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A test of the self-regulatory model of prejudice reduction

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A TEST OF THE SELF-REGULATORY MODEL OF PREJUDICE REDUCTION

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Abstract

Two assumptions derived from Devine and Monteith's (1993) self-regulatory model of prejudice reduction were tested utilizing a stereotype-activating stimulus believed to be similar to one which is more likely to occur in everyday-life than those used in previous research. Black and white actors making ambiguously hostile statements were evaluated by 92 low and high-prejudiced participants. Rating-scale data provided partial support for the assumption that low-prejudiced participants inhibit stereotype-consistent responses and replace them with personal, more egalitarian beliefs. Specifically, low-prejudiced participants provided significantly more favorable ratings than their high-prejudiced counterparts ($p = .030$). Reaction-time data provided support for the model's assumption that low-prejudiced persons use controlled cognitive processes in inhibiting stereotype-consistent responses by showing that low-prejudiced participants reacted more slowly to hostile traits than their high-prejudiced counterparts. Furthermore, rating-scale and reaction-time data showed that both black and white actors were perceived to be equally hostile, and that low-prejudiced participants used different personal standards and cognitive processes than those exhibited by high-prejudiced participants.

Table of Contents

A Test of the Self-Regulatory Model of Prejudice Reduction

Historically, social scientists have approached the study of stereotyping and prejudice from many different perspectives. Ethnic prejudice is generally defined as "...an antipathy based upon a faulty and inflexible generalization. It may be felt or expressed. It may be directed toward a group as a whole, or toward an individual because he is a member of that group" (Allport, 1954, p.9).

Based on content analyses of existing literature, the study of prejudice appears to have gone through several discernible periods (Dovidio & Gaertner, 1986). During the late 1920's and 1930's, research focused on the measurement of ethnic attitudes and prejudice, followed by a period of theory development in the 1940's. The 1950's saw a continued interest in theory and measurement, with an added interest in attitude change, instigated largely by Festinger's (1957) cognitive dissonance theory. A social problems approach was the focus of the 1950's and 1960's. Since the late 1960's, however, emphasis has centered on the general processes involved in prejudice (Dovidio & Gaertner, 1986; Katz, 1976).

Analysis of the literature from the late 1960's to the present seems to reveal a dramatic decline of interest in the study of prejudice. However, this appears to be more a result of a shift in emphasis, rather than a decline in interest. Instigated by Tajfel's (1969) cognitive approach to intergroup behavior, interest has moved toward the empirical study of stereotypes as part of the general psychological processes that lead to prejudice. While the number of articles on prejudice has declined, the number focusing on stereotypes has

greatly increased (Dovidio & Gaertner, 1986). This recent focus places prejudice within the larger theoretical context of the role of cognitive processes in intergroup behavior.

Stereotypes as Cognitive Processes

The study of stereotypes typically focuses on one of three types of processes involved in the development and perpetuation of stereotypes: motivational, sociocultural and cognitive (Ashmore & Del Boca, 1981; Hamilton & Trolier, 1986; Stephan, 1989). Although an understanding of all three types of process is essential for a complete picture of stereotypes, it is clear that the three processes contain a cognitive component. It is for this reason that cognitive processes have become of particular interest in the study of stereotypes.

From a cognitive perspective a stereotype can be defined as a cognitive structure that contains the perceiver's knowledge, beliefs, and expectancies about some human group. As outlined by Hamilton and Trolier (1986) the cognitive analysis of stereotypes has focused on why people develop stereotypes, the role of cognitive mechanisms in their development and how cognitive processes can contribute to the perpetuation of stereotypic beliefs.

Within the cognitive view, the formation of stereotypes is seen as the result of a natural categorization process. It is an adaptive behavior that helps us to make sense of the overwhelming amount of information with which we come into contact. These categorizations are effective, but only to the extent to which they represent actual differences between groups.

The problem with categorization is that once it has been enacted it can have significant effects on perceived similarities and differences among and between group members. Depending on group membership, members can be seen as either more or less similar to others, than if viewed as individuals. Perceived group membership can also affect causal attributions about behavior and treatment of group members by the perceiver (Dovidio & Gaertner, 1986).

Inevitability of Prejudice

Because of their obvious interconnection, prejudice was traditionally viewed as an inevitable consequence of stereotyping (Allport, 1954; Hamilton, 1981). It was not considered an individual construct, but as the attitudinal component of a stereotyped belief; as long as stereotyped beliefs were held, it was understood that prejudiced attitudes would inevitably follow.

One of the main problems with the "inevitability of prejudice" is that knowledge of cultural stereotypes is not distinguished from personal beliefs about members of the stereotyped group (Devine, 1989). Automatically activated stereotypical beliefs are viewed as always congruent with personal beliefs.

In research utilizing an information-processing approach, Devine (1989) demonstrated that congruence is not always the case. In her 1989 study of the disassociation of automatic and controlled processes involved in prejudice, Devine found that although low and high-prejudiced participants were equally knowledgeable of cultural stereotypes, low-prejudiced participants negated cultural stereotypes when given the

opportunity. This appears to indicate that the cultural beliefs embodied in an activated stereotype can be overridden and replaced with incongruent personal beliefs. If it is true that a stereotype belief can be overridden, then prejudice is not an inevitable consequence.

Model of Prejudice Reduction

Based upon the assumption that prejudice is not an inevitable consequence of stereotypes, Devine and Monteith (1993) have developed an information-processing model of prejudice reduction. This theoretical model assumes a dissociation of automatic and controlled processes involved in prejudice.

Automatic and Controlled Processes

Automatic and controlled cognitive processes are generally defined by the following characteristics: 1. Automatic process are mostly involuntary; 2. They involve spontaneous activation of a set of well-learned associations or responses that do not requiring conscious attention; 3. They seem to be activated by environmental cues (Shiffrin & Dumais, 1981).

Controlled processes, on the other hand, are mostly voluntary and require active attention. They are more flexible than automatic processes. This makes them especially useful for decision making, problem solving and the initiation of new behaviors (Devine, 1989).

Model Stages and Related Issues

Following is a description of the basic stages of the self-regulatory model of prejudice reduction put forth by Devine and Monteith (1993) and a discussion of related research and issues (see Figure 1). It is important to note that this model considers only persons who have adopted a non-prejudiced self-identity and that it is process-oriented rather than incident specific.

