CAN PROMOTING CULTURAL DIVERSITY BACKFIRE? A LOOK AT THE IMPLICIT

EFFECTS OF PSYCHOLOGICAL REACTANCE

by

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Psychological reactance occurs when an individual's freedom to engage in a particular behavior is compromised, resulting in a greater urge to engage in that behavior (Brehm, 1966). The current study examined the role of reactance in the divergence between implicit and explicit attitudes, and considered the possibility that reactance itself may be experienced either implicitly or explicitly. Participants ($N = 162$) watched a cultural sensitivity video or control video in a study administered by a White or Black experimenter. It was found that the cultural sensitivity video elicited implicit reactance, but only for participants whose motivation to appear non-prejudiced was internal. Participants whose motivation to appear non-prejudiced was external had the highest levels of implicit racism with the White experimenter and the control video. Finally, participants showed higher scores on the Modern Racism Scale when they had the White experimenter than when they had the Black experimenter. This study suggests that there are circumstances in which cultural sensitivity videos may backfire, and that the distinction between people who are internally versus externally motivated to appear non-prejudiced is an important one, with regard to the effects of such videos.

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EFFECTS OF PSYCHOLOGICAL REACTANCE

Cultural sensitivity has become an integral value in many organizations. Sensitivity towards "other" cultures is taught and promoted in schools, businesses, and in many other contexts, with the goal of enhancing unity and acceptance between people, reducing hatred and violence, and creating a better environment. Could emphasizing the need to accept other cultures actually backfire, thereby undermining this goal? Is it possible that when we think we are creating an environment that will promote unity we are actually promoting the enhancement of stereotypic tendencies toward out-group individuals?

Emphasizing cultural sensitivity could be problematic given the potential presence of psychological reactance. Psychological reactance occurs when the freedom to engage in a particular behavior is compromised, resulting in a greater urge to engage in that behavior (Brehm, 1966). The magnitude of psychological reactance experienced depends upon three factors: the importance of the free behaviors that are eliminated or threatened, the proportion of free behaviors eliminated or threatened, and the magnitude of the threat. Brehm theorized that reactance could exist both at the conscious and the non-conscious level. One example of reactance occurred in a study involving participants who read summaries of three or six movies. They then rated how much they would like to see each of the movies for which they read a summary. After making these ratings, some participants were told that at the completion of the

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experiment they would be able to choose one of the movies to watch; others were told that they would be able to choose one of the movies to watch but that they could not choose the one they rated second highest because the experimenter was having technical difficulties with it. Then they read over the summaries again to decide if they wanted to make any changes to the ratings they initially made. Participants in the free behavior elimination condition (those participants who could not choose the movie they rated second highest) significantly increased their ratings of how much they would like to see the movie they were unable to see. This was not the case for participants able to choose any movie. Similar types of reactance effects have been observed for collegiate drinking (Engs & Hanson, 1989), patient noncompliance (Fogarty, 1997), and treatment of women (Vrugt, 1992).

Reactance at the implicit level

Research to this point has looked at reactance using only explicit measures. Nevertheless, in certain situations reactance may only operate implicitly. Consider situations where cultural sensitivity norms are particularly salient. In such situations, an individual is likely to appear very culturally sensitive, while displaying reactance implicitly. One possibility is that the appearance of cultural sensitivity would serve a strategic self-presentation purpose, while the need to hide the true racist tendencies would reveal the reactance implicitly. Another possibility is that the appearance of cultural sensitivity would indeed be genuine, and that the individual would be unaware of their implicit racist tendencies. Reactance could therefore cause implicit

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attitudes toward other cultures to become negative, whereas explicit attitudes towards other

cultures would appear positive (thus creating a divergence between implicit and explicit

attitudes).

This divergent effect might be observed for two different reasons. One is that individuals

truly believe themselves to be culturally sensitive (thus positive scores on explicit measures)

while implicitly they are actually biased toward a lack of cultural sensitivity (leading to negative

scores on implicit measures). On the other hand, such a divergence could emerge because

individuals are simply trying to hide their culturally insensitive tendencies through impression

management (again causing positive explicit measure scores but negative implicit measure

scores). Although reactance has been examined in conjunction with impression management

(Heilman & Toffler, 1976; Baer, Hinkle, Smith, & Fenton, 1980), previous studies conceptualize

impression management as the cause of reactance (the participant's desire to give the impression

that they are making their own choice). In the present study the impression management is

argued to be a reason that the reactance is not detected explicitly (the participant's desire to

behave in a socially desirable manner).

