

THE RELATIONSHIPS BETWEEN SOCIAL SUPPORT AND THREE FORMS OF SEXISM:
CAN SOCIAL SUPPORT ALLEVIATE THE EFFECTS OF SEXISM?

by

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B.A., Brigham Young University, Hawaii, 1998
M.S., Kansas State University, 2007

AN ABSTRACT OF A DISSERTATION

submitted in partial fulfillment of the requirements for the degree

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Department of Psychology
College of Arts and Sciences

KANSAS STATE UNIVERSITY
Manhattan, Kansas

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Abstract

Research on contemporary sexism suggests that sexism has many different forms and they influence women differently. Evidence shows that women who experience subtle forms of sexism (e.g., modern and benevolent sexism) feel anxious and less competent, yet are less likely to identify these forms of sexism as prejudice against women. Because research suggests that social support is related to better psychological outcomes, we hypothesized that higher levels of perceived social support would be associated with better psychological outcomes among female participants who experienced sexism. In addition, receiving a supportive message after experiencing sexism would buffer the negative psychological effects of sexism, and thus the participants would perform better on a problem-solving task. However, the results only partially supported the hypotheses. Higher levels of perceived social support were indeed associated with better psychological outcomes, but participants who experienced sexism did not differ significantly from those who did not experience sexism regarding psychological outcomes. Further, receiving social support after experiencing sexism did not produce significant improvements on the problem-solving task, though participants who experienced modern sexism did report an increase in hostile affect if they did not receive social support. Possible reasons for the findings are discussed.

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Chapter 1 - Introduction

The Relationships Between Social Support and Three Forms of Sexism: Can Social Support Alleviate the Effects of Sexism?

Any girl can be glamorous. All she has to do is stand still and look stupid. (Hedy Lamarr, actress, inventor)

In hope of helping America fight in World War II, Hedy Lamarr, the actress who was named “the most beautiful woman in the world,” invented the concept of the frequency-hopping system to prevent torpedoes from being jammed by enemies. However, this advanced concept, which eventually became the foundation of modern communication technologies such as cell phones and wireless internet, was not taken seriously at that time (Braun, 1997). When she expressed her interests to work at the National Inventors Council, she was persuaded to stay in Hollywood and raise money for war bonds instead (“Hedy Lamarr,” 1997).

It is difficult to tell whether the dismissing of Ms. Lamarr for helping in the Council was sexist or not. It is possible that the advice of using Ms. Lamarr’s celebrity status to raise money was for practical reasons, and therefore was not prejudice. After all, she later did faithfully raise a lot of money by selling kisses: in one instance, she raised 7 million dollars in one single night (Braun, 1997). However, a person higher in genuine prejudice who does not want to acknowledge her intellectual competence can also use the same logic and argue that the Council did not need her help: she is a movie star with a beautiful face, and therefore should make a good use of it. That is the thing she is supposed to do because she is a beautiful woman.

Some 70 years later, prejudice against women is still in existence and prevalent, and people with genuine prejudice still find justifications to rationalize it. Surprisingly, though social

psychologists have bestowed tremendous efforts in the study of stereotype and prejudice since 1930s, their focuses were mainly on prejudice related to race, religion, or occupation; gender inequality issue did not draw researchers' attention until women's movement in the 1970s (Rudman & Phelan, 2007; Swim, Aikin, Hall, & Hunter, 1995). Rudman and Phelan (2007) reasoned that prejudice against women was too widespread to be seen as problematic; even women themselves did not see prejudice against women as sexism, and it therefore did not inspire research interests.

