

Abstract

Title of Thesis: BEHAVIORAL AND AFFECTIVE
CONSEQUENCES OF BEING STEREOTYPED

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Two studies were conducted to examine women's reactions to being stereotyped. I hypothesized that women who report a high concern with gender-based discrimination would be more likely to interpret a sexist comment as sexist, consequently exhibiting more anxiety and lower task performance as compared to women who report a low concern with gender-based discrimination. In study 1, women who reported a high or low concern with discrimination overheard either a sexist comment or no comment while performing on a task. A trend was found where high concern women who overheard a sexist comment experienced an increase in anxiety, and women who overheard the sexist comment (regardless of concern) subsequently displayed poorer task performance than women who heard no comment. For Study 2, the control comment was changed from no comment to a nonsexist comment, allowing for comparison between the effects of receiving negative feedback which either was

sexist or nonsexist. I found that women who overheard the sexist comment were the only group to interpret the sexist comment as sexist, a trend where women who perceived a sexist comment as sexist experienced an increase in anxiety, and that women's task performance significantly dropped after overhearing the negative comment, whether the comment was sexist or nonsexist. Also, women who perceived the sexist comment as sexist reported less enjoyment of the task, less likelihood of volunteering for a similar task, and less likelihood of improving their task performance than women who overheard a nonsexist comment or who did not perceive a sexist comment as sexist.

BEHAVIORAL AND AFFECTIVE CONSEQUENCES OF BEING STEREOTYPED

by

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Chapter 1: Theoretical Rationale

Until recently, most social psychological research on stereotyping, prejudice, and discrimination has focused on majority-group perpetrators, with relatively little attention paid to the minority-group victims. In order to gain a full understanding of the processes underlying these social psychological phenomena, it is necessary to conduct research regarding the responses of disadvantaged group members to prejudice as well. The purpose of the present research is two-fold: To begin, I hope to demonstrate that being the target of stereotyping harms task performance via a three-stage process. At stage one, the target must perceive him/herself as having been stereotyped. Second, if the event is interpreted as sexist, racist, etc., then it is predicted that the target will experience an increase in distracting anxiety. Third, since anxiety has been shown to produce cognitive interference which directs attention away from the task at hand (Sarason, 1984), the target's task performance is expected to suffer.

The other aim of this research is to identify two variables which may affect targets' reactions to being stereotyped. The first variable may facilitate targets' interpretation of an event as one in which they were stereotyped: a preexisting concern (or lack thereof) with discrimination. For example, a woman who is highly concerned with gender-based discrimination may be more

likely to interpret a sexist situation as sexist, possibly because information relating to sexism is more accessible. If this is the case, highly concerned women should be more prone to experiencing the negative effects expected to result from being stereotyped. It is important to note that if a target does not perceive him/herself as having been stereotyped, anxiety-induced performance decrements should either be absent or attenuated. Second, long-term performance reduction may result from the stereotyper's close physical presence to the target. Presence of the stereotyper may serve as a reminder or cue of the negative, stereotypical feedback the target previously received.

The idea that being the object of stereotyping, prejudice, and discrimination is harmful is not a new concept. Recently, different theories have been advanced in order to explain and predict minority's reactions to being targets of prejudice, and some ingenuous and creative experiments have been carried out to put these theories to empirical test. It is believed that the current study will expand upon previous research on the nature of reactions to being stereotyped in two ways. First, other studies have examined affective reactions to the perception of being stereotyped (i.e., Dion & Earn, 1975), or behavioral reactions to stereotype activation (Steele & Aronson, 1995). In the present research, participants actually "overhear" stereotypical comments about their performance while

engaging in a task; Moreover, I attempt to tease apart the effects of receiving negative but nonsexist feedback from those of receiving negative, sexist feedback: Are the effects of negative but nonsexist feedback somehow different from the effects of negative, sexist feedback? It is proposed that a difference does exist, and that negative sexist feedback can, under certain circumstances, be especially damaging to victims.

Second, while research generally supports the notion that being stereotyped is harmful to the target (the work of Jennifer Crocker, Brenda Major, and their colleagues is an exception; see Crocker, Voelkl, Testa, & Major, 1991), few studies explore variables that may be responsible for increasing or reducing these harmful effects. I hope to identify two such variables: First, being highly concerned with discrimination may facilitate interpretation of a stereotypical event as stereotypical. If this is the case, highly concerned targets should exhibit more anxiety and poorer task performance when compared to their less concerned counterparts¹. Second, it is predicted that under some conditions these negative effects are not fleeting; rather, the cognitive damage inflicted by prejudice and stereotyping can be capable of harming the target's performance over an extended period of time. For example, long-term performance reduction may be more likely if the individual who acted in a stereotypical way is

present in the laboratory.

Does interpreting a stereotypical situation as stereotypical increase anxiety? Previous research on targets of stereotyping indicates that it does: Dion and Earn (1975) found higher levels of anxiety associated with the experience of perceived discrimination. Dion and Earn (1975) conducted one of the earliest studies concerned with reactions of minorities to stereotyping. Jewish participants initially received bogus positive performance evaluations from three alleged opponents after one trial of a ticket-passing task. Participants were then asked to exchange background information with their fictitious opponents: Participants in the "no prejudice condition" both gave and received only vague, neutral information; however, participants in the "prejudice" condition both gave and received information identifying their minority status (Jewish) and their opponents' majority status (Christian). The ticket-passing task then resumed. Upon completion of the task, all participants received another score sheet from their opponents, this time consisting of extremely negative bogus evaluations.

Analysis of the data indicated that only participants in the "prejudice" condition indicated experiencing more stress and anxiety (as well as more aggression, sadness, and egotism). Jewish participants "viewed their opponents as being more prejudiced and biased when they were portrayed as

gentiles who knew the participants' religious membership" (Dion & Earn, 1975). Also, when asked about their performance level, 17 of the 24 participants in the "prejudice" condition "mentioned 'being Jewish' as the primary cause for their failure" (Dion & Earn, 1975). Even though all participants received identical negative feedback, only those participants who interpreted the situation as one in which they were discriminated against (participants in the "prejudice" condition) experienced more negative affect, including increased anxiety.

As Dion and Earn (1975) have shown, negative affect is one outcome of being stereotyped. The current research focuses on a target's anxiety resulting from interpretation of a situation as one in which the target was stereotyped. To fully explore the present three-stage process, however, the implications of anxiety on target's task performance need to be examined as well.

A substantial amount of research has documented the negative effects of anxiety on task performance. For example, Sarason (1984, p. 936) concludes that "at least in evaluation situations, anxiety is, to a significant extent, a problem of intrusive, interfering thoughts that diminish attention to and efficient execution of the task at hand". The finding that instructions to focus attention on the task dispel the usual performance decrements found for participants scoring high on a Worry scale offers additional

evidence of cognitive interference as a central characteristic of anxiety. Eysenck's (1992) Processing Efficiency Theory also examines the effects of anxiety on performance. Like Sarason, Eysenck (1992) believes that "worry about task performance pre-empts some of the resources of the working memory system [where] it is assumed that a working memory system is one which permits concurrent transient storage of information and ongoing processing of task information" (p. 131).

The three-stage process under investigation is also consistent with Steele's (1995) concept of *stereotype threat*, a "social psychological 'predicament' that can arise from widely-known negative stereotypes about one's group [where] the mere existence of such a stereotype means that anything one does or any of one's features that conform to it, make the stereotype more plausible as a self-characterization, in the eyes of others, and perhaps even in one's own eyes. [Steele and Aronson (1995)] argue that [stereotype threat] is experienced as a self-evaluative apprehension" (Steele & Aronson, 1995). The stereotype threat hypothesis seems to be cognitive in nature, assuming "that performance suffers when the situation redirects attention needed to perform a task onto some other concern..., a concern with the significance of one's performance in light of a devaluing stereotype" (Steele & Aronson, 1995). The threat posed by the possibility of

confirming a deeply negative stereotype can "amplify [black Americans'] emotional reaction to the task and to task frustration, thereby undermining their confidence and performance" (Steele & Aronson, 1995).

Based on the stereotype that black Americans have lower intellectual abilities than white Americans, it was hypothesized that priming race during a standardized test would arouse an "extra apprehension about confirming a negative group stereotype as self-characteristic," directly resulting in lower test performance. Consistent with the stereotype threat hypothesis, it was discovered that "merely priming the racial stereotype depressed black participants' performance even when the test was presented as nondiagnostic of ability" (Steele & Aronson, 1995). Race-prime participants also reported experiencing significantly more anxiety than no-race-prime participants, and spent more time on the performance items than no-race prime participants. This pattern of results support the idea that "this underperformance is a reaction to apprehension over fulfilling an expressly racial stereotype" (Steele & Aronson, 1995), rather than lower performance expectations decreasing participants' motivation and resulting in task withdrawal. In addition to arousing apprehension over the possibility of conforming to the widely-known stereotype regarding blacks' poor intellectual ability, it is likely that the race prime activated during an intellectual task

induced black participants to interpret the situation as one where they would be stereotyped by others (i.e., the experimenter) as well. In line with the three-stage process, increased anxiety and lower task performance followed interpretation of the experimental situation as one in which they were stereotyped.

In a related vein, the relationship between token status and task performance is also of interest. Lord and Saenz (1985) conducted a study where token status was manipulated: "The groups were either homogeneous (4 female or 4 male members) or not (1 female participant with 3 male members, or 1 male participant with 3 female members)." In addition, token and non-token participants were assigned to one of two roles: that of participant or observer. For participants, Lord and Saenz (1985) predicted that "token subjects would remember fewer of the opinions expressed during the group interaction than would nontoken subjects. For observers, the prediction was in line with previous studies on tokenism: Subjects who observed a solo group (one with a token) would remember more of the token's opinions than those expressed by nontokens, whereas subjects who observed a nonsolo group (4 female members or 4 male members) would remember approximately the same number of each person's opinions" (p. 920). Their results supported the above hypotheses.

