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THE EFFECT OF WAGES-ACADEMIC ON MEN'S AND WOMEN'S ABILITY TO
DETECT SUBTLE SEXISM IN THE WORKPLACE

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ABSTRACT

Despite society's best efforts to narrow the gendered wage gap over the past few decades, evidence indicates that sexism in the workplace has not been eradicated. The purpose of this study is to assess whether participants playing WAGES-Academic will have an increased ability to detect subtle sexism in comparison to participants in the control conditions. WAGES (Workshop Activity or Gender Equity Simulation)-Academic is an experiential learning game that educates participants on subtle sexism in the workplace. In this study, the participants were first pretested for their ability to detect subtle sexism based on the Perceiving Subtle Acts as Sexist scale (Swim, Cohen, & Hyers, 1998). They were then assigned to one of three conditions: WAGES-Academic, Chutes and Ladders or Information only. After participating in one of these conditions, the participants completed the PSS scale again. Finally, participants were emailed to participate in the third part of the study which they did not know was connected to the first and second part. During the third part, participants completed the PSS scale a final time. At the baseline and intervention time points, there was a main effect of gender, in that females scored higher than males on the PSS scale. There was also a main effect of time, in that participants scored higher on the PSS scale at intervention than at the baseline time point. Finally, there was an interaction between game type and gender, in that the female participants in the WAGES condition scored the highest on the PSS scale when compared to females and males in the Information only condition and the Chutes and Ladders condition. When analyzing the frequencies of the baseline scores on the PSS scale, I found that 52% of the participants were already scoring in the upper limit of the scale, 6 or 7. Therefore, I further analyzed the female participants who had scored a 5 or lower on the PPS scale at baseline in order to assess improvement. When examining this subgroup for all three conditions across all three time points,

I found a main effect of game type, indicating that participants in the WAGES condition scored significantly higher than those in the Information only or Chutes and Ladders conditions. There was also a main effect of time, in that participants scored significantly higher at the intervention and follow-up time point than at the baseline time point. These results imply that further research could be conducted in order to discover more successful research mechanisms for uncovering subtle sexist beliefs in the workplace. Ultimately, the implications for this research could help create a more egalitarian work environment for both women and men.

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Introduction

In an ideal world, one's gender would not determine their status in the work force. An applicant's education, leadership and work experience would be equally evaluated for employment decisions, and the check mark printed next to "male" or "female" would be ignored due to insignificance. Gender would rank as low as other characteristics such as hair and eye color- innate and irrelevant details that do not provide information about the applicant's or employee's true potential. Yet realistically, gender does matter. It influences every step of the employment process- job seeking, job hiring, salary offers, and salary raises- it just isn't always apparent. Following the passage of the Civil Rights Act in 1964, our law and society has blindly deemed discrimination on the basis of sex an "unlawful employment practice" in regards to hiring, promoting, and firing (National Archives, 2012). Yet, the statistics continue to pile up. Women are still only earning 77 cents to every male dollar; and women hold only 15 of the CEO positions in the world's Fortune 500 companies (Fitzpatrick, 2010) (Fortune 500, 2010).

The question that social psychologists need to answer, and that this study aims to answer, is why does this gender gap still exist in the workplace? This study investigates what sexism currently looks like in the labor force and how to tap into the prejudicial beliefs that continue to endorse this type of sexism. Through the use of an experiential learning simulation this experiment will attempt to answer these questions while taking into account one's ability to detect subtle sexism, and whether or not one's gender moderates this ability.

Statistics visibly prove that inequity in our work place is not a "thing of the past." Although, 53% of Americans believe that women have now achieved equality in the labor force, the labor statistics illustrate a different picture for us (Alksnis, Desmarais & Curtis, 2008). A

study done in 2008 by three Canadian psychologists examined the possible salary differences allocated to men and women in the workplace. The participants, both male and female, were required to assign salaries to three different types of jobs that had the same responsibilities and tasks; however, some were traditionally male jobs and others were traditionally female. The researchers discovered that although the jobs themselves were rated similarly in terms of responsibilities, skills, working conditions, and education requirements, the monetary value allotted to them differed greatly. The participants assigned significantly higher salaries to the traditionally male jobs than the traditionally female ones. And so the gendered wage gap persists. The researchers concluded that even when the same position is carried out by both genders, it is valued less when it is employed by a female (Alksnis, Desmarais & Curtis, 2008). Therefore, despite our best efforts and the significant strides made over the past few decades in narrowing the gendered wage gap, it is evident that a women's work continues to be monetarily devalued.

