

BYSTANDER SEXISM: THE VICARIOUS EFFECTS OF WITNESSING  
BENEVOLENT SEXISM ON EGO DEPLETION AND INTELLECTUAL REASONING

By

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To my parents

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Abstract of Thesis Presented to the Graduate School  
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Women whose gender identity is threatened scan their immediate environment for gender-threatening cues (e.g., Kaiser, Vick, & Major, 2006). In the current study, I tested whether witnessing benevolent sexism would promote similar processes, and thus harm subsequent cognitive performance. After all, the act of scanning the environment for gender-threatening cues may exhaust limited cognitive resources often used during taxing tasks. Consistent with existing research (i.e., Dardenne, Dumon, & Bollier, 2007), I also expected that intrusive thoughts (“During the task, I thought that my performance would be poor”) would mediate the proposed relationship between observing sexism and performance. To test these hypotheses, I recruited 80 women from the University of Florida psychology subject pool. After observing either an instance of benevolent sexism or a neutral event, participants performed the Stroop test and a reading comprehension task, followed by completion of other constructs of interest. Results indicated the proposed main effect of condition on one of two measures of Stroop performance, the index of facilitation. Supplemental analyses revealed the expected main effect of condition on reading comprehension but only for minority women. Intrusive thoughts did not mediate the proposed relationship, but

gender identity showed the proposed moderating effect. In light of these findings, I argue that minority women's heightened experiences with race and gender-based stigma contributed to the observed findings.

## CHAPTER 1

### INTRODUCTION

Some may have thought that after women attained suffrage rights in the year 1920, pervasive sexism in America would be diminished if not eliminated. However, despite having achieved significant representation in politics, academia, and private corporations (Eagly & Sczesny, 2009), women continue to experience rampant group-based prejudice and institutionalized discrimination in modern-times (Swim, Hyers, Cohen, & Ferguson, 2001). Sexism, a term coined in the mid-20th century, can be considered synonymous with misogyny, chauvinism, or hatred toward a given sex. Past research spotlights a number of detrimental effects created by experiences with sexism, such as psychological distress (Moradi & Subich, 2002) and physiological arousal (Eliezer, Major, & Mendes, 2010). Furthermore, sexist stereotypes about women's performance in particular tasks can undermine their performance in those tasks. For instance, women who were told that a math test had a tendency to produce gender differences in performance (high stereotype threat) performed significantly worse on the test than equally qualified men or than women who were told that the test did not produce gender differences (Spencer, Steele, & Quinn, 1999).

Sexism comes in many forms, with different assumptions underlying their occurrence. Whereas some forms of sexism are overtly hostile in their intent (e.g., a man referring to a woman as a "bitch," "slut," or a "ho"), benevolent sexism, the focus of the present proposal, is less obvious and may even be perceived as benign. According to ambivalent sexism theory (Glick & Fiske, 1997), benevolent sexism represents prejudice against women on the basis of their perceived fragile existence. Men who hold these sexist attitudes tend to praise women who endorse traditional gender roles

and reprimand those who violate them, maintaining their hegemony in society (Glick & Fiske, 1996). In this manner, these men “put women on a pedestal,” protecting their delicate nature through chivalrous acts. While hostile sexism predicts endorsement of negatively valenced stereotypes (e.g., women are less skilled in math than men), benevolent sexism predicts endorsement of positively valenced, traditional stereotypes (e.g., women are better caretakers than men; Glick et al., 2004). However, the fact that stereotypes associated with this type of sexism appear benign should not undermine its outcomes for women. In fact, benevolent sexism promotes more societal gender inequality than its hostile counterpart by providing sexists with the opportunity to hide their harmful views behind seemingly benign cultural ideals (Lee, Fiske, & Glick, 2010).

Increasing research shows that benevolent sexism affects women’s cognition and performance. Dardenne, Dumont, and Bollier (2007) conducted a series of studies that examined (1) how women perceived benevolent sexism in employment decisions, (2) whether offering women unsolicited help affected their memory, and (3) whether women experienced a reduction of self-efficacy toward completing a word-recall task when compared to those in a hostile sexism condition. Participants played the role of interviewers after being led to believe that they were part of a training that sought to prepare them for job interviews. Depending on the condition, participants either received instructions from a recruiter who made a hostile sexist comment, a benevolent sexist comment, or a neutral comment. Results indicate that, consistent with past research on the topic (e.g., Barreto & Ellemers, 2005), women did not perceive a benevolent sexist comment made by the recruiter as sexist. However, regardless of whether or not they were offered unsolicited help from a male during the hypothetical

employment scenario, women in the benevolent sexism condition performed worse in a word-recall task than women assigned to the other conditions. Furthermore, the effects of benevolent sexism on performance were fully mediated by an increase of intrusive thoughts (which decrease state self-esteem, increase self-doubt, and decrease efficacy toward performance-based tasks). In the current study, I seek to replicate these trends as I study whether being a bystander to a sexist event affects cognitive performance outcomes.

### **Gender Identity and Hypervigilance toward Threat**

Research that examines the effects of sexism on women's cognitive performance has identified a strong gender identity as a necessary condition for the occurrence of the observed effect. Gender identity is a form of group identity, derived from the meaning people extract from their gender group. Gender identity is often defined as the likelihood that people consider their gender a fundamental part of their self-concept (Tropp & White, 2001). For example, a woman who strongly identifies with her gender-group consistently defines herself in terms of her gender in social settings, and is highly invested in women's issues in society. Given the importance that these strongly-identified women place on that aspect of their self-concept, it is no wonder that gender identity threat, or the act of bringing a negative aspect of one's gender group into saliency, instigates many harmful effects on its target. For instance, women whose gender identity is threatened display stress-induced physiological responses such as elevated cortisol levels (McHugh, Behar, Gutner, Geem, & Otto, 2010), increased cardiovascular responses (Belle, Scheepers, Van Laar, & Ellemers, 2011), and various psychological afflictions (e.g., anxiety; Eliezer et al., 2010).

Gender identity threat affects women psychologically by promoting hypervigilance toward gender-threatening cues in their immediate environment. In one of the first studies examining this effect, Kaiser, Vick, and Major (2006) led women to think that they would solve a problem with a sexist male and then tested their reaction times toward identifying the color of a string of consonants. Depending on the experimental condition, a gender-threatening or neutral word was introduced for 15 milliseconds prior to the introduction of the string of consonants. In all, those who were primed for gender-threat (i.e., made to think they would interact with a sexist man) spent more time identifying the color of the string of consonants than those who expected to interact with a more egalitarian male. Furthermore, participants spent the longest amount of time identifying the string of consonants after a gender-threatening word (i.e., ho, bitch) was introduced subliminally than when a neutral word was introduced the same way. The researchers interpreted these findings as evidence that women scan a potentially sexist environment in order to appraise and guard themselves against undesirable situations.

