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**THE SUBTLE EXPLOITATION AND PATRONIZATION OF WOMEN IN
MASCULINE DOMAINS**

A Thesis in

Psychology and Women's Studies

by

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ABSTRACT

This research explored mechanisms driving subtly sexist behavior in the form of patronizing behavior and exploitation that can result in women's underrepresentation in masculine domains. Because some women are stereotyped as warm but incompetent (e.g., housewives) while others are stereotyped as competent but cold (e.g., business women), discrimination may function differently for these different groups of women. More specifically, women who display warmth should be stereotyped as belonging to the low competence-high warmth (LC-HW) group, and thus be perceived as incompetent, while women who display competence should be stereotyped as belonging to the high competence-low warmth (HC-LW) group, and thus be perceived as cold. Based on links between competence and warmth and treatment of others, LC-HW women should be patronized (i.e., given praise but not valued tasks) (Vescio et al., 2005) while HC-LW women should be exploited (i.e. given valued tasks but not praise). Men, on the other hand, are stereotyped as both competent and warm, and should be given both valued tasks and praise when they display only one characteristic. One hundred thirty-three undergraduate participants were led to believe they would be the leader of a group in which they had to assign tasks and provide praise to group members. They were provided with manipulated information about either competence or warmth (HC or HW) for female and male targets. Results support a general halo effect for perceptions of competence and warmth such that women and men who were described as warm were assumed to be competent and those described as competent were assumed to be warm. In addition, general patterns of gender stereotyping and discrimination were found: women were generally seen as warmer than men, and men were generally given more valued tasks than women. Although not significant, findings support past research demonstrating patronizing behavior toward both HC and HW women, and possible exploitation toward HC men, as defined by giving valued task but less praise. Implications for the use of exploitation in the study and possible variations of this pattern are discussed.

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Introduction

Women are underrepresented in leadership positions, particularly in stereotypically masculine domains. For instance, men are hired into high power roles five times as often as women (Pratto, Stallworth, Sidanius, & Siers, 1997), and less than 2% of Fortune 500 companies are led by women (Fortune 500, 2008). Indicatively, women are perceived less favorably than men as potential occupants of leadership roles and effective leader behavior is evaluated less favorably when enacted by a woman (Eagly & Karau, 2002). However, the gender gap persists despite widespread perceptions that women will have equal status with men in the workplace within the next 50 years (Diekmann & Eagly, 2000).

Discrimination against women can come in many different forms. Perhaps the most prototypical is evaluating women less favorably than men, which is one of the most frequent forms of discrimination examined in the experimental literature (e.g., Swim & Hyers, 2009). However, subtle forms of discrimination may be more insidious (e.g., tokenism, Benokraitis & Feagin, 1986). Mary Jackman (1996) argues that the status-quo (e.g., gender-based or race-based differences) is more effectively and typically maintained by wielding power through subtle discrimination rather than hostile discrimination. She indicates that paternalistic behaviors, a type of subtle discrimination, are represented in the form of trivial niceties that mask underlying biases. Patronization, when applied to adults, is condescending by treating those adults like children. This can take the form of praising an individual for a simple task, rather than expecting that individual to perform at a higher and more appropriate level. Thus, patronizing behavior suggests that the target is not perceived to have appropriate skills. The problems with

patronization have been discussed in the women's studies literature in many domains ranging from treatment of individual women (Langland & Gove, 1983) to whole societies (Kramarae & Spender, 2000). Psychological research on patronizing behavior is operationalized by the allocation of praise but not valued tasks (Vescio et al., 2005), the former presumably making the latter less obviously discriminatory.

Another subtle form of discrimination is exploitation. Merriam-Webster dictionary defines exploitation as "to make use of, meanly or unfairly, for one's own advantage." Exploitation of women has been discussed in terms of not paying women for their domestic labor, in essence not giving them recognition for the work they do. Yet, exploitation may also take place in masculine domains by using qualified women for their skills but ultimately not recognizing the importance of their work. This could be conceived of as an inverse to patronizing behavior when exploitation is described as the giving of valued tasks but the denial of critical praise. This form of discriminatory behavior has not been studied in psychological research or discussed in the Women's Studies literature. However, it is important to study because evaluations of interpersonal skills are used, for instance, in promotion decisions (e.g., Mannix & Neale, 2005), of which interpersonal praise may be an important indicator.

While exploitive patterns of behavior may not be easily recognized or overly studied, discrimination lawsuits indicate that it may be a real problem for women working in masculine domains. When senior manager Ann Hopkins went up for partner at Price Waterhouse accounting firm, she had received many important assignments and gained a record number of major contracts for the company. However, perceptions of Hopkins were not uniformly positive; she was perceived as highly competent but lacking

warmth (or female attributes associated with communality). As a result, during review of her partnership, her interpersonal skills were sharply criticized and she was denied the position because she did not appear warm in a traditionally female sense (i.e., she did not walk, talk, and dress femininely enough). Thus, while Hopkins fulfilled certain job requirements by being extremely competent, she was perceived as lacking specific interpersonal warmth attributes which ultimately cost her the job (Fiske, 1993). The Supreme Court indeed ruled that gender stereotyping was illegally used in the firm's decision, confirming the problematic nature of this type of discriminatory behavior.

Research on gender stereotyping suggests that women will be more likely than men to experience both patronization and exploitation as forms of ambivalent discrimination, with women being either praised but not given valued tasks or given valued tasks but not praised. That is, I propose that the reason why women are more likely to face these ambivalent forms of discrimination rests in gender stereotypes which indicate that the warmer women are, the less competent they are, and the more competent they are, the less warm they are. In contrast, stereotypes about men indicate that they are both warm and competent.

The specific purpose of the present research is to test whether gender stereotypes about warmth and competence explain the tendency for women to be more likely than men to experience subtle discriminatory behavior. More specifically, the present research tests how a perceived negative correlation between competence and warmth for women but not men may lead to patronizing or exploitative behavior towards women and may, at the same time, render men immune to these patterns of discriminatory behavior. I propose that these types of discriminatory behavior toward women occur within

masculine domains because women are not expected to succeed in these domains, and are considered a threat when they do.

An underlying assumption in the present research is that it is valuable for women to advance in masculine domains, although not all feminists would uniformly concur with this aspiration. Some scholars within Women's Studies have debated whether women should move away from the 'women's place' and claim an ability to move into men's spheres, or that they should rejoice in the 'women's place;' that is, celebrate and empower things that women typically do in gendered roles. Both ideas seek to empower women and distance them from roles that previously were associated with disadvantage. However, these choices do not have to be mutually exclusive. Thus it is important to understand my focus on women's treatment in masculine domains studied in the present research.

First, as a feminist, it is important that I locate myself, the researcher, in this work. I am a White, upper middle class woman who personally chooses to work in a masculine domain. As such, my perspective about women's experiences, both in the working world and in the world in general, is shaped by my own identity and experiences. I value the work that women do that often goes unrecognized (e.g., housework, taking care of children, etc.) but I also have to admit that I also value and prefer to work in a masculine domain, and my preferences may shape the way I conceptualize this research.

Second, using binary thinking about the choices for women's work supports hierarchy structures by continually emphasizing differences between women's and men's domains and furthering a value system based on stereotypical masculine or

feminine attributes. Further, binary structures could result in women feeling that they have to choose between either being proud of who they are as women or move into men's roles. Instead, it is important that norms be restructured so that women do not have to make an 'either/or' choice, and can utilize a range of options which are most beneficial to their goals. In other words, women should not have to be like men in order to succeed in the workplace, nor should they have to succeed in the work place to be valued as individuals. Recognizing that sexist values play a role in most people's binary systems of understanding is a step away from being dominated by those systems of thought. This work, then, aims to understand one of the mechanisms that may prevent women from both being able to move into spheres where men are currently more valued and to recognize and embody who they want to be as women by examining how gender stereotypes hinder women's abilities to enter masculine domains.

Below I first review research on stereotypes about women's and men's tendency to be perceived as warm and competent. Then I review research that supports the argument that beliefs about warmth and competence predict whether individuals are praised and given valued resources. Finally, I address feminist concerns relating to the specific predictions and psychological research in general.

The Core Dimensions of Person Perception: Warmth and Competence

According to the Stereotype Content Model (Fiske, Cuddy, Glick, & Xu, 2002), perceptions of social groups involve two basic components: competence, which follows from the perceived power and status of groups, and warmth, which follows from the threat of power from other groups. When these two perceptions are combined, four specific subcategories are created. Groups that are stereotyped as high in both

competence and warmth (HC-HW), are groups that hold high status, but are not a threat as they are often considered the social in-group (e.g., men). Groups that are stereotyped as relatively high competence and low warmth (HC-LW) are groups that have higher status and are perceived to be threatening to the in-group (e.g., business women). Groups that are stereotyped as relatively low competence and high warmth (LC-HW) are groups that are low in status and non-threatening to the in-group (e.g., housewives). Finally, groups that are stereotyped as low competence and low warmth (LC-LW) are groups that have low-status but are threatening (e.g., drug users, the poor).