The late start to research may explain why sexism is still surrounded by misunderstandings. According to Swim and Hyers (2009), there are three myths associated with sexism. The first myth is that sexism is not really that harmful. For example, a sexist may claim that he is not harassing but flirting, normalize physical or emotional abuse of women, trivialize the unfair treatments women receive, claim that traditional gender-role divisions (men as providers and women as nurturers) are the best for the functions of the families, or point out that though men may be harsh to women, they also protect and cherish them. Those rationalizations normalize gender inequalities and trivialize mistreatments toward women, and make people believe that these are too common to call them harmful. The second myth is that women in fact enjoy the lesser status role and choose to comply with it. For example, people with higher sexism may suggest that many women choose to stay in abusive relationships even when opportunity for escape arises. Women wear makeup and/or sexy dresses to attract men's attention, and therefore subject themselves to being sexual objects. Or women willingly do more domestic work in exchange of men's protection and cherish. Those examples imply that women themselves ask for different treatments; they want special attention or protection from men and therefore comply with stereotypes. The third myth is that sexism is rare. People with higher

sexism may argue that men and women in the modern society are equal and share the same opportunities, and the hostility toward women is no longer a problem. By suggesting these arguments people can easily deny the existence of sexism. After all, even a great number of women themselves say they do not experience sexism.

However, research has provided clear evidence that women still experience prejudice in interpersonal encounters because of their gender. For example, Benekraitus and Feagin's (1995) study of women's reports of sexist experiences concluded that sex inequality may in fact be increasing in recent years. Swim, Hyers, Cohen, and Ferguson (2001) asked female students to keep diaries recording incidents they experienced or observed that were prejudiced against women. The results indicated that the participants faced on average one to two sexist encounters every week that were severe enough to reduce their self-esteem and increase feelings of anger and depression. Apparently, sexism is far from harmless, enjoyable, or rare.

If the research evidence about sexism is obvious, why the prevalence of the myths? One of the key factors lies in the difficulty of recognizing prejudice against women. A general misconception about sexism is that it is manifested only by direct hostile or degrading attitudes toward women (Glick & Fiske, 1996). Indeed, there are people who still endorse old-fashioned sexism and hold hostility against women (Glick & Fiske, 1996; Swim et al., 1995), but in many cases contemporary sexism is expressed in much more subtle ways. That is, sexism in fact has many different forms. In these proposed studies, we will examine some different forms of sexism: old-fashioned sexism (Shields, 1975; Swim et al., 1995; Swim & Hyers, 2009), ambivalent sexism (Glick & Fiske, 1996, 2001), and modern sexism (Swim et al., 1995).

Chapter 2 - Literature Review

Gender Differences and Old-Fashioned Sexism

Sexism, according to Swim and Hyers (2009), is defined as the negative beliefs, attitudes, and behaviors against individuals simply based on their gender. This gender-based prejudice has existed since the dawn of civilizations, and one of the most common excuses was the presumed gender differences. Swim et al. (1995) suggested that old-fashioned sexism consists of unconcealed negative stereotypes associated with women. It has three components: first, endorsement of traditional gender roles (e.g., women should stay home and take care of children and men should work hard and lead the family); second, support for different treatment of people based on their genders (e.g., discourage women from participating sports or higher positions at work); and third, beliefs that women are less competent than men (e.g., women are relatively not as smart or logical). These blatant prejudiced attitudes and stereotypes are mostly based on one justification: women are very different from men—they are relatively inferior.

The idea that women are inferior to men has been part of most civilizations since the beginning of history. Interestingly, as science started to rapidly develop in recent centuries, what scientists did first was not to challenge this idea—but to attempt to verify it. Shields (1975) reported some examples of so called “scientific studies” in 19th century that provided evidence of women’s being the weaker sex: some vaguely claimed that women’s brains suffered from “imperfections;” some suggested that female brains’ frontal lobes were less developed and therefore did not function as well as men’s; some found faults on other brain structures such as the corpus callosum and parietal lobes, or the complexity of gyri and sulci; and some argued that women’s relatively smaller brain sizes indicated that they were less intelligent. The famous

neuroanatomist Paul Broca was among those scientists who firmly disputed higher education for women. He and his colleagues argued that because of women's relatively lighter brains (they did not take women's smaller body sizes into account), women were just not capable of thinking.