The finding that token participants exhibit reduced

memory performance as compared to nontoken participants is of particular interest. Lord and Saenz (1985) discuss tokens' memory deficit in terms of a "directional shift" of attention; that is, tokens may direct their attention inward towards self-presentational concerns rather than outward toward the group interaction and the task at hand. The observed memory performance decrements, therefore, occurred as a result of the "shift in attentional resources".

Additional studies on the nature of tokenism have revealed that performance deficits can occur when a participant is "distinctive along a nonvisual dimension" as well (Saenz, 1994). Further, distraction due to worry engendered by self-presentational concerns was also directly examined. Token participants were hypothesized to underperform when compared to nontokens, as assessed by the number of anagrams solved. Also, if self-presentational concerns play a part in reducing the performance of tokens, then it was hypothesized that "tokens would display greater concern for the level of their performance than nontokens, and that consequently, they would be more accurate in recalling how well or how poorly they performed" (Saenz, 1994, p. 69). The pattern of results supported these hypotheses: namely, "that token subjects direct more attention toward extra-task worries than toward central group tasks, relative to nontoken subjects. Moreover, these performance tracking tendencies appear to be associated with

problem-solving deficits" (Saenz, 1994, p. 71).

The studies conducted by Lord and Saenz (1985) and Saenz (1994) did not specifically examine whether or not tokens felt as if they were being stereotyped. Saenz (1994) does discuss the possibility that self-presentational concerns may take the form of "ruminations such as: 'I'm different.', 'What do they think of me?', [and] 'How am I coming across?' [which] could divert the token's attention from the group task, thereby impairing performance" (p. 63). Possibly, the content of tokens' distracting ruminations may also include concerns about being the object of stereotyping.

Do tokens expect to be stereotyped? Cohen and Swim (1995) conducted a study on the joint influence of gender ratios and self-confidence. The prediction most relevant to the present research was that "potential female tokens, in contrast to female nontokens, would expect more stereotypical treatment" (Cohen & Swim, 1995, p. 8). Results of the study support this prediction, and Cohen and Swim (1995) conclude that "intrinsic to the token situation itself is a deep-rooted belief in the likelihood of being stereotyped" (p. 18).

Taken together, these studies examining the effects of token status are consistent with the three-stage process currently under investigation. Studies on token status indicate that (1) tokens expect to be stereotyped; (2) one

outcome of token status is worry over task performance which redirects attention needed to perform the task onto self-presentational concerns; and (3) token status undermines task performance.

There seems to be a convergence of evidence pointing to the possibility that once a target of stereotyping has interpreted an event as one in which he\she has been stereotyped, anxiety is aroused and task performance suffers because attention is directed away from the task. Based on the findings of the summarized research presented, two experiments were designed to test the three-stage process. The purpose of Study One was to determine (1) if overhearing a sexist comment during task performance would increase women's anxiety and undermine task performance and (2) if women who are highly concerned with gender-based discrimination are more susceptible to the negative effects of being stereotyped (i.e., negative affect and impaired task-performance) as compared to women who do not report a high concern with discrimination. Study Two was conducted (1) to determine if women who report being highly concerned with discrimination are more sensitive to being stereotyped, thus making highly concerned women more likely to interpret a sexist event as sexist; and (2) to see if the negative effects expected to result from receiving negative, sexist feedback on affect and task performance are different from and more pronounced than those of receiving negative,

nonsexist feedback.

Chapter 2: Study 1

It is hypothesized that women will feel more anxious and exhibit poorer task performance when they are confronted with negative, stereotypical information regarding their group membership during task performance as compared to women who are not exposed to such information. In addition, the hypothesized performance decrement and anxiety expected to result from being stereotyped may be especially pronounced for women who are highly concerned with discrimination at a personal level. I am also interested in observing whether or not the presence of the man who previously stereotyped the female target during task performance prolongs the negative performance and affective consequences of being stereotyped.

Method

Design

A four-way 2 (Comment; sexist versus absent) X 2 (Concern with Discrimination; high versus low) X 2 (Experimenter Sex; male versus female) X 3 (Time; Session 1, session 2, session 3) factorial design was employed.

Participants

Female college students were preselected for this pilot study based upon self-ratings of concern with discrimination. Our goal was to include women who rated themselves as highly concerned with discrimination or as unconcerned with discrimination. The scale was one of many

which comprised mass-testing, and was administered via computer to mass-testing participants (introductory psychology students) in exchange for experimental credit (see Appendix A).

Selection to participate in this experiment was based upon responses to two sets of questions: First, participants responded to three open-ended questions asking which group membership resulted in their being the objects of discrimination. The first of the three questions gave participants the opportunity to respond with any group membership. If participants could not think of a specific group membership which resulted in their being the objects of discrimination, the second question asked participants to indicate gender as a default group membership. The third question asked participants to indicate their response from either the first or second question.

Second, participants responded to three 7-point Likert-scale ratings which assessed the frequency of experiencing discrimination (1=almost never, 7=very often), how much being discriminated against bothers them (1=not at all, 7=very much), and how often they think about being the victims of discrimination (1=never, 7=all of the time).

In order to have been selected as highly concerned with discrimination, women must have responded to the first open-ended question with "female" when asked about their group membership that results in discrimination. From this pool

of potential participants, women who averaged a 5.00 or higher on the following three Likert ratings were considered as highly concerned with gender-based discrimination against themselves. Women who were unable to decide upon a group membership resulting in discrimination (therefore giving gender as a default) and who averaged a 2.00 or lower on the likert ratings were considered to be unconcerned with gender-based discrimination against themselves. All other respondents were not recruited for the experiment.

Twenty-five women were recruited for participation, however seven were dropped due to an extremely high degree of suspicion. Eighteen women were included in the following analyses.

Procedure

A male research assistant recruited the preselected women via telephone. Women were run individually. When the participant arrived at the lab, she was greeted by a female experimenter, introduced to the male research assistant, and thanked for coming. The experimenter led the participant to the lab room next door and explained that the purpose of the study was to examine how people perform on two tasks that are presented simultaneously. The experimenter then briefly outlined the participant's duties and asked the participant to sign the departmental consent form (see Appendix B). Participants were encouraged to ask questions at any point during the experimental session. The experimenter then

asked the participant to fill out a brief Current Mood Questionnaire (see Appendix C) under the pretense that "previous research has indicated that mood state can affect task performance, and we need to control for this possibility". Responses on the first Current Mood Questionnaire constituted a pre-measure (baseline) of mood.

Next, the experimenter asked the participant to face the computer screen and then began a detailed description of the dual task. Specifically, the experimenter explained that the participant would be engaging in a probe-monitoring task while attending to audio-taped information. The experimenter first explained the computer task. The computer task was divided into four sections: a practice session, and the three test sessions. Each of the four computer-task presentations were identical (although this was unknown to the participant), where a string of X's blinked seemingly at random on the monitor. The participant was told she must push the appropriate number from the number pad on the keyboard as quickly as possible to respond. If the X's appeared on the right side of the monitor, the participant was directed to push the number two. If the X's appeared on the left side of the monitor, the participant was directed to push the number one. The experimenter then informed the participant that the experimenter and her assistant would be both recording and monitoring the amount of time it took the participant to

respond to the probes, and that the object of the task was to respond as quickly as possible by pushing the appropriate number. (While the participant's reaction time was recorded, it was not in fact monitored). The experimenter asked each participant to keep her hands positioned lightly on the number one and two keys for the duration of the experiment in order to control for any possible confounds resulting from variable distance from the keyboard.

The experimenter then explained the audio-taped component of the dual-task. The participant was informed that audio-taped information would be presented via intercom from the experimenter's "office" next door. Like the computer probe-monitoring task, the audio-taped information was presented in four sessions: a practice session, and three test sessions. The experimenter advised the participant to pay very close attention as she would be receiving a multiple choice test at the end of the three test sessions. There was no multiple choice test presented after the practice session, as the purpose of the practice session was to simply familiarize the participant with the unfamiliar procedure.

The audio-taped presentation contained basic information about Indonesia, such as population statistics, imports, exports, etc. (see Appendix D). The presentation was created and used experimentally by Macrae, Milne, & Bodenhausen (1994). This passage was chosen for the present

experiment as Macrae et al. (1994) indicated that Indonesia is a country that relatively few college students know about in any detail. Obviously, this is important so that participants are unable to rely on any preexisting knowledge they may possess concerning the topic discussed in the audio-taped presentation.

This particular dual-task was used for several reasons. First, if the task is too easy, participants would not suffer the expected performance decrements no matter what. Probe monitoring while attending to audio-taped information is relatively complex and difficult. Second, two measures of performance are available. Third, a task which requires participants to continually shift their attention back and forth may be especially sensitive in detecting performance deficits due to misdirection or overload of attention.

The experimenter emphasized that both tasks were of equal importance and told participants to try equally hard on both tasks. Participants were told that the tasks would be presented simultaneously, with each of the four sessions lasting approximately 30 seconds. Between each session, the experimenter briefly entered the room to restart the computer probes. The probe-monitoring task and the audio-taped presentation were timed by a hidden stopwatch such that each task began and ended at the same time.

At the end of the four sessions and the multiple choice test, the experimenter readministered the Current Mood

Questionnaire, allowing observation of any changes that may have resulted from the experimental manipulation.

Since participants filled out the Current Mood Questionnaire once in the beginning of the experiment and once at the end, it was important to construct the Current Mood Questionnaire so that participants would not be able to give the same response both times. For example, rather than answering with a number that might be remembered and anchored onto during the second administration of the Current Mood Questionnaire, participants instead responded by marking an "X" on a blank line to respond.

After completing the second Current Mood Questionnaire, participants completed the Indonesia multiple choice test (see Appendix E). Participants were then asked to fill out a Final Questionnaire (see Appendix F), ostensibly to provide us with their perceptions of the experiment. Participants were then thoroughly debriefed, probed for suspicion, given credit, asked not to divulge the true nature of the study, thanked, and dismissed.