The construct that we are dealing with has moved away from the blatant or "old-fashioned" type of sexism that we observed in feministic history, characterized by the endorsement of traditional gender roles and the assumption that women are inferior to men. Instead, the construct might be labeled as "modern sexism." This new, modern type of sexism is more implicit and subtle in nature, characterized by the denial that discrimination still exists, as well as a lack of support for policies designed to help women- especially in the work force (Swim, 1995). Modern sexism can also further be defined as subtle sexism or the "unequal and harmful treatment of women that goes unnoticed because it is perceived to be customary or normal behavior (p. 104)." People participating is such behavior may actually be in favor of gender equality, and unaware that their treatment of women is sexist and harmful (Swim & Cohen, 1997).

The change in this construct from blatant to subtle sexism is evident in national research on women's equality which illustrates a recently more liberal attitude towards women's roles in society. For example, less people are disapproving of nontraditional women's roles, and the approval rating for married women's employment has skyrocketed from 20% to 80% over the past few decades (Myers, 1993). Another illustration of the "subtleness" of this sexism is research that has found that even when participants rated male and female leaders equally, their nonverbal behavior was significantly more negative towards female leaders than male leaders (Butler & Geis, 1990).

Therefore, it is evident that there is a gap between people's outwardly liberal and seemingly unbiased attitudes and their actual behaviors towards women in the workplace. This gap of inconsistency is also visible when participants answer questions regarding the roles of males and females in the workplace from the perspective of others. One study conducted found that when answering directly on their own behalf, participants responded in an egalitarian manner. However, when participants responded from the perspective of another person, protecting themselves against the sexist label, their prejudicial beliefs became apparent (Harvie et al, 1998). The logic behind it makes perfect sense. In today's day and age, being sexist is no longer socially acceptable. The term carries a negative connotation and can result in many social and even legal ramifications. Therefore, in order to avoid this label one may reduce their endorsement of blatant sexism publically, even if this reduction isn't mimicked privately (Swim et al, 1995). The pervasiveness of "modern sexism" is problematic in our society because even though individuals have changed the degree to which they outwardly endorse sexism, they have not internalized this change in their private beliefs. It is these private, prejudicial beliefs that propel the continuation of sexual discrimination in the workplace.

In Virginia Valian's book, *Why So Slow*, modern sexism's subtly, limited detectability, and pervasiveness is discussed in terms of gender schemas and the accumulation of disadvantage and bias. She asserts that most women in the work force begin with a slight disadvantage because they are less likely to be viewed as a serious professional. People are likely to misperceive both genders in the professional arena, giving more credit to men while undervaluing women, even when they believe that they are being unbiased and just. Valian describes this behavior in terms of unconscious gender schemas- "our intuitive hypotheses about the behaviors and traits" of both genders. In addition, Valian points out that these subtle, unconscious biases don't immediately affect women; but instead, they accumulate over time making them difficult to detect. This pattern is best described in terms of interest on capital or debts. Valian elaborates, "Like interest on capital, advantages accrue, and that, like interest on debt, disadvantages also accumulate. (p.3)" It is these small instances of disadvantage that build up over time and result in a gendered wage gap and labor force (Valian, 1998).

The current study is designed to determine whether or not the use of WAGES-Academic as an intervention will increase one's ability to detect this type of subtle sexism, and if this effect is moderated by gender. Workshop Activity for Gender Equity Simulation (WAGES) is a board game simulation that depicts career advancements of two different teams symbolizing the experience of men and women in the academic workplace. The board game delivers empirically-based data and allows for the direct comparison of occupational progression for both genders (http://wages.la.psu.edu/).

Table 1: Sample Items for WAGES-Academic

Assistant Professor	**A senior faculty member congratulates you on your skill in completing a big grant proposal on time.** *Earn 3 credit chips as you await your reviews. Move 1 space forward.*	**A senior faculty member congratulates you on your good luck in completing a big grant proposal on time.** *Earn 3 credit chips as you await your reviews. Move 1 space forward.*
Associate Professor	**The university tries out a "masked" evaluation system. You do just fine and get a good raise.** *Earn 2 credit chips as you continue to move along. Move forward 1 space.*	**The university tries out a "masked" evaluation system. Your pay raise this year is better than ever!** *Earn 3 credit chips as you feel you are gaining ground. Move forward 1 space.*
Professor	**While moving to a new office you realize that other Full Professors have offices about the same size as yours.** *Earn 3 credit chips while you feel good about how fair it is. Move 1 space forward.*	**You realize that your office is smaller than any other Full Professor. And all of them are White team members.** *Earn 2 credit chips as you accept that your office is large enough to get your work done. Move 1 space forward.*