Although often overlooked in psychological research, many of the groups of people we study are in fact socially constructed groups or categories, rather than naturally or biologically occurring (e.g., gender, race, or class). Additionally, feminist critiques of psychological research based on socially constructed categories have infused feminist psychology with an understanding of intersectionality; that is, a realization that a person's identity cannot be partitioned into a combination of each group membership, but rather is a unique experience based on membership in specific multiple groups. From this viewpoint, one might ask what the appropriate uses and implications of research based on socially constructed categories are, such as "business women" or "housewives." While feminist theorists emphasize the need to recognize each individual's unique experience and standpoint, psychological research also indicates that discrimination manifests itself as the treatment of people based on their group membership. In the present research, I am not only examining the treatment of women versus men but comparing differently portrayed women and men. Thus, while this research recognizes that variations occur within women and men, it also recognizes that perceivers may categorize them into

particular groups of women and men based upon individuating information. In other words, while not every business woman has the same experience as every other business woman, most business women experience what it is like to be treated *by others* as a business woman in the social world. Because this work seeks to understand the ways in which discrimination is manifest and justified in the work place, it is necessary to look at how the actors of discrimination treat people as group members rather than as individuals. Consistent with women's studies' emphasis on intersectionality, we can deconstruct categories such as gender so that we recognize that individuals all have their own experiences and important concerns, but we can also acknowledge that these categories are not deconstructed in our social world, and therefore have a large impact on members who belong to a socially constructed group.

Because social groups come to be stereotyped on levels of warmth and competence, women may face a systematic disadvantage for the positive perception of both competence and warmth. According to the Stereotype Content Model, men can fall into the high competence/high warmth category, while women (e.g., "housewives" or "business women") can fall into only one of two ambivalently stereotyped categories (LC-HW or HC-LW, respectively). Therefore, information about high warmth is likely to designate low competence, and information about high competence is likely to designate low warmth for a woman but not a man. More specifically, if one observes that a woman is warm, she will be relegated to a LC-HW stereotyped group, while if a woman displays competence, she will be relegated to a HC-LW stereotyped group. Unlike women, men are stereotyped to be high in both competence and warmth, so learning that a man is high in either warmth or competence does not trigger an assumed lack of the

unidentified trait. Consistent with this suggestion, Eckes (2002) found that competence and warmth were negatively correlated for female subgroups, $r = -.64$, but not for male subgroups. In addition, he found that a “typical woman” was rated as LC-HW, while a “typical man” was rated as HC and moderately HW, but business women were categorized as HC-LW. Consistent with the latter, unambiguous displays of competence among accomplished women have been found to be associated with perceptions of a lack of warmth and social distance (e.g., Heilman & Okimoto, 2007). (See Cuddy, Fiske, & Glick, 2004 for further illustrations of the negative relation between perceptions of warmth and competence for women but not men.) These suggest that women, but not men, who are perceived to be high in warmth are perceived to be less competent, and women, but not men, who are perceived to be high in competence are perceived to be less warm.

Together, the forgoing considerations lead to Hypothesis 1 which states that warm women will be assumed to be incompetent and competent women will be assumed to be cold, while competent men will be assumed to be warm and warm men will be assumed to be competent. More specifically, I expect an interaction between the gender of a target person and whether they are described as either being HC or HW on perceptions of the trait not described. This interaction will indicate that HW women will be rated as less competent than HC women and both HW and HC men (i.e., the latter three will not differ from each other), and HC women will be rated as less warm than HW women and both HW and HC men (i.e., the latter three will not differ from each other).

I test this in a masculine domain because when stereotypically masculine attributes are used as the standard for success, a competent woman’s abilities are a threat

to traditional gender roles, and the stereotype content model would predict that such threats would result in decreased perceptions of warmth. However, when a woman is warm she is portrayed as fulfilling feminine gender roles, making her not a threat. Yet, her achievements in the masculine domain have not been verified and people may assume she lacks competence in this domain. Below I turn attention to the consequences of perceived warmth and competence for behaviors of interest in the workplace.

The Consequences of Perceived Warmth and Competence

Perceptions of warmth and competence affect people in ambiguously stereotyped groups when these perceptions elicit specific behavioral outcomes (Cuddy, Fiske, & Glick, 2007). Cuddy and colleagues found that LC-HW individuals receive what they deemed active facilitation (the giving of help elicited by pity) and passive harm (diminishing an individual's worth by excluding or ignoring). In contrast, HC-LW individuals encounter passive facilitation (association out of convenience or obligation to reach other goals) and active harm (intended discrimination or harassment). Bloodhart and Vescio (2009) illustrated the relation between ambiguously stereotyped groups and patterns of paternalism and exploitation. Specifically, they found that LC-HW targets received interpersonal praise (i.e., active facilitation) but devalued tasks (i.e., passive harm), which combine to produce a pattern of paternalism, while HC-LW targets received valued tasks (i.e., passive facilitation) but not interpersonal praise (i.e., active harm), which combine to produce a pattern of exploitation. Results from this latter study support a stereotype content-based inference mechanism (Fiske et al., 2002), if one assumes that favorable responses logically follow from favorable attributes; that is, praise

seems to follow from perceptions of warmth while task assignment seems to follow from perceptions of competence.

The tendency for LC-HW individuals to receive praise and HC-LW individuals to receive valued tasks in Bloodhart and Vescio (2009) was found irrespective of target gender. However, the degree of competence *and* warmth were specified for the male and female targets, while research by Eckes (2002) and others noted above suggest that LC-HW and HC-LW combinations do not reflect stereotypic perceptions of men.

Additionally, in the real world, individuals may not have full information about others and may infer information about warmth or competence. I anticipate that differences in the treatment of women and men will emerge when information about either competence or warmth informs stereotypes about groups of women and men rather than counters possible stereotypes. As indicated above (Fiske et al., 2002, Eckes, 2002), if no competence or warmth information is provided, women are likely to be classified as LC-HW whereas men are likely to be classified as HC-HW. Therefore, in the research by Vescio and colleagues (2005) where the target's competence and warmth were not specified and women, but not men, experienced patronizing behavior (i.e., given high praise but devalued tasks), I would expect that women were assumed to be LC-HW and men HC-HW.

Combining findings from Vescio and colleagues (2005) with findings from Bloodhart and Vescio (2009), I propose that women who are described as HW will be perceived as LC-HW and will therefore be patronized, defined as giving praise but not valued tasks. In contrast, examples such as the Anne Hopkins case, as well as research from Heilman and Okimoto (2007) suggest that while women who are perceived as

highly competent are not denied valued work assignments, they are certainly denied positive evaluations of personal warmth. Consistent with the negative relation between perceptions of competence and warmth combined with findings from Bloodhart and Vescio (2009), I propose that women who are described as HC will be perceived as HC-LW and will therefore be exploited, defined as the allocation of valued tasks but not praise. However, HC men and HW men should not experience either of these patterns of discrimination because perceptions of men's competence and warmth are positively correlated.

Together, the forgoing considerations lead to Hypothesis 2 which states that in masculine domains, competent women (but not men) will be exploited, whereas warm women (but not men) will be patronized. More specifically, competent women will receive valued tasks but not praise, warm women will receive praise but not valued tasks, and competent or warm men will receive both valued tasks and praise. Thus, I expect an interaction between the gender of a target person and whether they are described as either being HC versus HW on praise and assignment of valued tasks: HC women will receive less praise than HW women and HC and HW men (i.e., the latter three will not differ from each other), and HW women will receive less valued tasks than HC women and HC and HW men, (i.e., the latter three will not differ from each other).

Finally, I predict that assumptions about women's and men's competence will mediate the relation between gender and the value of the task one is assigned and between gender and being praised. Specifically, I predict a mediated moderation such that the interaction between gender of the target and HC or HW information emphasized about the target will predict competence ratings which will then predict task assignment

and the interaction between gender of the target and HC or HW information emphasized will predict warmth ratings which will then predict amount of praise given.

Overview of Predictions and Method

Based on stereotypical perceptions of groups and individuals within those groups, I predicted that men will be perceived to have both high competence and high warmth while women will not be perceived this way. Therefore, Hypothesis 1 stated that in masculine domains, when women are perceived as HC they are also perceived as LW and when they are perceived as HW they are also perceived as LC. However, I predicted that perceptions about men's competence and warmth are not negatively correlated, and the default will be to assume that the unknown trait is also positive because typical men are stereotyped as HC-HW. Additionally, I predict that perceptions of competence and warmth affect the differential allocation of valued tasks and praise for men and women. Thus, Hypothesis 2 stated that HW women will be patronized, as defined by the receiving of praise but not valued tasks, HC women will be exploited, as defined by the receiving of valued tasks but not praise, and men, regardless of being perceived as HC or HW, will receive both valued tasks and praise. Hypothesis 3 further defines these relationships by predicting a mediated moderation. The interaction between target gender and type of information given about the target should predict competence ratings which will then predict task assignment, while the interaction between gender of the target and type of information given should predict warmth ratings which will then predict amount of praise given.