Emergence of implicit attitude measures

Discriminating among these explanations requires the use of implicit measures of

attitudes, such as those that have been developed in recent years to uncover the dissociations that

can exist between explicit and implicit attitudes (Wilson, Lindsey, & Schooler, 2000). Such

dissociations provide further support for the suggestion that reactance could occur (or at least be

detected) implicitly, while failing to occur (or be detected) explicitly. In particular, research has demonstrated the potential for people to display racist tendencies implicitly but not explicitly (Fazio, Jackson, Dunton, & Williams, 1995; Greenwald, McGee, & Schwartz, 1998). In one study, participants who were primed with black faces took longer to recognize positive words as being positive. Furthermore, individual differences in sensitivity to this priming measure not only failed to be in accordance with, but actually showed a trend of scores that were opposite to those received on the explicit measure (the Modern Racism Scale).

Another popular measure of implicit racial attitudes is the Implicit Association Test (IAT) (Greenwald, McGee, & Schwartz, 1998). This measure uses associations between two categories to reveal automatically activated (implicit) associations. Attempting to associate two categories that violate automatically activated associations results in longer response times. Using this procedure, Greenwald et al. found very weak correlations between implicit measures and the explicit measures that were used (again supporting dissociations between implicit and explicit attitudes). Studies such as these have led to the now widely accepted view that when primed, people have an automatic or uncontrollable (implicit) response that may activate stereotypes; and then a controlled (explicit) component in which people suppress or ignore those stereotypes or associations (Devine, 1989).

The use of experimenters of different races illustrates this dissociation. In one study (Dovidio, Gaertner, & Kawakami, 2002), white's beliefs about how friendly they acted and how friendly they were perceived by a black confederate could be predicted by explicit attitude measures. Explicit measures were also found to be predictors of verbal behavior in the interracial interactions. However, implicit measures (the bona fide pipeline) of the white

participant were found to predict the black confederate's true beliefs about how they were treated during the interracial interaction. This was measured using priming and reaction time measures. Implicit measures also predicted nonverbal behaviors during these interactions such as body language. Because the white participants' beliefs of how friendly they were and how friendly they were perceived by the black confederate were predicated on explicit measures, it is logical to assume that explicit measures would be more influenced by impression management and the desire to appear in compliance with societal norms than would implicit measures.

Potential moderators of attitude measures

As noted, prior research has observed that social desirability greatly influences attitude measures, yet the precise nature of this effect can depend on the type of motivation a person has to act in a socially desirable manner (Plant & Devine, 1998). For example, people can act in accordance with societal norms and "political correctness" for internal reasons or for external reasons. An internal reason would be to look unprejudiced to oneself. An external reason would be to look unprejudiced to others in order to avoid social punishment. Plant and Devine devised a scale to measure the extent to which people appeared non-prejudiced for internal or for external reasons, including items such as "Because of today's politically correct standards I try to appear non-prejudiced toward Black people" (external motivation item); and "I attempt to act in non-prejudiced ways toward Black people because it is personally important to me" (internal motivation item).

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This scale consists of five internal items and five external items. The internal questions and the external questions were found to be independent and could stand alone as two separate scales. They were initially tested as two separate scales before being combined into one. Plant and Devine found reasonable alpha levels (ranging from .76 to .85) across three samples, suggesting good reliability. The scales also showed reasonable 9-week internal test-retest reliabilities (internal $r = .77$, external $r = .60$). Correlations of the internal and external questions were examined with a variety of measures of prejudice in order to establish convergent and discriminant validity. Two methods were used to establish predictive validity of the internal and external questions. The first was to explore the nature of people's affective reactions to failing to live up to own-based and other-based standards for how Blacks should be treated. The second was to examine the extent to which people reported endorsing the stereotype of Blacks under private or public conditions. Each method demonstrated that the questions had good predictive validity (Plant & Devine, 1998).

Previously, two potential reasons were given for the possibility of cultural insensitivity biases going unnoticed explicitly. The first was the possibility of individuals believing themselves to be culturally sensitive, while implicitly being culturally insensitive. This possibility would likely exist for individuals classified as internals on Plant and Devine's scale. Second, individuals may be aware of their cultural insensitivity and hide it for impression management reasons. This second possibility would likely exist for individuals classified as externals on Plant and Devine's scale.

