TOWARDS THE REDUCTION OF SEX-BASED STEREOTYPES

A Senior Honors Thesis

by

BRIAN ANTHONY THOMAS

Submitted to the Office of Honors Programs & Academic Scholarships
Texas A&M University
In partial fulfillment of the requirements of the

UNIVERSITY UNDERGRADUATE RESEARCH FELLOWS

APRIL 2001

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Approved as to style and content by:

Lowell Gaertner
(Fellows Advisor)

Edward A. Funkhouser
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APRIL 2001

Group: Psychology I
ABSTRACT

Towards the Reduction of Sex-Based Stereotypes. (April 2001)

Brian Anthony Thomas
Department of Liberal Arts
Texas A&M University

Fellows Co-Advisors: Dr. Lowell Gaertner
Jon Iuzzini
Department of Psychology

With more females entering the workforce (U.S. Bureau of Labor Statistics, 1998), it has become of increasing importance to reduce the negative effects that sex-based stereotyping can engender. The current experiment investigates if mutual interdependence can result in a greater perception of a female partner’s competence and a reduction of hostility towards women in general. Male participants worked either interdependently or independently with a female partner. Dyads were then separated and males completed a series of dependent measures prone to capture ratings of their female partner’s competence and hostility and benevolence towards women in general. A marginally statistically significant effect was found supporting our primary hypothesis, that males in the mutual interdependence condition reported a greater competence rating for their specific female partner. There were no statistically significant effects found for our
exploratory hypothesis that this previous effect would generalize to women in general.

Past research on the reduction of race-based stereotypes, reduction of hostility between
groups, and individuating processes, has suggested that mutual interdependence and
positive task success between members of opposing groups attenuates hostility and
stereotyping for a specific partner or group. These findings are replicated by this research.
To the one who brings me eternal peace and unconditional love, Megan.
ACKNOWLEDGEMENTS

Great appreciation extends to Jon Iuzzini and Lowell Gaertner who both proved to be invaluable with their mentoring ability and unfettered intellect. Emily Martin, Julie Schrader, and Pam Quesinberry are the ones who provided the countless hours and insight to make this experiment possible.
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INTRODUCTION

It may seem inconceivable that sexism still exists in the contemporary workforce since the banning of sexual discrimination in 1964 by Title VII of the Civil Rights Act. Even with this legislation, women have not been fully incorporated into certain occupational roles, especially high-status roles (Brown, 1979; Riger & Galligan, 1980; Giele, 1988; Reskin & Padavic, 1994). Moreover, in 1998 women earned 73.5 percent of what men earned, this is despite controlling for occupation (U.S. Bureau of Labor Statistics, 1998). The Supreme Court has also recently found a corporation guilty of using sex-based stereotyping to prevent a female from promotion [Price Waterhouse v. Hopkins (1988)]. In this case, Price Waterhouse denied Hopkins a promotion because of alleged problems of interpersonal skills, as one colleague said she needed to “walk more femininely, talk more femininely, dress more femininely, wear make-up, have her hair styled, and wear jewelry” (as cited in Smither, 1998, p. 63).

Though parental upbringings may heavily influence the processes of sex-based stereotyping (Jacobs & Eccles, 1992), subtle images are also freely distributed through the media via prime-time dramas (Gerbner, 1993), children’s books (Kolbe & LaVoie, 1981), and comic strips (Chavez, 1985). Given this, it is no surprise that children learn at a young age the stereotypical image of female and male (Ruble & Martin, 1998).

This thesis follows the style and format of The Journal of Personality and Social Psychology.
Previous research has demonstrated that internalization of these sex-based stereotypes can have a detrimental effect on women's and men's perceptions and treatment of women.

For example, Geis and colleagues (1984) exposed female and male participants to one of two series of commercials and assessed their career aspirations. In the series of commercials, women were portrayed as sex objects and subservient homemakers or their sex roles were reversed (e.g., male serving a meal to his wife). Males reported high career aspirations regardless of the commercials to which they were exposed. However, females who viewed commercials portraying women as sex objects and subservient homemakers were more likely to de-emphasize careers and other achievements—the same was true for females who were not exposed to any commercials. Females who viewed the role-reversed commercials reported the same high level of achievement aspirations, as did male participants. These findings strongly suggest the media can affect the internalization of sex roles.