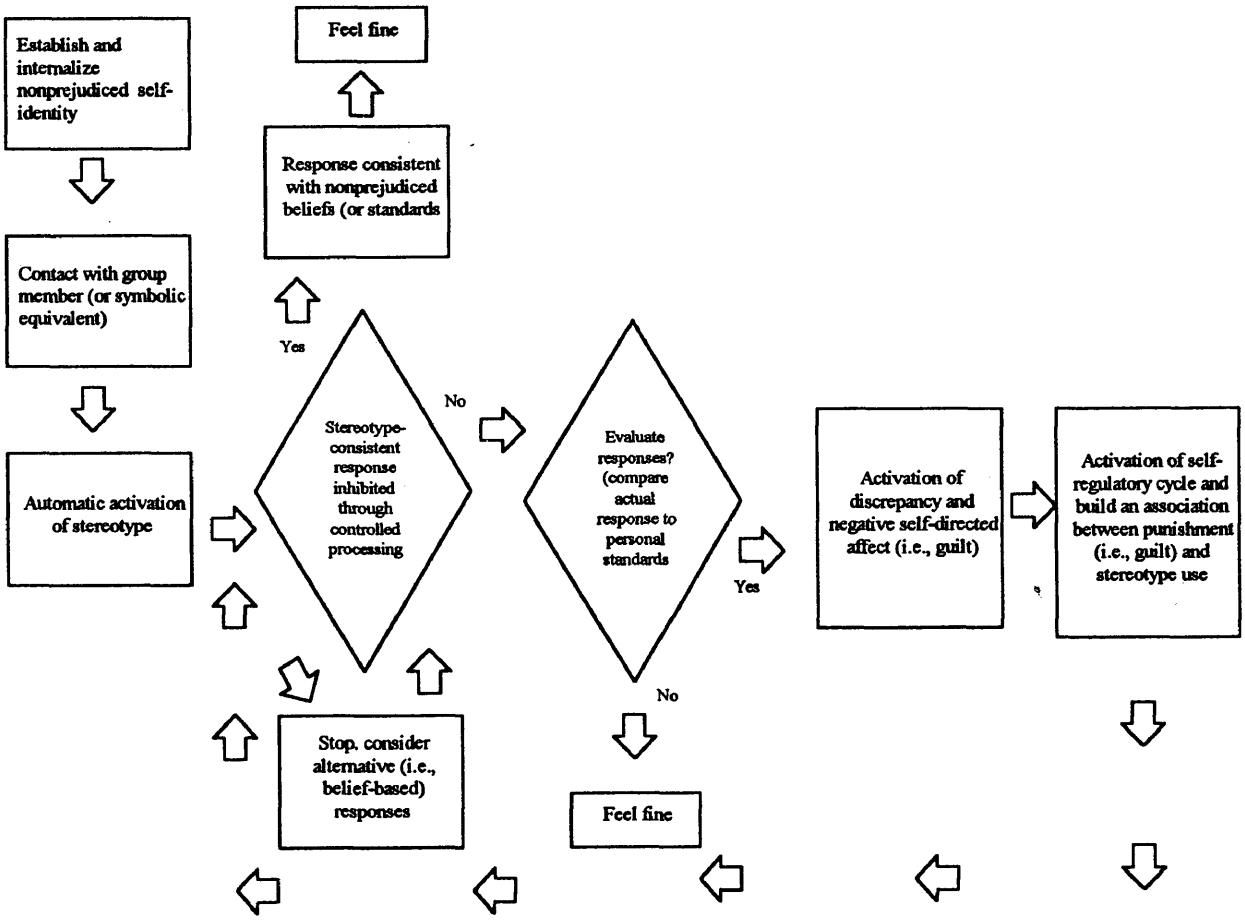

Figure 1. Devine and Monteith's model of prejudice reduction.

Establish and internalize non prejudiced self-identity.

In order for this model of prejudice reduction to apply, participants must have established and internalized a non-prejudiced self-identity. Research has shown differences in the location and type of high and low-prejudiced participants' personal standards in regard to prejudice. Monteith et. al (1993) found that low-prejudiced participants' personal standards tended to be self-directed (internalized) while high-prejudiced participants tended to be other-directed. Low-prejudiced participants reported non-prejudiced personal standards in response domains of feeling, thought and behavior, while high-prejudiced participants reported relatively non-prejudiced standards only for overt and controllable behavioral responses.

Additionally, Monteith (1993) found that when a discrepancy between personal standards and behavior was activated, low-prejudiced participants experienced increased self-focus. They became preoccupied with their personal discrepancy experience, instigating exploratory behavior aimed at understanding why the discrepancy occurred and how to avoid it in the future.

Contact with group member (or symbolic equivalent).

Participants are confronted with a member of the target group through either a written symbol, video image, or in person. One aspect of this type of research that must be considered is the comparability of the various mediums used for target representation. As Zajonc (1980) states: "Because we cannot assume a one-to-one correspondence between language and reality, we may not take it for granted that the same principles of social

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perception will be generated by studying words as by studying the actual social objects for which these words stand."

Automatic activation of stereotype.

Within this model, it is assumed that exposure to a target will automatically activate a stereotype. Devine (1989) demonstrated the activation of stereotypes through attentionless processing using parafoveal priming with masking. Her research indicated that as a result of this attentionless activation, low and high-prejudiced participants gave stereotype-congruent evaluations of ambiguous behaviors. This result is in contrast to research which showed that low-prejudiced participants, when given the opportunity, responded in a stereotype-incongruent manner.

It must be noted that some research findings indicate that mere exposure to a stereotyped object is not always sufficient for stereotype activation. That is, cognitive busyness during initial exposure to a target can affect the formation of stereotypes. Persons with inadequate processing resources during the period of initial exposure may be less likely to form stereotypes than cognitively unbusy participants (Gilbert & Hixon, 1991). However, it has been shown that once a stereotype has been formed, it is likely to persist under conditions of insufficient attentional resources (Gilbert & Hixon, 1991; Pratto & Bargh, 1991).

Stereotype-consistent response inhibited.

This model views stereotype-consistent responses as analogous to habitual responses and the process of reducing prejudice as analogous to the breaking of a bad

habit. Devine and Monteith (1993) assert that the following steps are required to begin the process of breaking the prejudice habit 1.) making a decision to eliminate prejudice, 2.) learning to inhibit habitual responses (stereotype based) and 3.) generating responses consistent with beliefs and standards.

This process, like the process of breaking any bad habit, will require effort, practice and time. Also, during this process, low-prejudiced persons will be especially vulnerable to conflict between enduring negative reactions (stereotype based) and newly endorsed non-prejudiced beliefs.

Evaluate responses? (compare actual response to personal standards).

In this stage of the process, the question is whether low-prejudiced participants actually stop to compare their stereotype-consistent responses with their personal standards. Devine (1989, Study 3) indicated that when given the opportunity, low-prejudiced participants were more likely than high-prejudiced participants to respond in a stereotype-inconsistent manner. Monteith (1993, Study 2) prompted a comparison by instigating a perceived discrepancy between responses and personal standards. This induced discrepancy resulted in an increase in low-prejudiced participants' stereotype-incongruent responses and a within-trial increase in response time.

Activation of discrepancy and negative self-directed affect.

Within this model, activation of a discrepancy between low-prejudiced participants' personal standards and actual responses would result in negative self-directed affect. Monteith (1993) found that low-prejudiced participants for whom a discrepancy

was activated reported the highest levels of negative self-directed affect, significantly higher than participants in any of the other conditions.

Monteith (1993) used activation of a discrepancy as an independent variable. Participants were led to believe that they had reacted to a target in a manner that was more prejudiced than their internal standards would allow. Low-prejudiced participants responded slowly after discrepancy feedback, presumably reflecting enhanced analysis of the items and careful response generation in an attempt to avoid additional discrepant responses.

Devine et. al (1991) had participants report their standards for how they should respond, and how they would respond, in contact situations with Blacks (Study 1) and homosexual men (study 2). Interest centered on affective consequences associated with should-would discrepancies. Low and moderately-prejudiced participants with should-would discrepancies reacted with feelings of global discomfort and with more specific feelings of guilt and self-criticism. High-prejudiced participants with similar discrepancies experienced only global discomfort.

