that it matters little if the event happened a week or a year ago, but whether it feels like yesterday or like ancient history.

What might this mean when making judgments about someone with an immoral act or criminal offense in his or her past? Similarly to objective time, we would predict that judgments of an offender would be more positive in the present given a greater sense of subjective distance from the original offense. In addition, when objective and subjective distance diverge from one another, it is possible that subjective time will play a bigger role in overall judgments than calendar time. However, in the current studies, only calendar (objective) time is varied systematically; participants' perceived or subjective feelings of time are measured as a dependent variable.

#### **Changing Theories of Change**

Although people's implicit theories of change may affect their judgments of immoral acts, recent evidence has demonstrated that in contexts where people are motivated to draw certain conclusions about temporally relevant information, the judgments that people make may, in turn, affect people's subsequent implicit theories. According to Leith et al. (2014), there is evidence that people may shift their endorsement of implicit theories in order to reach desired conclusions; that is, when an incremental or entity theory would lend more evidence to one's beliefs, a person may endorse that theory to bolster or maintain those beliefs, particularly when there is strong motivation to do so. For example, in one study, participants read a scenario about

a child sex offender who was moving to either their own community or a distant community. Those who would be most threatened by the offender (participants with children who would be near the offender), and therefore most motivated to adopt a negative attitude, were significantly more likely to shift towards an entity theory – if the offender could not change, their negative attitudes were fully justified.

Because of this evidence of motivated shifting, we generated an additional exploratory hypothesis for the current study. We wondered if judgments of past criminal acts more generally might be a context in which the perception of a threat might lead to a shift in implicit theories. If a criminal offender is released without legal consequence, people who believe that the offender still poses a threat would be motivated to adopt an entity perspective to justify their pre-existing negative beliefs, or in order to remain vigilant.

What factors might feature in people's motivation to emphasize the changeability or fixed nature of an offender's morality? In the child sex offender study (Leith et al 2014) nearby parents were most threatened; however this demographic group would not be expected to react strongly to every type of crime. One factor that may play an important role in people's motivated judgments of crime is the race of the offender. In the United States and beyond, Blacks in general have been perceived as more violent and aggressive than Whites, more involved in criminal activities, and more racially disposed to commit crime (e.g., Welch, 2007; Mears et al., 2013; Yzerbyt & Demoulin, 2010), leading to what Chiricos, Welch, and Gertz (2004) called the "racial typification of crime". Due to this racial stereotype, it is possible that a Black offender may be more threatening in the context of a past crime than a White offender, particularly for those who hold more racist beliefs.

As a result, we believe that people prone to racism, as measured by the Modern Racism Scale, may be motivated to adopt a more entity perspective when presented with a Black offender who has changed. Accepting the notion that a Black offender has demonstrated a permanent change for the better may be a threat for those who hold racist beliefs, which would in turn generate a greater motivation to shift implicit theories.

#### **Overview of the Present Research**

We entered into this research with five major hypotheses:

- 1. Incremental theorists will have more positive judgments of a prior offender (who committed an immoral act in the past) overall than entity theorists.
- 2. Judgments may be more positive overall after more time has passed since the original offense than when less time has passed.
- 3. Judgments about prior offenders made by incremental theorists will be more sensitive to the passage of time than judgments made by entity theorists. Specifically, incremental theorists are expected to make more positive judgments when more time has passed; entity theorists may not do so.
- 4. People high in modern racism may be motivated to adopt a more entity perspective when presented with a Black offender who has changed than if a White offender has changed.
- 5. The race of the offender, in concert with the modern racism levels of participants, will combine to produce differences in how positively people judge the prior offender. Specifically, those high in modern racism, who are presented with a Black offender, will generate more negative judgments of that offender even though the transgression is identical.

To test these hypotheses, we conducted three studies. We created a scenario which was adapted from the previously discussed news article about an earlier unpunished robbery. Participants were recruited online. After completing a premeasure of implicit theories, participants read the adapted article, which presented either a Black or White offender who had committed an offense that was described as having occurred either three or ten years earlier, or (in Study 2 and 3) within the last month. Participants then provided their judgments about the criminal offender on a wide variety of relational and legal measures, and completed measures assessing post-manipulation implicit theories, as well as modern racism.

#### Study 1

#### Method

**Participants**. Two hundred and twelve American residents recruited from Amazon's Mechanical Turk participated in the study for \$1.00 as compensation. Twenty-two participants who self-identified as having not paid attention to the task, or who failed an attention check, were excluded, with 190 participants (104 females;  $M_{age} = 38.7$ , SD = 12.5, range = 18-66; 158 White, 13 Black, 8 Hispanic, 11 other) remaining in the final analysis.

#### **Procedure.**

*Premeasure.* Participants were invited to participate in a study that investigated judgments of legal news articles. Upon their consent, participants were presented with a questionnaire containing several measures that were unrelated to the present study. Embedded within these items were three items measuring implicit theories of morality (Chiu, Dweck, Tong, & Fu, 1997), and three items measuring general person implicit theories (Dweck, Chiu, & Hong, 1995) (see Appendix A). These questions asked participants to indicate, on a six-point scale, how

much they agreed or disagreed with statements such as: "People's moral character is something basic about them and they can't change it much" (for morality) and "Everyone is a certain kind of person and there is not much that can be done to really change that" (for general person). We chose to combine the three general personal items and the three morality items into one six-item variable, given a reliability analysis that revealed all six items had a Cronbach's Alpha of .96; the Alpha for the morality items, separately, was .92, while the Alpha for the general person items was .95.

News article. Participants were then asked to read one of four news articles about a current legal issue (see Appendix B). All articles detail a situation where a man had been convicted of armed robbery and sentenced to three years in prison, but due to an oversight the authorities forgot to jail him and he went unpunished. During this time he led a law-abiding life, until the authorities realized their error and arrested him. We manipulated the objective time from the crime by stating that the crime had occurred either three years or ten years previously. Additionally, we attempted to manipulate the race of the man by giving him a name that was either uniquely "Black" (DeShawn) or "White" (Brad). DeShawn was drawn from Fryer and Levitt (2004), and was chosen as it was the most statistically likely name to belong to a Black male. Brad was drawn from Bertrand and Mullainathan (2003), and was chosen as it was both identified as statistically likely to belong to a White male, and was the White name most likely to receive a callback for a job interview in that study. We chose to manipulate implied race only (rather than reporting race explicitly, including a photo or other identifying details, etc) in Study 1, because we hoped to avoid demand charactersitics and social desirability concerns that could be evoked by a more blatant manipulation of race.

**Dependent measures.** After reading the news article, participants were given a series of questions about the article (see Appendix E). They were asked to give judgments about both the person and act detailed in the article on a bipolar scale (e.g., "To what degree is this specific person/act:"; 1 = good, 7 = bad). In addition they were asked items about their hypothetical responses if they were to have a relationship with the man (e.g., "How likely would you be to forgive this person for their act?"; 1 = very unlikely, 7 = very likely), about his ability to change (e.g., "This person is a different person now than when they committed the act."; 1 = strongly *disagree*, 7 = *strongly agree*), and about the appropriateness of jail (e.g., "It is unjust to society to allow this person to go unpunished."; 1 = strongly disagree, 7 = strongly agree). Participants were also asked on a scale of 1-100 the percentage likelihood that the man would commit another crime, and, if the participant was in a position to hire the man for a job he was qualified to do, the percentage likelihood that they would hire him. Participants were asked to mark on a line how subjectively close or far away the original crime felt to them, with the endpoints of the line being 'feels very recent' and 'feels very long ago'. Participants were asked to make sentencing decisions for this crime. They were asked to indicate, in months and years, what they felt their ideal, absolute minimum, and absolute maximum jail sentences would be for the crime at that moment; that is, any criminal sentence that should be served once the Department of Corrections discovered their error. Finally, they answered two questions on bipolar scales about factors that led them to make their judgments: "Which factor is more important to you when making a judgment about a person who committed a crime?"; 1 = the act that was committed, 7 = their behaviour since the act; and "Which factor is more important to you when making a judgment about consequences for crimes?"; 1 = that criminals are rehabilitated, 7 = that criminals are punished.

*Manipulation check.* As a check of the time manipulation, participants were asked to recall in what year, and how many years previous, the crime was committed. As a check of the race manipulation, participants were asked what they thought was the ethnicity of the man in the article. This was a forced-choice option, where participants could choose 'other', but with no 'I don't know' option (see Appendix F).

*Post-manipulation check measures.* Participants were again asked to complete the same three-item implicit theories of morality and three-item general person implicit theories measures (see Appendix G). Again, we combined the three general personal items and the three morality items into one six-item variable, given that these six items had a Cronbach's Alpha of .98, with separate Alphas of .96 for the morality and .97 for the general person subscales. Participants were also given the Modern Racism Scale (MRS), adapted from McConahay (1986) (e.g., "Over the past few years, government and media have shown more consideration for racial and ethnic minorities than is warranted."; 1 = strongly disagree, 6 = strongly agree); this scale had an Alpha of .93. Scores on the Modern Racism Scale did not differ as a function of race condition (t (188) = -.71, p = .482), or of race assumed by participants (t (177) = -.15, p = .879). Finally, participants were asked for their demographic information (see Appendix H).

#### **Results**

**Race manipulation check.** Despite the fact that we used names documented to be uniquely Black or White, our implied race manipulation did not work as expected. Although the majority of participants identified the man as the race signaled by his name, a substantial number -- 55 of the 190 participants (28.9%) -- made an assumption inconsistent with our intended manipulation. Additionally, these errors did not occur at a consistent rate across the race conditions. In the Black name condition, only 10.9% of participants made an inconsistent assumption (judging race as other than Black), while in the White name condition, 39.1% of participants made an inconsistent assumption (judging race as other than White). It is worth noting that in both conditions, the inconsistent assumptions were primarily guessing White rather than Black (10/14 cases, or 71.4% of all inconsistent guesses) or guessing Black rather than White (34/41 cases, or 82.9% of all inconsistent guesses); all other inconsistencies were guesses of Hispanic or 'other'. A chi-square test of independence performed to examine the relationship between race condition and inconsistent guessing revealed that participants in the White name condition were significantly more likely to make assumptions inconsistent with the intended race,  $X^2$  (1, N = 179) = 19.20, p < .001. This pattern of results was found to be independent of participants' level of modern racism, implicit theories of change, the time that passed since the crime, or any other factors examined.

Although this pattern of inconsistent assumptions is potentially interesting (and will be followed up in another line of research), for the purposes of the present study it is problematic. Because of this failure in manipulation, we are faced with three potential ways of conceptualizing race in this particular study. First, we can use assigned race and rely on the indirect assumption that people may have been influenced at least implicitly to presume race from names. The drawback to this method is that the manipulation check reveals that in many cases (and differently across conditions), the manipulation may not have worked, at least when participants were asked to explicitly identify race at the end of the study. Second, we can use the assumed race (the race that participants reported thinking the offender was in the manipulation check); arguably this is the best way to capture what participants were actually thinking about offender race, but it comes at a cost of losing random assignment. Moreover, it is possible that participants were not consciously thinking about race until the question was asked, and thus their

answer at that time might not reflect their answers through the earlier part of the study. Finally, we could use only those participants who identified the race that was intended; however, there are different attrition rates between the race conditions, meaning that almost half of the participants assigned to the White condition would be lost, and there may be important differences between those who made race judgments consistent with the intended manipulation, and those who did not. In particular, it is possible that implicit prejudice, rather than explicit, may account for more stereotypic race categorizations in our study. In work done by Hugenberg and Bodenhausen (2004), faces that are angry in appearance, and are racially ambiguous, are more often categorized as Black (the stereotypically "angry" race) by those who are high in implicit prejudice. It may be that the tendency to guess a race that was not intended is also the result of implicit prejudice: in particular, it is conceivable that those who made the assumption that "Brad" was Black might harbour some negative implicit attitudes toward Blacks, or at least automatic associations between Blacks and criminality.

We recognize that none of the above choices is ideal. Indeed, a central goal of Study 2 is to address the ambiguity in race that led to such frequent inconsistent racial attributions. However, for Study 1, we must select among these imperfect approaches. In the spirit of thoroughness and full disclosure, we report that analyses were conducted using each of these race categorizations, and that the clearest and most consistent patterns emerged when examining the race people reported guessing. This is also consistent with our analysis of which categorization is most likely to yield interpretable (though tentative) results; we cannot, however, draw causal conclusions from these results. For the purposes of the thesis, then, all analyses will be reported using guessed race.

**Analyses.** This study contained a number of separate dependent variables capturing various aspects of moral judgment. A similar analytic strategy was used for each. Initially, a multiple regression was conducted for each dependent measure, including the following predictors: implicit theories of change (assessed as a pre-measure); time since the original offense (3 or 10 years); assumed race of the offender (Black or White); modern racism score (assessed at the end of the study); and all possible two-, three-, and four-way interactions between these predictors. Due to concerns about power given our small sample size, as well as a lack of consistent significant results, the four-way interaction term of Implicit Theories X Time X Assumed Race X Modern Racism was removed from our multiple regressions. Furthermore, after conducting analyses with all three-way interaction terms included, we found that none of these interaction terms showed any consistent, significant pattern; given this fact, as well as the lack of hypotheses regarding these three-way interactions, we removed these predictors from our final sets of analyses. We conducted our final multiple regressions by entering Implicit Theories, Time, Assumed Race of Offender, and Modern Racism in the first step of the regression, and all two-way interaction terms of the above factors in the second step of the regression. For each comparison across DVs, we report the analyses in tables for each predicted effect (when effects are significant). Non-significant, unsupported predictions will be noted in the text.