Previous research has been conducted to study the effect that playing WAGES-Academic has on participants' knowledge of gender equity. One study, using a controlled, experimental design, found that WAGES increased undergraduates' knowledge of gender equity, measured by the Knowledge of Gender Equity (KGE) Questionnaire. The study also found that it was only the WAGES condition that sustained the increase in KGE scores during the follow-up phase (Shields, Zawadzki & Johnson, 2011). This study also considered participant gender as a moderating factor. One would presume that men and women would interpret information on sexism differently, considering that they experience it differently in society. The study found results consist with this presumption illustrated in the significant interaction between gender and

time, in that women scored higher on the KGE scale than men during both the intervention and the follow-up phases (Shields, Zawadzki & Johnson, 2011). These results indicate that gender does affect how participants experience WAGES; and therefore, one can foresee the effect that gender may have on one's ability to detect subtle sexism.

Why is WAGES-Academic effective in addressing gender inequity in the workplace? Mainly, the process of WAGES, including game play, reflection and group discussion, hones in on Kolb's Experiential Learning Theory, in order to convey the message of gender inequity to participants. ELT outlines an ideal learning cycle with four distinct steps- experiencing, reflecting, thinking and acting. Kolb notes that it is the concrete experiences that are the root to the reflections which then create abstract concepts which can act as guidelines for new experiences (Kolb, Kolb, 2005). Kolb's learning model has also proved to be very effective in past research studies. Researcher Leslie Hickcox quantitatively analyzed 81 studies that used the ELT model and found that overall 61.1% of the studies supported ELT, while only 22.2% did not. The difference between the percentages had mixed support (Hickcox, 1991). Kolb's experiential learning technique not only taps into an effective method, but it also helps to address participants' reactance and lack of self-efficacy that may arise throughout the experiment (Shields, Zawadzki, Danube, 2011). Sexism, much like racism, comes with a strong normative pressure not to blatantly endorse prejudicial or biased beliefs (Swim, 1995). In other words, being outwardly racist or sexist is looked down on in our society. For this reason, sexism is hard to study without the consequence of reactance- denying the validity of information- or lowered self-efficacy- the belief that one's actions cannot change the situation at hand. Kolb's Experiential Learning Theory provides researchers with a way to share information about gender inequity without resulting in these consequences (Kolb, 1984).

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Previous research studying the effect of WAGES- Academic found that it has the ability to increase participants' knowledge of gender inequity; however, many questions still remain unanswered (Shields, Zawadzki & Johnson, 2011). Does the knowledge of unequal and unjust treatment of the sexes translate into a change in beliefs, behaviors, and ability to detect subtle sexism? If one does not endorse blatant and outward forms of sexism can unconscious bias still pervade their internal ideology? This construct of subtle sexism- an unchartered area of unconscious bias that is hard to detect and even harder to combat- is what this study examines. We know that WAGES can increase participants' knowledge of gender inequity, but will it also increase their ability to detect subtle sexism as it occurs in the work place?

The following study aims to answer this question. The experiment is split up into three different time points: baseline, intervention and follow-up. Ideally, participants will take part in all three time points without acknowledging that they are interconnected. After the baseline measures are taken, participants will be randomly assigned to one of three games for the intervention time point: WAGES-Academic, in which they will participate in the experiential learning simulation; Information only, in which they will be provided with the same information as the WAGES condition but in the format of a PowerPoint, not an interactive board game; and Chutes and Ladders, in which participants will simply play the childhood board game. Two weeks following the intervention, participants will be invited to participant a seemingly unrelated study where data will again be collected. During each of the three time points participants will answer questions on the Perceiving Subtle Acts as Sexist scale (PSS), which is used to operationalize the dependent variable: ability to detect subtle sexism. The results found at the completion of this study will help to answer whether or not the increased knowledge of gender inequity as a result of WAGES translates into an increased ability to detect subtle sexism, and

whether or not that ability is moderated by gender. These findings have the potential to not only inform us on how to tap into subtle sexist beliefs, but also how to raise awareness about this new, "modern" type of sexism in order to ultimately decrease the effect it has on employment decisions.

Hypotheses

Hypothesis 1: Main effect of gender

1a: At baseline, the female participants will score higher than the male participants on the PSS scale.

1b: At intervention, the female participants will score higher than the male participants on the PSS scale.

1C: At Follow-up, the female participants will score higher than the male participants on the PSS scale.

Hypothesis 2: Main effect of game type

2a: At intervention there will be a main effect of game type, in that participants who are in the WAGES condition will score higher on the PSS scale than those in the Information only condition and the Chutes and Ladders condition, indicating that the WAGES participants are more able to detect subtle sexism. In addition, the Information only condition will score higher on the PSS scale when compared to the Chutes and Ladders condition.