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Reactance seems to be a psychological process that occurs as a result of the elimination

of free thoughts, behaviors, and feelings (Brehm, 1966; Engs & Hanson, 1989; Fogarty, 1997;

Vrugt, 1992). Reactance has also been researched as a component of impression management

(Heilman & Toffler, 1976; Baer, Hinkle, Smith, & Fenton, 1980), which suggests that sometimes

it may not be detectable by simple self-report measures. More recently, implicit attitude

measures such as the bona fide pipeline (Fazio, Jackson, Dunton, & Williams, 1995) and the IAT

(Greenwald, McGee, & Schwartz, 1998) have shown weak correlations at best with well-known

explicit measures such as the Modern Racism Scale (McConahay, Hardee, & Batts, 1981), and in

some instances are negatively correlated with such scores. Other research has shown that

explicit attitudes are predictive of verbal behavior, self-perceived friendliness, and feelings of

friendliness as perceived by the interaction partner from a stigmatized group. Meanwhile,

implicit attitudes are predictive of non-verbal behavior and actual perceived friendliness by this

interaction partner (Dovidio, Gaertner, & Kawakami, 2002). Thus, empirical evidence suggests

that certain constructs may only occur or be observed at the implicit level, while undetectable at

the explicit level. Furthermore, certain constructs may actually reveal attitudes at the implicit

level that are opposite to those observed at the explicit level. Consequently, reactance indeed

may occur at the implicit level, even if it does not occur at the explicit level. Also, motivation

for social desirability (appearing non-prejudiced) appears to moderate explicit measures of

attitudes (Plant & Devine, 1998), though it remains to be seen if this is also true of implicit measures.

Current study and predictions

    Current study. The current study used responses to cultural sensitivity messages as a vehicle to detect reactance at the implicit level. The study was conducted as a 2 x 2 x 2 between-groups design. There were three independent variables: race of experimenter (Caucasian or African American), type of video/essay (manipulated by having participants either view a cultural sensitivity video and write a cultural diversity essay or by having them view a video about the University of Pittsburgh and write an essay about the University of Pittsburgh), and motivation to appear non-prejudiced (measured using Plant and Devine's (1998) "Internal-external motivation to appear non-prejudiced" scale). Participants were randomly assigned to one of the 4 experimental cells (black versus white experimenter x cultural video versus University of Pittsburgh video). Scores on the bona fide pipeline served as an implicit measure of racism (Fazio, Jackson, Dunton, & Williams, 1995) and the Modern Racism Scale served as an explicit measure (McConahay, Hardee, & Batts, 1981). The Modern Racism scale has traditionally been thought of as a trait measure, and therefore an independent variable. However, in the years since the scale's conception, social desirability constraints have changed and become stronger. Therefore, the once subtle scale is now one that would most likely reflect what people think they ought to say and not their true attitudes (Fazio et al., 1995). Therefore, it was concluded that this scale would serve as a successful dependent variable and would be

susceptible to change depending on the different social constraints in the different conditions. This study also used only Caucasian participants in order to avoid a potential confounding variable. This study used two different dependent measures, implicit measures and explicit measures. Therefore, the predictions will be discussed separately for each.

Implicit measures

It was expected that the combination of the cultural diversity video and essay would create an implicit reactance effect, resulting in higher scores of implicit racism. This was predicted due to the expectation that watching the cultural diversity video (which tells the participant how to think and feel) in addition to being asked to write an essay about why racism should not be tolerated at the University of Pittsburgh (again telling the participant how to think and feel) would result in a reactance effect. This reactance effect should be observable implicitly but not explicitly because the participants are either unable to demonstrate this reactance effect explicitly (social desirability) or they are unaware of this reactance effect explicitly. However, the expectation was that watching a video about the University of Pittsburgh and writing an essay about the University of Pittsburgh would not compromise the participant's freedom of thoughts and feelings; and would therefore not result in the same reactance effect.

Furthermore, it was expected that the race of the experimenter would not have an effect on the implicit measure. This was predicted due to the fact that the race of the experimenter is not actually compromising the participants' freedom of thoughts and feelings (just the

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presentation of those thoughts and feelings). Because the implicit measure is not affected by social desirability and situational norms, this measure ought not to be affected by the race of the experimenter.

Explicit measures

It was expected that the explicit measures would be significantly affected by the race of the experimenter. This was predicted due to the fact that participants with a black experimenter would feel more social desirability pressures than participants with a white experimenter. Thus, the participants ought to show more racist scores when the experimenter is White because they do not feel as much pressure to appear as if they conform to socially appropriate norms.

Furthermore, it was expected that the type of video and essay would not exert an effect on the explicit measure because (as stated previously) any effect the video and essay may have would be strategically hidden by the participants on explicit measures. It was also expected that there would be no interaction effects because the race of the experimenter ought to overwhelm all of the other factors.

Potential for moderation

This study also utilizes the "Internal-external motivation to respond without prejudice" scale (Plant & Devine, 1998). It is recognized that this scale could moderate the above effects. One possibility is that participants labeled as "externals" may show the most implicit reactance.

This could occur because these external participants are the ones who believe themselves to be racist but attempt to hide it for impression management purposes. Therefore, it is these participants who are likely to have their freedom of thoughts and feelings compromised the most by the cultural diversity video and essay. If this were the case, then we would expect to find the highest levels of implicit racism when the participants have the cultural sensitivity video and essay and they are externally motivated.