In a related study, Adams, Garcia, Purdie-Vaughns, and Steele (2006) threatened gender-identity by suggesting to female and male participants that their male instructor possessed sexist views. Only females who were assigned to the sexist condition performed worse on a logic test, rated the instructor as less competent, and reported less positive experiences than male participants. When males were told that a female instructor was sexist against men, the same effect did not occur. These results suggest that the threat was validated by a general awareness of sexism in society, beyond the confinements of the testing situation. The authors took these results to suggest that

traditional views of sexism should be re-conceptualized to include systemic forms of gender identity threat.

The idea that women scour their environment for gender threatening cues leaves one to wonder whether this phenomenon affects a target's cognitive abilities. After all, people possess a limited reservoir of cognitive resources that are often spent during a taxing task (e.g., interacting with outgroup members; Richeson & Shelton, 2007). Depletion of cognitive resources leaves people in a temporary vulnerable state, unable to regulate behaviors and thoughts. Thus, an effective way of measuring the extent of depletion is to measure one's inability to self-control. According to the strength model of self-regulation (Baumeister & Heatherton, 1996), self-control acts like a muscle, requiring strength and energy to function over a period of time. Like a muscle, self-control can become fatigued by a period of extended exertion, requiring idle time to regenerate. The state at which cognitive resources are depleted beyond functioning is also known as ego depletion. Conceivably, the task of scanning the environment for gender-threatening cues may exhaust women's finite mental resources, those that they would normally appropriate toward a more useful task. This ego depletion may leave them vulnerable to underperform in a cognitive task that requires attention and self-control, the premise of the present study.

### **Bystander Sexism**

Research on sexism has largely focused on the actual target of the sexist event as the sole victim of the occurrence. However, less is known about whether merely witnessing a sexist event can create similar intrapersonal effects. In the only study that examined women as bystanders to a sexist event, Chaudoir and Quinn (2010) looked at the impact of witnessing catcalls (i.e., an occurrence of hostile sexism) on intergroup

emotions. Female participants were asked to imagine that they were bystanders to a sexist event that involved a catcall remark or a neutral (control) greeting. Results supported the authors' hypothesis-- participants who imagined that they witnessed a catcall made to another female experienced more group-based anger toward men and a desire to move away from them altogether than those who were assigned to imagine hearing a neutral remark. These findings are compelling, but do not address the disjunction between imagining that one is a bystander to a sexist event and actually witnessing the event first-hand. After all, research shows that after women imagine themselves as victims, they tend to overestimate the negative effects of hostile sexism and underestimate the negative effects of benevolent sexism (Bosson, Pinel, & Vandello, 2010). Future research should account for this limitation of using hypothetical scenarios when examining the effects of bystander sexism on women.

## CHAPTER 2 THE PRESENT STUDY

In the current study, I extend previous research on the harmful effects of benevolent sexism by evaluating the extent to which witnessing a benevolent sexist event creates cognitive performance deficits. A small number of studies have examined performance decline as a consequence of sexism. Such studies, however, have limited their focus to test performance deficits outside the realm of ego depletion, by testing logic (Adams et al., 2006), autobiographical memory changes (Dumont, Sarlet, & Dardenne, 2010), and working memory deficits (Dardenne et al., 2007). Although these types of performance deficits may be due to a temporary depletion of cognitive inhibitory resources, or ego depletion, research needs to tackle this question directly so as to identify this phenomenon as the common denominator. To that end, a link between performance deficits as a consequence of sexism and ego depletion would coalesce a large number of past findings.

To test the proposed effects, I randomly assigned participants to witness either benevolent sexism or a neutral (control) event. I used a Stroop (1935) test to assess inhibitory behavioral constraints. The Stroop test is a color-naming test that has been used in numerous psychological studies in the past (e.g., Engle, 2002) to analyze the extent to which people struggle to suppress their natural behavior. In a similar vein as the current studies, an increasing amount of research has used the Stroop test to measure the effects associated with encountering an expectedly prejudiced social event on cognition, attesting to the reliability of this task (e.g., Richeson & Trawalter, 2005; Richeson, Trawalter, & Shelton, 2005).

I also tested performance decline by incorporating a Graduate Record Examination (GRE)-style reading comprehension task. This mode of testing cognitive performance has proven effective because logical reasoning, associated with reading and comprehending written text, requires the resources of a limited and costly cognitive processing system (e.g., Bargh, 1989, 1994). Thus, people with depleted cognitive resources show performance deficits in the comprehension of written text (Bargh, 1994). In fact, past research delineates complex thinking (i.e., comprehension of text) from simple mental activities (i.e., retrieval of general knowledge, memorization of nonsense syllables) in showing that performing the former depends highly on cognitive resources and the latter does not (Schmeichel, Vohs, & Baumeister, 2003). Thus, testing cognitive performance by way of a GRE-style reading comprehension task is appropriate and useful.

After considering past findings on sexism and performance, I generated the following *a priori* predictions:

**H1:** Women who witness benevolent sexism will perform significantly worse on measures of cognitive performance than those who witness a neutral event. This hypothesis extends past research by showing that witnessing benevolent sexism also promotes performance declines, much like witnessing hostile sexism (e.g., Chaudoir & Quinn, 2010)

**H2:** Women who witness benevolent sexism will experience more intrusive thoughts than those who witness a neutral event.

**H3:** Intrusive thoughts will mediate the effect of condition on cognitive performance decline. Hypotheses 2 and 3 are based on past results that show the important role of intrusive thoughts in cognitive performance deficits (e.g., Dardenne et al., 2007)

**H4:** The extent to which women identify with their gender group will moderate the hypothesized main effect of condition on performance. Research shows that gender identity threat promotes hypervigilance toward gender-threatening cues (the variable expected to promote performance declines; Kaiser et al., 2006). Thus, women who strongly identify with their gender group should display this effect more than those who identify less strongly.