To test predictions, the proposed study assigned participants as the leader of a group project in which they were asked to make decisions about their team members.

Participants were given either competence or warmth information about male and female group members, including HC or HW information about one male or female target.

Participants then judged each group member's competence and warmth on validated scales, which served as a manipulation check for the trait emphasized and a measure of the trait not emphasized. After viewing all targets' information, participants assigned either valued or devalued tasks to each group member, and finally, they were provided with a structured and pre-coded feedback email for each target which served as a measure of interpersonal praise.

Feminist scholars within psychology have raised relevant critiques of quantitative methods such as that proposed in the present research. Because most feminist work comes out of the humanities rather than the social sciences, feminist research has largely focused on lived and subjective experiences, with the goal of letting subjects speak for themselves rather than through the translations of the researcher. Additionally, there has been much critique that the social sciences, in the quest to be "true science", overstep the bounds of quantitative analysis and get caught up in perceiving our research as an ultimate "Truth" and forgetting the substantial amount of subjective interpretation that goes into our questions and results (e.g., Smith, 2002). Researchers often conflate the ideas that constitute science with those that constitute reality, and the ideas being contributed to "science" are overwhelmingly Western, White, and male dominated (not to mention a host of other things). Although science may be systematic, it adheres to cultural norms and moral codes that often do not represent the experiences of everyone. While there may be a "best" way to do science based on the question of interest, it is

clear that there is not a “right” way to understand the world based on scientific interpretations.

Based on this critique, some feminist social scientists have argued for a return to qualitative research. Not only can qualitative responses give the researcher new insight into people’s experiences which may have otherwise been overlooked, but it also gives the larger research community the chance to discern for themselves whether the individual researcher has made appropriate assumptions. These assumptions can be overlooked in quantitative research when the focus is on effect sizes and only a few examples of the types of items are actually printed in the article. However, while qualitative research can certainly be beneficial, quantitative research doesn’t necessarily have to be non-feminist. The difference lies in the interpretations the researcher makes in the research question for participants, rather than letting participants interpret their own experiences through qualitative data. If the researcher remains vigilant to feminist ideals and concerns, a research question studied with quantitative methods can still reflect feminist values. It is important to note that while the numbers recorded in quantitative research may appear objective, there are always subjective interpretations, which can change based on people’s cultural, racial, gendered, socio-economic, or even individual differences, which we as scientists need to remain aware of. Not all research must be conducted in the same way, but we have to realize that the goals of science are to answer small truth questions; to be able to make general claims about how a part of the social world operates, even though we are cognizant that people and the social world are constantly changing and that there are important cultural and individual differences that influence the boundaries of constructs we are attempting to define.

Method

Participants

A total of 144 Penn State undergraduates (70 women, 74 men) participated in the study for course credit. Age of participants ranged from 18-24 and averaged at 20 years, while race of participants was reported as being 72.4% White, 6.2% Black, 9.0% Asian, 4.1% Latino/a, and 6.2% of mixed ethnicity. At the end of the study, participants were given an open ended question that asked to indicate what they thought the study was about. Based on responses such as “how leaders treat people based on gender” or “stereotypes about intelligence/friendliness,” 10 participants’ data were removed from analyses. One female participant did not finish the study, leaving a total of 133 participants (65 women and 68 men) in the final data set.

Design

The study used a 2 (target gender) X 2 (trait emphasized: HC or HW) X 2 (participant gender) between-participants design.

Procedure

Participants were led into the lab in groups of four to eight and sat at separate computer work stations. They were told the purpose of the experiment was to understand team functioning and collaborative work styles, and that each member would complete part of an on-line group task. Participants were then led to believe that they would be interacting with other participants via a computer program. In actuality, all computer interactions were pre-programmed and no participants interacted with each other or saw personal information of any other participant.

Through a random drawing before participants arrived, research assistants assigned participants to either a competence or warmth condition. Thus, after signing an informed consent and reading through directions, participants took either an IQ test (i.e., competence condition) (see Appendix A) or EI (i.e., emotional intelligence) test (i.e., warmth condition) (see Appendix B). After completing a leadership questionnaire, participants were asked to fill out a personality inventory and choose a user name. The leadership questionnaire (Appendix C) was done to convince participants that they were chosen as the leader among other participants and that they were qualified to make leadership decisions. The personality inventory (Appendix D) served as the basis for which participants later received personality information about their group members. The user name was chosen so that participants would believe the other names of targets they later make judgments about are real people rather than fictitious targets.

Based on the apparent scoring of responses to the leadership questionnaire, all participants learned that they were assigned as the leader of the group. As team leader, participants were told it is their job to decide which team members are best suited for each task and to communicate their perceptions of each person to that team member. The group project was framed as a series of tasks to test team work and goal attainment and successful completion of the project as requiring the combination of both valued tasks and supporting, though less critical, tasks (i.e., devalued tasks). Participants were told that the two teams who had the highest overall scores on the largest number of tasks would be awarded \$40 for valued tasks and \$15 for devalued tasks, with team leaders earning \$50. In actuality, two participants were randomly awarded the \$50 based on a drawing from all participants at the completion of the study.

Participants were given a summary of group members' bogus test scores on the IQ or EI tests (participants only saw results for the same test that they took at the beginning of the study), as well as their personality inventory responses, in order for them to assess their team member's qualifications for each task. Four names (two male and two female) and bogus corresponding information appeared in counter-balanced order for the participant to consider (see Appendixes E-H). The first target scored in the 52nd percentile on either the IQ or EI test, the second target scored in the 54th percentile, the third target, who was always the HC or HW target scored in the 92nd percentile, and the fourth target scored in the 49th percentile. Thus, the other 3 targets served as moderate comparisons to the target of interest's high competence or warmth scores. Additional personality information included the targets' year in school, hometown, favorite hobby, TV show, food, and place to be. All responses were pilot tested to be neutral (i.e., "neither competent nor incompetent" and "neither friendly nor unfriendly") and were randomly assigned to targets.

After viewing each team member's information, participants were asked to rate their overall impression of each group member by completing the competence and warmth scales (see Appendix I). After seeing all target's personal information and rating them on competence and warmth, participants were asked to decide which group tasks were best suited for each team member. Directions stated that each member needed to complete three out of 18 tasks, nine of which were clearly defined as more challenging and worth \$40 (i.e., mathematical, confidence, strategic, persuasion, mechanical, influence, timing, innovation, and logic assessments) and nine which were defined as less challenging and worth \$15 (i.e., operational, perceptual, inference, aptitude, proficiency,

adaptability, reliability, memory, and motivation assessments) (see Appendix J). As a reminder, the name, gender, and IQ or EI score for each of the four targets were listed above the tasks. The participant was told they must assign 3 tasks to each team member, and no task was to be assigned to more than one team member. By assigning three tasks, the participant was forced to decide whether to give each target more valued or devalued tasks (they cannot assign equal numbers of both).

In order to praise targets, participants were then asked to write a “feedback email” to each team member, evaluating strengths and weaknesses they thought the person might possess based on the personality inventory (see Appendix K). Again, participants received a reminder of name, gender, and IQ or EI score of each target above each email. Finally, after being probed for suspicion and answering demographic questions, participants were debriefed and thanked.

Measures

Warmth and competence scales. Participants’ responses (0 “not at all” to 8 “very much”) to the eight items on the warmth and competence scale for each of the four targets (target of interest and three filler targets) were submitted to four separate principle components factor analyses using a varimax rotation. The same two factors emerged from this analysis for each of the four targets as indicated by an eigenvalue of greater than 1 criterion. The warmth scale ($\alpha=.93$), consisted of the items “warm”, “friendly”, “good-natured” and “sincere”, and accounted for 88.0% of the variance. To create an average warmth variable, I averaged across ratings on these four items for each target. The competence scale ($\alpha=.91$), consisted of the items “competent”, “intelligent” and “skilled”, and accounted for 79.6% of the variance. To create an average competence

variable, I averaged across ratings on these three items for each target. Although a “confidence” item was originally included in the competence scale, this item cross loaded (i.e., had factor loadings of about .5 on both factors for all 4 targets) and was therefore dropped from the scale.

Valued task assignment. The assignment of valued tasks was calculated by the proportion of valued to devalued tasks assigned to the target of interest and provided the DV measure of valued task assignment. The tasks used were pilot tested for how challenging they sounded (i.e., more challenging tasks were assigned as valued tasks and less challenging tasks were assigned as devalued tasks) and for neutrality between masculine sounding tasks and feminine sounding tasks, as to not confound masculinity and femininity with the value of the task.

Praise. The praise email required participants to complete eight sentence stems with pre-coded responses, (e.g., “you seem [very, mostly, somewhat, not very, not at all] friendly”) for each of the four targets. Five responses were available for each stem, and were pre-coded from most positive (5) to most negative (1). The average score across all eight praise items provided the DV measure of interpersonal praise.