2b: At follow-up, there will be a main effect of game type, in that participants who are in the WAGES condition will score higher on the PSS scale than those in the Information only

condition and the Chutes and Ladders condition, indicating that the WAGES participants were the only ones to retain the ability over a two week time span.

Hypothesis 3: Interaction of game type and gender

3a: At the intervention time point, there will be an interaction between game type and gender in that the effect of game type will depend on the gender of the participant. Females in the WAGES condition will score the highest on the PSS scale, while men in the Chutes and Ladders condition will score the lowest.

3b: At the follow-up time point, there will be an interaction between game type and gender, in that the effect of game type will depend on gender. Females in the WAGES condition will score the highest on the PSS scale when compared to males and all other conditions.

Hypothesis 4: Decrease of Information only condition during follow-up

Participants in the Information only condition will score lower on the PSS scale at the follow-up time point than at the intervention time point, indicating that the effect on their ability to detect subtle sexism during intervention diminished.

Methods

Participants

Participants were recruited from the Pennsylvania State University Psychology Subject Pool. They completed a three part study (baseline, intervention, follow-up) in exchange for course credit. At baseline, 479 undergraduates (344 females, 135 males) completed a multitude of online surveys. Out of the 479 participants, I then contacted a random sample of 308 participants who had indicated willingness to consider further participation. Of those contacted, 64% (n =197) agreed to participate in the intervention portion of the study (151 females, 45 males, 1 unspecified; Mage =18.84, SDage = 1.81). Following intervention, I contacted all 197 participants to participate in a follow-up study 2 weeks later. Of those contacted, 42% (n= 83) agreed to participate in the follow-up portion of the study (71 females, 12 males, unspecified; Mage=18.60, SDage=1.40).

Materials and Procedure

Baseline. Participants completed the PSS scale as part of an online survey that measured a number of personality and individual difference traits. After the results from the baseline study had been collected, I first performed a reliability test using SPSS to insure that the items were reliable and consistent. I then separated the participants who agreed to participate in the next part of the study into four groups based on how they scored on the PSS scale. The participants in the very low group scored less than a 4.50 (24.9% of participants). Those in the low group scored

greater than a 4.50, but less than a 5.46 (25.3%). Participants in the medium group scored greater than a 5.46, but less than a 6.23 (26.2 %). Finally, participants in the high group scored higher than a 6.23, but less than or equal to a 7 (23.6%).

Intervention. In a seemingly unrelated laboratory session, participants completed individual difference measures, one of the three experimental conditions, and post-intervention measures. Participants were randomly assigned to one of the three conditions. (1) Participants in the WAGES condition completed the WAGES-Academic intervention. (2) Participants in the Chutes and Ladders condition played the childhood board game; however, they were additionally assigned to green and white teams before playing the game to mimic the format of the WAGES condition. The game was then followed by a structured discussion of group dynamics rather than gender. This condition was structured like WAGES in that participants played a team activity and engaged in a discussion about group differences, but no gender inequity information was provided or discussed. (3) Participants in the Information only condition received the information from WAGES on power-point slides- a non-experiential learning format. Participants had 15 minutes to read the handouts and had 8 minutes to read a transcribed version of the WAGES post-game discussion.

Following the participant's intervention, each person completed a number of different surveys and scales that measured personality and individual differences. Most importantly, the participants also retook the PSS scale to determine whether or not their ability to perceive subtle sexism had increased, decreased, or remained the same after their intervention.

Follow-up. In the third part of the study, participants were contacted by email to take part in another seemingly unrelated study in a different laboratory two weeks after the intervention time point. During this experiment they participated in a number of activities and filled out different scales and surveys. Most of this data was collected for another lab; however, participants did retake the PSS scale a third and final time for our data collection.

Measures

Perceiving Subtle Acts as Sexist scale

The PSS scale is a modified version of Dr. Janet Swim's questionnaire regarding the frequency that women experience or observe certain sexist behaviors (Swim, Cohen, & Hyers, 1998). This scale was adapted to examine the perceived harm of these behaviors, instead of the frequency. Further, the scale measures one's ability to detect subtle sexist acts. Some of the items are very obviously sexist while others are more subtle. (18 items: e.g., "people shouting sexist comments, whistling, or making cat calls at a woman;" "a woman being encouraged to do gender stereotypical activities (such as, to smile more or be the primary caretaker for children)."). Responses are scored on a 1 (Not at all harmful) to 7 (very much harmful) scale and are averaged such that low scores indicate a low ability to detect subtle sexism and label it as harmful ($\alpha = .951$) and high scores indicate a high ability.