As a reminder, we have a series of specific predictions to test that can be captured in various steps of these analyses. First, we expect a main effect of implicit theories, such that incremental theorists will be more positive about the offender. We expect a main effect of time, such that judgments may be more favorable 10 years after a crime rather than 3 years. We did not have a specific prediction for race (we expected that judgments would depend also on prejudice level); it is possible that judgments would be harsher overall for Black than White

offenders but we did not specifically hypothesize this pattern. Remaining hypotheses can be addressed by testing certain interactions. A Time x Implicit Theories interaction would test the prediction that incremental theorists are more forgiving with the passage of more time. A Race x Modern Racism interaction will test whether judgments of the same crime vary on the basis of offender race and prejudice level (we expected that high modern racists would judge the offender – and the principles surrounding crime and punishment – more harshly when the offender was Black). This interaction can also test whether implicit theories shift on the basis of race and prejudice. We had no specific hypotheses for any of the other interactions.

**Implicit theories of change.** First, we examined whether participants' pre-existing implicit theories of change would predict reactions to the news article, by examining the main effect of implicit theories from our multiple regressions. Consistent with our hypothesis, these linear regressions revealed a significant effect of implicit theory on numerous dependent variables, such as punitive or relational opinions about the subject, the likelihood of the subject reoffending or being hired, and more general opinions about the role of jail as rehabilitative or punitive (see Table 1). In all cases, a consistent pattern was found, with incremental theorists reacting more positively to the offender and with a greater preference for rehabilitation over punishment, while entity theorists reacted more negatively and with support for punishment over rehabilitation.

Regression Coefficients for Impl	icii Ineories (Ire-med	isure)		
Variable	B (unstandardized)	<u>β (Standardized)</u>	<u>t</u>	<u>p</u>
Shame items	.10	.09	1.14	.257
Jail items	.24	.17	2.22	.028
Change items	.17	.20	2.63	.009
Relational items	.16	.16	2.00	.047
Person judgments	.12	.11	1.44	.152
Act judgments	06	09	-1.07	.287
Likelihood to Reoffend	3.42	.20	2.61	.010
Likelihood to Hire <sup>a</sup>	-6.31	24	-3.05	.003
Subjective Distance <sup>a</sup>	.36	.02	.22	.824
Alternatives to Prison <sup>a</sup>	14	14	-1.80	.074
Preferred Sentence	1.41	.08	1.11	.269
Act vs. Behaviour <sup>a</sup>	24	14	-1.81	.072
Rehabilitation vs. Punishment	.41	.25	3.54	.001
Post-Study Implicit Theories	.92	.89	23.98	< .001

Regression Coefficients for Implicit Theories (Pre-measure)

Note: Implicit theories coded so that higher scores equal greater support for entity beliefs; all dependent variables coded so that higher scores equal more negative judgments unless noted with a superscript (<sup>a</sup> Higher scores = more positive overall judgments)

**Time.** Although we predicted that time might affect judgments, no main effects of time were found, save for judgments of subjective time, which are highly related to the passage of calendar time,  $\beta = .267$ , t (168) = 3.730, p < .001. It may be that the times we selected were both distant enough (especially in light of the rehabilitation information) that any effect of time was washed out for judgments that were not directly related to time itself.

Race. We did not find any main effects of race on any of our dependent variables.

However, these effects were not predicted in the absence of modern racism scores, and therefore the interaction between race and modern racism is of greater interest.

**Time and Implicit Theories.** Although we predicted an interaction between time and implicit theories, our hypothesis was not supported. No dependent variables were predicted by

the Time X Implicit Theories interaction. Again, this may be due to the fact that time itself was not successfully altered in any psychologically meaningful way, perhaps because both times selected were too distant.

Race and Modern Racism. Next, we examined whether participants' scores on the Modern Racism Scale would interact with the perceived race of the offender in predicting reactions to the article. Specifically, we hypothesized that modern racism scores would not differentiate reactions for those who had indicated that the man in the article was White, but would for those who guessed that he was Black, with participants with higher modern racism scores responding more negatively than those with lower scores. We examined the results of the Assumed Race X Modern Racism interaction in our previously described multiple linear regressions. Consistent with our hypothesis, we found a significant effect of the Assumed Race X Modern Racism interaction on numerous dependent measures: punitive and relational beliefs about the subject; negative judgments of the act and person; the chance of reoffending or hiring; sentencing of the subject; the weighing of factors in general law decision-making; the feeling of subjective distance from the event; and post-study implicit theories of change (see Figure 1; Table 2). A simple slopes analysis revealed that in all cases, modern racism did not predict responses when the offender was assumed to be White, but did significantly predict responses (with act judgment being marginally significant at p = .074) when the offender was assumed to be Black (see Table 3). In many cases, this difference was driven by those high in modern racism having more negative opinions in the Black condition than the White condition, though in some cases, there was a reversal, and those low in modern racism would have more positive opinions in the Black condition than in the White (see Table 4).

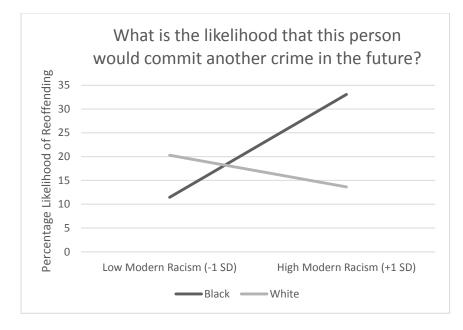


Figure 1: Example Graph for Assumed Race X Modern Racism Interaction

Beta Values for Race by Modern Racism Interaction									
Variable	B (unstandardized)	<u>β (Standardized)</u>	<u>t</u>	<u>p</u>					
Shame items	.27	.25	3.03	.003					
Jail items	.43	.32	4.01	< .001					
Change items	.09	.10	1.34	.181					
Relational items	.16	.17	2.05	.042					
Person judgments	.20	.19	2.45	.015					
Act judgments	.13	.19	2.24	.027					
Likelihood to Reoffend	5.40	.20	2.61	.010					
Likelihood to Hire <sup>a</sup>	-4.47	18	-2.17	.031					
Subjective Distance <sup>a</sup>	-5.69	28	-3.57	< .001					
Alternatives to Prison <sup>a</sup>	22	23	-2.79	.006					
Preferred Sentence	4.19	.26	3.31	.001					
Act vs. Behaviour <sup>a</sup>	43	27	-3.30	.001					
Rehabilitation vs. Punishment	.44	.28	3.89	< .001					
Post-Study Implicit Theories	.07	.07	2.02	.045					

Note: <sup>a</sup> Higher numbers = more positive overall judgments

Predicted Values and Simple Slopes for Modern Racism on the Basis of Assumed Race
---

	Assumed White Assumed Black									
Variable	Low MR	<u>High MR</u>	Gradient	<u>t</u>	<u>p</u>	Low MR	<u>High MR</u>	<b>Gradient</b>	<u>t</u>	<u>p</u>
Shame Items	3.83	3.47	14	92	.357	2.81	3.84	.39	3.93	<.001
Jail Items	4.29	3.53	29	-1.67	.096	3.16	4.65	.57	4.82	<.001
Relational Items	3.78	3.82	.01	.10	.918	3.56	4.44	.34	3.77	<.001
Person Judgements	3.32	3.55	.09	.68	.499	2.83	4.12	.49	4.93	<.001
Act Judgements	6.34	5.98	14	1.47	.145	6.19	6.52	.13	1.80	.074
Likelihood of	20.30	13.65	-2.54	-1.20	.233	11.47	33.06	8.26	5.48	<.001
Repeating										
Likelihood of Hiring <sup>a</sup>	50.15	51.23	.41	.12	.902	62.89	40.60	-8.52	-3.58	<.001
Subjective Distance <sup>a</sup>	68.84	73.21	1.67	.65	.520	78.71	53.30	-9.71	-5.27	<.001
Alternatives to Prison <sup>a</sup>	3.74	3.99	.10	.76	.449	4.32	3.42	34	-3.85	<.001
Preferred Sentence	16.15	13.03	-1.19	58	.563	8.00	26.78	7.18	4.90	<.001
Act vs. Behaviour <sup>a</sup>	4.12	4.60	.18	.86	.392	5.24	3.46	68	-4.59	<.001
Rehabilitation vs.	3.13	3.08	02	10	.918	2.30	4.56	.86	6.43	<.001
Punishment										
Post-Study Implicit	3.13	3.08	02	45	.665	2.91	3.26	.13	3.00	.003
Theories										

Note: <sup>a</sup> Higher numbers = more positive overall judgments

Predicted Values and Simple Slopes for Assumed Race at Low (-1 SD) or High (+1 SD) Modern Racism

Low (-1 SD) Modern Racism							High (+1 SD) Modern Racism				
Variable	White	Black	Gradient	<u>t</u>	<u>p</u>	White	Black	Gradient	<u>t</u>	p	
Shame Items	3.83	2.81	51	-3.26	.001	3.47	3.84	.19	1.17	.245	
Jail Items	4.29	3.16	56	-2.94	.004	3.53	4.65	.56	2.87	.005	
Relational Items	3.78	3.56	11	81	.422	3.82	4.44	.31	2.24	.027	
Person Judgements	3.32	2.83	25	-1.67	.097	3.55	4.12	.28	1.88	.062	
Act Judgements	6.34	6.19	07	68	.497	5.98	6.52	.27	2.50	.013	
Likelihood of Repeating	20.30	11.47	-4.42	-1.89	.060	13.65	33.06	9.71	4.21	<.001	
Likelihood of Hiring <sup>a</sup>	50.15	62.89	6.37	1.73	.086	51.23	40.60	-5.32	-1.46	.146	
Subjective Distance <sup>a</sup>	68.84	78.71	4.94	1.73	.085	73.21	53.30	-9.96	-3.54	.001	
Alternatives to Prison <sup>a</sup>	3.74	4.32	.29	2.09	.038	3.99	3.42	29	-2.06	.041	
Preferred Sentence	16.15	8.00	-4.08	-1.80	.074	13.03	26.78	6.87	3.07	.002	
Act vs. Behaviour <sup>a</sup>	4.12	5.24	.56	2.36	.019	4.60	3.46	57	-2.50	.013	
Rehabilitation vs.	3.13	2.30	41	2.05	.042	3.08	4.56	.74	3.62	<.001	
Punishment											
Post-Study Implicit	3.13	2.91	.05	.84	.405	3.08	3.26	07	-1.18	.241	
Theories											

Note: <sup>a</sup> Higher numbers = more positive overall judgments

**Changing implicit theories of change.** We also examined whether scores on the Modern Racism Scale would interact with the perceived race of the offender in predicting a shift in implicit theories after being presented with our materials. We hypothesized that participants who had indicated that the offender was White would not shift their implicit theories between the premeasure and the post-study measure, but that a shift would be seen for those who indicated that he was Black. Specifically, we predicted that participants with higher modern racism scores would endorse stronger entity beliefs after reading about an offender who had potentially changed. We examined the effect of the Assumed Race X Modern Racism interaction on poststudy implicit theories in our previously described multiple linear regression, which included the pre-measure of implicit theories as a factor.

Consistent with our hypothesis, a linear regression revealed an interaction between assumed race and modern racism on post-study implicit theories, controlling for pre-study theories,  $\beta = .07$ , t(168) = 2.02, p = .045 (see Figure 2). A simple slopes analysis revealed that modern racism scores were a significant predictor of shifts in implicit theories when participants indicated that the offender was Black, such that those with higher modern racism scores were more likely to shift toward a more entity theory, t(168) = 3.00, p = .003. Modern racism did not predict shifts in implicit theories when the offender was assumed to be White.

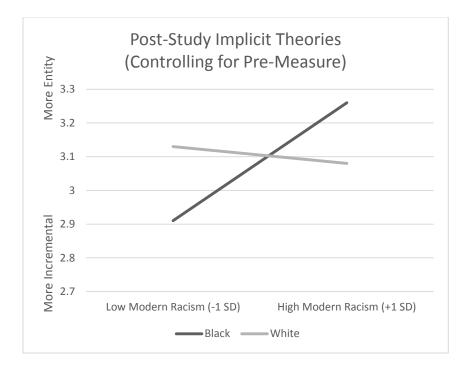


Figure 2: Graph of Assumed Race X Modern Racism Interaction for Shifts in Implicit Theories

**Race and Modern Racism – Moderated Mediation with Subjective Distance.** Despite the passage of time being a key part of the news article that was presented, we found that the time condition had little effect on participant responses. Why might this be? We have found evidence in previous research that the actual passage of time since a moral or interpersonal transgression is less important than one's subjective sense of time: how recent or distant those transgressions subjectively felt (Williams & Wilson, 2014). With this in mind, and noticing that the interaction between modern racism scores and assumed race was significantly related to people's perception of subjective distance from the crime perpetrated ( $\beta = -.28$ , t (168) = -3.57, p< .001; see Table 2), we hypothesized that subjective time may mediate the effect of the Race X Modern Racism interaction on the other dependent variables that were examined.

Remembering that the simple slopes of the Race X Modern Racism interaction showed that there was no significant difference between those low and high in modern racism when the offender was assumed White, our model can be conceptualized as one of moderated mediation, with modern racism score as the independent variable, assumed race as the moderator, subjective distance as the mediator, and any of the previous dependent variables testable as the dependent variable in the model (see Figure 3). Because of how the race moderation is expected to work, this model could also be broken down into two identical models with differing results: one for participants who have assumed the offender is Black, and one where they have assumed he is White. Per our simple slopes, we would expect that the former model would be a significant mediation, while the latter would not be significant (see Table 3).

Because calendar time and subjective time are generally related (though not as highly as might often be expected), we included the time condition as a covariate. In addition, we included pre-study implicit theories of change as a covariate, as implicit theories did predict people's responses to many of the same dependent variables independent of the race X modern racism interaction<sup>2</sup>.