## CHAPTER 3 METHOD

### Participants

Female participants ( $N = 88$ ) were recruited using the undergraduate psychology participant pool at the University of Florida. Given that the focus of the current study was on the detrimental effects of sexism among women, males did not take part in the present study. Participants were offered one experimental credit for their participation; experimental credits are used toward the fulfillment of general psychology class requirements. I used G\*Power 3.1 software and the results generated by Chaudoir and Quinn (2010) to conduct a power analysis for the current study. A  $d$ -estimate effect size of 0.353, using  $\alpha=.05$  and  $\text{power}=0.80$ , yielded an estimated minimum sample of 66 (2 groups of 33) for the proposed model to reach significance.

### Measures

#### Cognitive Performance

**Stroop test.** The test involves having participants name the color of text that appeared on the computer screen. Each word spells the name of a color that differs from the color of its letter font. Thus, the Stroop test measures attentional self-control by demanding that task-takers maintain the goal of calling out the color of the text and inhibit the natural tendency to read the words. The extent of ego depletion is determined by analyzing reaction times indexes. Two indices are measured, interference and facilitation. The index of interference reflects the additional time needed to respond when reading the word interferes with responding to the color. Thus, higher scores signify more cognitive depletion. The index of facilitation reflects the increased speed of reaction when color and word match. For the index of

facilitation, higher scores mean less cognitive depletion. In the current study, I used the Stroop test accessed through Inquisit by Millisecond Software (2003), version 1.33 (see [www.millisecond.com](http://www.millisecond.com)).

**Reading comprehension task.** The task includes a three-paragraph passage about how to use the scientific method to screen for melanoma (skin cancer). The task was obtained from [majortests.com](http://majortests.com) (Mathur, 2010). Following the passage were five questions of medium difficulty asking about relevant information found in the passage. Instructions directed participants to read the passage to its entirety and then answer the questions. In order to motivate participants to perform as quickly and accurately as possible, instructions indicated that the person who performs the best would be awarded a gift card at the end of the data-gathering process of the study. See Appendix A for a copy of the GRE-style task along with its questions that were provided by ETS, the maker of the GRE exam.

### **Intrusive Thoughts**

I created a questionnaire that was adapted from the State Self-Esteem Scale (Heatherton & Polivy, 1991). Such process was used by studies in the past (i.e., Dardenne et al., 2007) to address whether participants experienced intrusive thoughts during the Stroop test. Thus, this mode of testing has been demonstrated to be appropriate and effective in testing for cognitive processes that assess participants' ability to complete the task successfully. The measure contains 10 items that are assessed by a 9-point scale (1 = not at all; 9 = totally). The items included, "I thought that my performance would be poor," and "I felt my heart beating more strongly." The scale demonstrated high reliability among all of its items ( $\alpha = .88$ ). See Appendix B for the scale.

## **Gender Identification**

I assessed gender identification using the method utilized by Schmader (2001), a modified version of the Importance subscale of the Collective Self-Esteem Scale (Luhtanen & Crocker, 1992). This gender identification questionnaire includes four items that are anchored by a 5-point scale (1 = strongly disagree; 5 = strongly agree). The statements include, "Being a woman is an important part of my self-image" and "Being a woman is an important reflection of who I am." The scale demonstrated high reliability among all of its items ( $\alpha = .76$ ). See Appendix C for the scale.

## **Stigma-Consciousness**

To measure the extent to which individuals expect to face prejudice from others, Pinel (1999) devised a ten-item questionnaire. The Stigma-Consciousness Questionnaire (SCQ) was tested and validated on lesbian women (i.e., Lewis, Derlega, Clarke, & Kuang, 2006), gay males, Whites, Blacks, Asians, & women (Pinel, 2002). The questionnaire tests the extent of people's consciousness of their devalued status by asking questions such as: "My being female does not influence how men act with me" and, "Most men have a lot more sexist thoughts than they actually express." The response scale is a 7-point scale, where 1 = *strongly disagree* and 7 = *strongly agree*. Across six studies, the SCQ proved to be highly valid and sufficiently reliable ( $\alpha = .72$ ). Although I measured stigma-consciousness in the current sample, the current analyses do not focus on this variable nor was the variable part of my hypotheses. See Appendix D for this measure.

## **Demographic Variables**

I use a standard demographic questionnaire that asks participants for their age, sexual orientation, race/ethnicity, and relationship status. Participants are also asked

whether they knew any of the two research assistants, and the percentage of male friends that they currently have. See Appendix E for this measure.

### **Perceptions of Male Research Assistant**

Participants rated their perceptions of the male research assistant along the following traits: polite, domineering, protective, arrogant, friendly, obnoxious, logical, efficient, sexist, and fair. Given the diverging nature of the traits measured, I did not expect for the traits to exhibit high internal reliability. Thus, combining the traits into one main trait would be inappropriate. Nevertheless, the two traits that targeted the politeness measure (polite & friendly) achieved high internal reliability ( $\alpha = .72$ ). No other combination of traits achieved high reliability. See Appendix F for this measure.

### **Procedure**

After participants arrived at the lab, a male research assistant and a female research assistant (RA) escorted them to the lab room where the session took place. Three of the four male RAs were White, the other identified as Asian. All of the female RAs were White. Participants completed all measures online using the computers in the lab. Participants learned that the object of the study was to determine whether one cognitive task affects another after a break in between. After the online informed consent process, the research assistants (RAs) enacted one of two conditions. In the benevolent sexism condition, the female RA attempted to pick up a box. The male RA gently took the box from the female RA's hands and said, "let me get that for you, sweetheart. I do not want you to get hurt." The female RA made a facial expression of puzzlement and relinquished the box to the male RA. The sexist scenario is consistent with benevolent sexist views toward women as fragile. To ensure that the participant noticed the exchange, the female RA established a conversation with the participant

while the dramatization occurred. In the control condition, the male and female RAs had a very brief conversation about a class they were both taking as they carried the box out of the experimental room together.

Shortly after the dramatization, the female RA exited the lab room, leaving the male RA to conduct the rest of the experimental session. At that time, participants performed the Stroop color-naming task, using the software, Inquisit by Millisecond. After the Stroop task, the RA told participants that a 15-20 minute delay was required before starting the other cognitive task. During this delay, participants performed the reading comprehension task followed by the completion of all questionnaires of interest. Questionnaires were presented in the same fixed order to all participants.

First, participants completed the measure of intrusive thoughts, followed by the measure of gender identification. In addition, participants completed the stigma-consciousness questionnaire (Pinel, 1999). Lastly, participants completed the demographics questionnaire. At the end, participants completed manipulation check items on the computer before departing from the lab. The measure asked participants to rate their attitudes toward the male RA. The RA told participants that the purpose of the last measure was to control for any effects introduced by them (the experimenters) to the session. Participants were assured that their responses were completely confidential and neither RA would have access to their answers. During the final debriefing process, RA explained that the scenario witnessed was pre-planned, as well as other pertinent details about the study and session.