Results

      My measure of effectiveness of WAGES-Academic in increasing one's ability to detect subtle sexism was determined by the participant's score on the PSS scale. The study was designed to measure both male and female participants on the PSS scale across three time points- baseline, intervention and follow-up, for three different game types- WAGES, Chutes and Ladders and Information only. When analyzing the scores across time points I used a within-subjects design; however, the analysis of the different game types was a between-subjects design.

      Ideally, I wanted to run this test for both males and females; however, due to the small number of male participants at the follow up time point (n=12), I could only analyze all three time points for female participants. In order to test WAGES-Academic's effectiveness in increasing one's ability to detect subtle sexism versus that of the Information only condition and the Chutes and Ladders condition, I ran a 3 (game type: WAGES vs. Info vs. C/L) X 3 (time: baseline vs. intervention vs. follow-up) repeated measures analysis of variance (ANOVA). When analysis included only female participants, there were no significant main effects or interactions, $F(2, 71) = .349$, $P=.707$, $\eta p^2 = .010$.

Table 2: Means and Standard Deviations for All Conditions

		Baseline	Intervention	Follow-up
WAGES	Male	4.42 (.27)	4.61 (.24)	4.01 (1.02)
	Female	5.35 (.99)	5.83 (.75)	5.35 (1.51)
Information only	Male	4.35 (.78)	4.37 (.84)	3.74 (1.14)
	Female	5.34 (1.22)	5.39 (.87)	5.44 (1.06)
Chutes & Ladders	Male	3.90 (1.43)	4.80 (1.16)	4.63 (1.30)
	Female	5.26 (1.27)	5.22 (1.07)	5.37 (.96)

Due to the drop out of male participants for the follow-up time point, I decided to further analyze both genders at the baseline and intervention time points only. I tested WAGES-Academic's effectiveness in increasing participants' ability to detect subtle sexism versus that of the Information only condition and the Chutes and Ladders condition by running a 2 (gender: male vs. female) X 2 (time: baseline vs. intervention) X 3 (game type: WAGES vs. Info vs. C/L) repeated measures analysis of variance (ANOVA). I obtained a significant main effect of time in that the participants scored higher on the PSS scale at the intervention time point than the baseline time point, $F(1, 190) = 9.157$, $P = .003$, $\eta p^2 = .047$. In support of hypothesis 1, I also obtained a main effect of gender, in that females scored higher than males on the PSS scale, $F(1,190) = 28.971$, $P = .000$, $\eta p^2 = .136$. Finally, I obtained an interaction between game type and gender, as predicted in hypothesis 3. The results illustrated that females consistently scored higher than males on the PSS scale in all conditions, and those in the WAGES condition scored the highest, followed by the Chutes and Ladders condition and then the Information only condition, $F(2,190) = 3.071$, $P = .049$, $\eta p^2 = .032$.

After analyzing the frequency of scores on the PSS scale from the baseline time point of the study, I discovered that 52% of the participants scored above a 5. Therefore, I decided to do a follow-up analysis that excluded participants that scored very high on the scale during baseline. I filtered the data by only including participants that scored ≤ 5 on the scale in this part of the analysis. Once again, due to the lack of males at the follow-up time point of the study, I only examined females in this analysis. I tested WAGES-Academic's effectiveness in increasing participants' ability to detect subtle sexism versus that of the Information only condition and the Chutes and Ladders condition by running a 3 (game type: WAGES vs. Info vs. C/L) X 3 (time: baseline vs. intervention vs. follow-up) repeated measures analysis of variance (ANOVA) for this subgroup. In support of hypothesis 2, I obtained a main effect of game type in that participants who played WAGES scored significantly higher than those in the Information only or Chutes and Ladders conditions, $F_{(2,32)} = 3.378$, $P = .048$, $\eta p^2 = .189$ (Figure 1). There was also a main effect of time in that the participants scored significantly higher at the intervention and the follow-up time points than those at the baseline time point by .07 and .09 respectfully, $F_{(2,320)} = 14.953$, $P = .000$, $\eta p^2 = .340$. There were no significant interactions for this subgroup of females that scored ≤ 5 on the PSSS scale at baseline.