Study 3 indicated that low-prejudiced participants internalized their non-prejudiced standards and felt obligated to respond consistently with them. High-prejudiced participants' personal standards were less well internalized and appeared to be derived from their perceptions of society's standards, which participants indicated were mixed (i.e., contained both egalitarian and discriminatory components).

Activation of self-regulatory cycle.

Through activation of the self-regulatory cycle, an association is built between punishment (i.e., guilt) and stereotype-based responses. Devine and Monteith (1993) state that through the experience of discrepancies, individuals should establish an association between cues (e.g., group labels) and their discrepant (e.g., stereotypic) responses with discrepancy-related "punishment" (i.e., negative self-directed affect).

The consequence is that the sequence of responses previously tagged as faulty is executed with greater restraint (e.g., more slowly, more readily abandoned so alternative responses can be executed; Devine & Monteith, 1993). Additionally, the consequence of building these associations is that on future occasions, belief-based responses will be considered immediately following automatic activation of the stereotype.

Stop. Consider alternative (i.e., belief-based) responses.

This stage of the model comes as result of detection of a discrepancy and its associated negative affect. This stage of the model is likely to occur in low-prejudiced persons who are still learning to inhibit stereotype-based reactions immediately upon exposure to a stereotyped group member. It is assumed that over time low-prejudiced persons will be able to skip this stage by utilizing controlled processes immediately upon contact with the group member (i.e., consider a potential discrepancy based on past experience, rather than an actual one).

Stereotype-consistent response inhibited.

Along this path of the model, Devine's (1989, Study 3) findings for this stage were consistent with the model. Only low-prejudiced participants inhibited automatically activated stereotype-congruent thoughts and replaced them with thoughts reflecting equality and negation of the stereotype. This occurred when participants became aware of the type of target they were responding to. Devine's (1989) research suggests that, although low-prejudiced participants already have built-in discrepancy awareness, it still takes more time for them to process answers than high-prejudiced subject, because they must go through more than one process (i.e., substitution of stereotype-based response with personal belief-based responses). Devine (1989) further suggests that because personal beliefs are newer cognitive structures than stereotypical beliefs, they are harder to retrieve.

Purpose of Current Study

The purpose of the current study was to test the self-regulatory model's assumptions under conditions more natural than those previously used. Devine and Monteith (1993) questioned whether people would manifest discrepant responses under more natural conditions. They have suggested that, under more natural circumstances, people may not even consider the extent to which their actual responses match their standards of how they feel they should act.

In a more natural setting it can become apparent whether the effect of discrepancy-associated consequences on later inhibition is as general as Monteith (1993) suggests. She

found that low-prejudiced participants inhibited their discrepant responses even though their initial discrepant responses (using a black target) were quite different from those that were later inhibited (using a homosexual target).

Monteith (1993) states that the extent of this generality should be examined in future research in addition to examining whether inhibition is observed when greater amount of time elapses between the discrepant response and the subsequent inhibition task. If the discrepancy experience is strong enough to engage the self-regulatory cycle fully, inhibition may result even after a protracted period of time.

In the current study, time between discrepancy experiences was not used as a variable. Instead, general and protracted effects of discrepancy experiences were considered in the context of a cumulative effect of past real-life experiences on low-prejudiced participants. Because racial (black-white) relations have been heavily addressed in main-stream society in recent years, it was assumed that low-prejudiced participants would be sensitive to black racial stereotypes and would recognize their activation during exposure to a black target. Also, within the context of past experiences, low-prejudiced participants were assumed to have begun to build associations between their own negative affect and their stereotype-based reactions.

A more natural environment was created through the use of a video target, as opposed to one described on paper. Also, no artificial discrepancy was introduced. This placed participants in a situation similar to that which they might encounter in day-to-day life and relied on their presumably built-in discrepancy awareness. Since Monteith's model

is process oriented, as opposed to incident specific, this experiment presumably measured low-prejudiced participants at some point within the life-long prejudice-reduction process.

Specifically, the current study tested two assumptions derived from the self-regulatory model of prejudice reduction. First, it tested whether low-prejudiced participants were inhibiting stereotype-consistent responses and replacing them with their personal, more egalitarian beliefs. This was measured by evaluative ratings of a black versus a white video target. It was expected that this process would be evidenced by lower hostility ratings of the black target by low-prejudiced participants than by high-prejudiced participants.

Second, the current study tested whether low-prejudiced participants were using controlled processes to inhibit stereotype-consistent responses. If the black video target was salient enough to activate the hostility stereotype, inhibition of stereotype-consistent responses by low-prejudiced participants through controlled processes were expected to be evidenced by longer reaction-times in responding to hostility evaluations of the black target. Reaction times in response to the target were expected to be slower because low-prejudiced participants were expected to take time to compare automatically activated, stereotypical-belief based responses with other more personal belief-based responses.

Two within-subject independent variables were considered in the present study. The first factor was concerned with ratings made to sets of hostile and non-hostile traits. This factor was to examine whether hostile responses to the video targets were global or were confined to black stereotype-related characteristics alone. Previous research has

shown that hostility is a component of the black stereotype (Duncan, 1976; Srull & Wyer, 1979; Devine, 1989).

The second factor examined the valence of two sets of evaluative traits: a set of positive evaluative traits and a set of negative evaluative traits. This factor was incorporated to see if evaluations tended to be globally more negative or positive for the individual video targets, independent of a pure hostility dimension.

Monteith (1993) used a measure of reaction-time between trials to check the effectiveness of a discrepancy manipulation. Monteith found that all participants paused longer before initiating another trial after the discrepancy activation. Since an artificial discrepancy was not induced in the current study, between-trial reaction times were not measured. Monteith (1993) also found that low-prejudiced participants took longer to respond within individual trials, after the artificially introduced discrepancy, than their high-prejudiced counterparts. The current study measured within-trial reaction-time, and a delay similar to that obtained by Monteith was expected, even though no artificial discrepancy was introduced. It was expected that this delay would be greater for low-prejudiced participants due to an enhanced analysis of the trait ratings they would use to avoid discrepant responses instigated by their built-in discrepancy-detection ability.

Reaction time has been used in a variety of stereotype-related research, but usually with a focus on the automatic processes involved in stereotyping. For example, in Gaertner and McLaughlin (1983), high and low-prejudiced participants' reaction times to stereotype-related word pairs was measured. In contrast to the present study, it did not

attempt to measure controlled processes. In a lexical decision task, low and high-prejudiced participants were found to respond faster when positive attributes were paired with Whites (e.g. Whites: Smart) than with Blacks. For negative attributes, however, no differentiation was found. Participants were not prompted to consider the appropriateness of their responses in any way. Gaertner and McLaughlin (1983) state that if they had been prompted, the complex cognitive activity required would have been detected by reaction times considerably longer that those normally found in lexical decision tasks.

In addition to the two within-subject factors previously discussed (evaluation traits differing in hostility and evaluation traits differing in valence), two between-subjects factors were considered in the present experiment: level of prejudice (high vs. low) and race of video target (black vs. white). On the basis of the self-regulatory model, a significant three-factor interaction was predicted for both dependent variables utilized in the present study: evaluative rating scales and reaction time.