Results

Manipulation Checks

To confirm that HC targets were seen as more competent than other filler targets and HW targets were seen as more warm than other filler targets, average competence and warmth ratings were submitted to a 4 (target rated) x 2 (trait emphasized: HC or HW) X 2 (target gender: male or female) x 2 (participant gender: male or female) mixed ANOVA with repeated measures on the second variable. Consistent with the intended

manipulations, HC targets were seen as more competent ($M= 7.26$) than any of the other filler targets ($M_s= 4.75, 4.98, 5.35$), $F(3,129)=3.11, p<.05, \eta_p^2=.02$, and HW targets were seen as more warm ($M= 6.58$) than any of the other filler targets ($M_s= 5.76, 5.34, 5.30$), $F(3,129)=4.42, p<.01, \eta_p^2=.03$. Thus, the HC and HW manipulations were effective. Additionally, this analysis showed a general halo effect for warmth and competence ratings among all targets: warmth ratings were similar to competence ratings for all targets, with HC and HW targets producing higher warmth or competence ratings than other targets and mid-competence or warmth targets producing similarly mid-scale ratings compared to HC and HW targets.

Overview

The remainder of the analyses focuses on the third target, who was described as high in warmth or competence. Warmth scores, competence scores, proportion of valued tasks assigned to targets, and praise given to the targets were submitted to 2 (trait emphasized: HC or HW) X 2 (target gender) X 2 (participant gender) between subjects Analysis of Variance (ANOVA). Any main effects or interactions not mentioned were not significant.

Average Warmth Ratings

The predicted interaction between the trait emphasized and target gender was not significant, $F(1,132) = 1.32, p = .25, \eta_p^2 = .011$, the pattern of means did not fit predictions, and the effect size for this interaction was small (1% of the variance accounted for). However, there were three significant main effects. Consistent with manipulations, HW targets ($M = 6.71$) were rated as warmer than HC targets ($M = 5.94$), $F(1,132) = 15.78, p < .001, \eta_p^2 = .11$. Consistent with stereotypes, female targets ($M =$

6.56) were rated as more warm than male targets ($M = 6.10$), $F(1,132) = 5.76$, $p < .05$, $\eta_p^2 = .04$. Finally, female participants ($M = 6.58$) rated targets as more warm than male participants ($M = 6.08$), $F(1,132) = 6.76$, $p = .01$, $\eta_p^2 = .05$. The latter two effect sizes for these main effects, though larger than the not significant interaction, only account for four and five percent of the variance.

Average Competence Ratings

The analysis of average competence ratings produced no significant effects. However, the predicted interaction between trait emphasized and target gender, while not significant and accounting for very little variance, $F(1,132) = 0.74$, $p = .39$, $\eta_p^2 = .01$, indicated a pattern similar to what was predicted. Men were seen as competent whether they were portrayed as HC ($M = 7.25$) or HW ($M = 7.28$), but HW women ($M = 7.05$) were seen as less competent than men or HC women ($M = 7.27$) (see Figure 1).

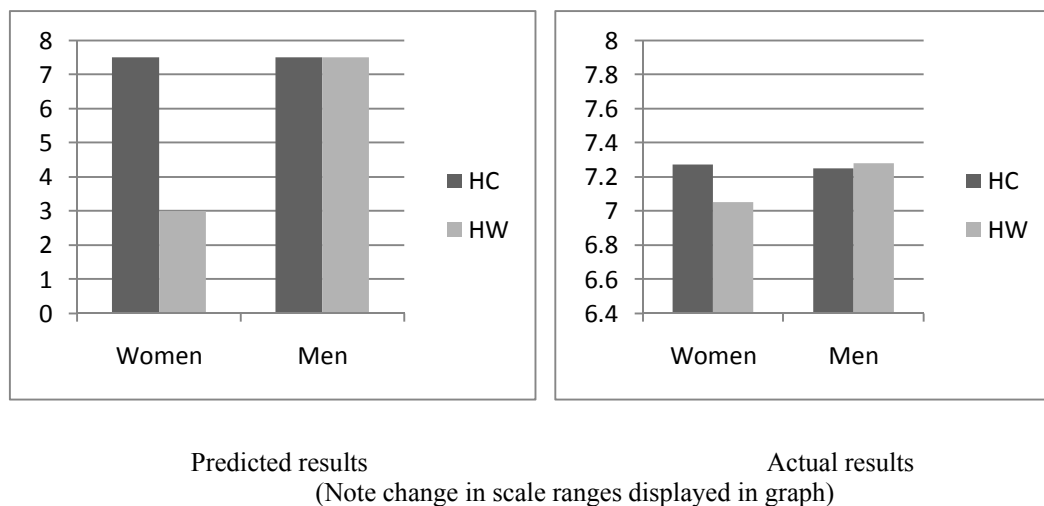


Figure 1: Interaction of trait emphasized and target gender on average competence ratings (Note: interaction is not significant). Possible range is from 0 “not at all” to 8 “very much.”

Proportion of Valued to Devalued Tasks Assigned

Thirty-six participants failed to follow directions when assigning tasks (i.e., assigned more or less than three tasks per target). Thus, these participants' data were dropped from this portion of the analysis.¹ These analyses produced one significant main effect and one marginally significant main effect.

Male participants ($M = .91$) assigned more valued tasks to target 3 than female participants ($M = .83$), $F(1,96) = 4.54$, $p < .05$, $\eta_p^2 = .05$. Although only marginally significant, consistent with a tendency to favor males in task assignment, male targets ($M = .90$) were given more valued tasks than female targets ($M = .84$), $F(1,96) = 2.62$, $p = .11$, $\eta_p^2 = .03$. While also not significant, the interaction between trait emphasized and target gender revealed an interesting pattern, $F(1,96) = 1.00$, $p = .32$, $\eta_p^2 = .011$ (see Figure 2).

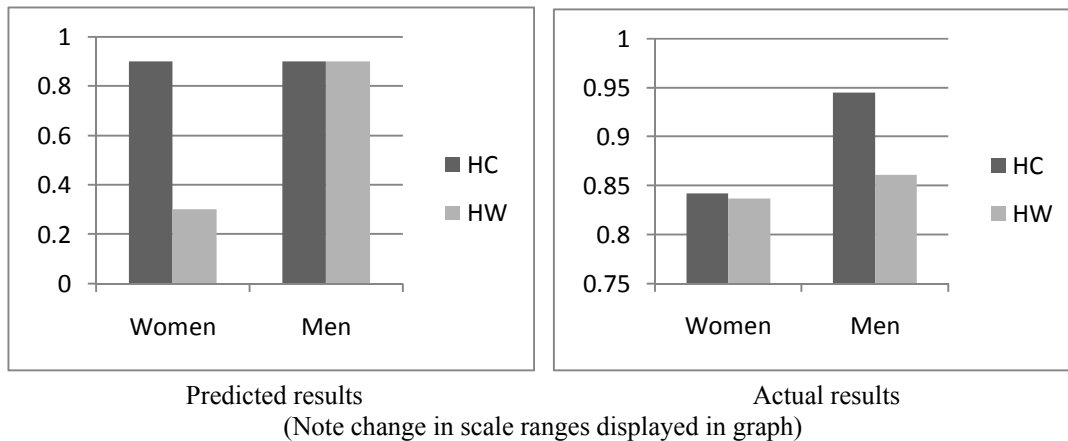


Figure 2: Interaction between trait emphasized and target gender on proportion of valued tasks assigned (Note: interaction is not significant)

¹ The removal of this data did not change any effects for any other DV, except for the interaction between target gender and trait emphasized on praise, as noted in footnote 2.

Women were given the lowest proportion of valued tasks, HW men were given more valued tasks than HC women, and HC men were given the highest proportion of valued tasks. Again, while this interaction was not significant, it produced an only slightly smaller effect size than the significant effects for the dependent variable, accounting for about one percent of the variance.

Praise Assigned

Consistent with manipulations and the proposed connection between warmth and praise, HW targets ($M = 3.90$) were given more praise than HC targets ($M = 3.97$), $F(1,132) = 13.08, p < .01, \eta_p^2 = .10$. Consistent with this connection and the previous finding indicating that participants rated female targets warmer than male targets, female targets ($M = 3.85$) were given more praise than male targets ($M = 3.62$), $F(1,132) = 6.07, p < .05, \eta_p^2 = .05$. Although not significant, the interaction between target gender and trait emphasized indicated that, as predicted, HC women ($M = 3.74$) received less praise than HW women ($M = 3.96$) or men ($M = 3.85$). However, inconsistent with predictions, HC men ($M = 3.39$) received the least amount of praise, $F(1,132) = 1.51, p = .22, \eta_p^2 = .01$ (see Figure 3).² This interaction produced an effect size somewhat smaller than the significant effects in this case (1% as compared to 5% and 10% of the variance).

² When analyses were re-run excluding participants who did not follow directions in the task section, this interaction became significant, $F(1,95)=3.98, p<.05, \eta_p^2=.04$, although the pattern of results was the same.