Figure 1: PSS Score for Game Type Over Three Time Points
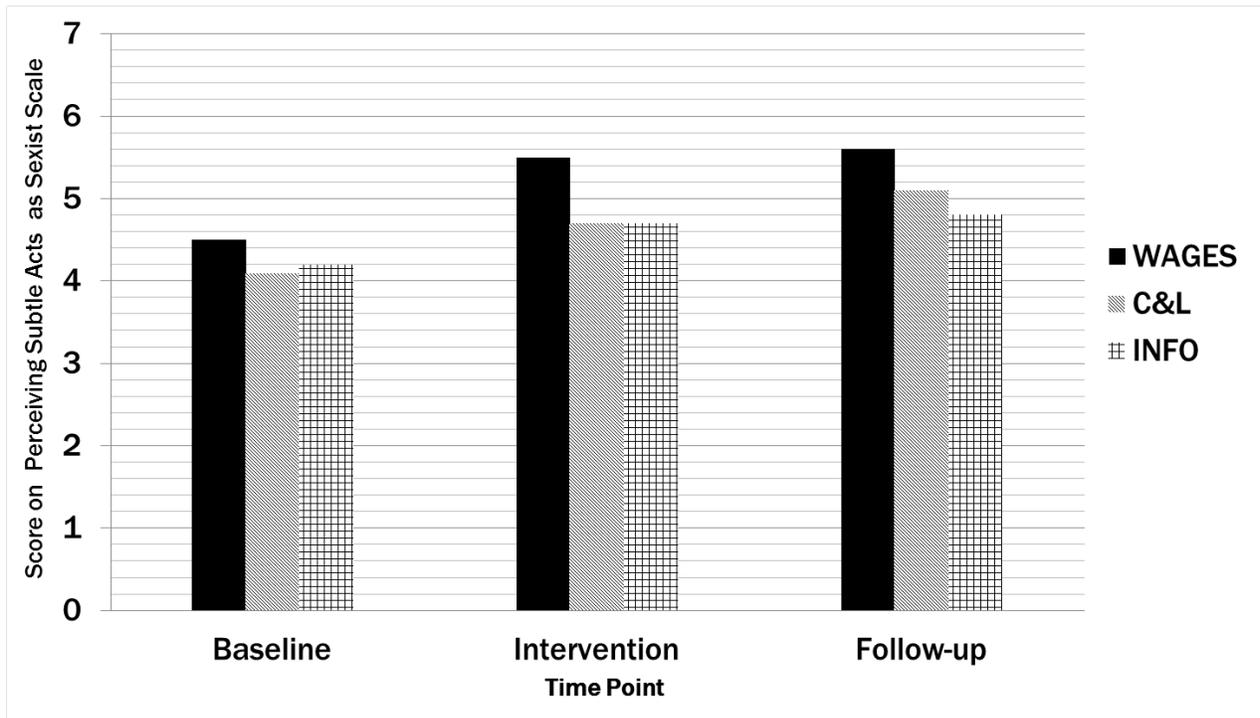
Discussion

Although society has made many strides in decreasing gender-based discrimination, it is evident that sexism continues to permeate our workplace and disadvantage female employment opportunities, advancements and rewards. This study was designed to tap into modern, present-day sexism in order to help to understand why it continues to thrive. Furthermore, this experiment examines the effect that WAGES-Academic has on one's ability to detect this type of subtle sexism. I predicted that WAGES would increase one's ability to detect subtle sexism more than the two control conditions because of its content and experiential learning format. I also hypothesized that this effect would be moderated by gender, in that females would have a higher ability to detect subtle sexism due to their intimate experience with sexism in society.

The study was originally designed to test both genders across three time points- baseline, intervention and follow-up; however, due to the small number of male participants at the follow-up time point, no main effects or interactions were found. Therefore, further analyses of subgroups were conducted. When analyzing only female participants at all three time points across all three conditions, I again found that there were no significant main effects or interactions in the data. However, when analyzing both genders, across all three conditions, at only the baseline and intervention time points, the findings changed. Supporting my hypothesis, gender played a significant role, in that females scored higher than males on the PSS scale across all three time points. There was a significant effect of time, in that participants scored higher on the PSS scale at intervention than at the baseline time point. Finally, supporting my hypothesis, there was an interaction between game type and gender in that females in the WAGES condition scored the highest on the PSS scale overall.

The third part of my analysis looked at female participants who had scored a 5 or lower on the PPS scale at baseline. When examining this subgroup for all three conditions across all three time points I found a significant effect of game type supporting my hypothesis. This indicates that participants in the WAGES condition scored significantly higher than those in the Information only and Chutes and Ladders conditions. Time also played a significant role with this subgroup in that participants scored significantly higher on the PSS scale at the intervention and follow-up time points than at baseline.

Although this study was designed and developed to the best of my ability, some limitations were discovered after conducting the research and analyzing the results. The first of these limitations was that nearly half of the participants dropped out between the intervention and follow-up time points. However, after analyzing the data I found that there were no systematic differences between those who participated in the follow-up and those who dropped out after intervention. The most likely explanation for this would then be that the follow-up was conducted towards the end of the semester when many of the students had completed all of their necessary research credits. Since time point two and three were independent of each other, those that participated in the intervention did not necessarily have to participate in the follow-up, nor did they know that the two were related. There were also a small number of male participants, particularly at the follow-up time point. The large drop-out of male participants during the follow-up makes generalizing the results to all male undergraduates impossible. Also, the larger number of female participants at all three time points made it easier to estimate female's patterns more reliably than male's.