It was predicted that low-prejudiced participants would rate the black target as less negative and hostile than would high-prejudiced participants. Also, high-prejudiced participants are expected to rate the black target as more negative and hostile than the white target, whereas, low-prejudiced participants are expected to rate the black and white targets similarly.

It was expected that low-prejudiced participants observing a black target person would exhibit slower reaction times when rating that person on hostility traits than reaction times exhibited by high-prejudiced participants observing a black target person,

whereas, no difference in reaction-time is expected between low and high-prejudiced participants when rating the white target person.

Method

Participants and Selection Criteria

Participants consisted of 92 non-black, male and female, undergraduate psychology students from a mid-western university with English as their native language. 84% of the participants were non-hispanic Whites. The remaining 16% was made-up of Asian, Hispanic and American Indian with four participants responding to the Other ethnicity category. 72% were female and 28% male. 84% fell between the ages of 18 to 25. The age range was 18 to 47. 65% were born in Nebraska or Iowa. The remaining participants were born in other parts of the US with the exception of one participant from Korea, one from Japan, and one from Canada. 73% came from households with under $45,000 annual income. Only one participant reported an annual family income of over $100,000. Participation in the study was voluntary and participants received extra-credit for their participation.

Materials

Two video tapes were produced for use in this experiment. Each video featured a male speaker making several ambiguously hostile statements. These statements were based on the "Donald" paragraph developed by Srull and Wyer (1979; see also Bargh & Pietromonaco, 1982, and Devine, 1989). The statements, originally presented on paper with Donald being discussed in the third person, were stated by the actor in the first

person. The script reads as follows. The ambiguously hostile statements are indicated in bold type.

> "I ran into my old acquaintance Michael the other day. He had decided to come over and visit me, since by coincidence we took our vacations at the same time. Soon after he arrived, **a salesman knocked at the door, but I refused to let him enter.** I told Michael that **I was refusing to pay my rent until the landlord repainted my apartment**. We talked for a while, had lunch and then went out for a ride. We used Michael's car, since mine had broken down that morning, and **I had told the garage mechanic that I would have to go somewhere else if he couldn't fix my car that same day**. We went to the park for about an hour and then stopped at a hardware store. Michael was sort of preoccupied, but **I bought some small gadget, and then demanded my money back from the sales clerk.** Michael couldn't find what he was looking for, so we left and walked a few blocks to another store. The Red Cross had set up a stand by the door and asked us to donate blood. **I lied by saying I had diabetes and therefore could not give blood**. It's funny that I hadn't noticed it before, but when we got to the store, we found that it had gone out of business. It was getting kind of late, so Michael took me to pick up my car and we agreed to meet again as soon as possible."

One of the video tapes featured a black, male speaker and the other video tape a white, male speaker. Previous research has indicated that the ethnicity of a an actor in video is sufficient to activate a stereotype (Gilbert & Hixon, 1991). Additionally, Duncan (1976) found in experiments utilizing video tapes that witnesses to the same event perceived greater aggressive intent on the part of black actors than white actors. This effect presumably results from the violent stereotype which is frequently associated with Blacks (Duncan, 1976; Srull & Wyer, 1979; Devine, 1989).

Micro Experimental Laboratory v. 1.0 (MEL) was used for the computer task. It was programmed to display trait words in random order, initiating a new trial one-second after a response was entered. It recorded trait evaluations on a scale from one-to-seven

and reaction time from the time a trial was automatically initiated to when a response was entered. Also, traits were coded according to hostility (hostile and non-hostile) and trait valence (negative and positive). MEL is available through Psychology Software Tools in Pittsburgh, PA.

The Modern Racism Scale (MRS) was used to gauge participants' level of prejudice (McConahay et. al, 1981: McConahay, 1986). In this theory of modern racism, it is contended that people are unaware of their prejudices. Although modern racists reject traditionally racist beliefs (e.g., Black people are generally not as smart as white people), they are considered ambivalent because they have not eliminated their negative feelings toward black people. Instead, modern racists rationalize their negative feelings in terms of more abstract and political issues (e.g., Black people have gotten more economically than they deserve.) This strategy allows modern racists to develop nonracial rationalizations or justifications for their negative feelings. Possible scores range from -14 to 14. 14 points were added to each score to facilitate analysis, bringing the final score range from zero-to-28.

The Modern Racism Scale has been found to be useful in predicting attitudes toward busing in Kentucky, and voting patterns in Southern California (Kinder & Sears, 1981; Sears & McConahay, 1982). Use of the scale has shown that white persons with higher prejudice scores on the MRS show higher levels of inconsistency in making evaluations of Blacks, and the scores correlate significantly with hiring preferences in North Carolina (Sabnani & Ponterotto, 1992).

In a review of instruments designed specifically for use in ethnic minority-focused research, the Modern Racism Scale was rated moderate to high in test-retest reliabilities, internal consistencies, and construct and criterion-related validity. It was considered one of the best measures among those reviewed (Sabnani & Ponterotto, 1992).

Design and Procedure

The present study considered two, two-level, between-subject factors (level of prejudice and race of actor) and two, two-level, within-subject factors (hostility traits vs. non-hostility traits, and negatively valence traits vs. positively valenced traits). Participants were randomly assigned to one of the two videotape (race) conditions. Videotapes were viewed by groups of one-to-six participants.

After viewing the videotape of either the white or black actor, participants were instructed as a group on how to complete the computer task, before being assigned individually to computers in separate rooms. Participants were asked to form an impression of the speaker, and to respond to how well a series of twelve evaluative traits described him. Each participant completed four practice trials before proceeding to the actual trials. Responses were made from "1" (not at all) to "7" (extremely). To avoid confusion, the number keys 1-7 were marked with their corresponding evaluation. Six of the traits were descriptively related to hostility: three of these traits were evaluatively negative (hostile, dislikeable, and unfriendly) and three were evaluatively positive (thoughtful, kind, and considerate). The remaining six traits were not related to hostility:

three of these traits were evaluatively negative (boring, narrow-minded, and conceited) and three were evaluatively positive (intelligent, dependable, and interesting).

Participants were told to take as much time as they needed to respond, but to respond as quickly as accuracy would allow. They were allowed up to 30 seconds to respond. The computer recorded reaction time between when the statement was automatically presented and when the participant responded. There was a one-second pause between when the participant entered a response and when a new trial was automatically initiated.

Before beginning the computer task, participants were given an envelope and instructed to complete the two enclosed questionnaires after they had completed the computer task. The questionnaires consisted of the Modern Racism Scale (see Appendix A), and a demographic information questionnaire (see Appendix B). The seven-item Modern Racism Scale, labeled Social Issues Questionnaire, was embedded among 11 filler-items dealing with currently controversial topics such as "Sex education should be taught in public school systems of the Untied States." The filler items were created to disguise the purpose of the scale.

By completing the MRS after participation in the study, it was believed that the other measures would be less likely to be affected by the participants' knowledge of the purpose of the study and by the experimenter's knowledge of participants' prejudice level. Participants were divided by the median score on the Modern Racism Scale and placed in either the low (MRS score zero-to-eight) or high-prejudiced (MRS score nine-to-28)

condition. The distribution of participants' scores was slightly positively skewed (closer to low-prejudiced). This resulted in a greater range of scores represented in the high-prejudiced group. The mean score was 8.9.