External participants may also show the strongest effects of experimenter race on explicit measures. One might expect that these external participants show the most difference on explicit measures between the Black and White experimenters given that they would be the most conscious of situational norms, and therefore the most motivated to hide their true thoughts in the presence of a Black experimenter and feel relieved of the pressure to hide these thoughts in the presence of a White experimenter.

METHOD

Design

This study used a 2 (type of video/essay) x 2 (race of the experimenter) x 2 (dominant motivation) between-groups design. Manipulation of the type of video was achieved by having participants either watch a video called "Skin Deep" (commonly used in cultural diversity training programs) or a video about the University of Pittsburgh. Participants watching the cultural diversity video were also asked to write a cultural diversity essay, and those watching

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the University of Pittsburgh video were also asked to write an essay about the University of Pittsburgh. The race of the experimenter was manipulated by either having a Caucasian or an African-American experimenter. The dominant motivation that each participant had to appear non-prejudiced was measured using the Plant and Devine "Internal-external motivation to appear non-prejudiced" scale (1998). Two dependent measures were used in this study: an implicit measure and an explicit measure. The implicit measure used was the bona fide pipeline (Fazio, Jackson, Dunton, & Williams, 1995). The explicit measure used was the Modern Racism Scale (McConahay, Hardee, & Batts, 1981). Participants were randomly assigned to one of the four conditions (cultural sensitivity video and white experimenter, cultural sensitivity video and black experimenter, University of Pittsburgh video and white experimenter, University of Pittsburgh video and black experimenter), and then their scores on the Internal-external motivation to appear non-prejudiced scale determined their group for the third variable (internal versus external).

Participants

Participants were 162 Introduction to Psychology students at the University of Pittsburgh who were completing a course requirement The participants consisted of 78 male and 84 female students (all Caucasian) aged 18 to 22 (*m* = 19, *S.D.* = 1).

Procedure

Participants entered the lab where they were greeted by a Caucasian or African American experimenter. The study was described to students as "an examination of the human ability to multi-task while distracted." They were asked to watch a cultural sensitivity video entitled "Skin Deep" or one about the University of Pittsburgh. If in the cultural sensitivity condition, participants were told that the University of Pittsburgh would be instituting a mandatory cultural diversity program for all students and that we wanted to know if they considered the video appropriate. Participants were provided with a 2-item questionnaire asking them to rate on a 10 point scale ranging from 1 = "not very good" to 10 = "extremely good" how good they thought the video was and how appropriate they thought it was for the mandatory cultural diversity program. Participants in this condition were then asked to write an essay about accepting other cultures and how important it is to do so. In the other condition, participants were told that their video was being considered for a University of Pittsburgh orientation program. They then completed the same two items rating the videos. Participants in this condition were then asked to write an essay about the University of Pittsburgh and whether they felt that it is a desirable place to go. After the video, participants were given the bona fide pipeline measure (Fazio et al., 1995), followed by a paper and pencil version of the Modern Racism Scale (McConahay et al., 1981) and the Internal/External motivation to respond without prejudice scales (Plant et al., 1998).

It is important to note that the order of presentation for the implicit and explicit measures was not counterbalanced; the implicit measure was always presented first. It has been found that

giving participants an explicit measure followed by an implicit measure can affect the results of

the implicit measure; whereas the opposite order does not tend to have such effects (Greenwald

et al., 1998). The experimenter also told participants that when they completed these final two

measures there would be a quick check to make sure that all the questions were answered. The

final two scales were in paper and pencil form, and that final comment was added so that the

participant realized that the experimenter (whether Caucasian or African American) would be

able to view the participants' responses. Finally, participants were probed for suspicion,

debriefed, thanked, and dismissed.

Dependent Measures

     Implicit racism. The bona fide pipeline measure is a procedure consisting of 6 stages. In

stage 1, participants are exposed to a word-meaning task in which a single word is presented on

the computer screen. The participant must press a key labeled good or a key labeled bad as

quickly as possible to indicate his or her judgment of the valence of the word. This stage serves

a dual function: establishing a baseline measurement and providing a practice opportunity. Stage

2 involves the presentation of different faces on the computer screen. Participants are told to pay

attention to the faces because in the next stage they will be asked to recall which faces they did

and did not see. The faces presented during this stage are 16 black-and-white yearbook

photographs of Caucasian, African-American, and Asian-American male and female faces. In

stage 3, participants are presented with 32 faces for 5 seconds (16 faces previously presented and

16 filler faces). The participants are instructed to press a key labeled yes if the face had appeared

in the previous task or to press a key labeled *no* if the face had not. Once again, the 2nd and 3rd stages serve to give the participants practice at this task as well as to establish a baseline measurement.