## CHAPTER 4 RESULTS

Of the 88 women who participated in the study, four expressed suspicion of our manipulation<sup>1</sup>. As a result, the data of these four participants were excluded from analysis. In addition, research assistants indicated having made errors in the sessions of two participants, causing the omission of such data. Errors included the male RA not greeting the participant appropriately when she came in to the lab or switching the order of presentation of the tasks. Two participants did not witness the exchange between RAs (our main manipulation) and were also excluded as a result. In total, I used the data of 80 participants in the present analysis. Of the eight excluded participants, three identified as White, three as Hispanic, and two as Black/African American.

### **Performance on the Stroop Task**

Stroop performance was evaluated using two distinct indices, interference and facilitation. For the index of interference, mean reaction time of the neutral trials (trials where a neutral figure appeared in one color) was subtracted from mean reaction time of incongruent trials (trials where a color name appeared in a color other than its semantic meaning) for all participants. The index of interference reflects the additional time needed to respond during incongruent trials--higher scores indicate more interference (more cognitive depletion). For the index of facilitation, mean reaction time of the congruent trials (trials where a color name appeared in a color that matched the semantic meaning of the word) was subtracted from mean reaction time of the neutral trials. The index of facilitation signifies the increased speed of reaction during

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<sup>1</sup> Suspicion involved expressing skepticism about the genuineness of the staged exchange between RAs. As a result, the data of these participants (three in the experimental and two in the control) were omitted from the study.

congruent trials--lower scores indicate less facilitation (more depletion). Consistent with customary procedures, the final scores of both indices represented the 20% trimmed distributions of reaction times that were log-transformed to better approximate normality (see Richeson, Trawalter, & Shelton, 2005). According to traditional Stroop research, people who experience cognitive deficits should show impairment on both forms of measurement (Cain et al., 2011). Both indices correlated negatively with each other ( $r = -.64$ ,  $p < .001$ ).

I conducted a between-subjects ANOVA in order to determine whether women across conditions differed on index of interference scores. Results indicated no difference in performance between conditions,  $F(1, 78) = 0.00$ ,  $p = .98$ . Women in the sexist condition did not exhibit more depletion in their index of interference scores ( $M = .171$ ,  $SD = 0.12$ ) than women in the control condition ( $M = .172$ ,  $SD = 0.13$ ). For the index of facilitation, results indicated a main effect of condition on index of facilitation reaction scores,  $F(1, 78) = 4.01$ ,  $p < .05$ ,  $\eta^2 = .05$ . Women in the sexist condition exhibited lower facilitation scores ( $M = -.042$ ,  $SD = 0.11$ ) than women in the control condition ( $M = .012$ ,  $SD = 0.13$ ). Thus, women who witnessed sexism showed higher degrees of cognitive impairment on the Stroop task than women who did not. In short, results lend evidence to Hypothesis 1, that women who witnessed a sexist event would experience higher degrees of cognitive depletion than women who witnessed a neutral event, but only by one of the Stroop indices.

### **Performance on the Reading Comprehension Task**

As a reminder, I predicted that participants who were exposed to the benevolent sexism event would perform worse on exercises that require a high degree of mental

resources. I created a composite score of performance by summing the number of correct responses on the GRE-style reading comprehension task. In this manner, higher scores indicated better performance. The mean performance score achieved by the total sample was 3.79 ( $SD = 1.32$ ), with scores ranging from one to six. Ten people, or 12.5% of the sample, achieved a perfect score of six. The distribution met conventional assumptions of normality (skewness and kurtosis scores were within  $\pm 1$ ). To test the hypothesis that those in the sexist condition performed worse, I conducted a one-way ANOVA using condition as the grouping variable and GRE performance scores as the dependent variable. Results provided no indication that condition affected performance across the whole sample,  $F(1, 78) = 1.07$ ,  $p = .31$ . Women in the sexist condition ( $M = 3.64$ ,  $SD = 1.27$ ) did not perform significantly worse than women in the control condition ( $M = 3.95$ ,  $SD = 1.37$ ). Thus, results generated from the reading comprehension task did not support the Hypothesis 1.

### **Experience of Intrusive Thoughts**

I conducted a one-way ANOVA to test whether women in the sexist condition experienced more intrusive thoughts than women in the control condition. Results indicated that women did not differ in the extent to which they experienced intrusive thoughts between conditions,  $F(1, 78) = 2.74$ ,  $p = .10$ . Women in the sexist condition ( $M = 2.31$ ,  $SD = 0.80$ ) did not experience significantly more intrusive thoughts than women in the control condition ( $M = 2.59$ ,  $SD = 0.69$ ). In fact, intrusive thoughts did not correlate significantly with any of the performance-based tests such as: reading comprehension scores ( $r = -.03$ ,  $p = .78$ ), Stroop index of interference ( $r = .08$ ,  $p = .48$ ), or Stroop index of facilitation ( $r = .02$ ,  $p = .83$ ). Thus, results did not support Hypothesis 2 or Hypothesis 3-- that women in the sexist condition would experience more intrusive

thoughts, or that intrusive thoughts would mediate the relationship between witnessing sexism and performance deficits.

### **Gender Identity as the Proposed Moderator**

I tested whether gender identity moderated the effects of condition on the three measurements of performance (reading comprehension scores, Stroop index of facilitation, and Stroop index of interference) by using the centered-product term method described in detail by Aiken and West (1991). Specifically, I regressed the performance indices on centered gender identity scores, the dichotomous condition variable, and their product term. A significant interaction occurred between condition and gender identity scores on the index of facilitation,  $R^2 = .11$ ,  $b = .07$ ,  $t(75) = 2.13$ ,  $p < .05$ . However, analyses yielded no significant interaction between condition and gender identity scores on index of interference,  $R^2 = .01$ ,  $b = -.03$ ,  $t(75) = -0.93$ ,  $p = .36$ , or between condition and gender identity on reading comprehension,  $R^2 = .02$ ,  $b = -.07$ ,  $t(75) = -0.19$ ,  $p = .85$ . Thus, I found partial validation to Hypothesis 4; Gender identity moderated the effects of condition on cognitive performance.