Previous research using the Modern Racism Scale has used a similar median split on positively-skewed distributions (Devine, 1989, Study 1; Devine et. al, 1991). Also, a method of using only the lower and upper-thirds of the distribution has been used (Devine, 1989, Study 2). This method was not employed in this study due to the resulting reduction in group sample sizes.

Finally, participants were given a card reflecting the extra credit awarded to them, thanked for their participation, and informed that a debriefing statement outlining further details of the study would be made available to them in their psychology class within the next few weeks.

Results

Before any analysis was performed, rating-scale responses to all positively valenced traits (kind, thoughtful, considerate, intelligent, dependable and interesting) were reversed scored, so a higher mean rating indicated a more negative response to the actor.

Four separate mixed-factorial ANOVAs were performed, two using rating-scale data and two using reaction-time data (see Appendix C for complete ANOVA results). Data was converted from Micro Experimental Laboratory v. 1.0 (MEL) to a spreadsheet format and MRS scores were entered. Analyses were performed using a PC-based statistical package (SPSS) and Clearlake ANOVA for the Macintosh.

Rating-Scale Analyses

Two mixed-factorial, unequal-cell ANOVAs using rating-scale data were performed. The first used race (white vs. black) and prejudice level (low vs. high) as between-subjects variables. Trait hostility (hostile vs. non-hostile) was used as the within-subjects variable (see Table 1 for means). The predicted three-way interaction was not significant, $F(1, 88) = .90$, $p = .345$. The only significant effect in this analysis was the main effect for trait hostility, $F(1, 88) = 4.85$, $p = .030$. Group means indicate that participants responded more negatively to hostile traits ($M = 4.10$) than to the non-hostile traits ($M = 3.89$).

Table 1

Rating-Scale Data Weighted Means for Trait Hostility by Race by Prejudice Level

		Trait Hostility	
Race	n	Hostile	Non-hostile
Prejudice Level			
White			
Low	20	4.05	3.70
High	26	4.08	3.92
Black			
Low	25	4.08	4.00
High	21	4.19	3.95

The second mixed-factorial, unequal-cell ANOVA examined the rating scores for trait valence (negative traits vs. positive traits) (see Table 2 for means). The analysis

resulted in two statistically significant main effects, one for prejudice level, $F(1, 88) = 4.89$, $p < .03$, and one for trait valence, $F(1, 88) = 27.40$, $p = .000$.

The main effect for prejudice level indicated that low-prejudiced participants ($M = 3.85$) provided a more favorable rating of the actor than was provided by the high-prejudiced participants ($M = 4.05$). The main effect for trait valence indicated that participants provided a less favorable rating on positively valenced traits ($M = 4.29$) than to negatively valenced traits ($M = 3.60$) (a higher score indicated a less favorable rating).

Table 2

Rating-Scale Data Weighted Means for Trait Valence by Race by Prejudice Level

		Trait Valence	
Race	n	Negative	Positive
Prejudice Level			
White			
Low	20	3.5	4.1
High	26	3.77	4.26
Black			
Low	25	3.48	4.32
High	21	3.67	4.48

Reaction-Time Analyses

Two mixed-factorial, unequal-cell ANOVAs examined the reaction-time data. The first used trait hostility (hostile vs. non-hostile) as the within-subject variable (see Table 3 for means). The predicted three-way interaction was not significant, $F(1, 88) = .65$, $p =$

.422. However, a significant main effect for trait hostility was found, $F(1, 88) = 23.50$, $p = .000$, showing that participants reacted significantly more slowly to hostile traits ($M = 3016$) than to non-hostile traits ($M = 2651$).

Table 3

Reaction-Time Data Weighted Means for Trait Hostility by Race by Prejudice Level

		Trait Hostility	
Race	n	Hostile	Non-hostile
Prejudice Level			
White			
Low	20	3478	2785
High	26	2911	2618
Black			
Low	25	3066	2752
High	21	2608	2451

The prejudice level x trait hostility interaction approached statistical significance, $F(1, 88) = 3.43$, $p = .068$ (see Figure 2). A significant simple effect for trait hostility at the low-prejudice level, $F(1, 88) = 22.22$, $p = .00$ and for trait hostility at the high prejudice level, $F(1, 88) = 4.65$, $p = .034$ were consistent with the significant main effect for trait hostility indicated above. That is, participants at both levels of prejudice responded more slowly to hostile traits (low: $M = 3272$; high: $M = 2760$) than to non-hostile traits (low: $M = 2769$; high: $M = 2534$). The simple effect of prejudice level for trait hostility approached statistical significance, $F(1, 103) = 3.75$, $p = .056$, indicating that low-prejudiced

participants (M = 3272) responded more slowly to the hostile traits compared to the high-prejudiced participants (M = 2760). The difference between low and high-prejudiced participants in reaction time made to non-hostile words was not statistically significant, F(1, 103) = .783, p = .378.

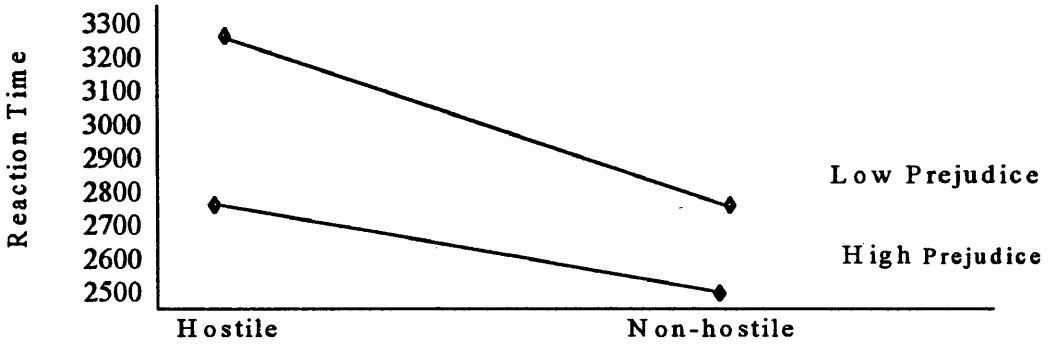

Figure 2. Prejudice level x trait hostility interaction for reaction-time data.

The race x trait hostility interaction approached statistical significance, F(1, 88) = 2.94, p = .090 (see figure 3). Two significant simple effects reflecting the main effect for trait hostility were revealed. Trait hostility for participants responding to the white actor, F(1, 88) = 21.790, p = .00, indicated that participants responded more slowly to the hostile traits (M = 3195) than to non-hostile traits (M = 2701). The same relationship was revealed for participants responding to the black video, F(1, 88) = 4.975, p = .028; (hostile: M = 2837; non-hostile: M = 2602).

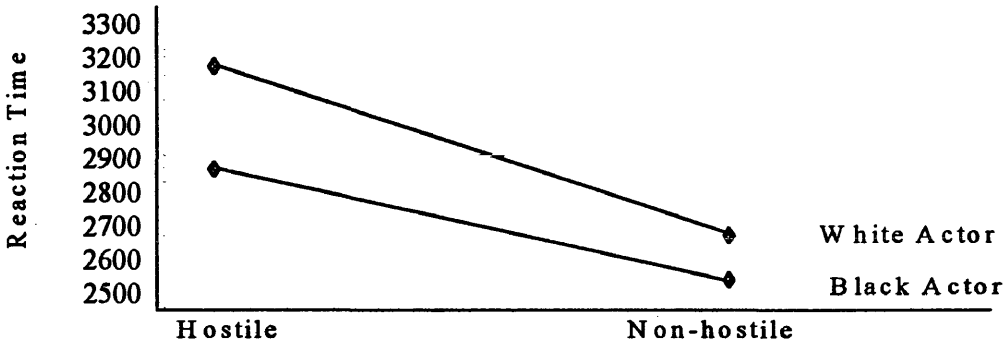

Figure 3. Race x trait hostility interaction for reaction-time data.