Stage 4 is a combination of the first two stages. Participants are presented with words and faces simultaneously and are instructed to hit the key labeled *good* if the word is positively valenced or the key labeled *bad* if the is negatively valenced. They are reminded to pay careful attention to the faces because they will once again in the next stage be asked to recall which faces they did and did not see. This stage serves the most important function as it provides the measure of response times with the facial primes. In stage 5, participants are once again presented with 32 faces (16 which were presented during stage 4 and 16 filler) each lasting on the screen for 5 seconds, and they need to determine whether they previously saw the face by pressing the key labeled *yes* or the key labeled *no*. This stage serves no purpose other than to maintain the cover story of the measurement so the participant does not suspect that something else is being measured. Stage 6 is the final stage; participants are presented with the faces that they saw in stage 4, and are asked to rate the attractiveness of each. Once again this task only serves the function of the cover story because it is explained that more attractive faces are expected to be more distracting and therefore make it harder to complete the two tasks simultaneously (Fazio et al., 1995).

Explicit racism. The Modern Racism Scale is a 7-item questionnaire that asks questions about modern racial issues (McConahay, Hardee, Batts, 1981). This scale was once considered a subtle way to measure racism. However, it has recently received criticism regarding its ability to distinguish between prejudiced and unprejudiced individuals given the evolution of social

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desirability norms, such that participants recognize that the intention of the scale is to measure racial prejudice (Fazio et al., 1995). Because participants ought to be able to recognize that this scale is measuring prejudice, this scale serves as a good dependent measure to determine how much people are willing to express prejudice under different conditions. An example of a question in this scale is, "Discrimination against African Americans is no longer a problem in the United States."

Motivation to appear non-prejudiced. The Internal Motivation Scale and the External Motivation scale are each 5-item scales that ask questions concerning the source of the individuals' motivation to appear non-prejudiced (Plant & Devine, 1998). Reliability and validity concerns for this scale were already discussed, as well as the scale's ability to adequately distinguish between external and internal motivation.

RESULTS

Creating a composite implicit score

In order to evaluate any group differences in implicit scores, a composite implicit score was created. First, the baseline latencies were computed for each participant for positive and negative adjectives. Average latencies were created for positive adjectives and for negative adjectives for each participant. Next, the latencies for the positive and negative baseline adjectives (with no faces) were subtracted from the average latencies of positive and negative adjectives when combined with the faces for each participant. This created four average

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facilitation scores for each participant (positive adjective with white face, positive adjective with black face, negative adjective with white face, and negative adjective with black face).

After these four groups of average facilitation scores were created for each participant, they were combined into a composite score. The four scores were intercorrelated with each other ($r's > .5$), which made creating a composite score possible. Because the positive adjective with the black face and the negative adjective with the white face were expected to yield the highest response times, the white faces with positive adjectives were subtracted from the black faces with positive adjectives; this result was then added to the result from the black faces with the negative adjectives subtracted from the white faces with the negative adjectives. The equation looked as follows: ((black face and positive adjective – white face and positive adjective) + (white face and negative adjective – black face and negative adjective)). This created a sum of differences of differences measure that was ensured to be positive.

Participant exclusion for the 3-way ANOVA

The intention was to run a 3-way ANOVA using type of video (culture or Pitt), type of experimenter (Black or White), and type of motivation to appear non-prejudiced (internal or external) as the independent variables with the composite implicit scores as the dependent variable. In order to do so, a dichotomous variable needed to be created in order to label participants as "internal" or "external" based on their motivation to appear non-prejudiced (which was determined using the internal-external motivation to appear non-prejudiced scale, Plant & Devine, 1998). When constructing their scale, Plant and Devine used two methods for

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determining the predictive validity of the scale: One was to enter the participant's scores on the continuous variable into a regression, and the other was to take the top 30% of internal scores and the top 30% of external scores and include those participants in the analyses. Therefore, in this study, any participant who was both in the top 30% of internal scores AND the bottom 30% of external scores was included and labeled as "internal." Any participant whose scores fell in the top 30% of external scores AND the bottom 30% of internal scores was included and labeled as "external." This created the dichotomous categorical variable that was desired in order to carry out the 3-way ANOVA. Again, this method was chosen because it replicated the method used by Plant and Devine (1998). After this participant exclusion was completed, the remaining *n* in each of the 8 cells ranged from 20 to 21.