To further test the nature of the significant interaction, I conducted regression analyses separate for the sexism and control conditions by dummy-coding the condition variables. Results indicated that gender identity was marginally related to index of facilitation performance, but only for women in the sexist condition,  $R^2 = .11$ ,  $b = -.04$ ,  $t(77) = -1.94$ ,  $p = .06$ . In effect, less gender identity was associated with less cognitive depletion for women in the sexist condition. Gender identity did not predict index of facilitation for women assigned to the control condition,  $R^2 = .11$ ,  $b = .03$ ,  $t(77) = 1.11$ ,  $p = .27$ . Furthermore, a one-way ANOVA indicated a marginally significant main effect of condition on gender identity,  $F(1, 78) = 3.52$ ,  $p = .06$ ,  $\eta^2 = .04$ . As expected, women

who witnessed the sexist event reported higher gender identity ( $M = 3.91$ ,  $SD = .77$ ) than women who witnessed a neutral event ( $M = 3.56$ ,  $SD = .90$ ). In short, results lend support to the idea that my manipulation (the act of a man picking up a box for a woman) worked by making women more cognizant of their gender.

### **Perceptions of Male Research Assistant**

Research about benevolent sexism suggests that women often do not consider such type as true sexism. In fact, some women actively endorse benevolent sexist views, especially if sexism is prevalent in their culture (Glick & Fiske, 2001). Thus, women may rate a benevolent sexist man positively as long as the sexist event is subtle and could be misperceived as an act of chivalry or a courteous action. To test this hypothesis, I averaged participant ratings of the male RA along the following two positive traits: friendly and polite. The combination of these traits measured an overall “politeness” construct, and the two traits achieved high reliability ( $\alpha = .72$ ). A one-way ANOVA yielded a marginally significant main effect of condition on politeness ratings,  $F(1, 76) = 3.54$ ,  $p = .06$ ,  $\eta^2 = .05$ . Women in the sexism condition ( $M = 6.40$ ,  $SD = .89$ ) rated the male RA as more polite than women in the control condition ( $M = 6.0$ ,  $SD = 1.01$ ).

Given the relevant nature of perceptions of sexism to the overarching research question, I tested participant ratings on the extent to which they thought that the male RA was sexist. Ratings did not significantly differ between conditions,  $F(1, 78) = .943$ ,  $p = .33$ . The ratings of women in the sexism condition ( $M = 1.36$ ,  $SD = .96$ ) did not differ significantly from the ratings of women in the control condition ( $M = 1.18$ ,  $SD = .56$ ).

Current findings are consistent with existing research that shows women often do not consider benevolent sexism as true sexism (e.g., Barreto & Ellemers, 2005).

### **Supplemental Analyses**

To further examine the data, I compared the performance of White and non-White minority participants, separately. The rationale for combining all non-White minorities into a single group is based on research indicating that perceptions of sexism may be affected by cultural group values (i.e., Lee, Fiske, Glick, & Chen, 2010). For instance, although research shows that benevolent sexism exists cross-culturally, Glick et al. (2000) found predictable differences among cultures in endorsement of benevolent sexism. Specifically, women were more likely to endorse benevolent sexism in cultures where the overall levels of sexism were high. Level of education and literacy rates also affected degrees of endorsement of benevolent sexism. As may be the case for women in my sample whose families maintain distinct cultural values (i.e., Hispanics and Asians), minority group members may react differently to a benevolent sexist event. Furthermore, the fact that the male RA was almost always a White man (one of four RAs was Asian) may have affected perceptions of his actions, especially on the part of minority women.

Any non-White participant was designated as a minority. In this manner, African American ( $N = 14$ ), Asian ( $N = 6$ ), Hispanic/Latino ( $N = 13$ ), Native American ( $N = 1$ ), and other (Arabic and Pacific Islander,  $N = 4$ ) participants comprised the minority category. I conducted a 2 (condition)  $\times$  2 (participant minority status) factorial ANOVA to test whether condition interacted with minority status on reading comprehension performance. The sizes of the four cells comprised of 21 for the sexism White ethnicity condition, 21 for the sexism non-White minority condition, 25 for the control White

ethnicity condition, and 13 for the control non-White minority condition. The analysis revealed a marginally significant interaction,  $F(1, 76) = 3.54, p = .06, \eta^2 = .04$ . The interaction suggests that White and minority women were affected by the sexist event in different ways.

To further decompose this interaction, I conducted simple effects tests, separately evaluating the performance of White and minority women by condition. Interestingly, a main effect of condition on performance occurred only among minority women,  $F(1, 76) = 4.78, p < .05$ . Minority women in the sexist condition ( $M = 3.24, SD = 1.41$ ) performed significantly worse than in the control condition ( $M = 4.15, SD = 1.41$ ). The same effect did not occur for White women,  $F(1, 76) = 0.25, p = .62$ , whose performance in the sexist condition ( $M = 4.05, SD = 0.97$ ) did not differ significantly from the control condition ( $M = 3.84, SD = 1.38$ ). In contrast to results observed in reading comprehension performance, results did not yield a significant condition by minority status interaction on index of interference performance,  $F(1, 76) = 0.24, p = .62$ , or index of facilitation performance,  $F(1, 76) = 0.69, p = .41$ .

I tested for a possible interaction between condition and minority status on intrusive thoughts. As I previously reported, women, in general, did not differ in their experience of intrusive thoughts between conditions. However, although women did not show differences in intrusive thoughts between conditions, the case may still be that White women were not affected but minority women were still affected. A 2 (condition) X 2 (minority status) factorial ANOVA yielded no significant interaction,  $F(1, 76) = 0.48, p = .49$ . No further tests were conducted on the intrusive thoughts variable.

I conducted a factorial ANOVA to test the existence of a condition by minority status interaction on the averaged ratings of politeness displayed by the male RA. Indeed, I found evidence of an interaction on politeness ratings,  $F(1,74) = 6.53, p < .05$ ,  $\eta^2 = .08$ . I decomposed the interaction by conducting simple effects tests, comparing politeness ratings separately by condition (comparing White vs. minority women) and by minority status (comparing sexism vs. control condition). White women exhibited a main effect of condition on politeness ratings,  $t(76) = 3.10, p < .01$ . White women in the sexist condition rated the male research assistant as more polite ( $M = 6.61, SD = 0.57$ ) than did White women in the control condition ( $M = 5.76, SD = 1.04$ ). Such trend was not observed among minority women,  $t(76) = 0.49, p = .48$ , whose politeness ratings did not significantly differ between the sexism ( $M = 6.19, SD = 1.09$ ) and control ( $M = 6.42, SD = 0.84$ ) conditions. In the control condition, there was also a main effect of minority status on politeness ratings,  $t(76) = 3.10, p < .01$ . In the control condition, minority women ( $M = 6.42, SD = 0.84$ ) rated the male RA as more polite than White women ( $M = 5.76, SD = 1.04$ ). In short, results lend further evidence to the idea that White women, in particular, perceived the benevolent sexist event more positively than minority women and than the neutral event.