A second mixed-factorial unequal cell size ANOVA examined the reaction-time data for trait valence (negative traits vs. positive traits) (see Table 4 for means). The only effect approaching significance in this analysis was the main effect for trait valence, $F(1, 88) = 3.58$, $p = .062$. Group means indicated that participants tended to take longer to respond to positively valenced traits ($M = 2906$) than to negatively valenced traits ($M = 2761$).

Table 4

Reaction-Time Data Weighted Means for Trait Valence by Race by Prejudice Level

Race / Prejudice Level	n	Trait Valence: Negative	Trait Valence: Positive
White			
Low	20	3004	3259
High	26	2631	2898
Black			
Low	25	2900	2918
High	21	2511	2548

Discussion

The purpose of this study was to test two assumptions derived from Devine and Monteith's (1993) self-regulatory model of prejudice reduction. The first was whether low-prejudiced persons inhibit stereotype-consistent responses and replace them with more egalitarian, personal-belief based responses. The second assumption was whether low-prejudiced persons used controlled processes to inhibit stereotype-consistent responses. Trait ratings provided evidence of the first process and reaction time provided evidence of the second process.

Trait Ratings

It was predicted that low-prejudiced persons would inhibit stereotype-consistent responses made to a black person and would exhibit less hostile and negative attributions than their high-prejudiced counterparts (see page 19 for trait words). The effect was expected to be most pronounced when providing attributions of a hostile nature, since hostility has been shown to be a component of the black stereotype (Duncan, 1976; Srull & Wyer, 1979; Devine, 1989).

Trait ratings revealed that low-prejudiced participants responded less negatively to both the black and white actors than high-prejudiced participants. Although an effect for prejudice level was expected only for the black actor, it would appear that the self-regulatory process is a more general process. This may be explained by the possibility that overt hostility was perceived in both the black and the white actors, which outweighed the differential race of the actors. Support for this hypothesis is twofold. First, participants in general assigned a more negative trait rating when responding to the hostile traits than to the non-hostile traits. Second, participants responded less favorably to positively valenced traits. This indicates that participants may have been reluctant to respond favorably to either target person given the fact that both persons were perceived in an hostile manner.

Devine et. al's (1991) research on discrepancies between how people feel they should act and how they actually act when confronted by a stereotyped target supports the possibility of a generalized inhibition of stereotype-based responses. This research indicated that responses were not limited strictly to race-related stereotypes, but to any

characteristic that may initiate a stereotype (e.g., sexual orientation, gender). Participants who had internalized a non-prejudiced self-identity held more egalitarian beliefs, providing responses according to these beliefs, when given the opportunity. Indeed, if participants perceived equal hostility in both actors, the low-prejudiced participants' more positive evaluations may well indicate their commitment to respond in a manner congruent with their personal beliefs.

Reaction Time

The expected finding that low-prejudiced participants compared to high-prejudiced participants would use controlled processes to inhibit stereotype-consistent responses, thereby taking significantly longer to make evaluations of the black actor, was not supported. Nevertheless, analysis of the reaction-time data indicated than low-prejudiced participants responded significantly more slowly when rating the hostile traits than did their high-prejudiced counterparts. Although this effect was expected only for low-prejudiced participants responding to the black actor, this effect does support the model's assumption that low-prejudiced participants make greater use of controlled processes in making their evaluations.

Similar to the rating scale data, the reaction-time data indicates that self-regulatory processes were utilized by low-prejudiced participants viewing either video. This may have been, as noted in the rating scale data, because participants perceived equal and high hostility in both actors. This conclusion is supported by the significant main effect for hostile traits indicating that participants, as a whole, took longer to respond to the hostile

traits than the non-hostile traits. Similarly, the simple effects of race by trait hostility interaction showed that the white and black actors were responded to more slowly when considering hostile traits than non-hostile traits.

Furthermore, it was shown that participants took longer to respond to positively valenced traits than to negatively valenced traits. This mirrors the rating-scale data revealing that participants in all groups were reluctant to respond favorably to either actor. Because both actors were perceived to be equally hostile, it stands to reason that it would be easier to make a negative judgment to each actor, since participants would recognize immediately that a negative trait best represents a hostile actor. It may be understood that positive traits would require greater consideration before responding.

Since there were no significant effects directly related to the race of the actor, it is impossible to reliably ascertain the effect of race in this experiment. However, the difference in reaction-time between low and high-prejudiced participants strongly indicates that these two groups were, in fact, utilizing a different cognitive process when responding to equally hostile actors.

Current Design Considerations

Since participants appeared to perceive both actors as hostile, it is clear that some aspect other than the race of the actors affected responses. When the video tapes were created, great care was taken to make them as identical as possible in all aspects except for the race of the actor; both tapes were made at the same time, with the same lighting,

clothing, equipment, etc., and both actors were the same age and of the same economic and educational background.

In an attempt to keep the tapes as similar as possible, both actors were instructed to deliver their presentation with intonation and speed similar to that of the other actor. A bi-product of this homogenization was that the final presentations lacked natural personality and tonal affect. The "monotone" aspects of the actor's delivery was remarked upon by a few of the participants. Perhaps it was this lack of natural affect that led participants to perceive both actors as hostile in addition to the hostile content of the message. Since participants viewed only one video tape, they did not have an opportunity to compare the two actors. Therefore, the lack of affect may have been the defining characteristic that influenced their evaluations.

The above interpretation of the significant main effects for trait hostility and trait valence is based on the assumption that the self-regulatory process was in effect. It is important to consider the possibility that these effects arose from factors unrelated to the self-regulatory model. Since the stimulus words used in this study differed not only in hostility and valence, it is possible that some other aspect of the words created the main effects. This possibility cannot be ignored since none of the anticipated interactions with race were found.

Given that no effects for race were found, it is possible that the current study did not provide an accurate test of the self-regulatory model. Since the sample was somewhat positively skewed and a median split on Modern Racism Scores determined high and low-

prejudiced groups, it is possible that the high-prejudiced scores were not sufficiently represented. Data utilizing only the upper and lower-thirds of the continuum might have yielded race effects, but sample sizes were not large enough to employ this method. Also, the Modern Racism Scale was created from data collected from predominantly white samples, thus the prejudice level of the 15% of non-white participants in this study may not have been accurately measured by this scale.

Failure to find any race effects may also indicate that the self-regulatory process is not in effect. If the sample was representative of prejudice levels in the general population, the lack of race effects may indicate that race has no bearing on participants' evaluations of a target person. However, since effects for prejudice level were found, it seems likely that low and high-prejudiced persons do utilize different processes in evaluating target persons as indicated by the model.