This trend has not changed with the passage of time. Researchers have discovered that stereotypes are also prescriptive (e.g., providing rules to help govern behaviors), not simply descriptive (Fiske & Stevens, 1993) and higher status individuals are more likely to stereotype those of a lower status (Fiske, 1993). Moreover, Cejka & Eagly (1999) found that higher status occupations and greater income levels have been stereotyped to require masculine personality attributes and men are perceived as being more agentic, while women are perceived as being more communal (Deaux & Lewis, 1984; Spence, Helmreich, & Stapp, 1975). Agentic people are also perceived as being employed, while
communal individuals are perceived to be homemakers (Eagly & Steffen, 1984). These stereotypes may make it unsurprising that respondents have perceived women to be less competent (Wood & Karten, 1986) and have expected them to perform consistent with this perception (Deaux & LaFrance, 1998). However, the reality is that when controlling for the important job-related variables that sex covaries with, both men and women act analogous under the same environments (Lefkowitz, 1994), albeit women work longer and reward themselves less for the same pay (Major, 1994).

Given the dramatic consequences that stereotyping can have, one may believe that an individual who employs these stereotypes does so on a conscious level. In spite of this, researchers have postulated (Bem, 1970) and found that sexist attitudes may not be apparent to the individuals who hold them but can result in biased judgments and behaviors (Devine, 1989; Banaji & Greenwald, 1995). As Daryl and Sandra Bem (1970) suggest, sexist attitudes against women are a “nonconscious ideology—that is, a set of beliefs we accept implicitly but of which we are unaware because we cannot even conceive of alternative conceptions of the world” (p. 22).

Sexist beliefs may manifest themselves in two ways, benevolent sexism and hostile sexism. Glick and Fiske (1996) define benevolent sexism as viewing women in “stereotypically and restricted roles but that are subjectively positive in feeling tone (for the perceiver) and also tend to elicit behaviors typically categorized as prosocial (e.g., helping) or intimacy-seeking (e.g., self-disclosure)” (p. 491). Using Allport's (1954) definition of ethnic prejudice, Glick and Fiske (1996) define hostile sexism as an “antipathy based upon faulty and inflexible generalizations” (p. 9). Interestingly, these
researchers have found cross-cultural support that both females and males typically reject hostile sexism, while simultaneously accepting benevolent sexism (Glick & Fiske, 2001). They argue that although benevolent sexism is positive in tone it reinforces gender inequality by rewarding women to conform to the patriarchal status quo.

Historically, most researchers have been concerned with hostile sexism, which has more recently been found to be a predictor of negative attitudes towards women pursuing careers (Glick et al., 1997). Despite the concentration on hostile sexism, Glick and Fiske (1996) argue that, both hostile and benevolent sexism have the assumption that “women inhabit restricted roles and are the weaker sex” and “benevolent sexism may be used to compensate for...hostile sexism” (p.492). Thus, examining both of these beliefs is essential.

Given the insidious nature of sex-based stereotypes, an effective means for their reduction is needed. Although the literature on methods for reducing sex-based stereotyping is sparse, there is an abundance of research on reducing stereotypes in general. For example, Elliot Aronson and his colleagues (1978) demonstrated that whites could become more empathic towards Hispanics when working under conditions of the jigsaw technique—a method in which each person is responsible for an equal part of a task, and arc dependent upon other group members for completion of the total task. Likewise, Muzafer Sherif and colleagues (1961) reduced stereotyping and hostility between conflictual groups by having members of both groups work towards a superordinate goal. Neuberg and Fiske (1987) have also found that even short-term task
oriented mutual interdependence can result in individuating processes that allow a perceiver to facilitate accuracy-driven attention of the targeted individual.

This past research on the reduction of race-based stereotypes, reduction of hostility between groups, and individuating processes, suggest that mutual interdependence and positive task success between members of opposing groups attenuates hostility and stereotyping. The current research applies these strategies to the reduction of sex-based stereotyping.
OBJECTIVES

Introduction of a mutual interdependent task coupled with positive outcome feedback should reduce males’ propensity to apply sex-based stereotyping of women, which may be reflected in a specific woman’s competence ratings. An exploratory interest is to see if this short-term task temporarily alters males’ perceptions of women in general for both hostility and benevolence ratings. Participants pre-existing levels of prejudice were also measured to test whether pre-existing prejudice moderates the effect of mutual interdependence. If these hypotheses are supported this method could facilitate females’ status in the work environment.
METHOD

Participants

Four hundred male introductory psychology students were recruited from the psychology participant pool.