Composite implicit scores

A 3-way (type of video x race of experimenter x type of motivator) ANOVA was performed using the composite implicit racism scores as the dependent variable. The analysis revealed a marginal effect of experimenter race, $F(1, 162) = 3.51$, $p = .06$, $r = 0.15$. No significant effect was found for type of video, $F(1, 162) = 0.02$, n.s.; or type of motivation, $F(1, 162) = .14$, n.s. A significant 3-way interaction was revealed, $F(1, 162) = 6.33$, $p = .01$, $r = 0.20$ (see Figure 1). Descriptive statistics can be found in Table 1. The nature of this interaction was such that internal participants showed the highest levels of implicit racism when they had the Black experimenter and they were in the cultural sensitivity video condition. This condition revealed implicit racism scores that were significantly higher than all other conditions for

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internals, $t's > 3.99$ (which were not significantly different from each other, $F < .98$, n.s.). On the other hand, external participants showed the highest levels of implicit racism when they had the Black experimenter and they were in the University of Pittsburgh video condition. This condition revealed implicit racism scores that were significantly higher than all other conditions for externals, $t's > 3.67$ (which were not significantly different from each other, $F < 1.02$, n.s).

Modern Racism Scale scores

A similar 3-way ANOVA was then conducted on Modern Racism Scale scores. The ANOVA revealed a significant effect for race of experimenter, $F(1, 162) = 4.87$, $p = .03$, $r = 0.18$ (see Figure 2). This effect was such that for all participants (regardless of whether they were internals or externals) the explicit racism scores were higher with the White experimenter than they were with the Black experimenter. There was no significant effect of type of video, and there were no interaction effects ($F's < .92$, n.s). Descriptive statistics may be found in Table 2.

It is important to note that a regression analysis was also performed (in order to include all participants instead of the exclusion that was explained before) and this analysis did not yield results that were different than the 3-way ANOVA. Consequently, the regression analysis results are not discussed in detail.

DISCUSSION

The main findings of interest in this study were the 3-way interaction on the implicit racism measure (such that internal participants showed the most racism with a Black experimenter and the culture video whereas the external participants showed the most racism with a Black experimenter and the University of Pittsburgh video) and the main effect of race on the explicit racism measure (such that the most racism was shown with the White experimenter).

Implicit measure

The expected effect of type of video/essay was not found. It was expected that participants in the cultural sensitivity group would display significantly higher implicit racism scores than those in the control group. The 3-way interaction shows that such a pattern did hold for participants categorized as internal by motivation when they had a Black experimenter. On the other hand, those participants categorized as external showed the most implicit racism with the Black experimenter and the control video and essay, contrary to predictions. Perhaps the internal participants (who consciously believe themselves to be non-racist) actually put extra pressure on themselves to not be racist, which in accordance with all the other pressures in that condition (the black experimenter, the cultural sensitivity video, the cultural sensitivity essay) creates a reactance effect implicitly (without the participant's awareness). Also, perhaps the external participants are affected by the cultural sensitivity video in a way that the internal participants are not. Given that these external participants are aware of their endorsements of

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negative stereotypes, it is plausible that the cultural sensitivity video actually caused them to reflect on their own views (actually causing their levels of implicit racism to be lower in the conditions with the cultural sensitivity video). Meanwhile, this reflection would not occur with the University of Pittsburgh video, which could explain why that video in conjunction with the Black experimenter (thus priming Blacks) causes a spike in implicit racism scores but that the video in conjunction with the White experimenter does not. Clearly, there are other possible explanations.

Explicit measure

The analyses of the explicit measures were expected to reveal that external participants were affected by the race of the experimenter such that they displayed higher explicit racism scores with the White experimenter than with the Black experimenter. As expected, there was an effect of experimenter race such that participants with a white experimenter did show significantly higher explicit racism scores than participants with a black experimenter. This effect was not moderated by type of motivation (internal/external). Instead, all participants (both internals and externals) showed a tendency to have higher explicit racism scores with the white experimenter than with the black experimenter regardless of which video they saw or what type of motivation they had to appear non-prejudiced. Therefore, all participants felt the need to engage in impression management and hide some of their racist feelings when they had the black experimenter and felt somewhat relieved of these pressures with the White experimenter.

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Implications

This research is the first to look at reactance with implicit measures. Furthermore, it may reveal that reactance can be observed at the implicit level, while not observed at the explicit level. Moreover, this observation could result in negative attitude change at the implicit level and simultaneous positive attitude change at the explicit level, resulting in a potential divergence between implicit and explicit attitudes. This research could also provide further support for the growing body of research supporting potential dissociations between implicit and explicit attitudes. Finally, this research may have important implications for the efficacy of cultural diversity training and the possibility that such programs may have an unanticipated negative impact at the implicit level.