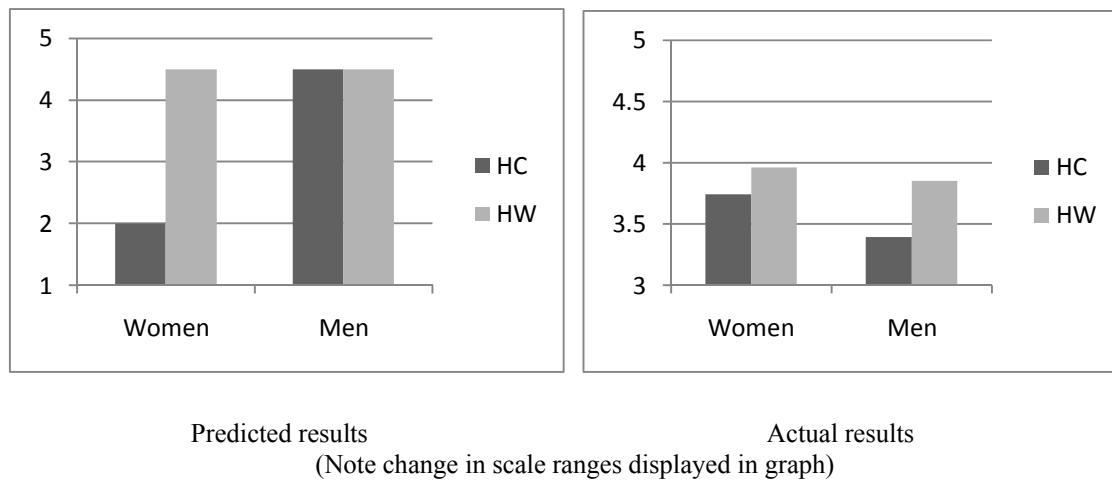


Figure 3: Interaction between trait emphasized and target gender on average praise given (Note: interaction is not significant). Possible range from 1 “most negative” to 5 “most positive.”

Additional Analyses

Regression tests for mediated moderation were not done because the predicted interactions between trait emphasized and target gender for tasks and praise were not significant. However, associations between all four dependent measures were examined to test the underlying assumption that warmth and competence ratings would be positively correlated for men and uncorrelated for women, and that warmth and praise given as well as competence and task assignment would be positively correlated. After splitting the file by target gender, correlations were calculated for average competence ratings, average warmth ratings, proportion of valued tasks assigned, and praise given. Inconsistent with predictions but consistent with a halo effect, competence and warmth were generally related for all targets. Consistent with predictions, warmth and praise were significantly related, but inconsistent with predictions, competence and tasks were not (see Table 1).

	Average Competence	Average Warmth	Proportion Valued Tasks	Average Praise
Average Competence	—	.49**	.05	.23
Average Warmth	.54**	—	.03	.56**
Proportion Valued Tasks	.13	-.13	—	.20
Average Praise	.27*	.63**	-.01	—

Table 1: Correlations between average competence ratings, average warmth ratings, proportion of valued tasks assigned, and average praise assigned, split by target gender.

Correlations above the diagonal = female targets

Correlations below the diagonal = male targets

* = $p < .05$

** = $p < .01$

Discussion

The results did not support predictions. Participants were not more likely to negatively relate competence and warmth in women than men and subsequently assume that HW women, but not HW men would be low in competence and assume that HC women, but not HC men would be low in warmth. Further, they were not more likely to assign more valued than devalued tasks and less praise to HC women than other targets and were not more likely to assign praise and less valued tasks than valued tasks to HW women than other targets.

Alternatively, evidence points to the existence of a halo effect for both male and female targets. Although participants were only given information about either competence or warmth, the ratings for the trait not given tended to mirror the ratings for the trait given. This pattern also appeared in the correlations between competence and warmth.

It is worth noting that there was some evidence of gender stereotyping, although not in the manner predicted. Women were seen as warmer than men, regardless of

whether they were described as high in competence or warmth. An apparent result of this stereotyping was that women received more praise than men. Further, independent of whether they were described as high in competence or warmth, men were given more valued tasks than women, though the effect was marginally significant. The lack of effect of the trait emphasized for the targets is interesting: being warm is consistent with female stereotypes. Thus, men who were HW may have been perceived as feminine. Yet, task assignments to men (as well as competence ratings) were not hindered by men being portrayed as gender counter-stereotypic.

Finally, although the predicted patterns of results were not statistically significant, the findings suggest that further research on patronizing behavior and exploitation is worth pursuing. First, the pattern of results for competence ratings, while not significant, was as predicted. The data suggest that when women are described as warm, they are assumed to be less competent because HW women were seen as less competent than equally HW men and HC men and women. Plus, the pattern of results follows Vescio et al.'s, (2005) findings on patronizing behavior if one assumes that, when given no information about warmth and competence (as in Vescio et al.), people perceive women as warm and men as competent. That is, HW women were given more praise and less valued tasks than HC men, although exploratory analyses comparing HW women and HC men revealed that these results were not statistically significant. Yet, it is worth noting that the pattern of results fit what Vescio et al. describe as patronization.

On the other hand, the pattern of results did not follow the alternative predictions about exploitation. In order for this to be true, HC women should have received more valued tasks and less praise, while HC men should have received a high allocation of

both valued tasks and praise. The pattern of results for exploitation was actually more likely to occur for HC men than HC women. This was a result of the marginally significant tendency to give men more valued tasks than women and the statistically significant finding that women were praised more than men. Specifically, the pattern of results indicated that HC men were more likely to be given a higher proportion of valued tasks than any other target. Thus, high competence was associated with less praise, but this was truer for men than women.

Limitations

A possible explanation for the lack of significant interactions between target gender and trait emphasized is that participants may be hesitant to make inferences about targets when they feel they do not have sufficient reason to do so, thus diluting the effect of stereotypes. This explanation, proposed by Brewer (1996), states that participants may be more willing to judge targets when they feel they have sufficient basis to do so, but when there is not enough or too much information about a target, judgments based on stereotypes are reduced. In other words, when there is little information, participants are hesitant to make assumptions about the person, and when there is a lot of information they rely on the information. In the present case, participants may have felt that there was too little information from which to make a judgment. Indeed, in the open-ended response section of the probe for suspicion, many subjects responded that they felt they were not provided with adequate information from which to make task and praise decisions about their group members. Results confirm that all HC and HW male and female targets received more valued tasks than devalued tasks, as indicated by a proportion higher than .66, and that they all received an average amount of praise that

was significantly higher than the mid-point of the scale. Thus, participants in this study may have felt that there was not a reasonable basis for which to give out less than positive praise or differentially assign valued and devalued tasks.

Notably, though, the data suggest that the lack of effects cannot be attributed to ceiling or floor effects. Ratings of the target, the proportion of assigned tasks, and the praise given were not at their maximum. Plus, there were effects for the manipulated variables on these outcomes, indicating that there was a possibility for the predicted effects to emerge.

The tendency for participants to not withhold praise from HC women may have been because participants did not have anything to lose by praising targets or to gain by not praising them, which likely does not match real-world scenarios. For example, managers must write evaluations of employees which may later be used in promotion decisions. A manager might gain from writing a good evaluation of an employee who turns out to significantly improve the company, while that manager could be penalized for writing a good evaluation of an employee who turns out to be a detriment (i.e., they did not effectively do their job). Participants in this study would not likely feel they had anything to gain by sending a negative evaluation to a target. Instead, they might have chosen to give positive feedback in order to motivate targets to do well on their tasks or because they did not want to hurt someone's feelings.

The way praise was operationalized in this study also may not have appropriately mirrored the original definition of exploitation, which I have defined as using someone for their skills but not recognizing the importance of their work. This could take the form of denying verbal or written interpersonal evaluations, like the praise used in this study,

or could include praise specific to the work that was done. Participants were not providing praise based on previous work done by the targets, and thus it is possible that interpersonal praise in this study did not reflect the type of praise used in patterns of exploitation in the real world. However, it may also be the function of praise, rather than the content, that creates exploitation in masculine domains. Managers may give both interpersonal and work-specific praise verbally to employees, but discriminate with written or verbal praise given about an employee to a co-worker or promotion committee (e.g., not writing a good letter of recommendation). In the current study, praise was only utilized as feedback to the target, and its function may not have reflected the more subtle ways that praise can be used in the workplace to discriminate. Thus, praise may still be an important element of exploitation that requires further examination.

Additionally, the study may have lacked other elements which are present in real-world masculine domains that may have prevented the finding of predicted effects. First, despite the possibility of a \$50 reward, participants may not have had a vested interest in the group project. This may have been particularly true when it came to making competence, warmth, or praise ratings which could have been perceived by participants as unrelated to getting the reward. Second, the participants were not able to physically interact with any of the targets and did not plan to interact with them again after the study. This differs from real working domains in which managers may allocate praise or tasks, or even base perceptions of competence and warmth, on expected future interactions and work relationships. Similarly, managers in real work settings may base judgments about competence and warmth, and give tasks or praise, with the knowledge that the employees to whom they make these allocations may one day move into

positions that are equal to or above that of the manager. The current study did not present this type of dilemma for participants. Thus, real-world managers may experience threat from HC women due to realizations that those women may one day become their boss, making patterns of exploitation more prevalent in real settings than in this study.