Using the PROCESS macro for SPSS (Hayes, 2013), we ran an analysis of a moderated mediation model (Model 8), with modern racism as the independent variable, assumed race as the moderator, subjective distance as the mediator, and both time and pre-study implicit theories as covariates. For our dependent variable, we tested all variables that were significantly predicted by the Race X Modern Racism interaction, aside from subjective distance (see Table 3).

The results of this analysis supported our hypothesis (see Table 8). For our shame and guilt, jail, and relational items; person judgments; likelihood of reoffending and hiring; preferred sentence length; general crime and punishment principles; and post-study measure of implicit theories, we

<sup>&</sup>lt;sup>2</sup> We considered whether implicit theories could serve as a moderator of subjective distance (where incremental theorists, who believe that change can occur over time, may react more positively to greater perceived distance from the event), but found that it did not work, and would serve best as a covariate.

found a consistent pattern of results. Modern racism, moderated by assumed race, had a negative relationship with subjective distance; that is, those with higher modern racism scores (who assumed the perpetrator was Black, rather than White) were more likely to feel subjectively close to the original crime. Subjective distance, in turn, had a negative relationship with the dependent variables, whereby those who felt subjectively closer to the crime had more negative feelings about the offender; believed his negative behaviour was more likely to continue into the future; were more punitive towards him; and adopted more punitive principles when discussing crime in general, separate from the discussed case. In addition, this mediation model suggests one potential explanation for the mechanism behind shifting implicit theories: those who felt subjectively close to the original crime were more likely to shift towards an entity perspective when asked about their implicit theories after the manipulation, while those who felt subjectively far shifted towards an incremental perspective.

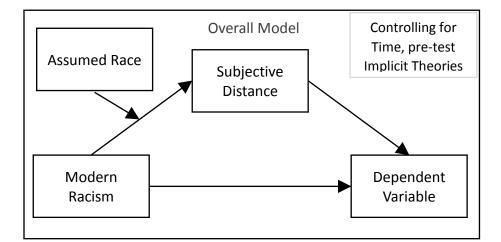


Figure 3: Diagram for Overall Mediation Model

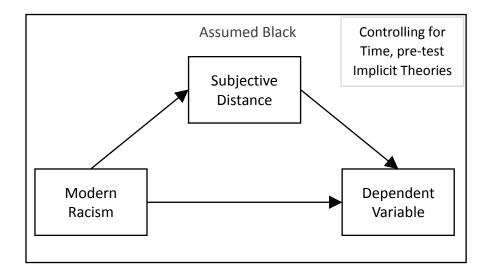


Figure 4: Diagram for Mediation Model, Assumed Black Only

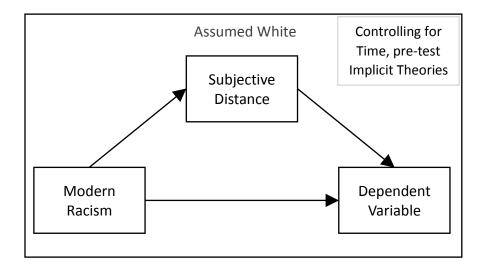


Figure 5: Diagram for Mediation Model, Assumed White Only

DV	а		b		c'	c' I			Indirect Effect		
	B	SE	B	SE	B	SE	<u>B</u>	SE	CI		
Jail Items	-8.65**	2.99	02***	.005	.61**	.19	.21	.09	[.05, .38]		
Shame Items	-8.65**	2.99	02**	.004	.40*	.16	.13	.06	[.02, .27]		
Relational Items	-8.65**	2.99	02***	.003	.16	.13	.18	.07	[.04, .33]		
Person Judgments	-8.65**	2.99	02***	.004	.23	.15	.15	.07	[.03, .30]		
Likelihood of	-8.65**	2.99	37***	.05	6.22**	2.21	3.22	1.38	[.75, 6.14]		
Repeating											
Likelihood of	-8.65**	2.99	.49***	.09	-3.38	3.61	-4.21	1.66	[-7.61, -1.15]		
Hiring <sup>a</sup>											
Preferred Sentence	-8.65**	2.99	22***	.06	7.06 **	2.35	1.90	.96	[.35, 4.06]		
Act vs. Behaviour <sup>a</sup>	-8.65**	2.99	.03***	.01	54*	.23	28	.11	[52,07]		
Rehabilitation vs.	-8.65**	2.99	02***	.01	.59**	.21	.16	.08	[.03, .33]		
Punishment											
Post-Study Implicit	-8.65**	2.99	004*	.002	.08	.07	.04	.02	[.0048, .09]		
Theories									- / -		

Path Results and Confidence Intervals for Overa	ıll Mediation

Note: <sup>a</sup> Higher numbers = more positive overall judgments

 $\dagger p < .10 \ *p < .05. \ **p < .01, \ ***p < .001.$ 

DV	a	<u>,</u> j	b		c'				Indirect Effect		
	B	SE	B	SE	B	SE	B	SE	CI		
Jail Items	-9.40 ***	1.88	02***	.01	.32**	.12	.21	.07	[.10, .36]		
Shame Items	-9.40 ***	1.88	01**	.005	.27**	.10	.13	.05	[.04, .24]		
<b>Relational Items</b>	-9.40 ***	1.88	02***	.004	.16†	.08	.18	.06	[.08, .30]		
Person Judgments	-9.40 ***	1.88	02***	.005	.33***	.09	.15	.06	[.06, .27]		
Likelihood of	-9.40 ***	1.88	38***	.07	4.59**	1.37	3.24	1.04	[1.42, 5.47]		
Repeating											
Likelihood of	-9.40 ***	1.88	.47***	.10	-3.66	2.23	-4.23	1.33	[-7.02, -1.80]		
Hiring <sup>a</sup>											
Preferred Sentence	-9.40 ***	1.88	26***	.07	5.83***	1.45	1.91	.78	[.56, 3.56]		
Act vs. Behaviour <sup>a</sup>	-9.40 ***	1.88	.03***	.01	36*	.14	29	.09	[47,13]		
Rehabilitation vs.	-9.40 ***	1.88	02**	.01	.62***	.13	.16	.07	[.05, .30]		
Punishment											
Post-Study Implicit	-9.40 ***	1.88	004	.002	.09*	.04	.04	.02	[.01, .08]		
Theories											

Path Results and Confidence Intervals for Mediation: Assumed Black Only

Note: <sup>a</sup> Higher numbers = more positive overall judgments

 $\dagger p < .10 * p < .05. ** p < .01, *** p < .001.$ 

DV	а		b		c'		Inc	Indirect Effect		
	<u>B</u>	<u>SE</u>	<u>B</u>	SE	<u>B</u>	<u>SE</u>	B	SE	<u>CI</u>	
Jail Items	1.54	2.27	03***	.01	29†	.15	.001	.05	[09, .13]	
Shame Items	1.54	2.27	02**	.01	13	.13	.001	.03	[06, .08]	
Relational Items	1.54	2.27	03***	.01	004	.11	.001	.05	[08, .10]	
Person Judgments	1.54	2.27	02**	.01	.10	.12	.001	.04	[07, .08]	
Likelihood of	1.54	2.27	32**	.09	-1.63	1.81	.01	.84	[-1.49, 1.85]	
Repeating										
Likelihood of	1.54	2.27	.53**	.19	28	2.95	02	1.08	[-2.40, 1.80]	
Hiring <sup>a</sup>										
Preferred Sentence	1.54	2.27	13	.13	-1.23	1.92	.01	.50	[92, 1.08]	
Act vs. Behaviour <sup>a</sup>	1.54	2.27	.04***	.01	.18	.19	001	.08	[17, .13]	
Rehabilitation vs.	1.54	2.27	02*	.01	.03	.17	.001	.04	[08, .09]	
Punishment										
Post-Study Implicit	1.54	2.27	01*	.003	.01	.06	.0002	.01	[02, .02]	
Theories										

Path Results and Confidence Intervals for Mediation: Assumed White Only

Note: <sup>a</sup> Higher numbers = more positive overall judgments

 $\dagger p < .10 * p < .05. ** p < .01, *** p < .001.$ 

#### Discussion

As predicted, participants who initially endorsed incremental beliefs did respond with more positive judgments about past offenders than those who endorsed entity beliefs. Incremental theorists also reported a greater degree of support for rehabilitative (rather than punitive) measures, both in regards to the specific crime as well as justice principles more generally. These findings both appear to be in line with previous research by Chiu et al. (1997), Miller, Burgoon, and Hall (2007), and Gervey et al. (1999), and extend this research by applying it to a distant past, rather than present, moral transgression. In addition, consistent with Leith et al. (2014), we did find that participants shifted their support for implicit theories in a manner consistent with a motivated interpretation; only when the offender was Black did participants shift their implicit theories, with participants who scored high on the Modern Racism Scale shifting to a more entity perspective. These findings suggest that, whether to reaffirm their preexisting prejudices in the face of change, or to remain vigilant against a perceived threat, people may temporarily shift their core beliefs about personal and moral stability. Given the inequitable treatment of Blacks and other racial minorities in the United States, Canada, and beyond, and alongside the findings that entity beliefs predict harsher treatment and more punitive justice principles, this shifting of implicit theories could be one cause of major, unintended negative consequences for minorities in criminal contexts. That is, not only do individuals who initially supported an entity theory stand to make harsh judgments, but others who do not typically hold this perspective on the nature of change might be inclined to shift their views to be less accepting of the possibility of change.

We did not find support for our hypotheses that an increase in the passage of time (3 vs 10 years) would cause more positive judgments, nor that incremental theorists would be

particularly sensitive to the effects of time. It may be that both 3 and 10 years were long enough – especially when paired with evidence of rehabilitation – to be equally convincing that change may have occurred. This may suggest that these conditions may need to be contrasted to a present or very recent past condition in order to assess the role of time in regards to implicit theories more clearly. However, although calendar time did not matter in this study, we did discover a very interesting pattern of results when looking at subjective time, and how it was related to race and modern racism.

As expected, we discovered an interaction between the assumed race of the perpetrator and the level of modern racism reported by participants that predicted many of our dependent variables. Specifically, reported modern racism predicted responses to judgments of the offender and of general crime when the offender was assumed to be Black (but not White): participants with higher modern racism scores were usually significantly harsher when making judgments about a Black (versus White) offender, while participants with lower modern racism scores would sometimes show a reversal and judge the Black offender less harshly than the White one. One additional dependent variable that demonstrated this same pattern was the subjective distance felt from the crime; modern racism was related to subjective distance when the offender was Black, and participants higher in modern racism felt closer to a crime when it was committed by a Black offender than a White one (the reverse was found for those low in modern racism, albeit marginally so).

We also discovered that while calendar time may affect little in people's judgments, subjective time may play a key role in mediating the relationship between modern racism and race, and people's judgments of both criminal offenders, and the basic legal principles that guide those judgments. When faced with a Black offender, a person's level of modern racism predicts the perceived distance from the original crime, where those with greater modern racism feel subjectively closer to the crime, regardless of the actual time that has passed. This subjective closeness, in turn, is highly related to both personal judgments of the offender, and legal principles, whereby people who feel very close to the original event also have harsher judgments of the offender, feel that he should be punished to a greater extent, and also support more punitive principles when it comes to crime in general. In addition, this model may also demonstrate one of the reasons why people may strategically shift their implicit theories: feeling subjectively close to the original transgression also predicts a greater shift towards an entity perspective when asked to report beliefs after reading about that transgression.

### Study 2

Study 2 was constructed as a replication and extension of Study 1, with the goal of addressing several of the flaws that occurred in the original study. The key improvements that were implemented in Study 2 were 1) to include a very recent past condition (because the 3 vs 10 year conditions did not differ), 2) to augment the race name manipulation because of our initial lack of success in manipulating race, 3) to include an 'I don't know' response in the race manipulation check (because it is possible that some of the mis-guessing in Study 1 could have been as a result of not knowing or remembering race at all), and 4) to alter the order of the post-manipulation check implicit theories measure, in order to better assess how implicit theories shift (in Study 1 this measure was relegated to the end of the questionnaire even after manipulation checks).

**Participants.** We recruited 122 participants from Wilfrid Laurier University's PREP pool for course credit, while an additional 469 participants were recruited from CrowdFlower for \$1.00 as compensation. 83 participants who self-identified as having not paid attention to the

task, or who failed an attention check, were excluded, as were the additional results of 73 CrowdFlower participants who participated in the study more than once (though their initial participation in the study was retained for analysis). In total, 435 participants (266 females;  $M_{age}$ = 34.3, SD = 12.9, range = 18-74; 350 White, 22 Black, 16 Chinese, 15 Hispanic, 32 other) remained in the final analysis.

Method. Study 2 was a direct methodological replication of Study 1, with several small differences. This study introduced a control condition, which described an arrest and sentencing in the immediate past, within two months of the study time period (see Appendix C). The names used were also changed to Jamal Washington ("Black") or Brett McCarthy ("White"), in order to directly replicate the naming methodology used in Bertrand and Mullainathan (2003), where these first and last names were pilot tested for several features, including race, and were accurately identified as their intended race. One additional repetition of the first name was added to the end of the article. The second measure of implicit theories was moved to be directly after the dependent variables, but before the manipulation checks, as there was some concern that asking for participants' racial assumptions could affect their answers on the implicit theories measure. The final change in Study 2 was to add an 'I don't know' option to the race manipulation check. This was done in order to address concerns that participants may have been guessing the man's race at random, as there was no option to choose if they truly could not remember his race.