His coworker, G. LeBon, stated the following in 1879 (Gould, 1981):

All psychologists who have studied the intelligence of women, as well as poets and novelists, recognize today that they represent the most inferior forms of human evolution and that they are closer to children and savages than to an adult, civilized man. They excel in fickleness, inconstancy, absence of thought and logic, and an incapacity to reason. Without doubt there exist some distinguished women, very superior to the average man, but they are as exceptional as the birth of any monstrosity, as, for example, of a gorilla with two heads; consequently we may neglect them entirely (pp. 104-105).

From these pieces of evidence, which from contemporary perspectives are ridiculous, people clung to the belief of women's inferiority and therefore legitimized women's lesser status. The statement made by Mobius (1901) about a century ago quite nicely summarized the general attitude of population toward women in that era: "All progress is due to man. Woman is like a dead weight on him" (p. 629).

Not until the mid-20th century did researchers start to conduct more objective studies regarding gender differences (Swim & Hyers, 2009). The goal of these studies was to demonstrate that the assumptions of significant differences between men and women were unsound. However, surprisingly, after years of research, the evidence revealed mixed findings, sometimes suggesting confirmation of gender stereotypes (Eagly, 1995; Swim & Hyers, 2009). For example, studies found that women are relatively more capable of decoding nonverbal messages (Hall & Carter, 1999), expressing emotions (Kring & Gordon, 1998), trusting and

nurturing (Feingold, 1994), and are more communal (Eagly, 1995); while men are relatively more physically aggressive (Swim, 1994) and agentic (Eagly, 1995). Nevertheless, these findings do not indicate women's inferiority; they instead indicate strengths and weaknesses of both sexes (Eagly, 1995).

If there are reliable gender differences, is it legitimate to treat people differently according to their genders? If some gender stereotypes are in fact correct, is perceiving men and women differently still prejudice? Glick and Fiske (2002) suggested that the problem of prejudice against women does not lie in whether the stereotypes are correct or not. The problem, they argued, lies in using the stereotypes to justify placing women in disadvantaged positions (e.g., women are nurturers and therefore should be staying at homes, being cherished and protected by men instead of seeking works and do "men's job"). Furthermore, research suggests that these differences are not the consequences of innate abilities or biological explanations, but of other factors such as socialization (Swim & Hyers, 2009). In other words, it is possible that the sexism in the society causes conformity pressure to enable people's thoughts and actions in gender-appropriate ways, and as a consequence leads to true gender differences. It produces a self-fulfilling prophecy. Therefore, though there may be significant gender differences, they should not be used as justifications to treat people differently according to their genders, because any excuses that deprive a gender group of equal rights and privileges is prejudice. In fact, there is a form of sexism that is based on seemingly harmless and positive gender differences: ambivalent sexism (Glick & Fiske, 1996, 2001).

Ambivalent Sexism

Prejudice against women is not always negative in appearance. There are many positive traits and qualities associated with women. For example, a mother's unconditional love and sacrifice for her own children is one of the most praised and admired qualities a human being can possess; the saying "behind every successful man there is a woman" also suggests women's good qualities of being supportive and willing to sacrifice personal needs for their men and families. These traits depict some positive images of women, and they are appreciated throughout human history. But if we carefully examine these positive images, they are not so positive: the problem is that they limit women to restricted roles. According to Glick and Fiske (1996, 2001), these qualities, though seemingly good, imply women to be delicate and graceful but less competent, and thus implies women should submit to men's dominance. As a consequence, this benevolent attitude is a different form of sexism; a sexism that is "sugarcoated," or as Jackman (1994) referred, "the sweetest persuasion" (p. 9). Research suggests that the sugarcoating indeed makes it easier to swallow: women are less likely to recognize this attitude as sexism. For example, Swim, Mallett, Russo-Devosa, and Stangor (2005) had male and female participants judge a list of sexism scales, beliefs, and behaviors in terms of how sexist they were. The results showed that participants were more likely to recognize blatant expressions of prejudice as sexist (e.g., "Telling derogatory jokes about women"), but were less likely to recognize statements that displayed women in delicate and communal stereotypes as sexist (e.g., "Women should be cherished and protected by men," "Many women have a quality of purity that few men possess"). The participants did not define these seemingly benevolent attitudes as sexism and as a result saw them as more acceptable.