Finally, it is important to note that while HC men were rated as less warm than women, being perceived as warm may be more important for women than for men (i.e., Rudman & Glick, 1999). Competence is a valued attribute in masculine domains while warmth is not; therefore, both men and women are likely expected to be high in competence in order to succeed in these domains. However, it may be simultaneously important for people to be stereotypically gender-appropriate, meaning that women should be high in warmth, but that men do not necessarily have to be. Thus, lower perceptions of warmth for men in masculine domains may not create the negative outcomes that it otherwise might for women. Additionally, there may be changing standards for women's and men's competence and warmth over time and as women or men become more represented in a domain. Women may have been considered more of a threat and thus perceived as less warm in the past or in domains where men are more highly represented (e.g., the Fortune 500) than current domains in which women's participation is more common (e.g., college). Because this study asked college undergraduates to rate perceptions of their fellow students, standards for competence and warmth may have been different, and evaluations of these traits may not have been as pronounced as in a highly masculine workplace.

While I hope that the use of a more general theory like the Stereotype Content Model will be broad enough to expand to other stereotyped groups, I cannot necessarily

assume that all women or all minority group members will have the same experiences. In other words, while this model assumes that all non-dominant group members cannot be perceived as both warm and competent, the mechanisms behind this process have not been tested for all social groups. Although I do not make any identity characteristics other than gender salient, research has shown that the default is to assume that an unidentified person is white, and belongs to a host of other normative categories (e.g., middle class, heterosexual). Additionally, even if all minority group members are perceived to have warmth and competence levels proposed by the Stereotype Content Model, this theory does not extend to the consequent discrimination that may result from these perceptions. While White women may face an inequitable distribution of valued tasks and praise, women of color and other minority group members may face other types of discrimination based on their race, class, sexual orientation, etc. Specifically, there may be more serious forms of discrimination experienced by women of color or women from low socio-economic backgrounds which this research is not taking into account. It could be that other women have experiences in the workplace that do not include, or go above and beyond, an inequitable distribution of tasks and praise. Or, some women's primary concern might be maintaining a job or avoiding harassment, rather than seeking advancement. Although the advancement of women in masculine domains may be an issue, it may be primarily a White, middle-class women's issue, and this research likely does not take into account the experiences of all women.

Capitalism is often an important platform from which feminist scholars critique social relations and hierarchies. I critique capitalism here because this research may be seen in some ways as promoting the involvement of women in capitalist endeavors, rather

than opposing capitalism and thus oppression. Social feminists seem to diverge in the way in which they explain how the capitalist system relates to sexism. Some explain that it is a combination of capitalism and patriarchy which creates a system of oppression of women. Others explain that capitalism in some sense leads directly to oppression, because although they are not the same products Marx referred to, the basic material resources women often provide (e.g., parenting or domestic services) are exploited by male capitalists (i.e., the resources are worth more than they are compensated for). Either way, it's important to look at capitalist/economic problems as a major source of oppression to women. Although not all jobs in masculine domains support capitalism, the majority do. This is not to say, however, that corporations cannot be restructured so that they do not profit off of the exploitation of workers. If we are to create a more equitable society in general, and capitalism is a major component to how our social world functions inequitably, then it is important that women and other disadvantaged groups' beliefs and experiences be recognized rather than oppressed and that their work not be exploited for the gain of others.

Conclusions

Although not all results followed predictions, the findings did indicate evidence of gender stereotyping, such that in the absence of specified information about competence or warmth, women were seen as warmer than men and men were seen as more competent than women. Additionally, the pattern of results supports evidence for the existence of patronizing behavior towards women through the giving of praise but the denial of valued tasks compared to men. Due to the disparity between promotions of women and men into high-power positions in the real world, this seems to illustrate the importance of receiving

valued tasks, which are largely given to men. However, the allocation of tasks and praise in this study did not provide a basis from which to assume that certain groups of women are differentially excluded from promotion relative to other groups of women. That is, HC women were patronized like HW women, rather than exploited.

Conversely, it was HC men who received the pattern of behavior operationalized as exploitation (i.e., given valued tasks but not interpersonal praise). These effects were not significant, but the pattern suggests that exploitation might be worth exploring further. As there is little anecdotal evidence that HC men are denied access to high-power roles, it may be that praise is not an important mechanism used in decisions about promotions and other valued resources. Or, it could be that praise was not utilized in this study as it is in real-world masculine domains. Researchers have found that legally, it is important to show that a performance appraisal system is based on objective material (Landy, 2005) and that deep level characteristics, such as personality and work habits, are used to judge employee behavior (Mannix & Neale, 2005). However, as discussed above, low levels of perceived warmth in men may not be seen as negatively as similar levels of warmth might be for women, particularly when viewed in the context of employee evaluations.

Finally, it is important to continue to study the many forms discrimination may take towards women as well as other groups. Women's underrepresentation in highly valued roles within masculine domains has been widely noted, and feminist scholars have additionally identified the exploitation of women's and other minority groups' labor. While this study examines the underrepresentation of women in masculine domains, it does not specifically evaluate the perceptions of women with other minority group

memberships (e.g., Black or Latina women), or other minority group members.

According to the Stereotype Content Model, because all social groups are stereotyped on dimensions of competence and warmth, all individuals may be subject to negative perceptions of competence or warmth based on non-dominant group membership.

However, principles of intersectionality should be further applied to future research on discriminatory practices to discern whether the differential allotment of valued tasks to women and men may be logically extended to the mechanisms preventing other minority groups from advancement in masculine domains.

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Appendix A

IQ test:

IQ Assessment Test
Form 12

Instructions:

Please work through the following problems as quickly as you can. The total completion time will be factored into your final score.

1. 27 minutes before 7 o'clock is 33 minutes past 5 o'clock.

- a) True b) False

2. The word, "slackers," is spelled by using the first letters of the words in the following sentence: "Silent large anteaters calmly kiss each roasted snack."

- a) True b) False

3. If written backwards, the number, "one thousand, one hundred twenty-five," would be written "five thousand, two hundred eleven."

- a) True b) False

4. Gary has only forty-eight dollars, but he can buy a bicycle that costs one hundred twenty dollars, (disregarding tax) if he borrows fifty-seven dollars from Jane and fifteen dollars from Jill.

- a) True b) False

5. Library is to book as book is to:

- a) page b) copy c) binding d) cover

6. A round wall clock that has been rotated until it is hanging upside down will have a minute hand that points to your right when it is two forty-five.

- a) True b) False

7. If Richard looks into a mirror and touches his left ear with his right hand, Richard's image seems to touch its right ear with its left hand.

- a) True b) False

8. The words, "auctioned, education, and cautioned," all use the exact same letters.

- a) True b) False

9. What word best completes the following series? artery, beach, circle, ____, eucharist

- a) beagle b) bowl c) dough d) dusk

10. John weighs 85 pounds. Jeff weighs 105 pounds. Jake weighs 115 pounds. Two of them standing together on the same scale could weigh 200 pounds.

- a) True b) False

11. Nine chickens, two dogs, and three cats have a total of forty legs.

- a) True b) False

12. Sixteen hours are to one day as twenty days are to June's length.

- a) True b) False

13. Find two words, one from each group, that are closest in meaning.

Group A
raise
floor
stairs

Group B
top
elevate
basement

- a) raise and elevate b) raise and top c) floor and basement d) stairs and top e) floor and elevate

14. In the English alphabet, there are exactly four letters between the letter "M" and the letter "G."

- a) True b) False

15. If the word, "TAN," is written under the word, "SLY," and the word, "TOT," is written under "TAN," then the word, "SAT," is formed diagonally.

- a) True b) False

16. If a thumb is a finger, then three gloves and three shoes normally hold thirty-five fingers and toes.

- a) True b) False

17. Serval, caracal, lynx, and oncilla. These are all types of what?

- a) butterflies b) cats c) computer viruses d) bacteria

18. Three of the following numbers add up to the number 31: 17, 3, 2, 19, 5.

- a) True b) False

19. Fred will be four blocks from his starting place if he travels two blocks north, then three blocks east, and then two blocks south.

- a) True b) False

20. The odd numbers in this group add up to an even number: 15, 32, 5, 13, 82, 7, 1.

- a) True b) False

21. Rios, Amanti, Sorrento, Sedona. These are all types of what?

- a) Places in Italy b) Places in Spain c) Kia model cars d) Saturn model cars

22. A square whose sides each measure ten centimeters can completely fit inside of a regular hexagon whose sides each measure ten centimeters.

- a) True b) False

23. Six identical triangles can be formed by drawing two straight lines through an octagon's center point.

- a) True b) False

24. The number 64 is the next logical number in the following sequence of numbers: 2, 6, 14, 30...

- a) True b) False

25. If all Boogles are Battuns, and some Battuns are Trandles, all Trandles must be Boogles.

- a) True b) False

26. At a store, the price is cut 40% for a particular item. By what percent must the item be increased by if you want to sell it at regular price?