**Race Manipulation Check.** Once again, despite our attempts to strengthen the racename manipulation, our race manipulation did not work as had been reported in prior research. Only 56.1% of participants identified the man in question as the race that was intended. Guesses inconsistent with what was intended were made by 12.2% of participants, while 31.7% of participants claimed to have no guess as to the race of the offender. Once again, these errors did not occur consistently across race conditions: while 61.5% of participants identified the intended race in the Black condition, only 51.1% of participants identified the intended race in the White condition. A chi-square test of independence performed to examine the relationship between race condition and accuracy revealed that this was a significant difference,  $X^2(1, N = 435) = 4.81$ , p =.028. This difference in accuracy rate is reflected by participants who reported that they "did not know" the man's race, rather than those who guessed incorrectly: 36.6% of participants did not know the race of the White named offender, while only 26.4% of participants did not know the race of the Black named offender (the percentages of inconsistent guesses are 12.3% for the Black name and 12.0% for the White name).

Unfortunately, the issues with this improper race manipulation rendered this data set even more difficult to interpret. With close to half of respondents declining to guess the man's race, it seems clear that the race manipulation did not work as intended. Much like our prior study, analyses conducted using the assigned race condition as a factor did not show any clear pattern of results. Additionally, unlike in the prior study, it is problematic to run statistical analyses based on the race that participants assumed (consistent with our intentions or not), given the large number of 'I don't know' responses. We cannot know how many participants truly did not know, how many chose not to answer because they did not want to reveal their true belief, and, for those individuals, whether that belief would have been correct or incorrect.

Due to this second failure of race manipulation, we have concluded that a race name manipulation is not an appropriate means of assigning a race condition to participants in future studies. This may be due to the crime context of these studies, as we drew on past race name studies which used neutral to positive stimuli. This may be an interesting phenomenon in its own right but beyond the scope of the thesis itself. Due to the problems in clarifying participant race assumptions, we chose not to perform further analyses on this data set that involve race.

**Implicit theories of change.** We did examine whether participants' pre-existing implicit theories of change would again predict reactions to the news article, by examining the main effect of implicit theories from our multiple regressions on the same dependent variables. Results were mixed in this study, with significant or marginal effects found for change items, the likelihood of the subject reoffending or being hired, subjective distance from the original crime, prison alternatives, and role of jail being rehabilitative or punitive (see Table 8). In all cases, findings were in line with those from Study 1, with incremental theorists being more forgiving.

Table 8

Regression coefficients for imp	Regression Coefficients for Implica Incortes (I're measure)										
Variable	B (unstandardized)	<u>β (Standardized)</u>	<u>t</u>	<u>p</u>							
Shame items	.09	.08	1.05	.294							
Jail items	.10	.08	.94	.349							
Change items	.20	.22	2.77	.006							
Relational items	.04	.04	.55	.581							
Person judgments	.01	.01	.08	.937							
Act judgments	.03	.04	.54	.588							
Likelihood to Reoffend	4.09	.22	2.77	.006							
Likelihood to Hire <sup>a</sup>	-5.80	23	-2.97	.003							
Subjective Distance <sup>a</sup>	-3.11	14	-1.74	.084							
Alternatives to Prison <sup>a</sup>	14	15	-1.92	.056							
Preferred Sentence	1.69	.09	1.18	.240							
Act vs. Behaviour <sup>a</sup>	18	10	-1.30	.196							
Rehabilitation vs. Punishment	.22	.13	1.67	.098							
Post-Study Implicit Theories	.91	.87	21.55	< .001							

*Regression Coefficients for Implicit Theories (Pre-measure)* 

Note: Implicit theories coded so that higher scores equal greater support for entity beliefs; all dependent variables coded so that higher scores equal more negative judgments unless noted with a superscript (<sup>a</sup> Higher scores = more positive overall judgments)

#### Study 3

Study 3 was constructed as a replication and improvement of both Study 1 and Study 2, in order to replicate the results found in the first study, while correcting the methodological issues present both in the first study and in our attempt at a follow-up study. Specifically, we aimed to combat the numerous difficulties encountered in accurately manipulating the race of the offender via racially cued names. Though this may be an important research question to explore, in the context of our studies, it has only lead to ambiguity in interpreting results because we have been unable to reliably manipulate race. We manipulated race unambiguously by adding an overt cue – a photo of the offender. We also retained some changes made in the second study, specifically by including a recent past condition, and by altering the placement of the second implicit theories measure. We also altered the placement of the subjective time measure, so as to more confidently use it as a mediator in our analyses.

**Participants**. Four hundred American residents were recruited from the CrowdFlower website, with \$1.00 for compensation. One hundred and ten participants who self-identified as having not paid attention to the task, or who failed two of the three attention check questions, were excluded, while 18 other participants were excluded for reporting an incorrect race for the offender (see below). In total, 272 participants (154 females;  $M_{age} = 37.3$ , SD = 12.8, range = 18-75; 213 White, 19 Hispanic, 12 Chinese, 8 Black, 20 other) remained in the final analysis.

**Method.** Participants were invited to participate in a study investigating judgments of news articles, and were presented with the same introductory questionnaire including six embedded implicit theory questions. Finding a Cronbach's Alpha of .95, we again chose to

combine all six items into one implicit theories variable.<sup>3</sup> They were then presented with one of the possible news articles, which contained text identical to the articles detailed in Study 1 and 2, save for the name of the offender. All participants read about a crime happening at one of three possible dates: the crime detailed in the article occurred either three or ten years in the past, or in the immediate past (within two months of the study period). When the crime occurred in the recent past however, only the crime and not evidence of rehabilitation was presented. This allows us to examine how people respond to the crime itself when not paired with purported change over time, though it makes the conditions qualitatively unequal in regard to rehabilitation information.

In order to manipulate race, at the beginning of each article we included a mugshot of a male in his 20s (said to be taken at the time of the original crime), who was either Black or White. Each race condition included seven mugshots, one of which was randomly selected for the article read (see Appendix D). Unlike previous studies, no race name manipulation was attempted – in every article, the offender was named Steve Williams – in order to keep potential socioeconomic status naming factors consistent across race conditions.

After reading the news article, participants were first presented with the question asking for their perception of subjective distance from the event. This was moved before the other dependent measures so that it could again be used as a mediator in statistical analyses. This was followed by the same series of questions, asking about their opinions of the offender and the crime, their estimates of re-offense or hiring likelihoods, their sentencing decisions, and their support for general legal principles. Participants then completed the same six items assessing implicit theories ( $\alpha = .97$ ), followed by the Modern Racism Scale ( $\alpha = .87$ ), immediately after the

<sup>&</sup>lt;sup>3</sup> The Cronbach's Alpha of the three implicit theories of morality questions was .89; the Alpha for the three general person questions was .91.

dependent variables, but prior to the manipulation check questionnaires.<sup>4</sup> They were then asked the same manipulation check questions. When asked about the participant's race, 'I don't know' was not included, due to the high numbers of participants in the previous study who chose that option in lieu of not responding. Finally, participants were asked for demographic information.

**Race manipulation check.** We examined our attention check questions to see if, unlike previous studies, our photographic race manipulation had worked. We found that 18 of 290 participants failed to provide the appropriate race of the offender when asked. Incorrect answers were evenly split across the two race conditions. Due to the much less ambiguous race condition, and the low number of incorrect answers, this was seen as a failure of attention rather than an ineffective race manipulation, and those 18 participants were also excluded. Therefore, in total, 272 participants remained in the final analyses.

#### Results

We performed several multiple linear regressions to predict our dependent variables, using as predictors implicit theories, time condition, race of offender, and modern racism score, as well as the interaction terms of all the above factors. Time was compared in two different ways in this study: in one set of analyses, in order to directly examine the two conditions that served as replications of Study 1, we compared those in the three year condition to those in the ten year condition, excluding the new "recent" condition from our analyses. This will be referred to as the '3 vs. 10 Years' time variable<sup>5</sup>. If we find, as in Study 1, that participants in the 3 and 10 Years conditions do not differ statistically from one another for the majority of our dependent

<sup>&</sup>lt;sup>4</sup> We found no differences between the White and Black race conditions for modern racism scores, t (270) = -.236, p = .814; because our race manipulation appeared to not affect modern racism scores, we feel confident in using those scores as an independent variable.

<sup>&</sup>lt;sup>5</sup> Analyses conducted using the 3 vs 10 Year variable have an N of 174.

variables, we will plan to collapse these two conditions into one group labeled the "Far" condition. In the second set of analyses, we will compare participants in the new "Recent" condition to those in the collapsed "Far" condition (composed of both the three and ten year conditions). This will be referred to as the 'Near vs. Far' time variable<sup>6</sup>. For ease of presentation and because these analyses allow us to accomplish the two central types of analyses most clearly, we will plan to conduct these two sets of analyses consecutively: first, testing differences between 3 and 10 years, then testing "Near" vs. the collapsed "Far" condition.

Due to concerns about power given our small sample size, the four-way interaction term of Implicit Theories X Time X Race X Modern Racism was removed from our multiple regressions. After analyses with all three-way interaction terms included, we found that only one term, Implicit Theories X Race X Modern Racism, showed any significant and consistent pattern among our dependent variables; if any other three-way interactions appeared, they were sporadic, often only present in one or two of our dependent variables, and had unpredictable patterns. Due to these facts, as well as a lack of hypotheses regarding any of these three-way interactions, and the previously-mentioned low power, we conducted our final multiple regressions by entering Implicit Theories, Time (either 3 vs 10 Years or Near vs. Far), Race of Offender, and Modern Racism, all two-way interaction terms of the above factors, and the Implicit Theories X Race X Modern Racism interaction term.

We are primarily testing the same predictions that were made for Study 1. We expect a main effect of implicit theories, such that incremental theorists respond more positively towards

<sup>&</sup>lt;sup>6</sup> We acknowledge that the passage of time (two months, or 3 or 10 years) is not the only factor that distinguishes the articles. The recent article speaks of an offender who has been jailed within an appropriate time frame, who is not disputing his incarceration, and has not shown any evidence of having changed in the time that has passed since the original crime. In addition, the recent article is considerably shorter than the distant articles (125 words vs. 327 words). Any of the above factors may contribute to significant differences between the near and far conditions; more research must be done in order to determine what, exactly, shapes these differences.

the offender. We also expect a main effect of time, such that judgments will be most negative when the crime was committed most recently; due to the addition of a recent past condition, we expect that this condition will lead to more negativity than either of the more distant (3 or 10 year) conditions. Similarly, we again predict that the passage of time will lead incremental theorists to be most forgiving, which would be captured in a Time X Implicit Theories interaction, but as we have previously found few differences between three and ten years, this may be present only when comparing the recent and distant time conditions. Finally, we expect a Race X Modern Racism interaction, such that those high in modern racism will respond most negatively to the Black offender; however, we are less confident in this prediction, given the overt nature of our race manipulation in this study. Though we needed to abandon our subtle race manipulations, given our prior difficulty, a more overt manipulation comes with its own concerns, and if participants are more conscious of the racial questions that our study seeks to answer, social desirability concerns may wash out the effect of modern racism.

**Implicit theories of change.** We examined whether participants' pre-existing implicit theories of change would predict reactions to the news article, by examining the main effect of implicit theories from our multiple regressions. Consistent with our prior results, when only the 3 and 10 Year conditions were examined, there was a significant effect of implicit theories on our dependent variables, such that incremental theorists reacted more positively to the subject of the article, thought he was less likely to reoffend, were more likely to hire him, and more generally preferred rehabilitation over punishment and highlighted behaviour after a criminal act as more important than the act itself (see Table 9). Unlike Study 1, we found that implicit theories did not predict participant acceptance of less harsh alternatives to prison, and found that implicit theories

did predict judgments of the person as bad or immoral, with incremental theorists less likely to endorse those labels.

Similar patterns were found when examining all time conditions (see Table 10). Implicit theories did not predict the endorsement of jail items, and person judgments were only marginally significant. Both results did trend in the same direction as before, however, indicating that while the inclusion of the present condition appeared to have dampened the relation between implicit theories and judgment somewhat, incremental theorists may still be more lenient even when little time has passed.

Table 9

Regression Coefficients for Impli	Regression Coefficients for Implica Theories (Tre-measure), 5 or 10 Tears Only										
Dependent Variable	<u>B (unstandardized)</u>	<u>β (Standardized)</u>	<u>t</u>	<u>p</u>							
Shame items	.13	.12	1.43	.154							
Jail items	.21	.16	2.28	.024							
Change items	.33	.38	5.30	< .001							
Relational items	.34	.32	4.32	< .001							
Person judgments	.23	.21	2.76	.007							
Act judgments	11	12	-1.51	.134							
Subjective distance <sup>a</sup>	01	.00	01	.996							
Likelihood to Reoffend	6.75	.35	4.76	< .001							
Likelihood to Hire <sup>a</sup>	-9.31	37	-5.02	< .001							
Sentencing	1.97	.10	1.23	.222							
Alternatives to Prison <sup>a</sup>	03	03	38	.703							
Act vs. Behaviour <sup>a</sup>	44	26	-3.40	.001							
Rehabilitation vs. Punishment	.52	.33	4.71	< .001							
Post-study implicit theories	.98	.92	29.60	< .001							

Regression Coefficients for Implicit Theories (Pre-measure), 3 or 10 Years Only

Note: Implicit theories coded so that higher scores equal greater support for entity beliefs; all dependent variables coded so that higher scores equal more negative judgments unless noted with a superscript (<sup>a</sup> Higher scores = more positive overall judgments)

Dependent Variable	<i>B</i> (unstandardized)	$\beta$ (Standardized)	+	
		• • • • •	<u>t</u>	<u>p</u>
Shame items	.03	.02	.36	.722
Jail items	.17	.14	2.27	.024
Change items	.22	.21	4.00	<.001
Relational items	.23	.20	3.54	<.001
Person judgments	.17	.13	2.45	.015
Act judgments	13	15	-2.07	.039
Subjective distance <sup>a</sup>	38	01	23	.819
Likelihood to Reoffend	5.68	.23	4.64	<.001
Likelihood to Hire <sup>a</sup>	-4.80	19	-2.99	.003
Sentencing	2.21	.08	1.13	.258
Alternatives to Prison <sup>a</sup>	05	04	66	.507
Act vs. Behaviour <sup>a</sup>	43	25	-4.00	< .001
Rehabilitation vs. Punishment	.43	.26	4.45	<.001
Post-study implicit theories	.99	.93	35.87	<.001

Regression Coefficients for Implicit Theories (Pre-measure), Near vs. Far

Note: Implicit theories coded so that higher scores equal greater support for entity beliefs; all dependent variables coded so that higher scores equal more negative judgments unless noted with a superscript (<sup>a</sup> Higher scores = more positive overall judgments)

**Time.** We examined the role of time, looking at the main effects of time for both the 3 and 10 Year conditions (to be consistent with Study 1), and the Near and Far (3 and 10 Years combined) conditions. In this study, we found that there were few significant differences between the 3 and 10 Year conditions; aside from replicating our subjective distance finding, time had a significant effect on judgments of jail appropriateness, change, and likelihood of reoffense (see Table 11). In all cases, judgments were more positive when ten years had passed than when only three years had passed.