Future directions

The highest levels of implicit racism seem to emerge in different conditions depending on whether the participant is internally or externally motivated. For internal participants, the highest implicit racism scores appeared with the cultural diversity video and essay along with the black experimenter; and for external participants, the highest implicit racism scores appeared with the University of Pittsburgh video and essay along with the black experimenter. Future studies would need to examine this difference between internals and externals more closely.

One possibility would be to have a different experimental condition. Instead of the cultural sensitivity video and essay condition there could be a condition in which participants

watch a video about sports and write an essay about sports (essentially creating two control conditions). If it is in fact true that external participants are reflecting on their racist views after watching the cultural diversity video (causing lowered implicit racism scores for those participants) then changing this experimental condition ought to yield high implicit racism scores for external participants in all conditions.

Another possibility would be to let the internal participants gain their freedom of thoughts and feelings back and then see if this effect persists. For example, an extra condition could be put in such that participants read a few paragraphs about the effects of having racist thoughts and feelings. This manipulation could occur after the videos and essays are written but before the implicit racism measure is taken. Some participants could read a few paragraphs that suggest that there is nothing wrong with having racist thoughts and feelings from time to time and that it is perfectly normal as long as no drastic actions are taken as a result. This might help to make participants not feel as though they are forced to think and feel a certain way. If the results obtained were due to a reactance effect, then having participants read these paragraphs may eliminate or lessen the effect. Other participants could read a few paragraphs on something completely irrelevant or even a few paragraphs explaining that having racist thoughts and feelings is extremely dangerous and harmful (threatening the participant's freedom even further).

Finally, it would be interesting to see if the implicit effects obtained in this study would generalize to behavior. Would these individuals act differently towards a Black experimenter in the different conditions? Perhaps a future study could include an interaction scenario with the experimenter at the end of the experiment. One potential scenario could be that just as

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debriefing is about to begin, the experimenter drops her papers and pen. This way the helping or non-helping behaviors of the participants could be observed to see if the implicit effects obtained in this experiment generalize to behavior.

Conclusion

These results on the implicit and explicit measures suggest a few interesting and important points. First, they suggest that under some conditions it is possible for cultural diversity videos to produce reactance effects. Second, these results suggest that when these reactance effects occur they are limited to implicit measures. These findings were observed even though on explicit measures, individuals actually showed increased positive attitudes in the context of an African-American experimenter. Put another way, among the internally motivated participants who received the cultural sensitivity video, the presence of the African-American experimenter had opposite effects on their implicit and explicit attitudes such that it increased their explicit attitudes while decreasing their internal ones.   These results illustrate the powerful way in which implicit attitudes can diverge from explicit ones. From a practical standpoint, it is urgent that these effects be researched and understood more clearly so that we do not continue to engage in activities and behaviors that could (and based on the results in this study, sometimes do) harm our ultimate goal of cultural acceptance.

APPENDIX A

Tables

Table 1: *Composite implicit racism scores by condition*

	Internal participants			External participants		
	Mean	S.D.	n	Mean	S.D.	n
Black Culture	862.00	271.36	20.00	318.00	40.65	21.00
Black Pitt	343.40	74.00	21.00	743.15	187.23	20.00
White Culture	292.01	67.19	20.00	354.79	99.01	20.00
White Pitt	446.00	102.16	20.00	361.00	119.71	20.00

Note: Response times are in milliseconds.

Table 2: *Composite explicit racism scores by condition*

	Internal participants		External participants	
	Mean	S.D.	Mean	S.D.
Black Culture	12.34	4.13	12.35	2.38
Black Pitt	13.01	2.26	13.11	2.97
White Culture	13.70	3.63	13.71	2.25
White Pitt	14.06	4.28	14.06	4.42

Note: Scores are composite scores on Modern Racism Scale.