- a) 66.7% b) 30% c) 40% d) 45% e) 50%

27. Frank is taller than John. Ralph is taller than Frank. Therefore, John is the shortest boy.

- a) True b) False

28. If each of seven persons in a group shakes hands with each of the other six persons, then a total of forty-two handshakes occurs.

- a) True b) False

29. Three congruent regular hexagons can be drawn in such a way that all of them overlap each other and create exactly ten distinct areas or compartments.

- a) True b) False

30. If a doughnut shaped house has two doors to the outside and three doors to the inner courtyard, then it's possible to end up back at your starting place by walking through all five doors of the house without ever walking through the same door twice.

- a) True b) False

Appendix B

EI test:

1. I panic when I have to face someone who is angry
2. When I have a major personal problem, I cannot think about anything else
3. No matter how much I accomplish, I feel like I should be doing more
4. I feel like I worry about things that other people don't even think about
5. I look forward to the good things in life
6. I am ashamed about how I look or behave
7. I get distressed without really knowing who or what exactly is bothering me
8. Even when I do my best, I feel guilty about the things that were not done perfectly
9. I am generally a happy person
10. I feel uneasy in situations where I am expected to display affection
11. I will do whatever I can to keep myself from crying
12. When people close to me experience a setback, I can easily come up with ways to help them overcome their distress
13. I feel uncomfortable when I am expected to console others
14. I feel embarrassed if I cry while watching a film or reading a book
15. I need a push from someone in order to be motivated
16. When I see someone I know, I am able to pick up on what they are feeling right away
17. If I hold it in, my anger tends to go away
18. I have an urge to flee when someone gets touchy-feely around me
19. My temper never gets out of control
20. When someone I care about is sad, I feel sad too
21. I am okay with displaying my anger
22. Some people make me feel bad about myself, no matter what I do
23. I don't mind showing affection
24. It is better to remain neutral and detached towards a person until you really get to know them
25. I feel guilty when I cry in public
26. I think crying is a sign of weakness
27. I know exactly what to say to make someone feel better
28. I would hold back my tears at a funeral
29. I have difficulty saying things like "I love you," even when I really feel those emotions
30. I brood about things that make me angry
31. There are so many things wrong with me that I simply cannot like myself
32. I enjoy physical signs of affection
33. I do my best even if there is nobody around to see it
34. I seek out other people who are happy
35. It bothers me to see someone else upset
36. I am a good listener when a friend is troubled
37. Seeing other people displaying affection bothers me

Scale: -2=strongly agree, -1=somewhat disagree, 0=neither agree nor disagree, 1=somewhat agree, 2=strongly agree

Appendix C

*Leadership Questionnaire***Multifactor Leadership Questionnaire (MLQ)****Form 6S**

INSTRUCTIONS: This questionnaire provides a description of your leadership style. Twenty-one descriptive statements are listed below. Judge how frequently each statement fits you. The word *others* may mean your followers, subordinates, or group members.

Key: 0 = Not at all 1 = Once in a while 2 = Sometimes 3 = Fairly often 4 = Frequently, if not always

- | | | | | | |
|--|---|---|---|---|---|
| 1. I make others feel good to be around me. | 0 | 1 | 2 | 3 | 4 |
| 2. I express with a few simple words what we could and should do. | 0 | 1 | 2 | 3 | 4 |
| 3. I enable others to think about old problems in new ways. | 0 | 1 | 2 | 3 | 4 |
| 4. I help others develop themselves. | 0 | 1 | 2 | 3 | 4 |
| 5. I tell others what to do if they want to be rewarded for their work. | 0 | 1 | 2 | 3 | 4 |
| 6. I am satisfied when others meet agreed-upon standards. | 0 | 1 | 2 | 3 | 4 |
| 7. I am content to let others continue working in the same way as always. | 0 | 1 | 2 | 3 | 4 |
| 8. Others have complete faith in me. | 0 | 1 | 2 | 3 | 4 |
| 9. I provide appealing images about what we can do. | 0 | 1 | 2 | 3 | 4 |
| 10. I provide others with new ways of looking at puzzling things. | 0 | 1 | 2 | 3 | 4 |
| 11. I let others know how I think they are doing. | 0 | 1 | 2 | 3 | 4 |
| 12. I provide recognition/rewards when others reach their goals. | 0 | 1 | 2 | 3 | 4 |
| 13. As long as things are working, I do not try to change anything. | 0 | 1 | 2 | 3 | 4 |
| 14. Whatever others want to do is OK with me. | 0 | 1 | 2 | 3 | 4 |
| 15. Others are proud to be associated with me. | 0 | 1 | 2 | 3 | 4 |
| 16. I help others find meaning in their work. | 0 | 1 | 2 | 3 | 4 |
| 17. I get others to rethink ideas that they had never questioned before. | 0 | 1 | 2 | 3 | 4 |
| 18. I give personal attention to others who seem rejected. | 0 | 1 | 2 | 3 | 4 |
| 19. I call attention to what others can get for what they accomplish. | 0 | 1 | 2 | 3 | 4 |
| 20. I tell others the standards they have to know to carry out their work. | 0 | 1 | 2 | 3 | 4 |
| 21. I ask no more of others than what is absolutely essential. | 0 | 1 | 2 | 3 | 4 |

Appendix D

*Personality Inventory***Personality Inventory (PI)****Form 8S**

This is a simple questionnaire that requests information about who you are. This information is gathered so that others can get a sense of who you are and may be shared with some or all of your other team members.

Name: _____

Gender: (please check one) _____ Female _____ Male _____ Other/No Answer

Year in School: _____

Hometown: _____

Hobby you enjoy: _____

Favorite TV Show: _____

Favorite Food: _____

Favorite place to spend time: _____

Appendix E

Personality Inventory for Target 1:

Year in School: 2ND

Gender: MALE (or female)

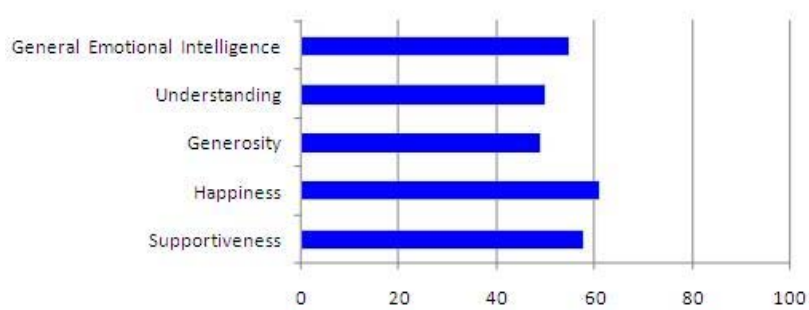
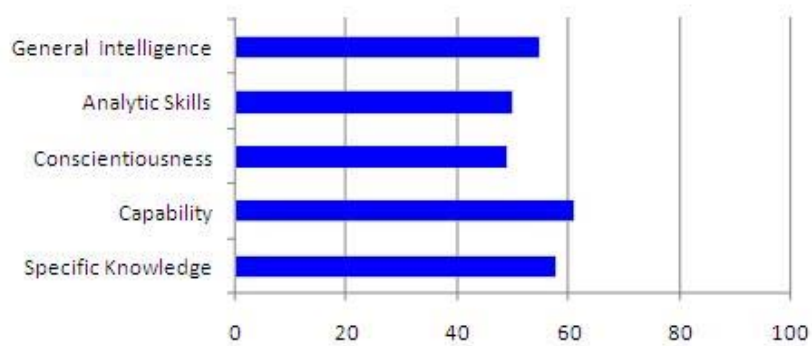
Hometown: MORGAN, PA

Hobby you enjoy: WATCHING MOVIES

Favorite TV Show: THE HILLS

Favorite Food: WINE AND CHEESE

Favorite place to spend time: AT HOME

(EI results):*(IQ results):*

Appendix F

Personality Inventory for Target 2:

Year in School: 1ST

Gender: FEMALE (or male, if target 1 was female)

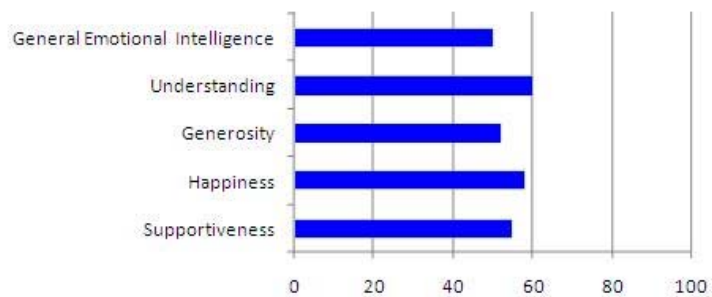
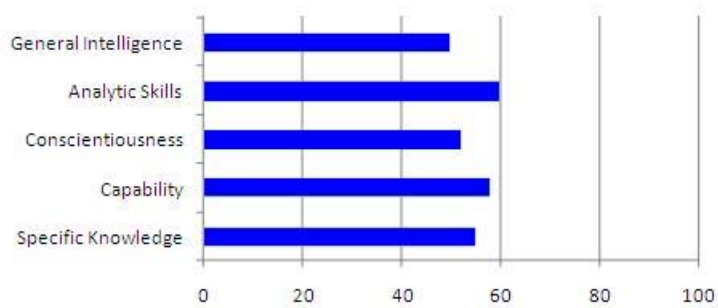
Hometown: HARRISBURG