This strong ambivalent attitude is one difference between sexism and other forms of prejudice Glick and Fiske (1996, 2001). The old saying: "Women: cannot live with them, cannot

live without them” exactly portrays an ambivalent attitude toward women: hostile feelings that see women as weaker and inferior, yet at the same time kind feelings that see women as nice and gentle. The Ambivalent Sexism Inventory (Glick & Fiske, 1996) thus was developed to tap these two opposite attitudes: the attitude of antipathy against women, and the warm and positive yet restricted expectations toward women. No other forms of prejudice seem to have such two seemingly strong contradictory attitudes coexist at the same time. Glick and Fiske termed these two forms of sexism as hostile and benevolent. They are the two components of men’s ambivalent attitudes toward women.

Hostile sexism

Glick and Fiske (1996) observed that hostile prejudice against women has three sources: paternalism, gender differentiation, and heterosexuality. First, paternalism refers to attitudes that are similar to how a father relates to his child. Relating this attitude to sexism, a person higher in hostile sexism sees women as an inferior sex, not as competent as men, and thus should be educated and dominated by men. This hostile attitude toward women is termed *dominative paternalism*. It suggests the belief and feelings that women should submit to the authority of men, like children to their fathers. Second, gender differentiation as a source of sexism refers to an emphasis on stereotypical gender differences: that men are competitive in nature and women are born to be delicate. A person higher in sexism justifies the unequal gender status using *competitive gender differentiation*, suggesting that because only men possess necessary traits to manage and direct social institutions properly, they should be the ones that hold the power. Finally, heterosexuality serves as a source of sexism because heterosexual romantic relationships are perceived by both men and women as important sources of happiness and psychological

closeness—and women are the gatekeepers of this source. This creates feelings of vulnerability and dependency among men, because they must rely on women for this important source of happiness. Thus, a person higher in sexism possesses *heterosexual hostility* and will perceive women as the creature using their heterosexual power to manipulate men, purposely weakening men's dominating power, and therefore getting whatever they want.

Hostile sexism (Glick & Fiske, 1996, 2001), therefore, suggests an overt attitude of antipathy toward women, wanting to dictate them, perceiving them as less capable of reasoning and logical thinking, and fearing that they are trying to control men through their feminist ideology or sexuality. The sources of hostile sexism stem from *dominative paternalism*, *competitive gender differentiation*, and *heterosexual hostility*. More specifically, a person higher in hostile sexism expresses hostility toward women by the desire and justifications to dominate women and to preside over women, but also resent women's heterosexual power.

Benevolent sexism

The positive traits associated with women imply justification for limiting women in restricted roles. They are perceived as not competent (but more nurturing, kind, or helpful), and thus should be led by men and support them. The assumption that women are not as capable of men's work and are in need of men's protection is called benevolent sexism. Benevolent sexism also stems from paternalism and gender differentiation, the same sources that generate hostile sexism. First, paternalism not only refers to the desire of domination, but also the desire of protection, like a father protects his child (*protective paternalism*). Therefore, a person higher in benevolent sexism persists that men should take care of and lead women as fathers take care of and lead their children. Second, though men assume competitive traits to justify their power

over women, they also realize their dependence on women as source of comforts and nurture (e.g., as wives and mothers), and therefore associate some non-competitive positive traits with women. Those traits, though positive, limit women's roles to those complementary to men (*complementary gender differentiation*). Specifically, men and women are perceived to have different but balancing qualities (e.g., men are competitive and women are nurturing); women are seen as lacking what men have, but can complete men with their nurturing and sensitive natures. Their roles are to support men to be competitive and to succeed, and hence they are perceived as accessories instead of equals.