Experimental Manipulation

After the participant completed the practice session and the first test session (which allowed each participant's base-line performance level to be established), the experimenter introduced the experimental manipulation of Comment (sexist versus absent). The experimental group ostensibly "overheard" the male assistant make a negative,

sexist comment regarding participants' task performance: He said, "Oh God, that woman is just as bad as all the rest of them". The negative, sexist comment was introduced after the first test session in order to monitor any changes in base-line performance during the second and third test sessions.

After the participant completed the second session and before the beginning of the third session, the second independent variable of Experimenter Sex (male versus female) was introduced. Either the male research assistant (who made the sexist comment) or the female experimenter entered the room and sat behind the participant, ostensibly readying the multiple choice test which the participant would be engaging in at the end of the test session. The assistant or experimenter remained in the room for the entire third session.

Dependent Measures

The dependent measures were women's performance on two tasks (which were presented simultaneously), change in current mood state, and measures asking women: (1) how good they are at the dual-task, (2) how likely it is that they could improve their dual-task performance, (3) how well they think they performed on the dual-task, (4) how much they enjoyed the dual-task, (5) how difficult they found the dual-task to be, (6) how likely it is that they would volunteer to be in a dual-task study again, and (7) how many

multiple choice questions participants felt were answered correctly.

Overview of Predictions

1. A main effect of Comment on affect was predicted where women who hear the sexist comment would experience more negative affect as measured by Current Mood difference scores (i.e., report an increase in negative mood states and a decrease in positive mood states) when compared to women who heard no comment. In addition, a two-way Comment X Concern interaction on affect is predicted such that high Concern with Discrimination women exposed to the sexist comment would experience significantly more negative affect.
2. A two-way Comment X Time interaction on performance was predicted such that women who hear the sexist comment would perform worse at both components of a dual-task (reaction time and multiple choice test) during the second and third session than women who hear no comment. Before delivery of the comment (i.e., during session one) there should be no performance differences. In addition, a three-way Comment X Concern X Time interaction is predicted where women exposed to the sexist comment and who report being highly Concerned with Discrimination would significantly underperform during sessions two and three when compared with all other groups.
3. A three-way Comment X Concern X Experimenter Sex interaction on third session task performance was predicted such that presence of the male experimenter would especially

depress task performance in the third test session for women who report a high concern with discrimination and who hear the sexist comment.

Results²

Manipulation Check

In order to establish that women overheard the sexist comment, participants were asked (1) if they overheard anything over the course of the experiment, and (2) to write down the comment verbatim. All participants in the sexist Comment condition indicated that they heard the comment and were able to successfully recall the content of the comment.

Affect Measures

A main effect of Comment was predicted. I expected women who heard the sexist comment to report an increase in negative affect as compared to women who heard no comment. A 2 (Comment) X 2 (Concern) interaction was also predicted, where highly concerned women who heard the comment were expected to show the largest rise in negative affect.

The eight Current Mood items were: threatened, angry, sad, worried, happy, calm, nervous, and tired. Participants' first set of self-reported mood scores were entered into a factor analysis employing varimax rotation. Four factors emerged. Angry, nervous, and worried all loaded on the first factor, which was labelled "anxiety". The remaining three factors were not easily interpretable: calm, threatened, and tired loaded on the second factor;

happy loaded on the third factor; and sad loaded on the fourth factor.

Scores on the three mood items of angry, nervous, and worried were averaged to create an anxiety score at time 1 (responses at the first administration of the Current Mood Questionnaire) and at time 2 (responses at the second administration of the Current Mood Questionnaire). An anxiety difference score was created by subtracting participants anxiety score at time 1 ($\alpha=.64$) from their anxiety score at time 2 ($\alpha=.41$).

A 2 (Comment) X 2 (Concern) ANOVA was run using the anxiety difference score as the dependent measure. Thus, a positive score indicated an increase in anxiety and a negative score indicated a decrease in anxiety. The predicted main effect for Comment was near significant, $F(1,14)=3.593$, $p=.08$. Women who heard the sexist comment exhibited an increase in anxiety ($M=.82$), but women who heard no comment reported no change in anxiety ($M=.01$). The hypothesized 2 (Comment) X 2 (Concern) interaction was non-significant, $F(1,14)=1.37$, $p=.26$, however an interesting trend in the means occurred. As shown in Table 1, highly concerned women who heard no comment were the only group to exhibit a decrease in anxiety ($M=-.12$), whereas highly concerned women who heard the sexist comment showed the greatest rise in anxiety ($M=1.23$). Low concern women exhibited a small rise in anxiety, such that low concern

women who heard the sexist comment ($M=.49$) reported feeling slightly more anxious than low concern women who heard no comment ($M=.13$).

Insert Table 1 about here

Dual-task Performance Measures

Multiple choice test. A 2 (Comment) X 2 (Concern with Discrimination) X 3 (Time) ANOVA was run to assess the effects of the independent variables on recognition of the Indonesia information. The dependent variable was percentage of correctly answered questions.

As expected, a main effect of Comment was found, $F(1,15)=7.68$, $p=.01$, such that women for whom the comment was absent ($M=.62$) outperformed women who overheard the sexist comment ($M=.45$). A main effect of Concern with Discrimination was also identified, $F(1,15)=5.97$, $p<.05$. Overall, high Concern with Discrimination women ($M=.61$) outperformed low Concern with Discrimination women ($M=.46$).

The main effect of Comment was qualified by a near-significant 2 (Comment) X 3 (Time) interaction, $F(2,30)=2.96$, $p=.07$. It was found that women who heard the sexist comment after completing the first test session underperformed in subsequent test sessions when compared to women who did not hear the sexist comment. Tests of simple effects indicated that no significant performance

differences existed between women who heard the Sexist Comment ($M=.41$) and women who did not hear the Sexist Comment ($M=.48$) for the first test session. However, during the second and third trials, the predicted performance differences were observed between the two groups: During the second test session, women who heard the sexist comment ($M=.44$) underperformed relative to women who did not hear the sexist comment ($M=.58$), $F(1,15)=3.39$, $p=.08$. During the third test session, women who heard the sexist comment ($M=.50$) continued to underperform relative to women who did not hear the sexist comment ($M=.80$), $F(1,15)=10.12$, $p<.01$ (See Table 2).

Insert Table 2 about here

A 2 (Comment) X 2 (Concern) X 3 (Time) interaction was predicted, such that highly Concerned with Discrimination women who overheard the sexist comment would significantly underperform during the second and third sessions as compared to all other groups. This interaction was nonsignificant, $F(2,30)=.09$, $p=.92$.

Probe reaction time. A 2 (Comment) X 2 (Concern) X 3 (Time) ANOVA was run to assess the effects of the independent variables on probe reaction time. The dependent variable was reaction time measured in thousandths of a second.

A 2 (Comment) X 3 (Time) interaction was predicted where women who heard the sexist comment after completing the first test session were expected to display a slower reaction time in subsequent test sessions when compared to women who did not hear the sexist comment. This interaction was not realized, $F(2,30)=.58$, $p=.57$.

A 2 (Comment) X 2 (Concern) X 3 (Time) interaction was predicted, where high Concern with Discrimination women in the Sexist Comment condition were expected to exhibit the slowest reaction time during the second and third sessions, when compared to all groups. Our data did not support this prediction, $F(2,30)=1.39$, $p=.26$.

Final Questionnaire Responses

Responses to the first ("Overall, how good are you at the dual-task performance task?") and third ("How well do you think you performed on the dual task?") items were highly correlated, $r(19)=.93$, $p<.05$. Therefore, participants' responses to these two items were averaged to create one measure of participants' perceived dual-task competence.

A 2 (Comment) X 2 (Concern) ANOVA was run using perceived competence as the dependent measure. A main effect for Concern with Discrimination was found, $F(1,15)=6.50$, $p<.05$. High Concern with Discrimination women ($M=4.50$) reported more perceived competence than Low Concern with Discrimination women ($M=6.45$).

Discussion

It seems then, that being the object of stereotyping can increase anxiety and harm performance. Women reported an increase in anxiety after exposure to the stereotypical comment. For women who indicated a high concern with discrimination and who received the sexist feedback, the increase in anxiety was especially pronounced. In addition, women who overheard the negative, stereotypical comment performed worse on the recognition component (although not on the reaction time component) of a dual-task.

It is possible that the performance decrements experienced by women who heard the sexist comment for the recognition component of the dual-task may be associated with the higher levels of anxiety also experienced by women who overheard the sexist comment. As discussed above, Dion and Earn (1975) found that participants who perceive themselves to be targets of discrimination report feeling more anxiety and stress. Higher levels of anxiety were also reported by Steele and Aronson's (1995) participants. Perceiving oneself as having been stereotyped causes one to feel more anxious, which then interferes with the participant's processing ability/capacity.

In addition, it is interesting that women who reported being highly concerned with discrimination on the basis of their group membership (female) outperformed women who were unconcerned with gender-based discrimination on the multiple

choice test. Perhaps these highly concerned women worked harder given that one of the experimenters was male. Another possibility is that other individual differences may be correlated with a high concern with discrimination (i.e., a high GPA, etc.) which could account for the observed performance differences between high and low concern with discrimination women.

Chapter 3: Study 2

Several procedural changes were incorporated to more precisely explore the three-stage process underlying the behavioral and affective effects of being stereotyped. First, in order to lower the suspicion rate (nearly all participants reported some degree of suspicion), the sexist comment was changed so as to both sound and occur more naturally. For example, one of the most common reasons given for suspicion was the female experimenter's presence in the room where the male assistant made the sexist comment. It simply did not make sense to participants that he would make a sexist remark in front of the female experimenter. Accordingly, participants were led to believe that the female experimenter was absent from the lab when the sexist comment was made.

Second, it is argued that in order for participants to suffer the adverse effects associated with being stereotyped, they must first interpret a sexist event as sexist. If an event is not interpreted as involving sexism, negative affective and performance effects will be absent or attenuated. However, the control condition (no comment) was inadequate to test these ideas. In addition, a possible alternative explanation for sexist-comment subjects' performance decrement during the second and third session exists: Specifically, it is possible that the negative (rather than the sexist) nature of the comment caused these

women to underperform. Therefore, it is essential to include a control comment that is negative but nonsexist in order to determine if performance decrements are due to the sexist nature of the comment (as opposed to the negative nature of the comment). A negative but nonsexist comment was employed in study 2 as a control condition.