Hobby you enjoy: PLAYING COMPUTER GAMES

Favorite TV Show: FRASIER

Favorite Food: SEAFOOD

Favorite place to spend time: ON THE COUCH

(EI results):*(IQ results):*

Appendix G

Personality Inventory for Target 3(target of interest):

Year in School: 3RD

Gender: FEMALE (or male)

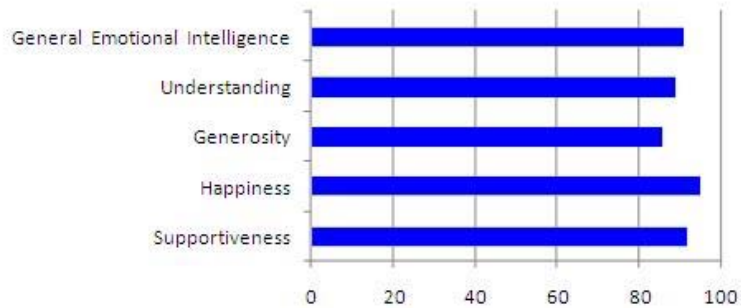
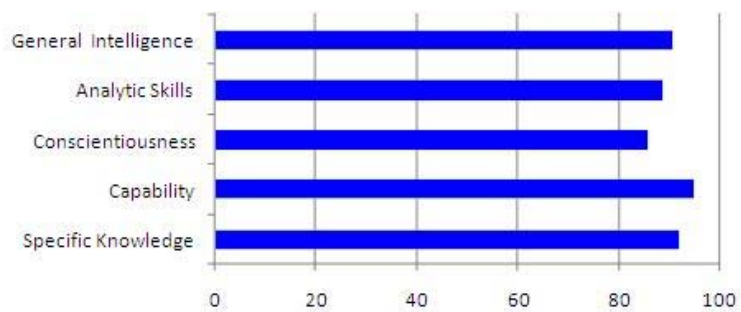
Hometown: TOLEDO, OHIO

Hobby you enjoy: GETTING COFFEE

Favorite TV Show: WHEEL OF FORTUNE

Favorite Food: MEDITERRANEAN

Favorite place to spend time: DRIVING IN THE CAR

(EI results):*(IQ results):*

Appendix H

Personality Inventory for Target 4:

Year in School: 3RD

Gender: MALE (or female, if 3rd target was male)

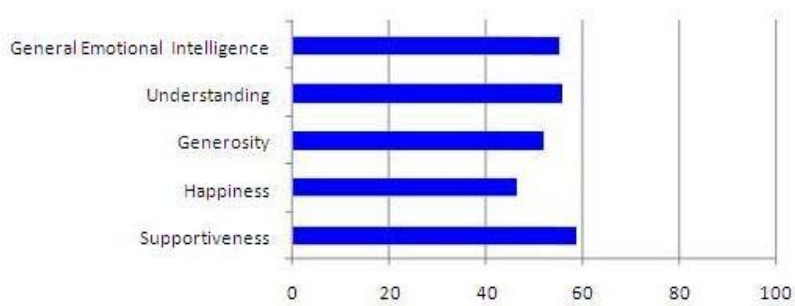
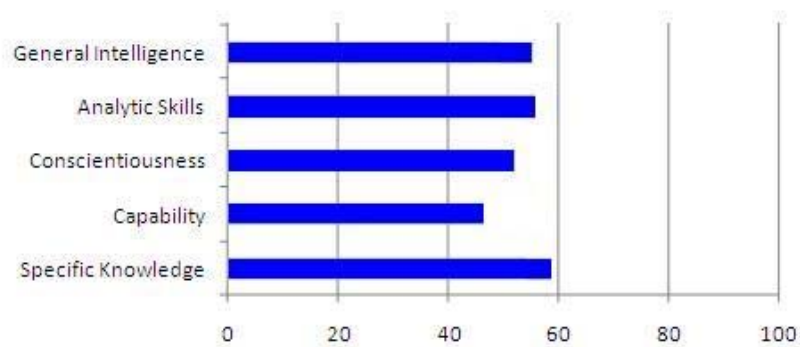
Hometown: ROCHESTER NY

Hobby you enjoy: SURFING THE INTERNET

Favorite TV Show: ARE YOU SMARTER THAN A 5TH GRADER

Favorite Food: SUSHI

Favorite place to spend time: OUTSIDE

(EI results):*(IQ results):*

Appendix I

Competence and Warmth Scales:

					skilled					
(Not At All)	0	1	2	3	4	5	6	7	8	(Extremely)
					friendly					
(Not At All)	0	1	2	3	4	5	6	7	8	(Extremely)
					competent					
(Not At All)	0	1	2	3	4	5	6	7	8	(Extremely)
					good natured					
(Not At All)	0	1	2	3	4	5	6	7	8	(Extremely)
					confident					
(Not At All)	0	1	2	3	4	5	6	7	8	(Extremely)
					warm					
(Not At All)	0	1	2	3	4	5	6	7	8	(Extremely)
					intelligent					
(Not At All)	0	1	2	3	4	5	6	7	8	(Extremely)
					sincere					
(Not At All)	0	1	2	3	4	5	6	7	8	(Extremely)

Competence items: skilled, competent, confident, intelligent*

Warmth items: friendly, good natured, warm, sincere

** Confidence was dropped from the analyses after factor analyses revealed that it cross-loaded onto both competence and warmth factors*

Appendix J

*Valued and Devalued Tasks:**(DV items of valued tasks)***The following assessments are more challenging.****Top scores on these assessments will receive a \$40 prize:**

- ___ **Mathematics Assessment:** This problem tests algebraic and geometrical reasoning ability.
- ___ **Confidence Assessment:** This problem tests confidence in highly challenging situations.
- ___ **Strategic Assessment:** This problem tests ability to strategize amongst an array of factors.
- ___ **Persuasion Assessment:** This problem tests ability to persuade co-workers.
- ___ **Mechanical Assessment:** This problem tests mechanical and engineering skills.
- ___ **Influence Assessment:** This problem tests the ability to command others attention and influence perceptions.
- ___ **Timing Assessment:** This problem tests time management ability, as well as how quickly one can accomplish a series of recurring tasks.
- ___ **Innovation Assessment:** This problem tests imagination and inventiveness for alternate solutions in a computerized puzzle.
- ___ **Logic Assessment:** This problem tests deductive reasoning and logical thinking skills.

*(DV items of devalued tasks)***The following assessments are less challenging.****Top scores on these assessments will receive a \$15 prize:**

- ___ **Operation Assessment:** This problem tests ability to organize and manage materials in production.
- ___ **Perceptual Assessment:** This problem tests the ability to find objects in distorted field.
- ___ **Inference Assessment:** This problem tests reasoning and decision making in ambiguous situations.
- ___ **Aptitude Assessment:** This problem tests the ability to learn repetitive skills.
- ___ **Proficiency Assessment:** This problem tests the ability to do a number of tasks in a short time frame.
- ___ **Adaptability Assessment:** This problem tests flexible thinking through the ability to accept or create alternative solutions.
- ___ **Reliability Assessment:** This problem tests the reliability of responsiveness over a series of related tasks.
- ___ **Memory Assessment:** This problem tests aptitude for memory of items through a fast paced task.
- ___ **Motivation Assessment:** This problem tests personality characteristics highly related to motivation.

Appendix K

Praise Items:

I believe you would be ___ **understanding** while working with others.

- a. very
- b. [understanding]
- c. somewhat
- d. not very
- e. not at all

You seem to be a ___ **nurturing** person.

- a. very
- b. [nurturing]
- c. Somewhat
- d. Not very
- e. Not at all

On the whole, you seem ___ [**friendly**].

- a. extremely friendly
- b. [friendly]
- c. somewhat friendly
- d. not very friendly
- e. very unfriendly

To others, you would probably come across as ___ [**likeable**].

- a. very likable
- b. [likable]
- c. somewhat likable
- d. not very likable
- e. very unlikable

You seem like you are ___ a **well-rounded** person.

- a. definitely
- b. most likely
- c. probably
- d. probably not
- e. definitely not

You seem to ___ **optimistic** outlook.

- a. Have a very
- b. Have an
- c. Have a somewhat
- d. Not have a very
- e. Not have an

In group settings, I believe you would be ___ [**honest**].

- a. very honest
- b. honest
- c. somewhat honest
- d. not very honest
- e. not at all honest

Overall, I think you are a ___ [good] person.

- a. great
- b. [good]

- c. decent
- d. semi-decent
- e. bad

Coding: a=5, b=4, c=3, d=2, e=1. Higher ratings = higher interpersonal praise