Another limitation to this study was the ceiling effect on the PSS measure. This effect can occur in surveys when the questions are relatively easy to answer and a majority or large

percentage of the participants' scores is clustered at the maximum or near-maximum of the scale (Uttl, 2005). This phenomenon is a problem, particularly in my research, because an improvement in the participant's ability to detect subtle sexism (as evident in their score on the PSS scale) is either unlikely or impossible when their score is already at the upper limit of the scale. This can negatively influence the effect size, making it appear smaller than it actually is. Considering that 52% of our participants scored higher than a 5 on the PSS scale at baseline, there was little room for improvement since they were already able to detect subtle sexism well. In order to accurately analyze whether or not WAGES affects one's ability to detect subtle sexism, the participant needs to have room for improvement. Using this theory, the results are only generalizable to the subgroup of participants that scored a 5 or below on the PSS scale at baseline. The analysis of this subgroup did however yield a significant effect of game type which supported the main hypothesis of this study. This finding indicates that WAGES-Academic did increase women's ability to detect subtle sexism.

A final limitation of this study was the possibility of participants' desire to appear unbiased. Current cultural norms make blatant sexist beliefs and behaviors socially undesirable. This change over the recent decades makes it unlikely that participants will openly admit to sexist attitudes towards women because of the stigmatization of old-fashioned sexism and the participant's desire to be seen as fair and just. This trend makes it increasingly difficult for researchers such as myself to tap into a participant's actual prejudicial attitudes towards women (Campbell, Schellenberg & Senn, 1997). This is especially problematic with the PSS scale because its goal of eliciting one's true prejudicial beliefs is exactly what participants have learned to hide in order to be perceived as egalitarian by others. The probability that social desirability affected how the participants answered many of the scale items is high due to the

large percentage of means that fall in the upper limits of the scale. Over half of the participants scored within this limit at baseline, illustrating the probable effect of social desirability. The goal of the scale is to tap into one's sexist ideology; however, many of the items could be labeled as sexist by almost any educated individual. This is problematic because most participants will label the item as sexist even if they themselves internalize that belief or would behave in that harmful manner.

Although this study has provided further insight into how subtle sexism functions in the workplace and within ourselves, it is necessary that we find a better way to tap into subtle prejudices. By doing so, researchers can get around participants' desire to appear unbiased and uncover their true, internal prejudices. One way of doing this would be to operationalize the dependent variable differently. For example, instead of participant's self-reporting their beliefs about subtle sexism in a survey, one study might elicit these prejudices by having participants act as managers and make decisions regarding employment for both genders at different levels of a company or organization. By doing so, researchers might see how decision makers would react in pressured situations in order to further understand how sexism influences these types of decisions.

In conclusion, the results of this research imply that uncovering modern and subtle sexist beliefs has still not yet been successfully achieved. As evident in this study, a new type of subtle sexism is pervading our work force, even when we try to act in unbiased and just ways. It is imperative that we find a way to tap into this new form of prejudicial beliefs if we want to prevent it from further corroding equality in the work place. The importance of this research is applicable to present day society because of the transformation that sexism has seen over the past few decades. The transition from old-fashioned, blatant sexism to modern, subtle sexism calls for

a change in our research and policies in order to decrease, and ultimately eradicate, the financial

and occupational disadvantage that women face in the work place.

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Appendix

Perceiving Subtle Acts as Sexist Scale

1	2	3	4	5	6	7
Not at All Harmful			Somewhat Harmful			Very Much Harmful

How harmful or problematic is…

_____ 1. …a woman not being taken serious because of her gender.

_____ 2. …a woman being encouraged to do gender stereotypical activities (such as, to smile more or be the primary caretaker for children).

_____ 3. …a women being discouraged from doing activities counter to stereotypes about her gender (such as displaying anger or being assertive).

_____ 4. …a woman being perceived gender stereotypically by someone when the person was wrong or did not know her well enough to know what she's like.

_____ 5. …hearing someone express <u>approval</u> of a woman because she exhibited behavior <u>consistent</u> with stereotypes about her gender.

_____ 6. …hearing someone express <u>disapproval</u> of a woman because she exhibited behavior <u>inconsistent </u>with stereotypes about her gender.

_____ 7. …people shouting sexist comments, whistling, or making cat calls at a woman.

_____ 8. …someone referring to a woman with a demeaning or degrading label specific to her gender. (Bitch, chick, dyke, etc.)

_____ 9. …hearing sexist comments made about parts of a woman's body or clothing.

10. …hearing someone make comments about sexual behavior a woman might do.