Along the same lines, it is important to show that participants are able to differentiate between the sexist and the nonsexist comment, and that women interpret a sexist comment as being sexist. It is proposed in the present research that highly concerned women will be more likely to detect the difference between sexist and nonsexist negative feedback, thus interpreting a sexist comment as sexist. Perhaps their high level of concern renders these women especially sensitive to the nature (sexist versus nonsexist) of negative feedback. Low concern women, however, may not differentiate between negative feedback that is sexist or nonsexist. In other words, they may not be sensitive enough to detect the stereotypical aspect of the negative feedback. On the other hand, highly concerned women may interpret all negative feedback as being sexist, especially if uttered by a male. In this case, the women who are highly concerned with discrimination may be too sensitive to detect the nonstereotypical aspect of the negative feedback. For all these reasons, a perceived sexism measure was added.

Also, participants in Study 1 may have felt that the

negative comment heard after the first test session was based solely on probe-reaction performance. Logically, since the experimenters had no access to participants' multiple choice test scores until the end of the experiment, how could the negative feedback be based on their multiple choice test performance? To address this issue, three multiple choice quizzes were constructed, where one quiz would be administered after each test session (see Appendices G, H, and I).

Method

Design

A new independent variable (Sexism; none, not perceived, perceived) was constructed for analysis of affect, performance measures, and Final Questionnaire responses. All participants who overheard the nonsexist comment were recoded into level 1 of Sexism (none, $n=29$); all participants who overheard the nonsexist comment but who did not report having been unfairly treated on the Experimenter Evaluation Form were recoded into level 2 of Sexism (not perceived, $n=23$); all participants who overheard the sexist comment and who did report having been unfairly treated on the Experimenter Evaluation Form were recoded into level 3 of Sexism (perceived, $n=10$).

A three-way 3 (Sexism; none, not perceived, perceived) X 2 (Experimenter Sex; male versus female) X 3 (Time; Session one, session two, session three) factorial design

was employed.

Participants

Eighty-seven female undergraduates participated in this study, based on the same preselection criteria used in study 1. However, 24 women were dropped from the analysis for various reasons: Three women were dropped due to an equipment malfunction, 17 women reported being unable to overhear the experimental manipulation (sexist versus nonsexist comment), three women were suspicious, and one woman was from Indonesia. A total of 63 participants were included in the following analyses.

Procedure

The procedure closely paralleled that of study 1. Participants were told in the beginning of the experiment that there were two male research assistants monitoring both their reaction-time and multiple choice test performance from next door: Specifically, participants were led to believe that their reaction time was displayed on the research assistants' computer screen, and that each multiple choice quiz would be corrected by the research assistants immediately after completion. As a result, participants should have found the negative comment both more plausible and equally applicable to both components of the dual-task. (In fact, there was only one male research assistant next door).

After administration of the first Current Mood

Questionnaire and explanation of the dual-task, subjects engaged in a practice session and three test sessions. Rather than administering one multiple choice quiz at the end of the experiment (as in study 1), participants were given three multiple choice quizzes, one after each test session (see appendices G, H, and I).

After participants completed the practice session and the first test session, the female experimenter left the lab, saying "I need to run to my office, but I'll be back to get you started on the second session." The female experimenter left the participant's door open, allowing the participant to "overhear" the experimental manipulation (sexist versus nonsexist comment) from next door. The comment was given in the form of a taped conversation between the two male research assistants. The conversation incorporating the negative, sexist comment was:

RA #1: "This girl's not doing so well at the dual-task."

RA #2: "I guess women aren't as good at complex thinking".

The conversation incorporating the non-sexist comment was:

RA #1: "This person's not doing so well at the dual task."

RA #2: "I guess some people aren't as good at complex thinking".

After presentation of the taped comment, the male research assistant shut his office door, and the female experimenter

returned.

Upon completion of session three, the third multiple choice quiz, second Current Mood Questionnaire, and the Final Questionnaire, participants were administered the questionnaire designed to assess perceived sexism. Specifically, women were told that a random sample of experimenters were requested by the psychology department to administer a "Psychology Experiment Evaluation Form" (see Appendix J) to their experimental participants. Participants were told that the purpose of this evaluation form was ostensibly to "gain insight into participants' experience as research participants" and that "results of the questionnaire may be used to evaluate the Psychology 100 research participation requirement." The female experimenter gave the evaluation form to the participant in an offhand manner at what seemed to be the end of the study, simply asking women if they would not mind filling it out. Participants were directed to seal their completed evaluation form in an envelope, giving the impression that (1) the evaluation form was not part of the dual-task experiment, and that (2) participants' responses to the evaluation form would not be viewed by the experimenters. Participants were then probed for suspicion, debriefed, given their credit, thanked, and dismissed.

All other procedural aspects of study 2 were identical to those of study 1.

Dependent Measures

The dependent measures were women's performance on two tasks (which were presented simultaneously), change in current mood state, measures asking women: (1) how good they are at the dual-task, (2) how likely it is that they could improve their dual-task performance, (3) how well they think they performed on the dual-task, (4) how much they enjoyed the dual-task, (5) how difficult they found the dual-task to be, (6) how likely it is that they would volunteer to be in a dual-task study again, and (7) how many multiple choice test questions participants felt were answered correctly. To see if women interpreted the sexist comment as sexist, a seemingly separate evaluation form designed to assess perceived sexism was administered at the end of the experiment which included measures asking women (1) whether or not they were treated fairly during the experiment, and (2) to separately rate the first and second male research assistant and female experimenter on the dimensions of knowledgeable, fair, helpful, incompetent, biased, pleasant, objective, and prejudiced. Ratings were made on a five-point scale (1=extremely, 5=not at all).

Overview of Predictions

1. I predicted a two-way Comment X Concern interaction where high Concern women who heard the sexist comment would be the only group likely to interpret the sexist comment as sexist. Low Concern with Discrimination women are expected

to interpret both the sexist and nonsexist comment in the same fashion (i.e., as negative feedback) but not as sexism per se.

2. I predicted a three-way Sexism X Experimenter Sex X Time interaction on affect, such that women who perceived the sexist comment as sexist and who were in the presence of the male experimenter during the third test session were expected to report experiencing the most anxiety on the second administration of the Current Mood Questionnaire (CMQ). Presence of the stereotyper may serve as a reminder of the negative, stereotypical feedback the target previously received. Women who perceived the sexist comment as sexist but who were in the presence of the female experimenter during session three should not experience an increase in anxiety. Since women must first interpret a sexist comment as sexist in order to experience the negative effects of being stereotyped, the anxiety of women who either (1) did not perceive the sexist comment as sexist or who (2) heard the nonsexist comment is not expected to increase, regardless of the gender of the experimenter present during the third session.

3. Regarding performance, a two-way Sexism X Time interaction was hypothesized, such that women who perceived the sexist comment as sexist would (1) show the poorest multiple choice test performance and (2) exhibit the slowest reaction time when compared with the other groups during the

second and third test sessions. Prior to comment exposure, performance is expected to be equal.

4. I predicted a three-way Sexism X Presence X Time interaction during the third test session: Specifically, I expect women who perceive the sexist comment as sexist and who are in the presence of the male experimenter during the third test session to show the largest performance and affect decrements for the third session. Presence of the male experimenter may serve as a reminder of the negative, stereotypical feedback the target previously received. The performance and affect of high Concern women who perceive the sexist comment as sexist but who are in the presence of the female experimenter during the third test session may recover during the third session, possibly equaling the performance of women who heard the nonsexist comment or who did not perceive the sexist comment as sexist. Since it is necessary to first interpret a sexist comment as sexist in order to experience the negative effects of being stereotyped, women who (1) hear the nonsexist comment and who (2) do not perceive the sexist comment as sexist should not display any affective or performance differences; thus, women who hear the nonsexist comment or who do not perceive the sexist comment as sexist should perform equally during the third session of the dual-task.

Results

Manipulation Check

In order to establish that women overheard the conversation between male research assistants which contained the sexist or nonsexist comment, participants were asked (1) if they overheard anything over the course of the experiment, and (2) to write down the conversation verbatim. Participants who indicated that they heard the comment and who were able to successfully recall the content of the conversation were included in the analyses (see description of participants above).

Experimenter Evaluation Form

Open-ended responses. A 2 (Comment) X 2 (Concern with Discrimination) X 2 (Experimenter Sex) X 2 (Perceived Sexism; yes versus no) logit analysis was conducted. Perceived Sexism was treated as the dependent variable: Specifically, participants either answered "yes" or "no" to the question "Did the experimenters treat you fairly (i.e., no sexism, racism, etc)?" It was predicted that high Concern women would be more likely to interpret a sexist comment as sexist. While this interaction was nonsignificant, $b = -.18$, $z = -.88$, $p = .31$, cell counts were in the expected direction: More high concern women ($n = 8$) than low concern women ($n = 2$) answered "no" to the question, "Did the experimenters treat you fairly (i.e., no sexism, racism, etc.)?" (See Figure 1).

Insert Figure 1 about here

A main effect of Perceived Sexism was found, $b=.89$, $z=4.28$, $p<.05$, where women were more likely to respond "yes" ($n=51$) to the question "Did the experimenters treat you fairly (i.e., no sexism, racism, etc.)?" than "no" ($n=10$). This main effect was qualified by a significant 2 (Perceived Sexism) X 2 (Comment) interaction, $b=-.46$, $z=-2.20$, $p<.05$, where all women who answered "no" to the question "Did the experimenters treat you fairly (no sexism, racism, etc.)?" heard the sexist comment ($n=10$) (See Figure 2).