Design

The design was a 2-group between-subjects design that manipulated whether male participants worked interdependently or independently with a female partner. Interdependence was manipulated by varying whether the possibility of winning a monetary prize depended upon the participants' individual performance or the joint performance of the participant and his partner. Prejudice was assessed at the level of the specific partner (ratings of competence) and toward women in general (e.g., ratings of benevolent and hostile sexism).

Procedure

Four hundred male students participated in an initial departmental pre-screening session in which they completed the Ambivalent Sexism Inventory (Glick & Fiske, 1996), the Neosexism scale (Tougas et al., 1995), and a short version of the Attitudes towards Women Scale (Spence et al., 1997). The Ambivalent Sexism Inventory was designed to assess an individual's endorsement of hostile sexist (e.g., antipathy against women) and benevolent sexist (e.g., positive regard for women) statements, while the Neosexism Scale taps into contemporary sexist beliefs. The short version of the Attitudes towards Women Scale (Spence et al., 1997) provided a further measure of hostile sexism. From these 400
participants, 126 were randomly selected and called back to participate in a second session.

In the second session, participants met with a female partner (actually an accomplice of the experimenter) and completed a short scripted verbal self-disclosure task. This task took the form of a conversation and was used to familiarize each individual with one another. The female's answers were scripted and held constant across conditions.

Participants were then informed that the experiment was investigating creativity and that they would write a story with their partner about "the perfect day." One person would write about the first half of the perfect day and the other person would write about the second half of the perfect day (all male participants wrote about the first half of the day).

Participants in the interdependent condition were told that their story of the first half of the day would be combined with their partner's story about the second half of the day and this would form a complete story. Furthermore, the quality of this combined story would be judged against the quality of stories written by other pairs of participants and the pair of participants who writes the best story would win $100 (to be split evenly between partners). Consequently, the participant's likelihood of winning was partially dependent upon his partner's performance.

Participants in the independent condition were told that his story would be compared to other stories written about the first half of the perfect day and his partner's story would be compared to other stories written about the second half of the perfect day.
Then they were told that for each half of the perfect day, the best story would win a $50 award. Thus, the participant's likelihood of winning was independent of his partner's performance.

After participants wrote their creative story, the experimenter then allegedly read the male participant's and female research assistant's essay. The experimenter then announced to the partners in the interdependent condition that each of their stories was very good and together they stood a good chance of winning the monetary award. In the independent condition, the experimenter announced that each of their stories was very good and they each stood a good chance of winning the monetary award.

The dyads were then separated and male participants completed a questionnaire rating the competence (see appendix) of their female partner. Upon completion of rating their partner's competence, they were told that some of the measures used during the initial prescreening session were misplaced and I needed them to complete the same measures again. Participants then completed for a second time the following measures: Ambivalent Sexism Inventory (Glick & Fiske, 1996), Neosexism Scale (Tougas et al., 1995), and the short version of the Attitudes towards Women Scale (Spence et al., 1997).

In addition, participants were asked to complete a general competence scale (see appendix) designed to capture male participant's perceptions of their specific female partner. The scale consisted of 20 items with a 7 point Likert scale ranging from one, "totally disagree", to seven, "totally agree" and was found to have high internal consistency ($\alpha = .91$).
RESULTS

Originally, the sample size consisted of 126 male participants in the second session. However, five participants were not included in the analyses, because of minor deviations from the experiment protocol (e.g., male participant had to change rooms before completion of the experiment). Final sample sizes for the interdependent group and independent group consisted of 58 and 59, respectively. For all statistical analyses, an alpha level of .05 was employed.

Three research assistants played the role of the female partner. I conducted a series of analyses to test whether the results varied as a function of the three research assistants. The results were consistent across research assistants. As a result, this factor was dropped from the analyses.