## CHAPTER 5 DISCUSSION

The current study examined whether witnessing a benevolent sexist event affected women's cognitive performance. I drew insight from research that shows people who expect to be the targets of prejudice actively scour their environment for threatening cues (e.g., Kaiser et al., 2006). Existing research shows that African Americans who expect to be the target of prejudice experience cognitive depletion during interactions with Whites (Richeson & Trawalter, 2005). Similarly, the current study tests whether women who expect to encounter sexism show performance deficits as a result of the depletion of their exhaustible cognitive resources. In addition, I examined the previously tested, mediating role of intrusive thoughts and the moderating role of gender identity on the proposed bystander sexism-performance link.

Results mainly validated most of my predictions. In general, women exhibited performance impediments in one of three performance measures, the index of facilitation. As expected, women who witnessed a man undermine another woman's strength based on his perception of her fragility exhibited less facilitation in responding, a sign of cognitive depletion as measured by the Stroop task. However, women who witnessed benevolent sexism did not perform worse in the reading comprehension task than women who witnessed the neutral event. When separating women by their minority status, non-White women exposed to sexism performed worse in the reading comprehension task than non-White women exposed to the neutral event, and White women in both conditions. In sum, all women exhibited some form of performance decline, lending strong support to the main hypothesis.

An explanation for the absence of the overall hypothesized main effect of condition on reading comprehension performance cannot be suggested without discussing the influence of minority status. After all, minority women performed expectedly and according to existing findings on sexism and performance (e.g., Adams et al., 2005; Dardenne et al., 2007). Why, then, were minority, but not White, women affected by benevolent sexism as measured by reading comprehension? Past experiences with prejudice may have largely driven the performance outcomes observed in minority women. After all, research shows that a wide array of minority groups in the U.S. experience group-based stigma and prejudice such as: women (e.g., Pinel, 2004), Asians (e.g., Son & Shelton, 2011), lesbians (e.g., Lewis, Derlega, Clarke, & Kuang, 2006), and the elderly (e.g., Hausdorff, Levy, & Wei, 1999). The more a person encounters prejudice, the more likely that person is to enter social settings expecting to be the target of prejudice (stigma-consciousness; Pinel, 1999).

In the case of the current findings, witnessing benevolent sexism may have reminded minority women with the stigma associated not only with their gender but also with their ethnicity. After all, three of my four research assistants were White men. For White women, the sexist event could have reminded them solely of gender-based stigma. Ethnic/race-based stigma, in addition to gender-based stigma, may have accentuated the effects of witnessing sexism on performance in the reading comprehension task. Indeed, research shows that women high in stigma-consciousness (race and gender based stigma) are hypervigilant toward environmental cues that indicate someone in the immediate setting may possess a bias against them (see Schmader & Croft, 2011 for a review of the topic). In this manner, witnessing a

White man discount the strength of another woman may have activated the vigilance system in minority women for their gender and for their ethnicity. Consequently, activation of both types of stigma took up valuable cognitive resources that could have been appropriated toward performing taxing tasks (i.e., reading comprehension).

Still, the question remains, why did White women remain unaffected by witnessing benevolent sexism in reading comprehension, a task that involves a high degree of cognitive effort? A clue is provided by ratings of the male RA. Whereas White women who witnessed sexism rated the male RA as more polite than White women who viewed the neutral event, this trend did not uphold for minority women. Taken together, findings suggest that White women appraised the sexist event positively, perhaps inferring that the male RA's action was an act of kindness. For minority women, no difference occurred between those who witnessed the sexist event and those who did not. Indeed, existing literature suggests that people are more likely to justify an ingroup member's ambiguous action as more benevolent than an identical action from an outgroup member (see social identity, Brewer & Brown, 1998). In the current study, most male RAs were non-minority White men, which may have contributed to high positive ratings by White women.

Unlike the previous study that examined benevolent sexism and performance (i.e., Dardenne et al., 2007), I did not find that intrusive thoughts mediated the relationship between perceptions of sexism and performance. Speculatively, the reason why the third hypothesis did not realize may be due to differences between the current sample and the sample of participants used in the original study on intrusive thoughts. Specifically, Dardenne et al. (2007) recruited an older sample of participants from a

government school. Such sample possessed a relatively low level of education (6-9 years of schooling) and socioeconomic status (SES). In contrast, participants in the current study were relatively young (18-22) and affiliated with a prestigious university in the Southeastern United States. Thus, whereas low SES women may have been affected by a sudden onset of negative thoughts about their abilities and skills, that may not be the case with more educated women—those perhaps more confident about their abilities to conduct cognitively taxing tasks. Dumont, Sarlet, and Dardenne (2010) tested intrusive thoughts and benevolent sexism in a college sample of women but fell short at testing the mediational relationship established by the first study (i.e., Dardenne et al., 2007). Future research should control for education and SES when studying benevolent sexism to determine the full extent of the interaction of these demographic factors.

Consistent with what was predicted, condition interacted with gender identity on one of the two Stroop performance measures. As a reminder, gender identity was inversely related to index of facilitation scores but only for women in the sexist condition. As expected, women with higher levels of gender identity demonstrated more depletion (lower scores on the index of facilitation). Current findings suggest that experiencing sexism may have increased women's gender identity, which, in turn, promoted more cognitive depletion. These findings are consistent with existing research that shows women scour their immediate environment for gender-threatening cues (i.e., Kaiser et al., 2006; Adams et al., 2006). The active search for threatening cues in the environment may occupy mental resources that would have been used to perform

optimally on the Stroop test. Nevertheless, future research should examine whether hypervigilance mediates the relationship of condition on Stroop performance.