We found more consistent results when evaluating the differences between the recent and distant conditions. For all dependent variables, save for act judgments and recommended prison sentence, the time condition was a significant predictor of responses (see Table 12). Again,

judgments were more positive when more time had passed (either three or ten years), and more

negative when the incident was located in the recent past.

## Table 11

Regression Coefficients for Time, 3 vs. 10 Years

Dependent Variable	<i>B</i> (unstandardized)	$\beta$ (Standardized)	<u>t</u>	<u>p</u>
Shame items	07	05	68	.500
Jail items	32	22	-3.25	.001
Change items	14	14	-2.11	.037
Relational items	08	07	95	.343
Person judgments	.00	.00	.01	.996
Act judgments	.08	.08	1.00	.320
Subjective distance <sup>a</sup>	5.71	.20	2.69	.008
Likelihood to Reoffend	-3.31	15	-2.16	.033
Likelihood to Hire <sup>a</sup>	2.62	.09	1.30	.196
Sentencing	-3.04	13	-1.74	.083
Alternatives to Prison <sup>a</sup>	11	10	-1.36	.175
Act vs. Behaviour <sup>a</sup>	.11	.06	.79	.429
Rehabilitation vs. Punishment	16	08	-1.31	.191
Post-study implicit theories	07	05	-1.85	.066

Note: <sup>a</sup> Higher numbers = more positive overall judgments

Regression Coefficients for 1 the	, wear (2 months) vs.	1 ur (5 unu 10 1eur	s conapsea,	/
Dependent Variable	<u>B (unstandardized)</u>	<u>β (Standardized)</u>	<u>t</u>	<u>p</u>
Shame items	17	13	-2.11	.036
Jail items	59	38	-6.96	<.001
Change items	65	50	-10.75	<.001
Relational items	59	43	-8.19	<.001
Person judgments	94	58	-12.44	<.001
Act judgments	05	05	73	.468
Subjective distance <sup>a</sup>	14.15	.433	7.62	<.001
Likelihood to Reoffend	-17.37	57	-12.67	<.001
Likelihood to Hire <sup>a</sup>	5.05	.16	2.81	.005
Sentencing	91	03	42	.675
Alternatives to Prison <sup>a</sup>	.37	.29	4.86	<.001
Act vs. Behaviour <sup>a</sup>	.38	.18	3.12	.002
Rehabilitation vs. Punishment	33	16	-3.03	.003
Post-study implicit theories	09	07	-2.95	.003
	··· 11 · 1 ·			

Regression Coefficients for Time, Near (2 Months) vs. Far (3 and 10 Years Collapsed)

Note: <sup>a</sup> Higher numbers = more positive overall judgments

**Race and modern racism.** Next, we examined whether, consistent with Study 1, participants' scores on the Modern Racism Scale would interact with the race of the offender picture attached to the news article; specifically, that modern racism scores would not predict reactions for participants who viewed a White picture, but would predict reactions for those who viewed a Black picture, with those higher in modern racism having more negative reactions. To do this, we examined the results of the Race X Modern Racism interaction as in our previously described multiple linear regressions. We found that our results were not replicated. When looking at only the 3 or 10 Year conditions, only subjective distance was significantly predicted by the Race X Modern Racism interaction,  $\beta = .184$ , t (162) = 2.30, p = .023, while two dependent variables were marginally predicted, preferred sentence ( $\beta = ..149$ , t (162) = -1.86, p = .064) and prison alternatives ( $\beta = ...149$ , t (162) = -1.87, p = .063). A simple slopes analysis revealed that only prison alternatives had a similar pattern of results as in Study 1, with modern

racism predicting responses in the Black condition only, but this difference was driven by low modern racists endorsing these more lenient alternatives for Black offenders versus White; there were no differences between race conditions for high modern racists (see Table 13). Interestingly, a reversal in this pattern was captured for the subjective distance and preferred sentence dependent variables. In both cases, differences were due to low modern racists reacting more positively to the White offender than the Black offender. When including responses to the recent article, this pattern was also found for subjective distance ( $\beta = .140$ , t (250) = 2.29, p = .023), which was the only variable predicted by Race X Modern Racism when all times were included in the analysis (see Table 14). We will speculate on the causes of these results further on.

Predicted Values and Simple Slopes for Modern Racism by Race Condition; Race by Low (-1 SD) or High (+1 SD) Modern Racism (3 VS 10 Years Only)

White					Black					
Low MR	<u>High MR</u>	Gradient	<u>t</u>	<u>p</u>	Low MR	<u>High MR</u>	<b>Gradient</b>	<u>t</u>	<u>p</u>	
71.24	54.21	-7.72	-9.92	<.001	53.43	57.24	1.73	.41	.680	
3.53	3.79	05	-1.61	.109	4.31	3.92	35	-2.21	.029	
16.93	24.06	3.23	5.05	< .001	29.14	22.36	-3.07	89	.374	
	L	low MR				Hi	gh MR			
<u>White</u>	<u>Black</u>	Gradient	<u>t</u>	<u>p</u>	<u>White</u>	<u>Black</u>	<b>Gradient</b>	<u>t</u>	<u>p</u>	
71.24	53.43	-8.90	-10.75	< .001	54.21	57.24	1.52	.35	.727	
3.53	4.31	.13	3.97	<.001	3.79	3.92	20	-1.20	.231	
16.93	29.14	5.80	9.01	< .001	24.06	22.36	52	15	.878	
	71.24 3.53 16.93 <u>White</u> 71.24 3.53	71.24     54.21       3.53     3.79       16.93     24.06       L     White     Black       71.24     53.43       3.53     4.31	71.24     54.21     -7.72       3.53     3.79    05       16.93     24.06     3.23       Low MR       White     Black     Gradient       71.24     53.43     -8.90       3.53     4.31     .13	$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	

Note: <sup>a</sup> Higher numbers = more positive overall judgments

### Table 14

Predicted Values and Simple Slopes for Modern Racism by Race Condition; and Race by Low (-1 SD) or High (+1 SD) Modern Racism (All Times Included)

(	/									
			White					Black		
Variable	Low	<u>High</u>	Gradient	<u>t</u>	<u>p</u>	Low MR	<u>High MR</u>	Gradient	<u>t</u>	p
	MR	MR								
Subjective Distance <sup>a</sup>	51.88	40.67	-5.03	-2.05	.042	38.09	44.15	2.72	1.09	.276
		I	Low MR				]	High MR		
Variable	White	Black	<b>Gradient</b>	<u>t</u>	<u>p</u>	<b>White</b>	<u>Black</u>	Gradient	<u>t</u>	p
	Mean	Mean				Mean	Mean			
Subjective Distance <sup>a</sup>	51.88	38.09	-6.90	-2.56	.011	40.67	44.15	1.74	.65	.514

Note: <sup>a</sup> Higher numbers = more positive overall judgments

**Changing Theories of Change.** We also examined whether scores on the Modern Racism Scale would again interact with offender race in predicting a shift in implicit theories after being presented with our materials, through the same Race X Modern Racism interaction, on post-study implicit theories. We did find a marginally significant interaction between race and modern racism, both when including participants from only the two distant conditions ( $\beta$  = -.06, *t* (162) = -1.85, *p* = .066), and when all participants, including the recent condition participants, were included ( $\beta$  = -.05, *t* (250) = -1.94, *p* = .054). However, as with our previous Race X Modern Racism findings in Study 3, these differences were due to low modern racists reacting more positively to the White offender than the Black offender, which represented a reversal from our prior findings.

#### Race and Modern Racism – Moderated Mediation with Subjective Distance.

Because the relationship between the Race X Modern Racism interaction and subjective distance was not consistent with our findings in Study 1, and because the Race X Modern Racism interaction was not significantly related to any other dependent variables, we could not meaningfully test whether subjective distance would mediate the relationship between the interaction and our other dependent variables. It is worth noting, however, that running partial correlations between subjective distance and the dependent variables that were used in the mediation model in Study 1, controlling for time condition, implicit theories, race, and modern racism, revealed significant correlations between subjective distance subjective distance and all but two of the dependent variables (see Table 15). Thus, it does appear that subjective distance still plays a role in how people form judgments about the offender, despite the fact that we could not establish the same pattern in regards to how it was previously predicted by race.

	3 vs. 10	) Years	Near vs.	Far
Dependent Variable	<b>Correlation</b>	<u>p</u>	<b>Correlation</b>	<u>p</u>
Shame Items	-0.09	.139	-0.02	.755
Jail Items	-0.37	<.001	-0.31	<.001
Relational Items	-0.25	<.001	-0.20	.008
Person Judgments	-0.32	<.001	-0.31	<.001
Likelihood of Repeating	-0.20	.001	-0.18	.016
Likelihood of Hiring <sup>a</sup>	0.20	.001	0.19	.015
Preferred Sentence	0.06	.378	-0.05	.504
Act vs. Behaviour <sup>a</sup>	0.24	<.001	0.19	.015
Rehabilitation vs. Punishment	-0.13	.037	-0.16	.042

Partial Correlations Between Subjective Distance and Dependent Variables, Controlling for Time Condition, Implicit Theories, Race, and Modern Racism

Note: <sup>a</sup> Higher numbers = more positive overall judgments

**Time and Implicit Theories.** One of our initial research questions was whether individuals holding different implicit theories would differ in their responses over time, where incremental theorists would be more accepting as time passed, whereas the judgment of entity theorists would be less sensitive to the passage of time. When examining the linear multiple regression as described earlier, looking at time as a Near vs. Far dichotomous variable, we found a significant Time X Implicit Theories interaction on three dependent variables: change items, relational items, and the likelihood of hiring (see Table 16). A simple slopes analysis revealed that while incremental and entity theorists did not differ in their responses when the newspaper was set in a recent time period, two months before the study, (all p's >.40), they did differ significantly in the more distant time period, three or ten years before the study (all t's > 4.77, all p's < .001), with incremental theorists responding significantly more positively than entity theorists (see Table 17). Both incremental and entity theorists were more positive in the distant time period than in the recent one (all p's < .001), save for entity theorists responding to the hiring likelihood items (p = .934; see Table 18); the differences between incremental and entity theorists were driven by incremental theorists being even more positive in the distant condition than entity theorists.

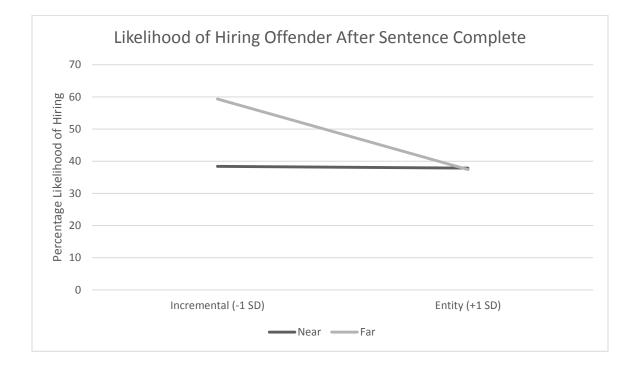


Figure 6: Example Graph for Time (Near vs. Far) X Implicit Theories Interaction

### Regression Coefficients for Time (Near vs. Far) X Implicit Theories (Pre-measure)

0 00 0	, <b>1</b>	,	,	
Variable	<u>B</u>	<u>β</u>	<u>t</u>	<u>p</u>
Change Items	.17	.16	3.06	.002
Relational Items	.14	.13	2.19	.030
Likelihood of Hiring <sup>a</sup>	-4.56	18	-2.78	.006

Note: <sup>a</sup> Higher numbers = more positive overall judgments

### Table 17

Predicted Values and Simple Slopes for Implicit Theories by Time Condition (Near vs. Far)

			Near					Far		
Variable	Incr	Entity	Gradient	<u>t</u>	<u>p</u>	Incr	Entity	Gradient	<u>t</u>	<u>p</u>
	Mean	Mean				Mean	Mean			
Change Items	4.11	4.22	.05	.53	.600	2.41	3.31	.38	6.06	<.001
Relational Items	5.22	5.42	.08	.84	.402	3.70	4.57	.37	4.78	< .001
Likelihood of Hiring <sup>a</sup>	38.42	37.85	24	09	.926	59.36	37.41	-9.35	-4.92	<.001

Note: <sup>a</sup> Higher numbers = more positive overall judgments

### Table 18

Predicted Values and Simple Slopes for Time (Near vs. Far) by Incremental (-1 SD) and Entity (+1 SD) Theories

Incremental						E	ntity			
Variable	Near	Far	<b>Gradient</b>	<u>t</u>	<u>p</u>	<u>Near</u>	Far	<b>Gradient</b>	<u>t</u>	<u>p</u>
	Mean	Mean				Mean	Mean			
Change Items	4.11	2.41	85	-9.42	<.001	4.22	3.31	45	-5.02	<.001
Relational Items	5.22	3.70	76	-7.42	<.001	5.42	4.57	42	-4.12	<.001
Likelihood of Hiring <sup>a</sup>	38.42	59.36	10.47	3.99	< .001	37.85	37.41	22	08	.934

Note: <sup>a</sup> Higher numbers = more positive overall judgments

**Time and race.** When examining the results of the previously-described multiple linear regression, we found a significant interaction between time condition, primarily in the Near vs. Far comparison, and race condition. Though this finding was not hypothesized, it predicted many different dependent variables in a consistent pattern.