Insert Figure 2 about here

Closed-ended ratings. A factor analysis employing varimax rotation revealed the same two factors for each male research assistant: (1) Negative, including incompetent, biased, and prejudiced; and Positive, including knowledgeable, fair, helpful, pleasant, and objective. A 3 (Sexism) X 2 (Experimenter Sex) ANOVA was conducted, using the Negative ratings of the first ($\alpha=.86$) and second ($\alpha=.86$) male research assistant respectively as the dependent measures. All participants rated the female experimenter as "not at all" for Negative. A lower score indicates a more negative rating.

For ratings of the first male research assistant (who said, "This girl's/person's not doing so well at the dual-task"), a significant main effect of Sexism emerged, $F(2,54)=3.94$, $p<.05$. Tests of simple effects revealed that women who perceived the sexist comment as sexist ($M=3.53$) rated the first male research assistant more negatively than both women who heard the nonsexist comment ($M=4.46$), $F(1,54)=7.22$, $p<.01$, and women who did not perceive the sexist comment as sexist ($M=4.33$), $F(1,54)=5.10$, $p<.03$. Ratings of women who heard the nonsexist comment ($M=4.46$) and who did not perceive the sexist comment as sexist ($M=4.33$) did not significantly differ, $F(1,54)=.24$, $p=.63$.

For ratings of the second male research assistant (who said, "I guess women/some people aren't as good at complex thinking"), a significant main effect of Sexism emerged, $F(2,55)=13.59$, $p<.05$. Tests of simple effects revealed that women who perceived the sexist comment as sexist ($M=3.30$) rated the second male research assistant more negatively than both women who heard the nonsexist comment ($M=4.75$), $F(1,55)=27.08$, $p<.000$, and women who did not perceive the sexist comment as sexist ($M=4.52$), $F(1,55)=18.14$, $p<.000$. Ratings of women who heard the nonsexist comment ($M=4.75$) and who did not perceive the sexist comment as sexist ($M=4.52$) did not significantly differ, $F(1,55)=1.17$, $p=.29$.

Affect Measures³

A 3 (Sexism) X 2 (Experimenter Sex) X 2 (Time; first

and second Current Mood Questionnaire administration) interaction was hypothesized on anxiety: Specifically, women who perceived the sexist comment as sexist and who were in the presence of the male experimenter during the third test session were hypothesized to report experiencing the most anxiety on the second administration of the Current Mood Questionnaire (CMQ). Presence of the stereotyper may serve as a reminder of the negative, stereotypical feedback the target previously received. Women who perceived the sexist comment as sexist but who were in the presence of the female experimenter during session three were not expected to experience an increase in anxiety. Since women must first interpret a sexist comment as sexist in order to experience the negative effects of being stereotyped, the anxiety of women who either (1) did not perceive the sexist comment as sexist or who (2) were not exposed to the sexist comment was not expected to increase, regardless of the gender of the experimenter present during the third session.

The eight CMQ items were: threatened, angry, sad, worried, happy, calm, nervous, and tired. Based on the results of the factor analysis conducted in study 1, an "anxiety" score comprised of the same three mood items used in study 1 was created: angry, worried, and nervous. As in study 1, participants' first anxiety score was an average of the three mood items at time 1 (the first CMQ

administration), and the second anxiety score was an average of the three mood items at time 2 (the second CMQ administration). An anxiety difference score was created by subtracting women's first anxiety score ($\alpha=.64$) from their second anxiety score ($\alpha=.68$).

No significant effects were realized, but several interesting trends emerged. For example, the predicted 3 (Sexism) X 2 (Presence) X 2 (Time) interaction on anxiety scores was not significant, $F(2,56)=.91$, $p=.41$, but means were in the predicted direction (See Table 3).

Insert Table 3 about here

Using anxiety difference scores as the dependent measure, it is apparent that the anxiety of women who perceived the sexist comment as sexist reported an increase in anxiety when in the presence of male stereotyper ($M=.84$), but reported a decrease when in the presence of the female experimenter ($M=-1.09$), $F(1,56)=2.48$, $p=.12$. Additionally, it is interesting to note that women who perceived the sexist comment as sexist and who were in the presence of the male stereotyper were the only group to experience an increase in anxiety; all other groups reported a decrease in anxiety (see Table 4).

Insert Table 4 about here

It is possible that the presence of the male experimenter served as a cue for the sexist feedback previously overheard; as a result, anxiety was either maintained or increased for women in the presence of the male experimenter. In contrast, when in the presence of the female experimenter, all women reported a decrease in anxiety.

Final Questionnaire Responses

A 3 (Sexism) X 2 (Experimenter Sex) ANOVA was conducted to assess the effects of the independent variables on Final Questionnaire responses. The dependent variables were womens' responses to measures asking: (1) how good participants felt they were at the dual-task; (2) how likely participants felt it was that they could improve their dual-task performance; (3) how well participants felt they performed on the dual-task; (4) how much participants enjoyed the dual-task; (5) how difficult participants found the dual-task; and (6) how likely it was that participants would volunteer to be in a dual-task study again.

A significant main effect of Sexism was found for womens' reported enjoyment of the dual-task. Tests of simple effects revealed that women who perceived the sexist comment as sexist ($M=4.90$) reported less enjoyment than (1)

women who overheard the nonsexist comment ($M=3.14$), $F(1,56)=10.94$, $p<.002$, and (2) women who did not perceive the sexist comment as sexist ($M=3.74$), $F(1,56)=4.46$, $p<.04$. Women who overheard the nonsexist comment ($M=3.14$) and women who did not perceive the sexist comment as sexist ($M=3.74$) did not significantly differ in their ratings of task enjoyment, $F(1,56)=2.19$, $p=.14$.

A significant main effect of Sexism was found for women's indication of the likelihood of volunteering for another dual-task study, $F(2,56)=5.90$, $p<.006$. Tests of simple effects revealed that women who perceived the sexist comment as sexist ($M=4.90$) were less likely to indicate that they would volunteer for another dual-task study than (1) women who overheard the nonsexist comment ($M=2.86$), $F(1,56)=12.14$, $p<.001$, and (2) women who did not perceive the sexist comment as sexist ($M=3.13$), $F(1,56)=8.56$, $p<.005$. Ratings of women who overheard the nonsexist comment ($M=2.86$) and who did not perceive the sexist comment as sexist ($M=3.13$) did not differ significantly, $F(1,56)=.37$, $p=.55$.

A near-significant trend of Sexism was found for women's belief that their dual-task performance could improve, $F(2,56)=2.85$, $p=.07$. Tests of simple effects revealed that women who perceived the sexist comment as sexist reported less likelihood of improving on the dual-task ($M=4.30$) than (1) women who heard the nonsexist comment

($M=4.03$), $F(1,56)=.17$, $p=.68$, and (2) women who did not perceive the sexist comment as sexist ($M=3.00$), $F(1,56)=3.70$, $p=.06$.

For measures asking (1) how good participants felt they were at the dual-task, (2) how well participants felt they performed on the dual-task, and (3) how difficult participants found the dual-task, no significant effects were found.

Dual-task Performance Measures

Multiple choice test. A 3 (Sexism) X 2 (Experimenter Sex) X 3 (Time; first, second, and third test session) ANOVA was used to assess the effects of the independent variables on recognition of the Indonesia information. The dependent variable was the number of correctly answered multiple choice questions out of five.

A significant main effect of Time was found, $F(2,108)=6.87$, $p<.05$. Tests of simple effects revealed that women displayed the poorest multiple choice test performance during session two: Specifically, women answered fewer items correctly during session two ($M=2.97$) as compared to both session one ($M=3.75$), $F(1,54)=17.12$, $p<.05$, and session three ($M=3.40$), $F(1,54)=7.05$, $p<.05$. Performance on the first ($M=3.75$) and third ($M=3.40$) sessions did not significantly differ, $F(1,54)=.92$, $p=.341$. However, since the order of quizzes was not counterbalanced, it is unclear whether womens' underperformance on the second quiz is due

to receipt of negative feedback or the greater difficulty of the second quiz. As discussed below, however, the multiple choice test performance pattern is identical to the reaction time performance pattern. Since the each session of the reaction time task was identical, the notion that second session underperformance was due to the negative feedback (regardless of the sexist versus nonsexist nature of the feedback) is indirectly supported.

A 3 (Sexism) X 3 (Time) interaction was hypothesized, such that women who perceived the sexist comment as sexist would show the poorest multiple choice test performance when compared with the other groups during the second and third test sessions. This interaction was nonsignificant, $F(4,108)=.56$, $p=.69$.

A 3 (Sexism) X 2 (Experimenter Presence) X 3 (Time) interaction was predicted, where women perceived the sexist comment as sexist and who were in the presence of the male experimenter during the last third of the multiple choice test were expected to underperform compared with all other groups. This interaction was nonsignificant, $F(4,108)=1.10$, $p=.36$ (see Table 5).

Insert Table 5 about here

Probe reaction time. A 3 (Sexism) X 2 (Experimenter Sex) X 3 (Time) ANOVA was conducted, using reaction time

measured in thousandths of a second as the dependent variable.

A significant main effect of Time was found, $F(2,110)=29.29$, $p<.05$. Tests of simple effects revealed that women displayed the slowest reaction time during session two: Specifically, women's reaction time was slowest during session two ($M=478.90$) as compared to both session one ($M=415.91$), $F(1,55)=51.38$, $p<.05$, and session three ($M=438.28$), $F(1,55)=19.95$, $p<.05$. Women's reaction time during the first session ($M=415.91$) was significantly quicker than their reaction time during the third session ($M=438.28$), $F(1,55)=11.36$, $p<.05$. Since the three reaction time tests were identical, the negative feedback (regardless of the sexist versus nonsexist nature of the feedback) adversely affected women's reaction time performance during the second test session.

A 3 (Sexism) X 3 (Time) interaction was hypothesized, such that women who perceived the sexist comment as sexist would display the slowest reaction time performance when compared with the other groups during the second and third test sessions. This interaction was nonsignificant, $F(4,110)=.50$, $p=.74$.

A 3 (Sexism) X 2 (Experimenter Presence) X 3 (Time) interaction was hypothesized, where women who perceived the sexist comment as sexist and who were in the presence of the male experimenter during the last third of the multiple

choice test were expected to underperform during the last third of the task when compared with all other groups. This interaction was nonsignificant, $F(4,110)=.54$, $p=.71$ (see Table 6).