Suggestions for Further Research

In further research utilizing a design similar to that used in the current study, preliminary research is recommended in order to identify that aspect of a video target to which participants are responding. Creating a natural context would tend to remove confounding elements and would increase the likelihood that participants are responding purely to the target aspect of interest (e.g., race). Furthermore, a design incorporating four different video tapes: one with a hostile script and with a non-hostile script for each actor would result in a better understanding of the self-regulatory process.

It is recommended that future research should focus on the elements of a target that are most salient in automatically initiating a stereotype. It is important to identify those elements that are critical in bringing activation of a stereotype to conscious awareness. Future research should determine also the conditions that activate the self-regulatory process. That is, whether is it more likely that self-regulation would tend to occur in a one-to-one confrontation, in a group, as a passive observer, or as an active participant in the interaction.

Another important aspect of future research would be identifying at what point along the prejudice-reduction continuum a participant falls. Presumably, the longer a person has been working at breaking their prejudice habit, the more adept they will become at replacing older, stereotype-based beliefs with newer, personal beliefs. Future research should incorporate designs sensitive to differences among low-prejudiced participants in order to gain better understanding of this process.

Finally, to make this model as useful as possible in understanding and improving race relations, it is critical to identify the origin of what instigates a person to internalize a non-prejudiced self-identity. Since this internalization is a prerequisite for prejudice reduction, it would benefit researchers and practitioners in race-relations to understand how this process is initiated and to identify what will potentially motivate others to adopt a low-prejudiced identity.

References

Allport, G. W. (1954). The nature of prejudice, Reading, MA: Addison-Wesley.

Ashmore, R. D., & Del Boca, F. K. (1981). Conceptual approaches to stereotypes and stereotyping. In D.L. Hamilton (Ed.) Cognitive processes in stereotyping and intergroup behavior, Hillsdale, NJ: Erlbaum.

Bargh, J. A., & Pietromonaco, P. (1982). Automatic information processing and social perception: The influence of trait information presented outside of conscious awareness on impression formation. Journal of Personality and Social Psychology, 43, 427-449.

Devine, P. G. (1989). Stereotypes and prejudice: Their automatic and controlled components. Journal of Personality and Social Psychology, 56(1), 5-18.

Devine, P. G. & Monteith, M. J. (1993). The role of discrepancy associated affect in prejudice reduction. In D.M. Mackie & D. L. Hamilton (Eds.), Affect, cognition, and stereotyping: Interactive processes in intergroup perception (pp. 327-344). San Diego, CA: Academic Press.

Devine, P. G., Monteith, M. J., Zuwerink, J. R., & Elliot, A. J. (1991). Prejudice with and without compunction. Journal of Personality and Social Psychology, 60(6), 817-830.

Dovidio, J. F. & Gaertner, S. L. (1986). Prejudice, discrimination, and racism: Historical trends and contemporary approaches. In J. F. Dovidio & S. L. Gaertner (Eds.), Prejudice, discrimination, and racism (pp. 127-163). New York: Academic Press.

Duncan, B. L. (1976). Differential social perception and attribution of intergroup violence: Testing the lower limits of stereotyping of Blacks. Journal of Personality and Social Psychology, 34(4), 590-598.

Festinger, L. (1957). A theory of cognitive dissonance. New York: Row; Peterson.

Gaertner, S. L. & McLaughlin, J. P. (1983). Racial stereotypes: Association and ascriptions of positive and negative characteristics. Social Psychology Quarterly, 46(1), 23-30.

Gilbert, D. T., & Hixon, J. G. (1991). The trouble of thinking: Activation and application of stereotypic beliefs. Journal of Personality and Social Psychology, 60(4), 509-517.

Hamilton, D.L. (Ed.), (1981). Cognitive processes in stereotyping and intergroup behavior, Hillsdale, NJ: Erlbaum.

Hamilton, D. L., & Trolier, T. (1986). Stereotypes and stereotyping: An overview of the cognitive approach. In J. F. Dovidio & S. L. Gaertner (Eds.), Prejudice, discrimination, and racism (pp. 127-163). New York: Academic Press.

Katz, P. A. (1976). Racism and social science: Towards a new commitment. In P. A. Katz (Ed.), Towards the elimination of racism, (pp 3-18). New York: Pergamon.

Kinder, D. R., & Sears, D.O. (1981). Prejudice and politics: Symbolic racism versus racial threats to the good life. Journal of Personality and Social Psychology, 40, 414-431.

McConahay, J. B. (1986). Modern racism, ambivalence, and the modern racism scale. In J. F. Dovidio & S. L. Gaertner (Eds.), Prejudice, discrimination, and racism (pp. 91-125). San Diego, CA Academic Press.

McConahay, J. B., Hardee, B. B. & Batts, V. (1981). Has racism declined in America? It depends on who is asking and what is asked. Journal of Conflict Resolution, 25(4), 563-579.

Monteith, M. J. (1993). Self-regulation of prejudiced responses: Implications for progress in prejudice-reduction efforts. Journal of Personality and Social Psychology, 65(3), 469-485.

Monteith, M. J., Devine, P. G. & Zuwerink, J. R. (1993). Self-directed versus other-directed affect as a consequence of prejudice-related discrepancies. Journal of Personality and Social Psychology, 64(2), 198-210.

Pratto, F. & Bargh, J. A. (1991). Stereotyping based on apparently individuating information: Trait and global components of sex stereotypes under attention overload. Journal of Experimental Social Psychology, 27, 26-47.

Sabnani, H. B., & Ponterotto, J. G. (1992). Racial/ethnic minority-specific instrumentation in counseling research: A review, critique, and recommendations. Measurement and Evaluation in Counseling and Development, 24, 161-187.

Sears, D. O., & McConahay, J. B. (1973). The politics of violence: The new urban blacks and the Watts riot. Boston: Houghton Mifflin.

Shiffrin, R. M., & Dumais, S. T. (1981). The development of automatism. In J. R. Anderson (Ed.), Cognitive skills and their acquisition (pp: 111-140). Hillsdale, NJ: Erlbaum.

Srull, T. K., & Wyer, R. S. (1979). The role of category accessibility in the interpretation of information about persons: Some determinants and implications. Journal of Personality and Social Psychology, 37(10), 1660-1672.

Stephan, W. G. (1989). A cognitive approach to stereotyping. In D. Bar-Tal, C. F. Graumann, A. W. Kruglanski, & W. Stroebe (Eds.), Stereotyping and prejudice: Changing conceptions (pp. 37-57). New York: Springer-Verlag.

Tajfel, H. (1969). Cognitive aspects of prejudice. Journal of Social Issues, 25, 79-97.

Zajonc, R. B. (1980). Cognition and social cognition: A historical perspective. In L. Festinger (Ed.), Retrospections on social psychology (pp. 180-204). New York: Oxford University Press.

Appendix A

Modern Racism Scale with Filler Items

On the pages that follow are a number of opinion statements about public issues, politics, and your beliefs about the world in general. You will agree with some, disagree with some and have no opinion about others. You are under no obligation to give an opinion on any item. However, we would like for you to indicate when you do not have an opinion or when you do not wish to answer, so please do not leave any question blank. Please use the following scale to indicate your degree of agreement with each item.