When looking at only the 3 or 10 Year conditions, the Time X Race interaction predicted participant estimations of the likelihood of reoffending,  $\beta = -.167$ , t(162) = 2.46, p = .015. Simple slopes analysis revealed that this result was driven by higher predictions of reoffending for the Black offender in the 3 year condition; participants made significantly higher predictions for the Black offender (a mean guess of a 31.67% chance of reoffending) than the White offender (M = 21.21) when three years had passed (t(162) = 2.49, p = .014), and higher predictions for the Black offender after three years (M = 31.67) than after ten years (M = 17.45; t(162) = -3.17, p = .002); all other slopes were non-significant. This is the only significant interaction when comparing three and ten years.

When comparing the Near and Far time conditions, however, a more consistent pattern can be seen, with the Race X Time interaction significantly predicting the change and relational items, and person judgments (all  $\beta$ 's >.113, all *t*'s (250) > 2.18, all *p*'s < .030), and marginally predicting shame items ( $\beta$  = .114, *t* (250) = 1.76, *p* = .079) and the relative importance of rehabilitation and punishment ( $\beta$  = .100, *t* (250) = 1.77, *p* = .077). A simple slopes analysis revealed that for all dependent variables in the White condition, and for change, relational, and person judgment items in the Black condition, judgments were significantly more negative when the act was more recent; shame items and rehabilitation vs. punishment in the Black condition also shared the same pattern, though these differences were not significant. In all cases, the slope gradient for each dependent variable was steeper in the White condition than in the Black condition, and the mean score in the near condition was higher (indicating more negative judgment) for White offenders than Black ones, while in the far condition, the mean score was higher for Black offenders than White ones. These patterns are partially borne out by additional simple slopes analyses; in the near condition, participants judge the White offender significantly more harshly than the Black offender on relational items, t (250) = -2.10, p = .037, and marginally more harshly for shame (t (250) = -1.72, p = .087) and change (t (250) = -1.77, p = .078) items, while in the far condition, Black offenders are judged more negatively than White offenders for person judgments (t (250) = 2.39, p = .017) and preference for punishment over rehabilitation (t (250) = 2.74, p = .007).

### Beta Values for Race X Time Interaction

Variable	Time Condition	B (unstandardized)	β (Standardized)	<u>t</u>	<u>p</u>
Likelihood of Repeating	3 vs. 10	-3.79	17	-2.46	.015
Shame Items	Near vs. Far	.14	.11	1.76	.079
Change Items	Near vs. Far	.14	.12	2.37	.019
Relational Items	Near vs. Far	.16	.12	2.18	.030
Person Judgements	Near vs. Far	.17	.11	2.28	.023
Rehabilitation vs. Punishment	Near vs. Far	.19	.10	1.77	.077

## Table 20

## Predicted Values and Simple Slopes for Race X Time Interaction (3 VS 10 Years)

	1 1	<i>J</i>		(		/				
			White				]	Black		
Variable	<u>3 Yrs</u>	10 Yrs	Gradient	<u>t</u>	p	<u>3 Yrs</u>	<u>10 Yrs</u>	Gradient	<u>t</u>	p
	Mean	Mean			-	<u>Mean</u>	Mean			-
Likelihood of Repeating	21.21	22.17	.48	.23	.821	31.67	17.45	-7.11	-3.17	.002
3 Years								) Years		
Variable	White	Black	<b>Gradient</b>	<u>t</u>	<u>p</u>	White	Black	<b>Gradient</b>	<u>t</u>	<u>p</u>
	Mean	Mean				<u>Mean</u>	<u>Mean</u>			
Likelihood of Repeating	21.21	31.67	5.23	2.49	.014	22.17	17.45	-2.36	-1.05	.297

Predicted Values and Simple Slopes for Race at Near (2 Months) or Far (3/10 Years) Time Condition

White					Black					
<u>Variable</u>	Near	Far	Gradient	<u>t</u>	<u>p</u>	Near	<u>Far</u>	Gradient	<u>t</u>	<u>p</u>
	Mean	Mean				Mean	Mean			
Shame Items	4.19	3.59	30	-2.57	.011	3.75	3.69	03	28	.780
Change Items	4.34	2.76	79	-8.83	< .001	3.99	2.98	51	-5.66	<.001
Relational Items	5.53	4.04	75	-7.46	< .001	5.11	4.25	43	-4.32	< .001
Person Judgments	5.85	3.63	-1.11	-10.12	< .001	5.59	4.06	77	-7.00	< .001
Rehab vs. Punishment	4.00	2.96	52	-3.21	.001	3.93	3.66	14	92	.360

### Table 22

Predicted Values and Simple Slopes for Time at White or Black Race Condition

			Near					Far		
Variable	<b>White</b>	<b>Black</b>	<b>Gradient</b>	<u>t</u>	<u>p</u>	White	<u>Black</u>	<b>Gradient</b>	<u>t</u>	<u>p</u>
	Mean	Mean				Mean	Mean			
Shame Items	4.19	3.75	22	-1.72	.087	3.59	3.69	.05	.55	.584
Change Items	4.34	3.99	18	-1.77	.078	2.76	2.98	.11	1.38	.168
Relational Items	5.53	5.11	21	-2.10	.037	4.04	4.25	.10	1.04	.299
Person Judgments	5.85	5.59	13	-1.01	.313	3.63	4.06	.21	2.39	.017
Rehab vs. Punishment	4.00	3.93	04	20	.845	2.96	3.66	.35	2.74	.007

Race by Modern Racism by Implicit Theories. Again, when examining our results, we found an interaction that was not hypothesized, but which significantly or marginally predicted many of our dependent variables. This three-way interaction was found between Race, Modern Racism, and Time, but only in the 3 vs. 10 year comparison. Because it was not hypothesized, and because the power of this study is low for examining three-way interactions, we will not break down these findings in great detail. Briefly, though, a simple slopes analysis did find that higher modern racism scores predicted negative responses primarily among those participants who were incremental theorists reading about a Black offender; and that endorsing an entity theory of change predicted negative responses primarily among participants low in modern racism who read about a Black offender, and participants high in modern racism who read about a White offender.

Table 23

Beta Values for Race X Modern Racism X Implicit Theories Interaction (3 VS 10 Years)											
Variable	B (unstandardized)	<u>β (Standardized)</u>	<u>t</u>	<u>p</u>							
Jail Items	23	23	-3.13	.002							
Change Items	10	14	-1.91	.058							
Relational Items	12	15	-1.93	.055							
Person Judgements	14	16	-2.12	.036							
Alternatives to Prison <sup>a</sup>	.17	.23	2.80	.006							
Act vs. Behaviour <sup>a</sup>	.21	.16	2.03	.044							

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Note: <sup>a</sup> Higher numbers = more positive overall judgments

#### Discussion

In the present study, we attempted to replicate our previous findings: that the implicit theories of participants would predict judgments about past offenders; that participants' levels of modern racism would predict judgments when reading about an offender assumed to be Black, but not White; that the relationship between modern racism (moderated by the assumed race of the offender) and judgments of offenders would be mediated by the subjective perception of time passed since the original crime; and that participants who were sufficiently motivated to shift their implicit theories, in this case participants high in modern racism who read about a Black offender who had appeared to change over a ten year span (contrary to their potentially prejudiced views), did so, shifting towards a more entity perspective. In addition, we attempted to replace our questionable previous method of race manipulation with a more overt method that would be more resistant to racial misperceptions.

We succeeded on two counts. Our race manipulation did lead the vast majority of participants to make the intended assumptions about the race of the offender; 93.8% of participants correctly identified the offender's race, in contrast to 71.1% in the initial study, and 56.1% in the failed second study. Furthermore, we found that consistent with our previous findings, implicit theories did significantly predict participant judgments of the offender, the likelihood of re-offense and employment decisions, and more general legal principles, with entity theorists again providing more negative responses, and supporting more punitive general principles, than incremental theorists. This was true both among participants who read only about the crime occurring three or ten years previously, and participants who read about the crime having occurred only two months earlier.

Our other results were not as consistent with our previous findings. Our previous, interaction between offender race and the modern racism score reported by participants, whereby those high in modern racism would judge the Black offender (but not the White offender) more harshly than those low in modern racism, was not replicated; indeed, for two of the only three dependent variables that were significantly or marginally predicted by the interaction of race and modern racism, this was driven by White offenders being judged more positively by those low in modern racism than high scorers, with no significant differences for Black offenders. Despite the fact that subjective distance was the one dependent variable predicted by this interaction, the inconsistent nature of the relationship in this study also meant that subjective distance could not be meaningfully tested as a mediator between modern racism (moderated by race) and the other dependent variables. We did find that subjective distance was correlated with the same dependent variables as the previous study, however, which indicates that it does seem to play a role.

What might account for this difference in results between the two studies? The one obvious difference is the overtness of the race manipulation. While given the difficulties previously encountered, there are clear methodological problems with using a race name manipulation, but it is a subtle way of manipulating race. Though the pictures used in this study could be part of a news article, they are very overt indications of race, and participants may have guessed at that point that race perceptions would be part of this study. There is evidence that overt manipulations of social categories can lead participants to guess the purpose of the research. According to Fein and Spencer (1997), when a social judgment task included the fact that the male subject of the judgment was gay, over half of research participants suspected that the study concerned their beliefs about gay men. When that information was removed, but other material consistent with gay stereotypes was included, however, no participants guessed the study's purpose. It could be that our picture manipulation also led participants to suspect that the study concerned their beliefs about different racial groups, and this, alongside the knowledge that expressing racist attitudes is socially unacceptable, could have led participants to different answers on the dependent measures, or particularly when responding to the Modern Racism Scale, which is not the most subtle measure of racism. Those who are low in modern racism in this study could be a combination of true low scorers, and higher scorers who are high in social desirability traits.

We did find evidence for our original hypothesis, unsupported by Study 1, that incremental theorists would be more sensitive to increases in the passage of time than entity theorists. When comparing reactions to the recent (two months since the original crime) article to the more distant (three and ten years), we found that a time by implicit theories interaction significantly predicted three dependent variables, with all three demonstrating the same pattern of results: in the recent condition, participants were equally negative towards the offender, independent of their reported implicit theories, but in the distant condition, while all participants responded more positively towards the offender, participants who endorsed an incremental perspective became significantly more positive than those who endorsed an entity perspective.

One concern that must be kept in mind when interpreting these results is that, as was mentioned earlier, the article in the recent condition has several differences from either of the distant articles, beyond just the differences in time. The most relevant difference, for these results, is that the man in the three and ten year articles has married, started a family, started a business, and integrated successfully into his community, all of which can be considered evidence of change. When only two months has passed since the original crime, some of these actions are not possible, and others, like marriage, may be seen as motivated by recklessness or desperation before heading to prison rather than genuine change; as a result, we chose not to mention any of these acts in the recent condition, and no evidence of change is presented. It may be that the differences in responses in the three and ten year conditions are driven by responses to these events that may indicate change, rather than time passing, whereby they are more believed by incremental theorists than entity theorists. A follow-up should be conducted to determine whether it is this, or the passage of time, that is responsible for these differences.

Finally, we discovered two results that were not anticipated. The first, an interaction between offender race and time condition (predominantly the Near vs. Far comparison), shows a consistent pattern whereby White offenders are judged more harshly than Black ones in the recent condition, it is the Black offenders who are seen more negatively in the distant condition. This pattern, though unexpected, could reflect an interesting tendency for social desirability norms to be strongest in the most overt and unambiguous condition (recent crime): here people may take care not to judge the Black offender too harshly (resulting in a reverse tendency to judge them less harshly). However it is notable that with time and evidence of change, this lenience toward Black offenders disappears. It may be that evidence of change and rehabilitation is a form of ambiguous information that is weighed subjectively and counts for more when judging White than Black offenders once time has passed.

The second unexpected effect was a three-way interaction between offender race, modern racism scores, and participant implicit theories, is only present when comparing the three- and ten-year articles. These findings were more complicated, but three patterns of results seemed to appear more consistently among the six dependent variables: when incremental theorists read about a Black offender, their judgments were predicted by their modern racism scores, with higher scores predicting more negative judgments; and when participants low in modern racism read about a Black offender, or participants high in modern racism read about a White offender, their judgments were predicted by their implicit theories of change, with higher endorsement of entity theory predicting more negative judgments. Because these results are not consistent with the first study, and because they may be artifacts of potential methodological flaws already discussed, namely our race manipulation or differences between time conditions, more research should be performed to establish or disprove these effects.