Prejudice Towards Specific Female Partner

To test whether mutual interdependence reduces males prejudice toward his specific partner, I entered the participants' ratings of the perceived competence his female partner into an analysis of variance \(^1\). There was a marginally significant effect that was consistent with the hypothesis. Males who were interdependent with their partner perceived their female partner to be marginally more competent (\(M = 5.71\)) than did males who worked independent of their female partner (\(M = 5.50\)), \(F(115) = 3.09, p = .081\).

Prejudice Towards Women in General

To test whether mutual interdependent working relations decreases prejudice toward women in general, I entered each of the sexism measures: the Ambivalent Sexism

\(^{1}\) An ANCOVA using the time one prejudice scales as the covariate, did not change the results in the text.
Inventory, Neosexism Scale, and the short version of the Attitudes towards Women Scale that were completed during the second session into a separate analysis of variance. The analyses revealed no significant effect of mutual interdependence. Likewise, I entered each of the sexism measures that were completed in the second session into an analysis of covariance in which the corresponding measure completed during the pre-screening session were used as the covariate. This more sensitive analysis also failed to detect any effect of mutual interdependence on prejudice toward women in general.
DISCUSSION

There was a marginally significant effect supporting the primary hypothesis that males in the interdependent condition reported a greater competence rating than males in the independent condition, for their specific female partner. However, there was not a statistically significant effect supporting the exploratory hypothesis related to these concepts. Specifically, I predicted that hostile and benevolent beliefs towards women in general would decline after the experimental manipulation.

I perceive three primary limitations to the current research. One of these limitations may be our sample of introductory to psychology college students. Some researchers (e.g., Fiske, 2001) have attempted similar research on mutual interdependence and were unable to obtain the expected results, since sex was not a “loaded” enough category for college undergraduates (p. 126). That is, college undergraduates did not perceive sex as a distant enough mental category for the experimental manipulation to have a significant effect. However, Fiske (2001) did find the expected reduction in prejudice when running the studies using a more loaded category, such as schizophrenics.

Another limitation may have been that prejudice towards the partner and prejudice towards women in general were measured on different scales (e.g., competence vs. the Ambivalent Sexism Inventory). Therefore, the inconsistency in prejudice reduction of a specific partner, but not women in general, could be attributed to the types of measures employed. Perhaps our manipulation and the context is effective at increasing perceived competence and corresponding prejudice reduction toward women in general if we assessed the perceived competence of women in general.
A third plausible limitation could be that because sex-based stereotypes may operate on a nonconscious level, the dependent measures were not sensitive enough to detect an effect at the .05 alpha level. As Deaux and LaFrance (1998) suggests, “because they [sex-based stereotyping] operate at a nonconscious as well as a conscious level of awareness, their influence is often hard to recognize or detect” (p. 796).

Regardless of the limitations of this current experiment, one may glean a more honed perspective to effectively develop a method for reducing sex-based stereotypes. Given the overt and subtle nature of the dispersion of stereotypic beliefs, it is important to reduce these possibly nonconscious, inflexible stereotypes. As women’s participation in the workforce has increased from approximately 18% in 1890 to about 58% in 1992, and with this trend continuing, the urgency for developing such a method is likely to become even more salient.
REFERENCES


Lindzey (Eds.), Handbook of social psychology (4th ed., Vol. 1, pp. 788-827). New York:
McGraw-Hill.


APPENDIX

COMPETENCE SCALE

Instructions

The following statements regard your perception of the other person participating with you. Your responses will remain completely confidential and will not be shown to the other person. Please answer these questions accurately and honestly. There are no right or wrong answers. We are interested in your perceptions or opinions. For each statement, select the number from the 7-point scale (1-7) that best reflects the extent to which you disagree or agree with the statement.

1. The other person, in general, is capable of doing what is asked of him or her.
2. The other person does not have good “common sense.”
3. The other person is self-sufficient.
4. The other person rarely depends on others for help.
5. The other person is assertive.
6. The other person in this task puts forth their full effort on most tasks.
7. The other person requires assistance to complete most tasks.
8. The other person is intelligent.
9. The other person does not possess the necessary abilities to complete most tasks.
10. The other person has “street smarts.”
11. The other person would demonstrate competence on any job that they must complete.
12. The other person could successfully complete most tasks.
13. The other person does not have the ability to work hard at most tasks.
14. The other person performs well in the academic arena.
15. The other person is, in general, a competent person.
16. The other person is logical.
17. The other person is efficient.
18. The other person is ambitious.
19. The other person is competent.
20. The other person is self-confident.