Insert table 6 about here

Discussion

In study 2, women received negative feedback which was either sexist or nonsexist. A trend was found where women who rated themselves as being highly concerned with discrimination and who heard the sexist feedback were more likely to interpret the feedback as sexist. Being highly concerned with discrimination may render women more sensitive to discriminatory events. Perhaps these women have experienced sexism in the past, or are just more concerned about and/or attentive to their environment in general. The possibility that Concern with Discrimination could be correlated with other individual differences (i.e., vigilance, need for cognition, GPA, etc.) deserves attention in future research projects. Additionally, a situational manipulation of Concern with Discrimination would serve to clarify these findings. Based on Cohen and Swim's (1995) finding that token women expect to be stereotyped, one way to accomplish this could be through manipulating women's token status during task participation. Token (versus

nontoken) women who experience sexism would be expected to interpret a sexist event as sexist, and to subsequently display more anxiety and reduced task performance.

In any case, the possibility of being stereotyped seems to be more accessible for women scoring high on Concern with Discrimination, allowing highly concerned women to perceive the element of stereotyping in their surroundings. This idea is consistent with the concept of *chronicity*: As discussed by Fiske and Taylor (1991), an individual who is chronic on any dimension is more sensitive to information which pertains to the dimension, and information regarding the particular dimension is more accessible. Fiske and Taylor report that "people who are chronic on a particular dimension not only use it consistently, and are more sensitive to its presence, but they are also more accurate in assessing it" (p. 170). Perhaps women who report being highly concerned with discrimination are chronic on the dimension of concern with gender-based discrimination, which enables them to notice and interpret a sexist event as sexist.

Additionally, only women who overheard the sexist comment reported unfair treatment, indicating that participants were able to accurately discriminate between negative feedback which is either sexist or nonsexist. This is interesting, as it shows that women are not likely to interpret negative feedback delivered by a man as sexist,

unless the feedback is truly sexist.

A trend was found where women who perceived the sexist comment as sexist reported an increase in anxiety when in the presence of the stereotyper during the third session, but reported a decrease when in the presence of the female experimenter. Women who either received the nonsexist comment or who did not perceive the sexist comment as sexist also reported a (nonsignificant) decrease in anxiety. This trend offers some support for two ideas: First of all, women must first interpret an event as sexist if they are to then experience the negative effects proposed to result from being stereotyped. Secondly, if women interpret the situation as one where they were stereotyped, presence of the male experimenter who made the stereotypical comment then prolongs and increases women's anxiety. It should be emphasized, however, that women were either in the presence of the female experimenter or the male stereotyper during the third session: To more accurately test how presence of the stereotyper affects anxiety, a second male experimenter who did not stereotype the women should be incorporated as an additional comparison. I would predict that women who interpreted an event as sexist would experience an increase in anxiety only in the presence of the male stereotyper, but not in the presence of the female experimenter or the second male (who made no stereotypical comment). Adding a second male experimenter who did not stereotype the female

participant would make it possible to discover whether it is being in the presence of the sexist male which serves to increase anxiety, or whether it is simply the presence of any male which reminds women of the negative, sexist feedback they previously received, thus increasing women's anxiety.

Women who interpreted the sexist comment as sexist reported significantly less enjoyment of the dual-task, were significantly less likely to indicate that they would volunteer for another dual-task study, and showed less faith in their ability to improve their task performance as compared to all other groups. The implications of these findings are disturbing. For women who are chronic on the dimension of concern with gender-based discrimination, being stereotyped is anxiety-provoking and decreases task enjoyment, undermines the belief in their ability to improve at a task, and lessens the likelihood of volunteering for a similar task. Attitudes and feelings such as these could result in withdrawal from a situation where one has been stereotyped, and could even lead one to avoid a situation where the possibility of being stereotyped exists. For women who are chronic on concern with gender-based discrimination and who are either in or contemplating entrance into a predominantly male profession (where the likelihood of being stereotyped is heightened), the anxiety and negative attitudes and expectations resulting from being

stereotyped could pose obstacles to job satisfaction and advancement.

Regarding performance, it is somewhat surprising that the sexist versus nonsexist nature of the comment did not exert a differential impact on women's performance: Regardless of the nature of the comment, all women performed the most poorly on both components of the dual-task during session two (i.e., immediately after receiving the negative feedback). However, there are several reasons for why this may have occurred. For example, perhaps the negative element of the comment was too strong, thus overwhelming any expected differences due to the sexist versus nonsexist content of the comment. An alternative way to study the effects of being stereotyped which could potentially bypass this problem would be to expose participants to a positive or neutral comment which is either sexist or nonsexist. Demonstrating that positive but stereotypical feedback is harmful to affect and performance would provide further evidence for the detrimental effects of being stereotyped. Thus, another fruitful area of future research would be to examine the differential impact on affect and performance of positive (or neutral) feedback which is either sexist or nonsexist.

Chapter 4: General Discussion

Results of both studies support the notion that being stereotyped is a negative experience resulting in both short- and long-term adverse effects. To more precisely address this issue, two specific questions need to be answered: (1) What are the negative effects which result from being stereotyped?; and (2) what is the underlying process responsible for bringing about these negative effects? A three-stage process has been hypothesized: First, it is necessary that the target perceives him or herself as having been stereotyped. Second, if the target interprets an event as being sexist, racist, etc., he or she experiences cognitively debilitating anxiety which redirects the target's attention away from the task at hand. Third, because the target is no longer devoting the bulk of their attentional capacity to the task, performance suffers.

Study 2 directly tested stage one of the proposed three- stage process, where it was found that only women who interpreted the sexist comment as sexist experienced any negative effects. It seems that interpretation of a stereotypical event as stereotypical is a necessary first step for women to then suffer the negative effects which result from being stereotyped.

Once women have detected sexism, I predicted that they would experience negative affect. More specifically, it was hypothesized that being stereotyped is an anxiety-provoking

experience. Data from both studies is supportive of this hypothesis. In study 1, women who overheard the negative, sexist comment experienced more anxiety than women who overheard no comment; unfortunately, whether or not women interpreted the sexist comment as sexist was not tested. In study 2, a near-significant trend was found indicating that women who interpreted the sexist comment as sexist and who then encountered the male experimenter during the last third of the experiment experienced increases in anxiety. In contrast, women who either heard the nonsexist comment or who did not interpret the sexist comment as sexist and subsequently encountered the male experimenter during the last third of the experiment reported a decrease in anxiety. All women who encountered the female experimenter during the last third of the experiment also reported decreased anxiety. Interpretation of a sexist event as sexist seems to be a necessary condition for the negative effects of stereotyping to be realized, while presence of the stereotyper may serve to maintain and/or increase these negative effects. In sum, it seems that being stereotyped is a negative, anxiety-arousing experience which is compounded by being physically proximal to the source of the stereotypical comment (i.e., the sexist male experimenter).

One important practical implication of this finding is that the negative effects of being stereotyped may actually

persist even after the stereotypical episodes have ended. Thus, for example, if a woman experiences sexual discrimination in the workplace, it may be necessary to remove (i.e., fire or transfer) the perpetrator, as the woman could still experience the negative effects (anxiety) of being stereotyped.

So far, evidence has been gathered to support the idea that anxiety is aroused when a woman interprets a personal experience as involving sexism that is aimed towards herself. In addition, this anxiety may persist over time if the woman is in close contact with the sexist male. What are the implications of this for task performance? I expected to find that women who interpreted the sexist comment as sexist and who were in the presence of the male experimenter during the last third of the experiment would perform the worst (i.e., exhibit the slowest reaction times and answer the least amount of Indonesia questions correctly). However, a different pattern emerged: For both performance measures (multiple choice test and reaction time performance), the performance of all women dropped after overhearing the negative comment. Overhearing a negative comment regarding performance (whether sexist or nonsexist) adversely affected performance. In study 1, women who overheard no comment showed a linear improvement rate, performing best during the third session. In both study 1 and 2, it seems that the negative feedback interfered with

this trend of linear improvement observed for participants who never overheard a comment.

In conclusion, it has been argued that being stereotyped is harmful to targets' affect and task performance via a three-stage process. Stage one involves interpreting a stereotypical event as stereotypical. If a target perceives him/herself as having been stereotyped, anxiety increases at stage two, directing attention away from task performance. Since the target's attention is no longer focused on the task, performance suffers at stage three. This process has been partially supported: A nonsignificant trend was found where women who interpreted a sexist event as sexist did experience increased anxiety, however performance differences did not emerge between women who received the sexist versus nonsexist feedback. Perhaps the negative content of the stereotypical feedback was too strong, thus eliminating any performance differences which might have emerged. Additionally, perceiving oneself as having been stereotyped negatively affects attitudes regarding task enjoyment, success, and the likelihood of volunteering to participate in a similar task. It is my hope that future research will focus upon and further expand our understanding on the effects of being stereotyped.