### **General Discussion**

Through our two successful studies, we have consistently demonstrated one thing: individuals' personally held implicit theories of change greatly shape how they judge unaffiliated others who have transgressed, perhaps especially when those transgressions are set in the distant past. Previous research has shown that implicit theories influence how people view and judge transgressions as they occur, or in the immediate past (e.g., Miller, Burgoon & Hall, 2007; Kammrath & Peetz, 2012; Chiu et al., 1997), but little research up until now has extended those findings into transgressions set in the distant past; no research, as far as we have determined, has examined judgments of unaffiliated others who have committed transgressions in the distant past, or of any others who have committed moral (rather than interpersonal) transgressions. Furthermore, our research is consistent with the body of evidence (e.g., Chiu et al., 1997; Miller, Burgoon & Hall, 2007; Gervey et al., 1999) asserting that entity theorists, rather than incremental theorists, respond more negatively to moral transgressions and the individuals who commit them, though future research must be conducted in order to determine why in some studies (Ng & Tong, 2013; Kammrath & Peetz, 2012), this pattern is reversed. Though we did not find other consistencies between our two studies, we did learn a great deal about different forms of race manipulations, and how participants may think about the passage of time occurring to another person, which we can apply to future studies in this area of study.

The problem of race. Throughout three studies, we attempted to manipulate offender race differently three times, twice with name manipulations and once with photographs. Through each attempt, we learned something new about how difficult it is to manipulate something seemingly straightforward.

With our first manipulation attempt, we came to learn that race name manipulations do not seem to work as reported in past literature (e.g., Bertrand & Mullainathan, 2003). While prior research has stated with confidence that participants can assess the race of individuals given racially associated first and last names, we found that not only were there large proportions of our sample who made racial guesses inconsistent with the intended race, but that those inconsistencies happened at different rates across different race conditions – participants were far more likely to choose an answer consistent with our intentions when presented with a stereotypically Black name than one that is stereotypically White. This could be due to the context of this study – while research by Bertrand and Mullainathan (2003), from which one of our name manipulations was drawn directly, presents these names in the context of a person's resume, our research has set them in a criminal context, and it could mean that people's knowledge of negative stereotypes about Black males and criminality allows them to more readily accept the criminal offender as Black rather than White. It is also possible that the prior research is now outdated, and that stereotypical racial names are no longer enough to allow individuals to draw conclusions about the race of an individual. There may also be some concern

that participants are purposely reporting their assumptions incorrectly due to social desirability, or a need to appear politically correct, though this is less concerning given the fact that any effects found were significant when looking at the race that was assumed by participants, rather than the randomly assigned race condition. Regardless, it is clear that using racially stereotypical names as a manipulation paradigm is ineffective for this type of research, whether due to subtlety, contextual clues, or social desirability.

Aside from our second manipulation attempt confirming that race names are not an effective manipulation strategy, we also found that giving participants a method of 'opting out' of predicting an offender's race was actually counterproductive. There had been concerns that some of the guesses inconsistent with the intended condition in the original study had been due to the lack of options for participants who truly did not know the race of the offender, and we therefore added an 'I Don't Know' choice to the race options. Though this did decrease the rate of incorrect guesses from 28.9% to 12.2%, we found that almost a third of participants chose this option; given that the rates of inconsistent choices between studies decreased by only 16.7%, those who chose the 'I Don't Know' option almost certainly include a large number of participants who would have made consistent guesses given the options present in Study 1. We therefore chose to not include this option in future studies. Though this decision does run the risk of participants who genuinely cannot guess not being able to select such an option, the cost of having a third of participants not answer this key question was too great to accept.

Our third study was able to successfully manipulate race through the use of pictures. This overt manipulation, however, was not without its own consequences. Though participants were generally accurate when stating the race of the offender, any pattern of results related to race that were found diverged entirely from our initial results; this is particularly notable when our

dependent variables are predicted by a Race X Modern Racism interaction, wherein those lowest in modern racism are, counterintuitively, the most judgmental of the Black offender. A likely consequence of the overtness of our measure is that some participants may have intuited our study's purpose, or at the very least that offender race is one of our variables of interest, and that this may have in turn influenced their responses to judgment questions or on the modern racism scale itself. Furthermore, given that this was an American sample population, it could be that the current political climate in the United States, with protests arising from several recent police shootings and violent harassment of Black individuals, has made participants even more sensitive to such an overt manipulation. Regardless, it is clear that though our overt methods did lead to more accurate assumptions regarding offender race, it was not a more effective manipulation.

What, then, is the best way to manipulate race in similar future studies? When the methodology is too subtle, many participants do not report picking up on the manipulation at all. When it is too overt, though, it seems that participants may become somewhat aware of the study's purpose, and adjust their answers accordingly. A middle ground must be found, but unfortunately, we have not discovered what this middle ground is. One possibility may be to reinforce a name manipulation by including other Black- or White-stereotypic information into an article, such as location (a predominantly Black neighbourhood such as Harlem, or a predominantly White location such as Maine), but taking care to not provide so much information as to make it obvious. Another would be to use a more overt manipulation, such as pictures, but embedding it in a much larger study context, where participants cannot be certain what is being researched. Either way, future research must take care to carefully consider how race is being manipulated.

The problem of time. Throughout both studies, it seems clear that participants do not perceive an event very differently when it is set three or ten years in the past. It is possible that our findings in regards to subjective time may partially explain these effects: participants may not think carefully about the passage of three or ten years, but may instead conceive of both as 'distant', without any finer distinction. Perhaps having participants reflect upon their own lives at that time period would help put the passage of time in more concrete terms. Furthermore, presenting participants with evidence of change may have erased differences that may exist normally given the passage of time - without any evidence of change, people may naturally assume that more change occurs in a longer period of time, but by outright stating what changes have occurred, both time periods may have been placed in the 'distant' category. Removing change information may be necessary to prevent this. It is also possible that the passage of calendar time is not as meaningful as people's subjective conception of time, and that it is this subjective sense of time that should be examined more carefully. Subjective time can be manipulated, and by framing a similar news article in one of two ways – "quite some time ago, this crime was committed" versus "not so long ago, this crime was committed" - we could more clearly detangle the competing roles of objective, calendar time, and subjective perceptions of time.

Significant differences were found between both 'distant' conditions and our more 'recent', two months ago condition, however we cannot confidently state that this was due to differences in time. Because we had hoped to replicate our distant condition as closely as possible, but with a much stricter timeframe, a great deal of information about the offender could not be included in the recent condition, and this absence of information, or the presence of information in the distant conditions, may have instead driven any significant time effects. Future research would need to assess this question using far more directly comparable articles; the distant article could be rewritten to be more similar to the recent article, though the offender's presence in or absence from prison after a long period of time may also provide participants with more information than in the strictly recent condition.

**Other limitations and future directions.** As mentioned previously, this research was conducted on survey websites, using an exclusively American population, at a time when racial tensions have garnered political action and media attention. This could partially explain why participants reacted counterintuitively to our overt race manipulation, and could have attenuated any race effects; it is also possible, however, that the exposure of these racial issues could have exaggerated any effects found, due to the extremely sensitive and divisive issues at play. Future research should be run using another population, and perhaps another marginalized group.

Our only measure of racial prejudice is the Modern Racism Scale. Though it was created in order to assess racist attitudes in a more subtle fashion, it was designed almost thirty years ago, and what was once a subtle measure has become more and more overt, while social pressure to not appear racist has only increased. In future studies, we would prefer to replace this measure with something that is less obvious, particular an implicit (rather than explicit) measure of prejudice. In addition, this would solve another potential limitation that was present due to the use of this scale: in order to disguise our interest in race, this scale was always presented at the very end of our studies, meaning that responses to this scale may have been coloured by participants having read about the crime scenario, and having answered numerous judgment questions. By using a more subtle, or implicit, measure of racial prejudice, we could assess all of our measured independent variables at the beginning of our studies. This line of research was started, in part, to assess differences between incremental and entity theorists when making moral judgments. It is worth noting, however, that in both of our distant conditions, the article provided some information that would seem to support an incremental perspective: the offender had not committed another crime, and had made positive efforts both in his personal life and in his community. It is possible that participant judgments were partially due to having just received information that (dis)confirmed their lay theories of change. Future research should assess whether the same pattern of results is found when there is no evidence for either change or stability, or when there is evidence against change.

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Appendix A: Premeasure of Implicit Theories

Using the scale below, please indicate the extent to which you agree or disagree with each of the following statements, as they apply to yourself, by selecting the number that corresponds to your opinion in the space underneath each statement.

1: Strongly Disagree 2: Disagree 3: Somewhat Disagree

- 4: Somewhat Agree 5: Agree 6: Strongly Agree
- 1. On the whole, I am satisfied with myself.
- 2. Whether or not I get to be a leader depends mostly on my ability.
- 3. In making decisions, I compare various viewpoints of others to construct my own view.
- 4. At times, I think I am no good at all.
- 5. People's moral character is something basic about them and they can't change it much.
- 6. I feel that I have a number of good qualities.
- 7. To a great extent my life is controlled by accidental happenings.
- 8. I am able to do things as well as most other people.
- 9. There is not much that can be done to change people's moral traits (e.g., uprightness and honesty).
- 10. To make a commitment, I need to contrast two or more possible options.
- 11. I feel I do not have much to be proud of.
- 12. The kind of person someone is, is something very basic about them and it can't be changed very much.
- 13. I feel like what happens in my life is mostly determined by powerful people.
- 14. I certainly feel useless at times.
- 15. Considering opposite viewpoints assists me in understanding myself.
- 16. People can do things differently, but the important parts of who people are can't really be changed.
- 17. I can pretty much determine what will happen in my life.
- 18. I feel that I'm a person of worth, at least on an equal plane with others.
- 19. To show that you are paying attention to these questions, please choose 'strongly agree' for this question.
- 20. I often weigh both the good and the bad aspects of any situation or experience.
- 21. Whether someone is responsible and sincere or not is deeply ingrained in their personality. It cannot be changed very much.
- 22. People like myself have very little chance of protecting our personal interests when they conflict with those of strong pressure groups.
- 23. I wish I could have more respect for myself.
- 24. Comparing the implications of conforming versus rebelling helps me make a moral choice.
- 25. Everyone is a certain kind of person and there is not much that can be done to really change that.
- 26. All in all, I am inclined to feel that I am a failure.

27. Often there is no chance of protecting my personal interests from bad luck happenings.

28. I take a positive attitude toward myself.

Appendix B: News Article, Three or Ten Years (All Studies)

Below you will find a news article that describes a current legal issue in the United States. Please read it carefully, as we will be asking you for your thoughts about this article. We will also ask you to remember some details about the article later in the survey, so please do read thoroughly and with careful attention.

You are encouraged to spend as much time reading as needed to have a full understanding of the article. Please note that in order to ensure that the article is read, the button to continue to the next page will be disabled for 30 seconds.

[**Brad/DeShawn**] **Jones**<sup>7</sup> lived a normal life for [**three/ten**] years following his [**2011/2004**] conviction for armed robbery because Illinois officials forgot he was out on bail. He's now in prison and suing for his freedom, but state officials say he's not the victim of cruel and unusual treatment.

Jones had just one arrest for marijuana possession on his record when he and a cousin robbed an assistant manager at a Burger King restaurant on Jan. 15, [2011/2004]. The men, wearing masks, showed a gun (it turned out to be a BB gun) and demanded money that was about to be placed in a deposit box.

The worker gave up the bag of cash, and the masked men drove away. The worker turned in the car's licence plate number.

Jones, who was 22 at the time, had never been convicted of a serious crime before the robbery. He was sentenced to **[three/ten]** years in prison for the holdup, then told to wait for orders that would specify when and where he was to report to prison.

He told the Associated Press last month that he waited, and even asked about going to prison, but the order never came.

In the years since his conviction, **[Brad/DeShawn]** Jones started his own construction-related businesses, married and had a child. He also coached youth football and volunteered at his church in Woodridge, Illinois.

The Illinois Department of Corrections realized in July 2014 that Jones never served a three-year sentence for the robbery due to an apparent clerical error. He was arrested and forced to begin the stretch.

Illinois Attorney General Lisa Madigan said Tuesday in a court filing that Jones's<sup>8</sup> belated time behind bars is not cruel and unusual, as Jones argues in a lawsuit.

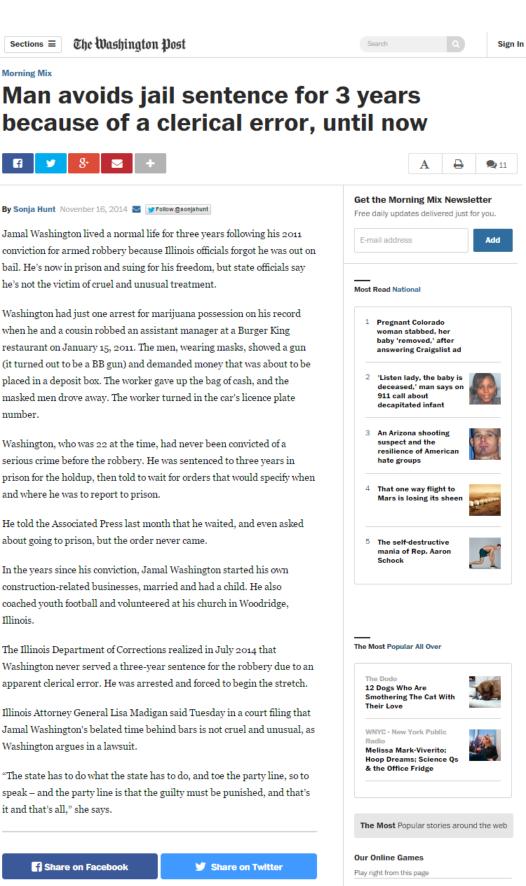
"The state has to do what the state has to do, and toe the party line, so to speak – and the party line is that the guilty must be punished, and that's it and that's all," she says.

<sup>&</sup>lt;sup>7</sup> Study 1: Brad Jones (White) or DeShawn Jones (Black)

Study 2: Brett McCarthy (White) or Jamal Washington (Black)

Study 3: Steve Williams (both race conditions)

<sup>&</sup>lt;sup>8</sup> Study 2 and 3: Full name (Brett McCarthy or Jamal Washington; Steve Williams) is used instead of only last name



Sudoku

puzzle!