Current findings extend existing research on benevolent sexism and performance in two important ways. First, current results provide evidence that women experience depletion in executive attentional resources after being exposed to benevolent sexism. Although existing research addresses cognitive performance by women, research of this type is mainly limited to studying domain-specific performance constructs (e.g., autobiographical memory, math performance). To my knowledge, no other research shows a link between benevolent sexism and general cognitive performance through the use of a Stroop test. In this manner, current findings may explain performance declines across various domains that require high executive functioning. For instance, women may show declines in memory and logic tasks because, much like current findings show, encountering sexism strips women of attentional resources, a necessity for high mental endurance. Second, current findings also extend existing research by showing that merely witnessing sexism is enough to promote detrimental effects on women. I consider this latter point essential to a comprehensive understanding of sexism because the bystander effects of sexism expose its far-reaching effects on women. For example, that women are vicariously affected by witnessing another women become the target of sexism suggests that any woman in the sexist setting may possibly experience an involuntary reduction in executive functioning.

Despite addressing many important questions about sexism and performance, the current study leaves a number of questions left to answer. Importantly, future research should determine the amount of time it takes for the negative effects of cognitive

depletion to dissipate in women. Finding the duration of cognitive depletion will expose the full extent of its negative effects on women. Along the same vein, research should seek out to determine whether the current findings also extend to those who perceive hostile sexism. If findings are particular to benevolent sexism, then the cause of cognitive depletion after exposure to benevolent sexism could be attributed to feelings of incompetence rising from witnessing another woman's abilities undermined by a man. Lastly, research becomes more useful as it attempts to correct the very problems that it seeks out to study. Thus, future research concerning benevolent sexism should focus on ways to reduce or eliminate its detrimental effects in women. For instance, given the moderating role of gender identity, it is seemingly plausible that women who self-affirm after witnessing benevolent sexism would show a higher degree of resistance to cognitive depletion. After all, self-affirmation empowers women by changing their focus away from the point of deficiency and toward a point of strength.

Like many other types of societal prejudices, sexism affects its targets cognitively, physically, and at the societal level. However, unlike many other types of prejudices, benevolent sexism often masks itself behind deceptively benign views. Chivalry, a key concept associated with benevolent sexism, is often used in society to describe a man who is gallant and courteous, especially toward women. However, often unbeknownst to women, acts of chivalry are often cognitively costly to any perceiver. As current findings inform, the effects of benevolent sexism are far-reaching, pervasive, and have the potential to affect any women present in the immediate setting. Benevolent sexism, in this manner, should be considered more harmful than previously thought due to the possibility of vicarious contagion.

## APPENDIX A READING COMPREHENSION

The standard methods of science proceed from observations to hypotheses to testing these hypotheses in controlled experiments. However, it would be a mistake to suppose that every hypothesis that comes out of observation lends itself to rigorous scientific scrutiny. There are, in fact, many questions that can be asked of science that science is not in a position, for one reason or another, to answer. (Such unanswerable questions cannot strictly be termed hypotheses, since a hypothesis must be testable.)

The recent debate over melanoma (skin cancer) screening provides an interesting example of this area of ‘science that is not scientific’ or ‘trans-science’ as a few eminent thinkers have termed it. Let’s start with the observations. There has been an increase in the number of early-stage melanoma cases over the last twenty years. The incidence, measured in cases per thousand people, in the United States has doubled since 1896. As a result of the reported numbers, some physicians recommend screening for melanoma. The ‘hypothesis’ that is implied here is that screening for melanoma will decrease the death rate from the disease. But how do we test it?

The conventional way to evaluate the effectiveness of a medical technique is the double blind trial. In this case we would have to assign some people to receive screening and some control people would not be screened. Then we would look at the death rate for melanoma in the two groups. The problems are logistic and ethical. If the answers are to reach statistical significance we need very large numbers and we need to follow people over whole lifetimes, neither of which is practical. And how do we decide who is to receive what might be a life-saving screening and who will be denied its potential benefits?

The data collected thus far on the effectiveness of screening is, not surprisingly, equivocal.

---

**1.** The author would apparently agree with which of the following? (*Select ALL answer choices that apply*)

- A. The effectiveness of screening for melanoma is not proven
- B. Double blind trials are the best method to evaluate
- C. The death rate from melanoma is rising rapidly

**2.** The word in bold-face in paragraph 2 is placed in inverted commas to

- A. Suggest that the contention in the same sentence cannot be tested scientifically
- B. Emphasize the importance of framing hypotheses correctly
- C. Draw attention to the main word in the sentence
- D. Indicate that the author is using someone else's view
- E. Add weight to the author's view of the correct way to evaluate melanoma

**3.** Which of the following does the author mention as an example / examples of the 'reasons' mentioned in the highlighted sentence? (*Select ALL answer choices that apply*)

- A. Insufficiency of sample size
- B. Ethical considerations
- C. Ambiguous data

**4.** Answer this question based on the information in the paragraph below. French cuisine is highly regarded all over the world. Yet in Paris there are more American restaurants selling burgers and fries (which many people now class as ‘junk food’) than there are in any other European capital city. Obviously the French are very fond of ‘junk food’, and are not too proud to eat it. Which of the following, if true, would most weaken the author’s contention?

- A. There are also a larger number of Lebanese restaurants in Paris than there are in other European capital cities
- B. French Cordon Bleu cuisine is very expensive
- C. The number of French tourists eating in New York burger restaurants is very low
- D. Junk food is actually has high nutritional value when eaten in moderation
- E. There are an unusually large number of American tourists in Paris who eat at burger joints

**5.** Answer this question based on the information in the paragraph below. It is not unusual to see the ball fall into a black slot on a roulette wheel four times in a row. But for it to fall five or six times in a row into the same color is very unusual. Therefore you can win money by waiting for a run of five of the same color and then betting against that color. If the roulette wheel in question is a fair wheel, which of the following observations or facts, if it were true, would best reveal a fallacy in the logic?

- A. If there were a reliable way to win at roulette it would be well known by now.
- B. It is hard for a player to keep track of what went before for the time required.

- C. The probability of getting a particular color decreases with the number of times the color has appeared.
- D. The probability of getting a particular color is always the same no matter what has gone before.
- E. A person who makes money this way once or twice, will carry on to lose that money after a few more times.

## APPENDIX B MEASURE OF INTRUSIVE THOUGHTS

Please rate feelings and thoughts you may have experienced during the task you just performed.

|                 |                   |               |                |                |
|-----------------|-------------------|---------------|----------------|----------------|
| 1<br>Not at all | 2<br>A little bit | 3<br>Somewhat | 4<br>Very much | 5<br>Extremely |
|-----------------|-------------------|---------------|----------------|----------------|

I felt like I wasn't doing well.

I felt confident about my abilities.