APPENDIX B

Figures

Figure 1: *The composite implicit response time scores (in milliseconds) for both internal and external participants*
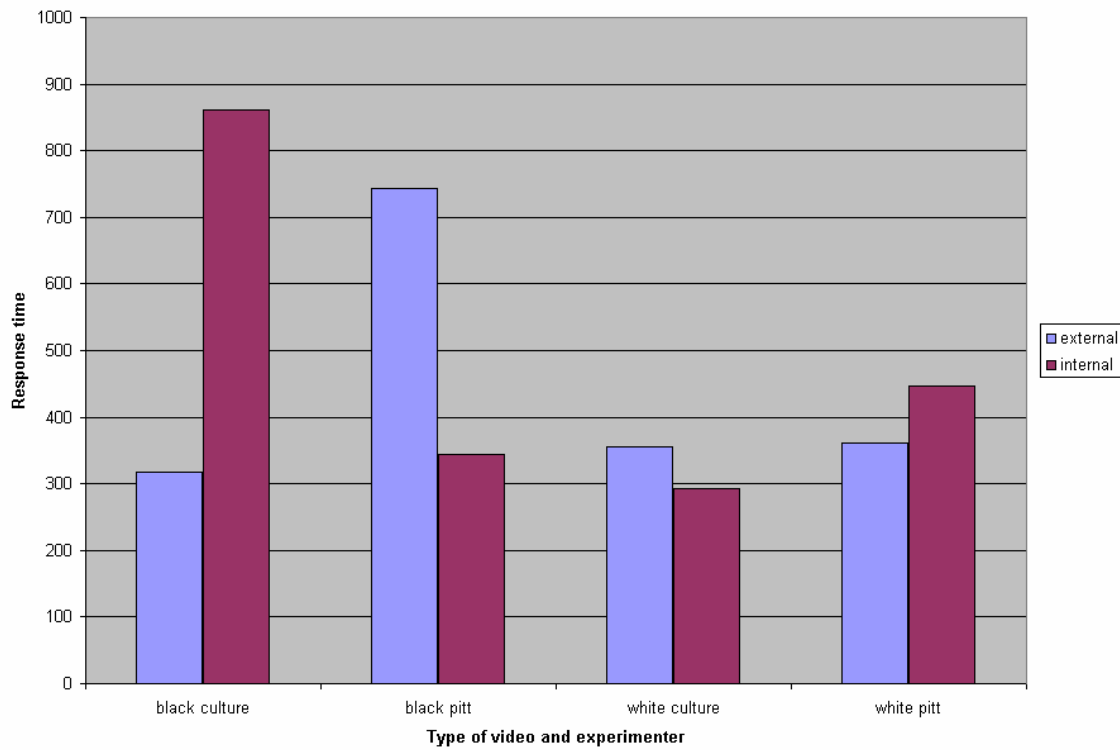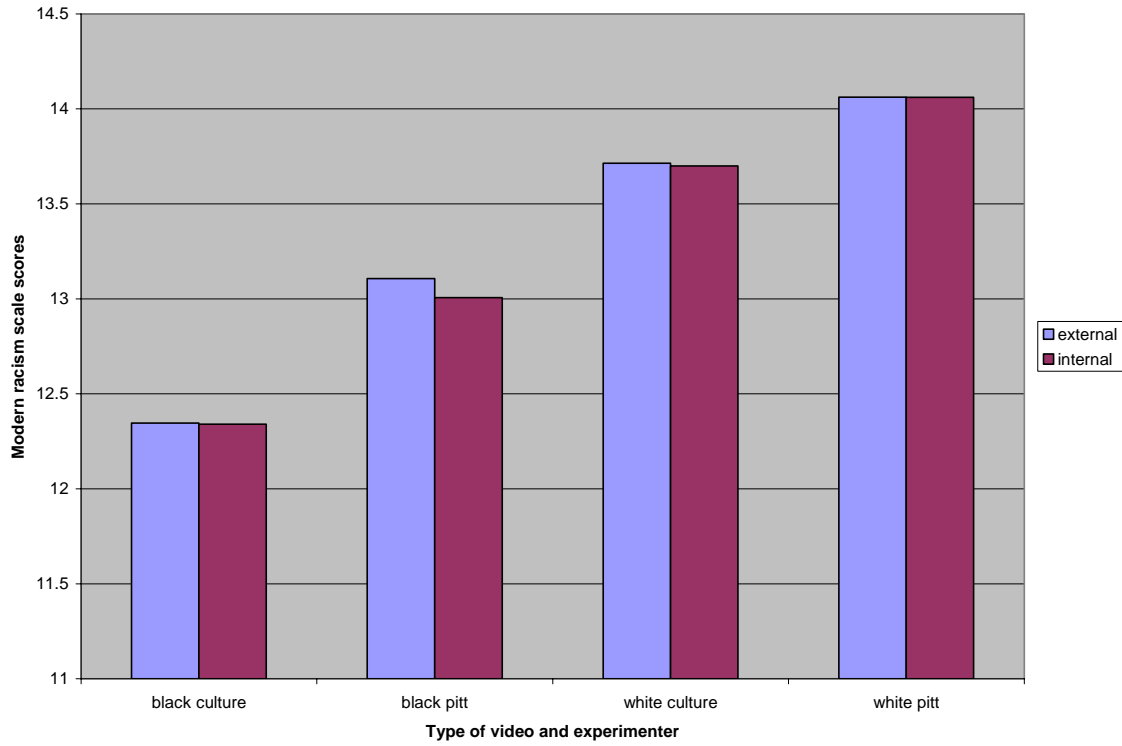
Figure 2: *The composite explicit (Modern Racism Scale) scores for both internal and external participants*

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