+2 agree strongly

+1 agree somewhat

0 neither agree nor disagree or no opinion

-1 disagree somewhat

-2 disagree strongly

X I do not wish to answer

☐	☐	☐	☐	☐	☐
+2	+1	0	-1	-2	x

Your replies will be completely confidential. We are interested only in group averages and percentages, so do not put your name or anything else on this form that might identify you.

1. **Blacks are getting too demanding in their push for equal rights.**

☐	☐	☐	☐	☐	☐
+2	+1	0	-1	-2	x

2. In the past, legal immigrants have gotten more economically than they deserve.

☐	☐	☐	☐	☐	☐
+2	+1	0	-1	-2	x

3. Discrimination against women is no longer a problem in the United States.

☐	☐	☐	☐	☐	☐
+2	+1	0	-1	-2	x

4. **Blacks have more influence upon school desegregation plans than they ought to have.**

☐	☐	☐	☐	☐	☐
+2	+1	0	-1	-2	x

5. It is easy to understand why Affirmative Action programs have been recently challenged.

☐	☐	☐	☐	☐	☐
+2	+1	0	-1	-2	x

6. **Discrimination against Blacks is no longer a problem in the United States.**

☐	☐	☐	☐	☐	☐
+2	+1	0	-1	-2	x

7. It is easy to understand why abortion is such a hotly debated issue.

☐	☐	☐	☐	☐	☐
+2	+1	0	-1	-2	x

8. Sex education should be taught in public school systems of the United States.

☐	☐	☐	☐	☐	☐
+2	+1	0	-1	-2	x

9. **Over the past few years, blacks have gotten more economically than they deserve.**

☐	☐	☐	☐	☐	☐
+2	+1	0	-1	-2	x

10. Condoms should be made available to students in high school as part of their sex education program.

☐	☐	☐	☐	☐	☐
+2	+1	0	-1	-2	x

11. Over the past few years, the increase in sex and violence on television has had a negative effect on children in the United States.

☐	☐	☐	☐	☐	☐
+2	+1	0	-1	-2	x

12. Illegal immigrants should not push themselves where they are not wanted.

☐	☐	☐	☐	☐	☐
+2	+1	0	-1	-2	x

13. It is easy to understand the anger of blacks in America.

☐	☐	☐	☐	☐	☐
+2	+1	0	-1	-2	x

14. Legal abortion services should no longer be made available to women.

☐	☐	☐	☐	☐	☐
+2	+1	0	-1	-2	x

15. Blacks should not push themselves where they are not wanted.

☐	☐	☐	☐	☐	☐
+2	+1	0	-1	-2	x

16. School desegregation plans increase the amount of student violence on campus.

☐	☐	☐	☐	☐	☐
+2	+1	0	-1	-2	x

17. Illegal immigrants are getting more than they deserve from the United States government.

☐	☐	☐	☐	☐	☐
+2	+1	0	-1	-2	x

18. Over the past few years, the government and news media have shown more respect to blacks than they deserve.

☐	☐	☐	☐	☐	☐
+2	+1	0	-1	-2	x

Appendix B

Demographic Questionnaire

Subject Number _____

Please provide the following information. When you are finished, place this with your completed Social Issues Questionnaire in the envelope provided. Return the envelope to the experimenter. Don't forget to get your participation card signed; you will need this to receive extra credit in your psychology class.

1. Gender: ☐ Male ☐ Female

2. Annual Household Income:
   a.☐ under $10,000
   b.☐ $10,000 - $25,000
   c.☐ $25,000 - $45,000
   d.☐ $45,000 - $65,000
   e.☐ $65,000 - $100,000
   f.☐ over $100,00

3. Ethnic Background:
   a.☐ White Non-Hispanic
   b.☐ Hispanic
   c.☐ Black Non-Hispanic
   d.☐ Asian or Pacific Islander
   e.☐ American Indian or Alaskan Native
   f. ☐ Other

4. Age: _____

5. Number of years you have lived in Nebraska: _____

6. Country of Citizenship: _____

7. Place of Birth: _____

8. Native Language: _____

Appendix C

Complete ANOVA Results

Rating Scale ANOVA for Race x Prejudice Level x Trait Hostility

Tests of Between-Subjects Effects

	SS	DF	MS	F	Sig. of F
Within + Residual	32.08	88	.36		
Prejudice Level	.28	1	.28	.76	.385
Race	.63	1	.63	1.74	.190
Prejudice Level x Race	.10	1	.10	.27	.603

Tests Involving 'Trait Hostility' Within-Subject Effect

	SS	DF	MS	F	Sig. of F
Within + Residual	34.79	88	.40		
Trait Hostility	1.92	1	1.92	4.85	.030
Prejudice Level x Trait Hostility	.00	1	.00	.01	.919
Race x Trait Hostility	.10	1	.10	.25	.620
Prejudice Level x Race x Trait Hostility	.36	1	.36	.90	.345

Rating Scale ANOVA for Race x Prejudice Level x Trait Valence

Tests of Between-Subjects Effects

	SS	DF	MS	F	Sig. of F
Within + Residual	31.17	88	.35		
Prejudice Level	1.73	1	1.73	4.89	.030
Race	.26	1	.26	.74	.391
Prejudice Level x Race	.03	1	.03	.07	.787

Tests Involving 'Trait Valence' Within-Subjects Effect

	SS	DF	MS	F	Sig. of F
Within + Residual	68.95	88	.78		
Trait Valence	21.47	1	21.47	27.40	.000
Prejudice Level x Trait Valence	.05	1	.05	.06	.804
Race x Trait Valence	.86	1	.86	1.09	.298
Prejudice Level x Race x Trait Valence	.01	1	.01	.02	.895

Reaction Time ANOVA for Race x Prejudice Level x Trait Hostility

Tests of Between-Subjects Effects

	SS	DF	MS	F	Sig. of F
Within + Residual	257596000.3	88	2927227.3		
Prejudice Level	6336272.62	1	6336272.6	2.16	.145
Race	2372431.80	1	2372431.8	.81	.370
Prejudice Level x Race	1752.82	1	1752.82	.00	.981

Tests Involving 'Trait Hostility' Within-Subject Effect

	SS	DF	MS	F	Sig. of F
Within + Residual	22620224.48	88	257048.01		
Trait Hostility	6040680.71	1	6040680.7	23.50	.000
Prejudice Level x Trait Hostility	880466.09	1	880466.09	3.43	.068
Race x Trait Hostility	754842.48	1	754842.48	2.94	.090
Prejudice Level x Race x Trait Hostility	167202.53	1	167202.53	.65	.422

Reaction Time ANOVA for Race x Prejudice Level x Trait Valence

Tests of Between-Subjects Effects

	SS	DF	MS	F	Sig. of F
Within + Residual	257601214.7	88	2927286.5		
Prejudice Level	6336245.28	1	6336245.3	2.16	.145
Race	2372399.09	1	2372399.1	.81	.370
Prejudice Level x Race	1791.66	1	1791.66	.00	.980

Tests Involving 'Trait Valence' Within-Subject Effect

	SS	DF	MS	F	Sig. of F
Within + Residual	23315476.86	88	264948.60		
Trait Valence	948206.95	1	948206.95	3.58	.062
Prejudice Level x Trait Valence	2732.31	1	2732.31	.01	.919
Race x Trait Valence	622602.18	1	622602.18	2.35	.129
Prejudice Level x Race x Trait Valence	205.74	1	205.74	.00	.978