Scoring Instructions

The Competence Scale may be used as a general measure of competence. To compute the competence score take the average of the 20 items after reverse scoring the items listed below.

Reverse score items (1=7, 2=6, 3=5, 4=4): 2, 7, 9, 13
VITA

BRIAN ANTHONY THOMAS

601 Luther Street West APT 334
College Station, Texas 77840
E-mail: ba_thomas@yahoo.com
Telephone: (979) 680-3141

EDUCATION
Texas A&M University, College Station, TX
Graduation Date: May 2001
Overall and Major GPA: 4.00
Major: Psychology
Senior Honor’s Thesis: Towards the Reduction of Sex-Based Stereotypes

RESEARCH PRESENTATIONS AND PUBLICATION


Thomas, B. A., Gaertner, L., & Iuzzini, J. (March, 2001). Towards the reduction of sex-based stereotypes. Oral presentation at the Texas A&M University student research week, College Station, TX.


Thomas, B. A., Willis, T., Tubré, T.C., Hanson, A., & Shebilske, W. L. (2000, April). Training protocol effects on simulated space NODE navigation. Poster session presented at the University of Houston Sixth Annual Student Conference for Research and Creative Arts, Clear Lake, TX.

Thomas, B. A., Willis, T., Tubré, T.C., Hanson, A., & Shebilske, W. L. (July, 2000). From here to MIR: Training space NODE navigation. Poster session presented at the Texas A&M University student research week, College Station, TX.

Tubré, T. C., Shebilske, W. L., Hanson, A., Willis, T., & Thomas, B. A. From here to MIR: Sequencing considerations in simulated space-node navigation. Paper submitted for presentation at the 47th Annual Conference of the Southeastern Psychological Association, Atlanta, GA.
RESEARCH EXPERIENCE

Towards The Reduction of Sex-Based Stereotypes: Advisor, Dr. Lowell Gaertner. Senior Honor’s Thesis, wrote Internal Review Board proposal, internal/external grant proposals, designed and conducted experiment (Spring 2000 to present).

Is There a Group Reference Effect In Memory: Principal Investigator, Dr. Lowell Gaertner. Research Assistant, conducted computer-based experiment (Spring 2000).

Prediction of Team Performance: Principal Investigator, Dr. Winfred Arthur, Jr. Research Assistant, conducted experiment (Fall 2000).

Complex Spatial-Orientation Task: Principal Investigator, Dr. Wayne Shebilske Research Assistant, conducted computer-based experiment (Fall 1999 to present).

Acute Effects of Nicotine On Laboratory Rats: Principal Investigator, Dr. Antonio Cepeda-Benito. Research Assistant, edited grant proposal, weighed, injected, and ran rats in activity boxes (Fall 1999).

Personality, Social Well-Being, and Mental Health: Principal Investigator, Dr. John Finch. Conducted Experiment (Fall 1998).

Attitudes Towards Psychotherapy: Principal Investigator, Dr. John Finch. Conducted experiment (Fall 1998).

Effectiveness of Primetime Mentoring: Principle investigator, Dr. Jan Hughes. Mentored an “at-risk” child (Fall 1998-Spring 2000).

HONORS AND ACTIVITIES

Undergraduate Honor’s Research Fellow (2000-present)
First Place Poster Presentation Student Research Week 2000
Affiliated Member of the Oxford University Junior Common Room
Eisenhower Leadership Development Program, Member
Sigma Xi
Phi Kappa Phi
Barnes & Nobles Academic Excellence Scholarship Award
Dean’s List All Semesters
Golden Key National Honor Society
National Society for Collegiate Scholars
American Psychological Association, Student Affiliate
Texas A&M University Psychology Club, President (2000-present)
Texas A&M University Psychology Club, Director of Public Relations (1999-2000)
Liberal Arts Student Council, Member
Memorial Student Center Conversations Focus Group, Member
Handball Club, Member
Second Place Photography, Texas A&M University Artfest 2000