Table 1

Change in anxiety as a function of Comment and Concern with
Discrimination, Study 1

Concern with Discrimination	Comment			
	<u>Sexist</u>		<u>Absent</u>	
	<u>M</u>	<u>n</u>	<u>M</u>	<u>n</u>
High	1.23	4	-.12	4
Low	.49	5	.13	5

Table 2

Multiple choice Test Performance Over Time as a Function of
Comment, Study 1

Comment	Time					
	<u>Session 1</u>		<u>Session 2</u>		<u>Session 3</u>	
	<u>M</u>	<u>n</u>	<u>M</u>	<u>n</u>	<u>M</u>	<u>n</u>
Sexist	.41	9	.44	9	.50	9
Absent	.48	9	.58	9	.80	9

Table 3

Change in Anxiety Over Time as a Function of Sexism and
Experimenter Sex, Study 2

Experimenter Sex	Sexism		
	None	Not Perceived	Perceived
First CMQ Administration			
Male			
<u>M</u>	2.51	2.57	1.96
<u>n</u>	14	12	6
Female			
<u>M</u>	2.00	2.12	2.83
<u>n</u>	15	11	4
Second CMQ Administration			
Male			
<u>M</u>	2.08	2.33	2.80
<u>n</u>	14	12	6
Female			
<u>M</u>	1.35	1.83	1.73
<u>n</u>	15	11	4

Table 4

Change in Anxiety as a Function of Sexism and Experimenter
Sex, Study 2

		Sexism		
		<u>None</u>		<u>Not Perceived</u>
				<u>Perceived</u>
Experimenter		<u>M</u>	<u>n</u>	<u>M</u>
Sex				
<u>n</u>				
Male		-.43	14	.84
6				
Female		-.65	15	-1.09
4				

Table 5

Multiple Choice Test Performance as a Function of Sexism and
Experimenter Presence Over Time, Study 2

	Sexism		
	None	Not Perceived	Perceived
Session 1			
<u>M</u>	3.86	3.82	3.30
<u>n</u>	28	22	10
Session 2			
<u>M</u>	3.07	3.14	2.30
<u>n</u>	28	22	10
Experimenter Sex	Session 3		
Male			
<u>M</u>	2.62	3.18	3.33
<u>n</u>	13	11	6
Female			
<u>M</u>	3.07	3.82	3.50
<u>n</u>	15	11	4

Table 6

Probe Reaction Time as a Function of Sexism and
Experimenter Presence Over Time, Study 2

	Sexism		
	None	Not Perceived	Perceived
Session 1			
<u>M</u>	426.53	415.09	386.91
<u>n</u>	29	22	10
Session 2			
<u>M</u>	485.98	476.81	462.96
<u>n</u>	29	22	10
Experimenter Sex	Session 3		
Male			
<u>M</u>	438.88	446.82	419.48
<u>n</u>	14	12	6
Female			
<u>M</u>	440.78	431.67	445.96
<u>n</u>	15	10	4

Figure 1

Perceived Sexism as a Function of Concern with
Discrimination, Study 2

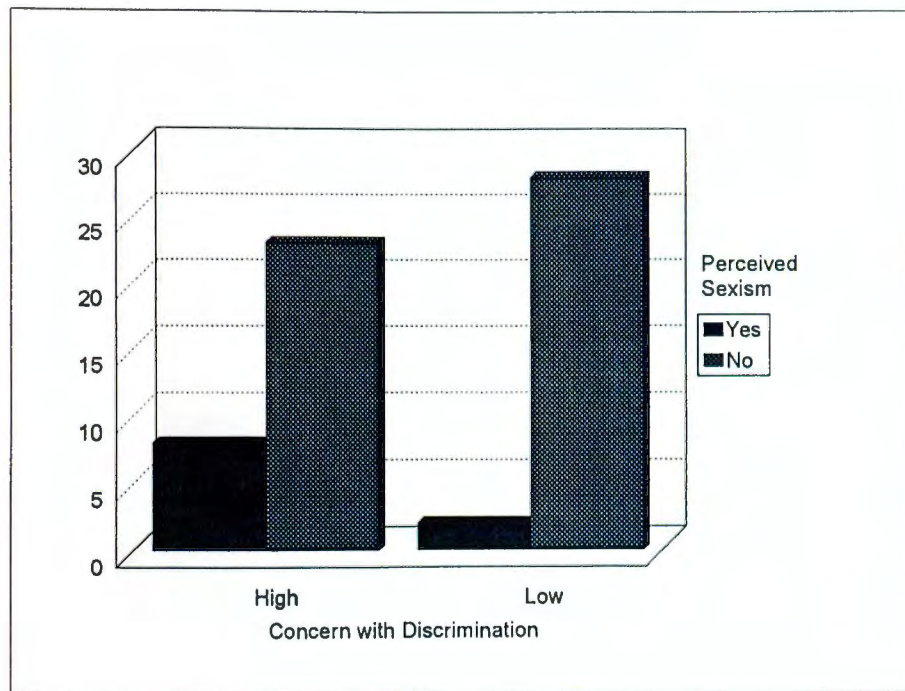
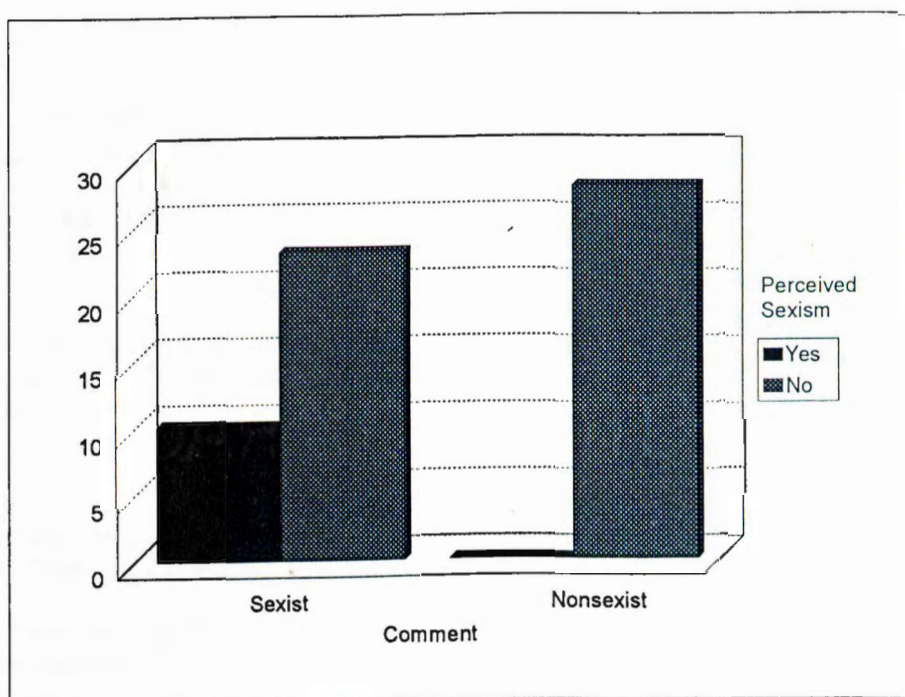


Figure 2

Perceived Sexism as a Function of Comment, Study 2



Appendix A

Preselection

In this section of the questionnaire we are interested in your perceptions of having been discriminated against on the basis of your membership in given social groups.

On the following line please list the name of a group of which you are a member, and which you have experienced discrimination or prejudice against you on the basis of: Please attempt to list a group. If you absolutely cannot think of any such group, you may leave the response blank.

If you entered a group on the previous screen, please press ENTER.

If you DID NOT enter a group on the previous page, please type the group that represents your sex :

Please type either: MALES or FEMALES

PAGE

Please think about the group that you typed in on one of the previous two screens. Please type the name of that group once more:

PAGE

Please think again about the group that you typed in as you answer the following questions:

How often do people discriminate against you on the basis of your membership in the group?

Almost never 1 2 3 4 5 6 7 Very often

PAGE

How much does the discrimination you experience on the basis of your membership in the group bother you?

Not at all 1 2 3 4 5 6 7 Very Much

PAGE

How often do you think about being the victim of discrimination on the basis of this group membership?

Never 1 2 3 4 5 6 7 All of the time

Please now consider the OTHER people in this group,
EXCLUDING yourself:

How often do people discriminate against OTHER PEOPLE in
your group on the basis of their membership in the group?

Almost never 1 2 3 4 5 6 7 Very often

PAGE

How much do you think the discrimination OTHER PEOPLE
experience on the basis of their membership in the group
bother them?

Not at all 1 2 3 4 5 6 7 Very Much

PAGE

How often you think OTHER PEOPLE think about being the
victim of discrimination on the basis of this group
membership?

Never 1 2 3 4 5 6 7 All of the time

Appendix B
Consent Form

The purpose of this study is to assess how people perform on two tasks when they are presented simultaneously. Specifically, I will be asked to pay attention to audio-taped information while working on a probe-monitoring task. I have freely volunteered to participate in this study, and am aware that I have the right to withdraw consent and discontinue participation at any time, without penalty.

All information that I provide is ANONYMOUS and CONFIDENTIAL.

I have been informed in advance as to what my tasks are, and I have had an opportunity to ask questions.

Signature: _____

Print name: _____

Date: _____

Appendix C
Current Mood Questionnaire

Please indicate how you are feeling right now by marking an "X" on the line. If you simply cannot identify with an emotion at all, please circle the star (*) instead of leaving an item blank.

	not at all		Very much
Happy	_____		*
Angry	_____		*
Sad	_____		*
Worried	_____		*
Threatened	_____		*
Tired	_____		*
Nervous	_____		*
Calm	_____		*

Appendix D Indonesia Information

Part 1:

Indonesia is the largest and most populous country in South-east Asia. It is composed of 13,700 islands which stretch between the Indian and Pacific Oceans, and covers an area of about 2 million square kilometers. Of the 130 million people inhabiting the islands, most are Javanese and Muslim, although there is no official religion. The government is republic.

Part 2:

Djakarta, the capital, is found on the North-west coast of the island of Java at the mouth of the river Tji Liwung, it has a population of 6.5 million inhabitants. The main export of Indonesia is petroleum and petroleum products. Wood, rubber, and tin are also exported, predominantly to Japan, the USA, and Singapore. Goats and cattle are found in greater numbers than buffalo and pigs - and cassava and sugarcane are grown in addition to paddy rice, which is the main crop of the country.

Part 3:

The country has 340,000 cars, which means that there is one car per 433 people. It also has 200,000 buses and trucks. One person in every 453 has a telephone, and one in every 390 has a radio. Medical care is poor - each doctor has 26,000 patients and there is only one hospital bed per 1,500 people. The average daily calorie intake of the population is less than the minimum requirement by 340 calories.