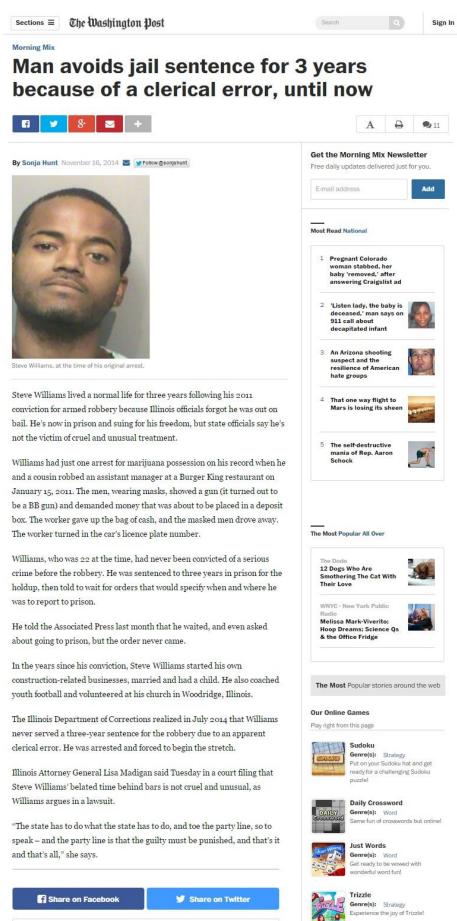
Genre(s):

Strategy

Put on your Sudoku hat and get ready for a challenging Sudoku

**Q11** Comments





911 Comments

washingtonpost.com

Appendix C: News Article, Recent Past Condition (Study 2 and 3 Only)

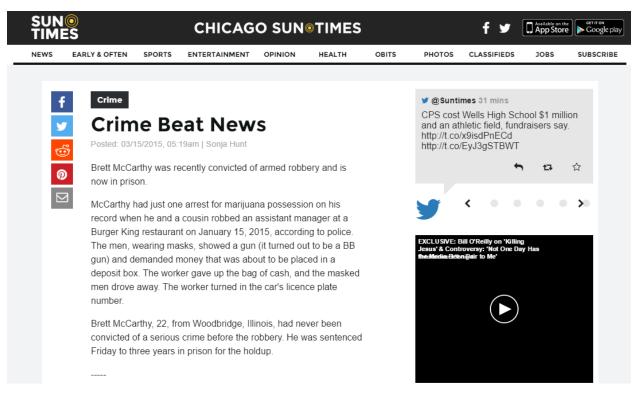
Below you will find a news article that describes a current legal issue in the United States. Please read it carefully, as we will be asking you for your thoughts about this article. We will also ask you to remember some details about the article later in the survey, so please do read thoroughly and with careful attention.

You are encouraged to spend as much time reading as needed to have a full understanding of the article. Please note that in order to ensure that the article is read, the button to continue to the next page will be disabled for 15 seconds.

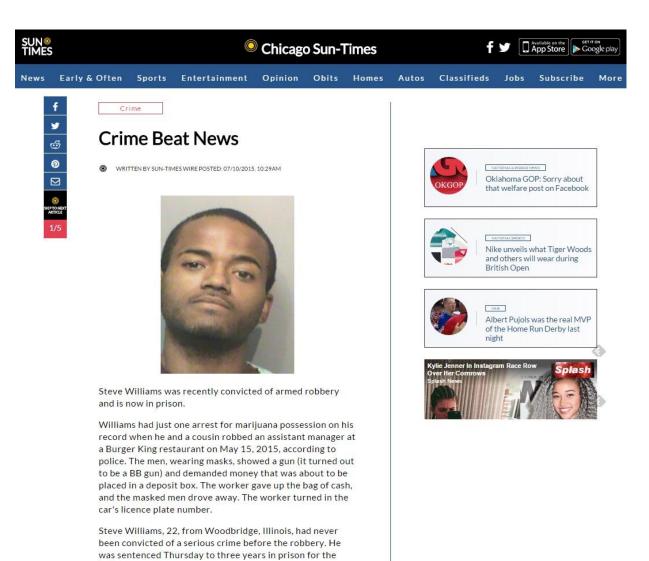
[Brett McCarthy/Jamal Washington/Steve Williams] was recently convicted of armed robbery and is now in prison.

[McCarthy/Washington/Williams] had just one arrest for marijuana possession on his record when he and a cousin robbed an assistant manager at a Burger King restaurant on January 15, 2015, according to police. The men, wearing masks, showed a gun (it turned out to be a BB gun) and demanded money that was about to be placed in a deposit box. The worker gave up the bag of cash, and the masked men drove away. The worker turned in the car's licence plate number.

[Brett McCarthy/Jamal Washington/Steve Williams], 22, from Woodbridge, Illinois, had never been convicted of a serious crime before the robbery. He was sentenced Friday to three years in prison for the holdup.



holdup.



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Appendix D: Mugshots (Study 3) - Black condition photos





Appendix D: Mugshots (Study 3) - White condition photos





## Appendix E: Dependent Measures - Page 1

Please think about this person and give your judgments of that person in the present on the following dimensions. To what degree is this specific person:

Immoral	1	2	3	4	5	6	7	Moral
Good	1	2	3	4	5	6	7	Bad
Trustworthy	1	2	3	4	5	6	7	Untrustworthy
Likeable	1	2	3	4	5	6	7	Unlikeable

For the following questions, imagine that you become acquainted with the person in the article.

How likely would you be to judge this person based on their act?

How likely would you be to forgive this person for their act?

How likely would you be to trust this person?

How likely would you be to become friends with this person?

How likely would you be to purposely avoid this person?

How likely would you be to spend time with this person?

1: Very Unlikely	2: Unlikely	3: Somewhat	Unlikely
4: Neither Likely Nor Unlikely	5:Somewhat Likely	6: Likely	7: Very Likely

Please rate the extent to which you agree or disagree with the following statements:

This person is unforgivable.

This person is a different person now than when they committed the act.

My judgment of this person is in no way affected by this act.

This person is completely trustworthy.

Strongly Disagree
Neither Agree Nor Disagree

2: Disagree 5: Somewhat Agree 3: Somewhat Disagree6: Agree

7: Strongly Agree

Appendix E: Dependent Measures – Page 2

This person has been completely rehabilitated.

This person still needs to be punished for their crime.

Since the crime, this person has become a model citizen.

This person feels guilty about their crime.

This person feels ashamed of their crime.

It would be cruel to jail this person at this point in time.

It is unjust to society to allow this person to go unpunished.

This person's actions since their crime have been commendable.

1: Strongly Disagree	2: Disagree	3: Somewhat Disagree			
4: Neither Agree Nor Disagree	5: Somewhat Agree	6: Agree	7: Strongly Agree		

Think about the crime this person committed. What do you think is the percent likelihood that this person would repeat their earlier behavior (i.e., commit another crime) in the future?

0-100 Percent chance of reoffending [on slider scale]

Pretend that you are a hiring manager for a company, and that this person applies for an open job position. They have the necessary qualifications, and are honest about their criminal history. What is the percent likelihood that you would hire this person for a job?

0 - 100 Percent chance of hiring [on slider scale]

Think back to the news article. Please think about the act committed itself, rather than the person who committed the act, and give your judgments of the act on the following dimensions. To what degree is this specific act:

Immoral	1	2	3	4	5	6	7	Moral
Good	1	2	3	4	5	6	7	Bad

Appendix E: Dependent Measures - Page 3

Sometimes events tend to feel closer or further away, regardless of how long ago it actually occurred. Think about the original crime described in the article. Place the slider at the point that best indicates how long ago that act feels to you.

Feels very recent – Feels very long ago [on slider scale]

Think about the article you read. How likely do you think it is that this person could change?

1: Very Unlikely	2: Unlikely	3: Somewhat Unlikely			
4: Neither Likely Nor Unlikely	5: Somewhat Likely	6: Likely	7: Very Likely		

Indicate how much you agree or disagree with the following statement: This person is incapable of change.

1: Strongly Disagree	2: Disagree	3: Somewhat Disagree		
4: Neither Agree Nor Disagree	5: Somewhat Agree	6: Agree	7: Strongly Agree	

Appendix E: Dependent Measures - Page 4

Now we are going to ask you several questions about sentencing in this particular case, given the circumstances that occurred. The following questions ask about what you think would be a fair sentence for this person, right now; that is, any criminal sentence that should be served now that the Department of Corrections discovered their error.

How long do you think an appropriate prison sentence for this crime should be now? This number can be higher or lower than the original sentence of three years. (If you do not think that person should serve a prison sentence now, please write 0 in both boxes.) Years: Months:

How long is the minimum acceptable prison sentence for this crime now, in your opinion? This number can be higher or lower than the original sentence of three years. (If you do not think that person should serve a prison sentence now, please write 0 in both boxes.) Years: Months:

How long is the maximum acceptable prison sentence for this crime now, in your opinion? This number can be higher or lower than the original sentence of three years. (If you do not think that person should serve a prison sentence now, please write 0 in both boxes.) Years: Months:

How appropriate do you think the following consequences are, as an alternative to a prison sentence?

No punishment; Fine; Probation; Community service; Time served; House arrest; Other (please specify)

1 - Not At All 2 3 4 5 6 7 - Very

Which factor is more important to you when making a judgment about a person who committed a crime?

The act that1234567Their behaviour<br/>since the actwas committed</t

Which factor is more important to you when making a judgment about consequences for crimes?

That criminals	1	2	3	4	5	6	7	That criminals
are rehabilitated								are punished

We are interested in what went through your mind when thinking about this person's case. Please explain any thoughts or important considerations that you took into account when reading the news article and answering all of the questions about the article.

Appendix F: Manipulation Checks, Study 1

Now we are going to ask you some questions that gauge your memory of the news article. Please answer these questions to the best of your ability, and if you do not remember the specific information, please give your best guess.

In what year was the original crime committed? [dropdown menu, choices include every year between 1995 and 2014]

How many years ago was the original crime committed? [dropdown menu, choices include every number between 1 and 20]

What do you think was the ethnicity/race of the man described in the article? Caucasian (White); African American (Black); South Asian; Arab; Chinese; West Indian; Filipino; South East Asian; Hispanic; Japanese; Korean; Other

South Last Asian, Inspanie, Japanese, Rolean, Other

What was the name of the man described in the article? If you do not remember, please include your best guess.

Appendix G: Post-Manipulation Check Measures (Study 1)

Using the scale below, please indicate the extent to which you agree or disagree with each of the following statements, as they apply to yourself, by selecting the number that corresponds to your opinion in the space underneath each statement.

- 1. People's moral character is something basic about them and they can't change it much.
- 2. There is not much that can be done to change people's moral traits (e.g., uprightness and honesty).
- 3. Whether someone is responsible and sincere or not is deeply ingrained in their personality. It cannot be changed very much.
- 4. The kind of person someone is, is something very basic about them and it can't be changed very much.
- 5. People can do things differently, but the important parts of who people are can't really be changed.
- 6. Everyone is a certain kind of person and there is not much that can be done to really change that.

1: Strongly Disagree2: Disagree3: Somewhat Disagree4: Somewhat Agree5: Agree6: Strongly Agree

Using the scale below, please indicate the extent to which you agree or disagree with each of the following statements, as they apply to yourself, by selecting the number that corresponds to your opinion in the space underneath each statement.

- 1. Over the past few years, government and media have shown more consideration for racial and ethnic minorities than is warranted.
- 2. Racial and ethnic minorities have gotten more than they deserve over the past few years
- 3. It is easy to understand the anger of racial and ethnic minorities.
- 4. Discrimination against racial and ethnic minorities is no longer a problem.
- 5. Racial and ethnic minorities are getting too demanding pushing for equal rights they already have
- 6. Racial and ethnic minorities should not push themselves where they are not wanted.

1: Strongly Disagree 2: Disagree 3: Somewhat Disagree

4: Somewhat Agree 5: Agree 6: Strongly Agree

## Appendix H: Demographics

Please complete the following questions:

Age:

Gender: Male; Female; Other (please specify)

Ethnicity you identify with the most: Chinese; South Asian (e.g., East Indian, Pakistani, Punjabi, Sri Lankan); Black (e.g., African-American, African, Haitian, Jamaican, Somali); Arab; West Indian (e.g., Armenian, Egyptian, Iranian, Lebanese, Moroccan); Filipino; South East Asian (e.g., Cambodian, Indonesian, Laotian); Hispanic; Japanese; Korean; Caucasian (White); Other (please specify)

First language:

Political leaning: Very liberal; Somewhat liberal; Moderate; Somewhat conservative; Very conservative; Libertarian; None/uninterested; Other (please specify)

Religious affiliation or belief system: No religious affiliation; Christian (e.g. Catholic, Protestant, Lutheran); Muslim (e.g. Shia, Sunni); Jewish (e.g. Orthodox, Reform); Hindu; Sikh; Atheist; Agnostic; Buddhist; Spiritual but not religious; Other (please specify)

How important is your religious affiliation or belief system to you?

1: Not at all Important2: Very Unimportant3: Somewhat Unimportant4: Neither Important nor Unimportant5: Somewhat Important6: VeryImportant

7: Extremely Important

When conducting research, we rely on participants' responses being honest and accurate in order for us to draw valid conclusions from the data. However, we recognize that there are many reasons participants might be unable or unwilling to provide fully honest and accurate responses. In these cases it is truly helpful for us to be able to identify responses that may not be valid so we can take this into account.

In your honest opinion, should we use your data from this survey?

Please note: your answer is confidential, and you will be compensated whichever answer you choose.

Yes/No

Why do you think we should NOT use your data? [if previous answer is Yes]