I felt my heart beating more strongly.

I wasn't sure about the rules associated with the task.

I felt frustrated or rattled by my performance.

I felt as smart as others.

I felt that I had less scholastic ability than others.

I felt self-conscious.

I felt good about myself.

I felt inferior to others.

## APPENDIX C GENDER IDENTIFICATION SCALE

Please indicate the extent to which you agree or disagree with each of the following statements by circling the appropriate number below.

Being a woman is an important part of myself-image.

1                  2                  3                  4                  5  
Strongly disagree                  Strongly agree

Being a woman is unimportant to my sense of what kind of person I am.

1                  2                  3                  4                  5  
Strongly disagree                  Strongly agree

Being a woman is an important reflection of who I am.

1                  2                  3                  4                  5  
Strongly disagree                  Strongly agree

Being a woman has very little to do with how I feel about myself.

1                  2                  3                  4                  5  
Strongly disagree                  Strongly agree

## APPENDIX D

### STIGMA-CONSCIOUSNESS QUESTIONNAIRE

Please indicate the extent to which you agree with each of the following statements by clicking on the appropriate number below.

Stereotypes about women have not affected me personally.

|                      |   |   |   |   |   |                   |
|----------------------|---|---|---|---|---|-------------------|
| 1                    | 2 | 3 | 4 | 5 | 6 | 7                 |
| Strongly<br>Disagree |   |   |   |   |   | Strongly<br>Agree |

I never worry that my behaviors will be viewed as stereotypical of my gender.

|                      |   |   |   |   |   |                   |
|----------------------|---|---|---|---|---|-------------------|
| 1                    | 2 | 3 | 4 | 5 | 6 | 7                 |
| Strongly<br>Disagree |   |   |   |   |   | Strongly<br>Agree |

When interacting with men, I feel like they interpret all my behaviors in terms of the fact that I am a woman.

|                      |   |   |   |   |   |                   |
|----------------------|---|---|---|---|---|-------------------|
| 1                    | 2 | 3 | 4 | 5 | 6 | 7                 |
| Strongly<br>Disagree |   |   |   |   |   | Strongly<br>Agree |

Most men do not judge women on the basis of their minority status.

|                      |   |   |   |   |   |                   |
|----------------------|---|---|---|---|---|-------------------|
| 1                    | 2 | 3 | 4 | 5 | 6 | 7                 |
| Strongly<br>Disagree |   |   |   |   |   | Strongly<br>Agree |

My being a woman does not influence how men act with me.

|                      |   |   |   |   |   |                   |
|----------------------|---|---|---|---|---|-------------------|
| 1                    | 2 | 3 | 4 | 5 | 6 | 7                 |
| Strongly<br>Disagree |   |   |   |   |   | Strongly<br>Agree |

I almost never think about the fact that I am a woman when I interact with men.

|                      |   |   |   |   |   |                   |
|----------------------|---|---|---|---|---|-------------------|
| 1                    | 2 | 3 | 4 | 5 | 6 | 7                 |
| Strongly<br>Disagree |   |   |   |   |   | Strongly<br>Agree |

My being a woman does not influence how people act with me.

|                      |   |   |   |   |   |                   |
|----------------------|---|---|---|---|---|-------------------|
| 1                    | 2 | 3 | 4 | 5 | 6 | 7                 |
| Strongly<br>Disagree |   |   |   |   |   | Strongly<br>Agree |

Most men have a lot more sexist thoughts than they actually express.

|                      |   |   |   |   |   |                   |
|----------------------|---|---|---|---|---|-------------------|
| 1                    | 2 | 3 | 4 | 5 | 6 | 7                 |
| Strongly<br>Disagree |   |   |   |   |   | Strongly<br>Agree |

I often think that men are unfairly accused of being sexist.

Most men have a problem viewing women as equals.

## APPENDIX E

### DEMOGRAPHICS VARIABLES

Please answer the following questions about yourself. Remember that your answers are completely confidential and no identifiable information will be associated with your responses.

How old are you? \_\_\_\_\_ Years

Please indicate what you consider your sexual orientation to be. (Choose the one best descriptor).

Lesbian/gay     Bisexual     Heterosexual/straight

What is your relationship status?

Single     In a relationship with a woman     In a relationship with a man

Married

Which of the following ethnic group(s) do you consider yourself a member of? You can check multiple groups.

African American

Asian American

Hispanic

Native American

Caucasian/White

Other: \_\_\_\_\_

Are you aware of any known stereotypes associated with female performance on the cognitive color-naming task you participated in earlier?

Yes     No

If you answered "yes", please write the stereotype(s) you are aware of concerning the color-naming task you performed.

Did you know either one of the research assistants prior to today's experimental session?

Yes     No

Please indicate what percentage of your close friends (those you have known for at least one year) are males.

Less than 10%

10% - 20%

20% - 40%

40% - 60%

60% - 80%

Over 80%

**APPENDIX F**  
**PERCEPTIONS OF MALE RESEARCH ASSISTANT**

Please rate both research assistants along the character traits described below. The object of your ratings is so that we can control for any bias introduced by the experimenters. Be as honest as possible, the RA will not see your responses.

Polite.

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

Domineering.

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

Protective.

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

Arrogant.

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

Friendly.

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

Obnoxious.

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

Logical.

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

Efficient.

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

Sexist.



Fair.



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## BIOGRAPHICAL SKETCH

Carlos Garrido was born in Barquisimeto, Venezuela, where he lived for the first nine years of his life. He is the middle of three children and received a very traditional up-bringing. His parents migrated to the United States in 1989 and settled in Orlando, Florida. His family has always been strong endorsers of higher education; they consider it a vehicle toward upward mobility. Exposure to this mentality and to different cultures early in his childhood drives Carlos's interest for the study of human experiences. He enjoys evaluating the different components that make up minority experiences in the United States and abroad.

Carlos has spent a considerable amount of time living in this nation's largest cities. He moved to Chicago and attended the University of Illinois at Chicago. Carlos graduated in 2008 with a bachelor of arts in psychology and sociology (cum laude, highest distinction from both departments). He also lived in New York City (Manhattan's Upper West Side) until the summer of 2010 when he moved to Gainesville, FL to pursue graduate education in social psychology from the University of Florida. At this time, Carlos has obtained a Master's of Science degree in social psychology with the plan to obtain his Ph.D. in three years. Carlos has learned so much about himself and others by exposing himself to various geographical locations and cultures. Carlos values diversity and has a keen interest in learning about different cultures.