Appendix E
Multiple choice test

1. Indonesia is found in which part of Asia?
 - a. north
 - b. south-west
 - c. north-east
 - d. south-east
2. Indonesia's main export is
 - a. rubber
 - b. tin
 - c. petrol
 - d. wood
3. There is one telephone per
 - a. 354 people
 - b. 453 people
 - c. 534 people
 - d. 543 people
4. The population of Djakarta is
 - a. 3.5 million
 - b. 5.5 million
 - c. 6.5 million
 - d. 7.5 million
5. How many cars are there on the islands?
 - a. 120,000
 - b. 260,000
 - c. 340,000
 - d. 480,000
6. The average calorie intake, compared to the minimum requirement is
 - a. 560 calories too little
 - b. 340 calories too little
 - c. 230 calories too little
 - d. sufficient
7. Indonesia is found in
 - a. the Indian Ocean
 - b. the Pacific Ocean
 - c. both the Pacific and the Indian
 - d. neither of these oceans

Appendix E

8. Indonesia's main crop is
 - a. sugar cane
 - b. barley
 - c. paddy rice
 - d. cassava
9. Indonesia, as country in this part of Asia, is the
 - a. smallest
 - b. least populous
 - c. largest
 - d. richest
10. Indonesia exports mainly to
 - a. Japan
 - b. The USA
 - c. Singapore
 - d. All of the above
11. Which is true?
 - a. More people have TV's than radios
 - b. Everyone has a radio
 - c. No one has a TV
 - d. More people have radios than TVs
12. The population of Indonesia is
 - a. 130 million
 - b. 140 million
 - c. 150 million
 - d. 160 million
13. How many islands does Indonesia consist of
 - a. 10,000
 - b. 12,400
 - c. 13,700
 - d. 15,900
14. The main livestock are
 - a. sheep and goat
 - b. pigs and cattle
 - c. buffalo and pigs
 - d. goats and cattle

Appendix E

15. If everyone went to hospital at the same time, how many would have to share a bed?
- a. 100
 - b. 150
 - c. 1000
 - d. 1500
16. The area of the islands cover
- a. 1 million sq. km.
 - b. 2 million sq. km.
 - c. 3 million sq. km.
 - d. 4 million sq. km.
17. Indonesia's official religion is
- a. Hindu
 - b. Christian
 - c. Muslim
 - d. None of the above
18. Each doctor has how many patients
- a. 2600
 - b. 6200
 - c. 26000
 - d. 62000
19. Djakarta is found on which coast of Java
- a. North-west
 - b. South-west
 - c. South-east
 - d. North

Appendix F Final Questionnaire

Overall, how good are you at the dual-task performance task?

1	2	3	4	5	6	7	8	9
very good								Very bad

How likely is it that you could improve your performance on this type of dual-task?

1	2	3	4	5	6	7	8	9
Very likely								Very unlikely

How well do you think you performed on the dual-task?

1	2	3	4	5	6	7	8	9
Very well								Very poorly

Out of the 5 recall test questions for session one, how many do you think you answered correctly? _____

Out of the 5 recall test questions for session two, how many do you think you answered correctly? _____

Out of the 5 recall test questions for session three, how many do you think you answered correctly? _____

How much did you enjoy participating in this experiment?

1	2	3	4	5	6	7	8	9
Very much								Not at all

How likely is it that you would volunteer to participate in this kind of dual-task experiment again?

1	2	3	4	5	6	7	8	9
Very likely								Very unlikely

How difficult did you find this dual-task to be?

1	2	3	4	5	6	7	8	9
Very easy								Very difficult

Appendix G
Session 1 Test

1. Indonesia, as country in this part of Asia, is the
 - a. smallest
 - b. least populous
 - c. largest
 - d. richest
2. The population of Indonesia is
 - a. 130 million
 - b. 140 million
 - c. 150 million
 - d. 160 million
3. Indonesia is found in which part of Asia?
 - a. north
 - b. south-west
 - c. north-east
 - d. south-east
4. Indonesia's official religion is
 - a. Hindu
 - b. Christian
 - c. Muslim
 - d. None of the above
5. Indonesia is found in
 - a. the Indian Ocean
 - b. the Pacific Ocean
 - c. both the Pacific and the Indian
 - d. neither of these oceans

Appendix H
Session 2 Test

1. Indonesia's main export is
 - a. rubber
 - b. tin
 - c. petrol
 - d. wood

2. Indonesia's main crop is
 - a. sugar cane
 - b. barley
 - c. paddy rice
 - d. cassava

3. Indonesia exports mainly to
 - a. Japan
 - b. The USA
 - c. Singapore
 - d. All of the above

4. The main livestock are
 - a. sheep and goat
 - b. pigs and cattle
 - c. buffalo and pigs
 - d. goats and cattle

5. Djakarta is found on which coast of Java
 - a. North-west
 - b. South-west
 - c. South-east
 - d. North

Appendix I
Session 3 Test

1. How many cars are there on the islands?
 - a. 120,000
 - b. 260,000
 - c. 340,000
 - d. 480,000

2. There is one telephone per
 - a. 354 people
 - b. 453 people
 - c. 534 people
 - d. 543 people

3. The average calorie intake, compared to the minimum requirement is
 - a. 560 calories too little
 - b. 340 calories too little
 - c. 230 calories too little
 - d. sufficient

4. Which is true?
 - a. More people have TV's than radios
 - b. Everyone has a radio
 - c. No one has a TV
 - d. More people have radios than TVs

5. If everyone went to hospital at the same time, how many would have to share a bed?
 - a. 100
 - b. 150
 - c. 1000
 - d. 1500

Appendix J
Psychology Experiment Evaluation Form

The psychology department is interested in determining research participants' perceptions of psychology experiments. Please answer each of the following items as accurately and honestly as possible. We value your input, and wish to assure you that all responses are anonymous and confidential.

1. Did the experimenter(s) meet you on time?
2. Were you asked to sign a consent form prior to participation?
3. Did the experimenters treat you fairly (i.e., no displays of racism, sexism, etc.)?
4. Did the experimenter(s) thoroughly explain the experimental procedure in which you participated?
5. Did the experimenter(s) answer your questions regarding the experimental procedure?

Appendix J

Please rate each experimenter on the following dimensions.

Please note: You should receive as many rating forms as there are experimenters.

Name of Experimenter: _____

Knowledgeable

Extremely 1 2 3 4 5 Not at all

Fair

Extremely 1 2 3 4 5 Not at all

Helpful

Extremely 1 2 3 4 5 Not at all

Incompetent

Extremely 1 2 3 4 5 Not at all

Biased

Extremely 1 2 3 4 5 Not at all

Pleasant

Extremely 1 2 3 4 5 Not at all

Objective

Extremely 1 2 3 4 5 Not at all

Prejudiced

Extremely 1 2 3 4 5 Not at all

Appendix J

Name of Experimenter: _____

Knowledgeable

Extremely 1 2 3 4 5 Not at all

Fair

Extremely 1 2 3 4 5 Not at all

Helpful

Extremely 1 2 3 4 5 Not at all

Incompetent

Extremely 1 2 3 4 5 Not at all

Biased

Extremely 1 2 3 4 5 Not at all

Pleasant

Extremely 1 2 3 4 5 Not at all

Objective

Extremely 1 2 3 4 5 Not at all

Prejudiced

Extremely 1 2 3 4 5 Not at all

Appendix J

Name of Experimenter: _____

Knowledgeable

Extremely 1 2 3 4 5 Not at all

Fair

Extremely 1 2 3 4 5 Not at all

Helpful

Extremely 1 2 3 4 5 Not at all

Incompetent

Extremely 1 2 3 4 5 Not at all

Biased

Extremely 1 2 3 4 5 Not at all

Pleasant

Extremely 1 2 3 4 5 Not at all

Objective

Extremely 1 2 3 4 5 Not at all

Prejudiced

Extremely 1 2 3 4 5 Not at all

References

Crocker, J., Voelkl, K., Testa, M., & Major, B. (1991). Social stigma: The affective consequences of attributional ambiguity. Journal of Personality and Social Psychology, 60(2), 218-228.

Cohen, L. L., & Swim, J. K. (1995). The differential impact of gender ratios on women and men: Tokenism, self-confidence, and expectations. Personality and Social Psychology Bulletin, 21(9), 876-884.

Dion, K. L., & Earn, B. M. (1975). The phenomenology of being a target of prejudice. Journal of Personality and Social Psychology, 32(5), 944-950.

Eysenck, M. W. (1992). Anxiety: The cognitive perspective. Hillsdale, NJ: Erlbaum.

Fiske, S. T., & Taylor, S. E. (1991). Social cognition. NY: McGraw-Hill.

Lord, C. G., & Saenz, D. S. (1985). Memory deficits and memory surfeits: Differential cognitive consequences of tokenism for tokens and observers. Journal of Personality and Social Psychology, 49(4), 918-925.

Macrae, C. N., Milne, A. B., & Bodenhausen, G. V. (1994). Stereotypes as energy-saving devices: A peek inside the cognitive toolbox. Journal of Personality and Social Psychology, 66(1), 37-47.

Saenz, D. S. (1994). Token status and problem-solving deficits: Detrimental effects of distinctiveness and

performance monitoring. Social Cognition, 12(1), 61-74.

Sarason, I. G. (1984). Stress, anxiety, and cognitive interference: Reactions to tests. Journal of Personality and Social Psychology, 46(4), 929-938.

Steele, C. M., & Aronson, J. (1995). Stereotype threat and the intellectual test performance of African Americans. Journal of Personality and Social Psychology, 69(5), 797-811.

Footnotes

1. We acknowledge that it is possible for women who report being highly concerned with discrimination to simply discount any stereotypical information with which they are confronted. If this were the case, then the hypothesized performance decrement would not occur.
2. Too few subjects were run in order to be able to analyze the pilot data with regard to the exploratory variable Experimenter Sex. Therefore, all analyses were conducted with Comment (sexist versus absent) and Concern with Discrimination (high versus low) as the between-subjects variables.
3. Due to an overly small cell size of low concern women who interpreted the sexist comment as sexist (2 out of 63), the variable of Concern with Discrimination was dropped from the remaining analyses. Additionally, Concern with Discrimination was significantly correlated with Interpretation ($r = -.26$, $p < .05$), where an interpretation of the sexist comment as sexist was associated with being highly concerned with discrimination.