11. …hearing someone make comments about the sexual things they would want to do with a woman.

12. …someone doing or saying something that made a women feel threatened sexually.

13. …a women experiencing unwanted staring or ogling at herself or parts of her body when the person knew or should have known that she was not interested or it was inappropriate for the situation or their relationship.

14. …a women experiencing unwanted flirting when the person knew or should have known she was not interested or it was inappropriate for the situation or their relationship.

15. …a women being excluded from a job, college, class, or organization because of her gender.

16. …a women being the victim of violence from someone of the opposite sex.

17. …hearing sexist jokes about women.

18. …hearing sexist jokes about men.

19. …hearing someone express general dislike or resentment of women.

20. …hearing someone express general dislike or resentment of men.

21. …hearing someone use words that exclude women (e.g., he or him to refer to people in general).

22. …hearing someone make stereotypical comments about women's traits, abilities, or preferences.

23. …hearing someone make stereotypical comments about men's traits, abilities, or preferences.

_____ 24. …hearing someone make stereotypical comments about work or family roles

women should or should not do.

_____ 25. …hearing someone make stereotypical comments about work or family roles men

should or should not do.

_____ 26. …hearing someone express negative attitudes about women's equality.

*Items 1, 7, 8, 12, 13, 15, 16 and 26 were removed because 50% or more of participants scored a

6 or 7 at baseline testing*

ACADEMIC VITA

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EDUCATION: **The Pennsylvania State University, University Park, PA**
Paterno Liberal Arts Undergraduate Fellows Program
Schreyer Honors College
B.A. Psychology; Enhanced Minor in Spanish
Expected Graduation: May 2012

STUDY **University of Virginia, Charlottesville, VA** **August '10 – December '10**
ABROAD: **Semester at Sea Study Abroad Program**
- Traveled to 12 countries by ship to learn about and explore the cultures of a variety of industrialized and developing nations.

LANGUAGES: Proficient in Spanish

THESIS The Effect of WAGES-Academic on Men's and Women's Ability to Detect Subtle
TITLE: Sexism in the Workplace.

SUPERVISOR: Dr. Stephanie A. Shields

HONORS & Honorable Mention for the Mona Shibley Bird Memorial Scholarship in
AWARDS: Psychology
Semi Finalist for Penn State's NYT Civic Engagement and Public Speaking
Competition
Psi Chi, National Honor Society of Psychology
Phi Kappa Beta National Academic Honor Society

RESEARCH: **Penn State Interdisciplinary Social Psychology Lab** **Spring '10 - Present**
Research Assistant
- Conducted various experiments on sections of 10-20 university students to study the effect of Workplace Activity Gender Equity Simulation (WAGES) on sexism.
- Trained and coordinated research assistants to conduct WAGES experiments and compute data for my senior honors thesis.
- Collected, coded and analyzed quantitative and qualitative data with the use SPSS.

RELEVANT **YMCA Family Services, Bay Shore, NY** **May '11 – August '11**
EXPERIENCE: *Intern*
- Monitored and implemented group and individual counseling to youth, ages 9 – 21.
- Researched and created therapy lessons for at-risk-youth and camp counselors.

- Performed client intakes for new patients, as well as office administrative work.

COMMUNITY SERVICE: | **Semester at Sea, Charlottesville, VA** | **Spring '11 – Present**

Global Ambassador
- Communicated with the Global Ambassador liaison at UVA and other volunteers to successfully plan presentations and distribute materials Semester at Sea.

Penn State Dance Marathon (THON), University Park, PA | **Fall '08 – Present**

Founding member of Pillar –Special interest organization for pediatric cancer.

Waldron Committee Chairperson
- Planned events and bonding activities between Pillar and our THON family in order to keep the lines of communication open and emotionally support the family.

Pillar Mail Captain
- Facilitated and collected letters and packages for the THON 2009 and 2010 patients, dancers and captains in order to boost morale.

Rules and Regulation Spirit Chairperson
- Organized incentive point activities and led team-building exercises for our committee.

Penn State Gamma Sigma Sigma Service Sorority | **Fall '09 – Spring '11**

WORK EXPERIENCE: | **University Directories** | **May '10 - August '10**

Sales and Marketing Intern
- Sold $20,000 in advertising for Stony Brook University and the University of Pennsylvania ranking top 10 in my region and top 100 in the country.
- Completed 35-40 quality door-to-door sales calls per day to local businesses.

Bay Shore Yacht Club, Bay Shore NY | **Summer '07 – Summer '09**

Sailing Instructor
- Supervised and coached over 50 children, ages 7 to 15, at the Yacht Club and multiple regattas, while simultaneously training junior instructors.