Thus, people higher in benevolent sexism perceive women as having many virtues but not competence, and thus justifies and supports the system of gender inequality—because women are “not able enough to do men's jobs.” It confines women in “positive” stereotypes such as warm, nurturing, pure, and empathic; that women should be protected, cherished, adored, and provided for, and as a consequence implies restricting women to traditional gender roles (e.g., men as providers and women as dependents).

The relationship between hostile and benevolent sexism

The attitudes of hostility against women and benevolence toward women seem contradictory, but research found that they are positively correlated (Glick & Fiske, 1996). How can two seemingly opposing attitudes positively correlate with each other? Glick and Fiske suggested that the seemingly opposite evaluations of women in fact are consistent with each other. For example, a man higher in sexism can scorn women as incompetent while at the same time believing that women need protection. Furthermore, individuals higher in sexism often divide women into two groups: the “good” women who strive to fit themselves into the

traditional roles and the “bad” women who dare to step out of the boundary and challenge the traditions. Thus, the contradicting attitudes are now consistent: a man can love the good women and hate the bad women, though his feelings toward women as a whole are still ambivalent.

Comparing ambivalent sexism and racism

Allport (1954) suggested that prejudice tends to be a generalized attitude. That is, a sexist may as well be a racist, an anti-Catholic, or an anti-any-out-group. As a consequence, there should be a relationship between sexism and racism. Indeed, Glick and Fiske (1996) suggested some shared characteristics between ambivalent sexism and other forms of racism, such as *aversive racism* (Gaertner & Dovidio, 1986) and *symbolic racism* (Kinder & Sears, 1981; McConahay, 1986). First, similar to the prejudice toward African Americans, which has become an automatic process (because of socialization; see Crandall & Eshleman, 2003; Devine, 1989), the prejudice toward women is also automatic. Second, whether or not a person higher in prejudice person expresses her or his prejudice depends on the situation. These two theories of racism suggest that because people do not want to appear as racists, they tend to respond nicely to African Americans unless there are non-racist excuses for them to safely release their prejudice. Ambivalent sexism suggests the similar attitude: a person higher in sexism will respond nicely to “good” women who fit into stereotypes but respond badly to “bad” women who he or she perceives as threatening.

However, there are also some fundamental differences between ambivalent sexism and racism (Glick & Fiske, 1996). According to aversive racism and symbolic racism, people higher in racism do not show their prejudice mainly because they desire to preserve positive self images. Ambivalent sexism, alternatively, suggests that people higher in sexism do have

positive feelings toward women. Phrased differently, people higher in racism have the conflicts between genuine prejudice and egalitarian beliefs, but among people higher in sexism there are genuine positive and negative feelings for women, and these two feelings are not conflicting. Indeed, because the study of ambivalent sexism derived the concept from the study of *ambivalent racism* (Katz & Hass, 1988), that suggests that prejudice against both race and sex involves ambivalent feelings. However, the pro-Black feelings in ambivalent racism can be more like “showing pity” rather than genuine fondness (Gaertner & Dovidio, 1986). Benevolent sexism, on the other hand, is a genuine fondness toward women, as long as the women stay in their restricted roles. Therefore, racism involves two different and conflicting feelings (e.g., preserving positive self image versus genuine prejudice), while sexism involves two different but consistent feelings (e.g., perceiving women as the weaker sex versus perceiving women as in need of men’s protection).

Furthermore, an interesting difference between sexism and racism is heterosexuality. Women are in a unique position as a subordinate group: they possess heterosexuality as an important resource that men desire and depend upon (Glick & Fiske, 1996). In other words, the more powerful group (men) depends on the subordinate group (women) for an important resource (sexuality). As we have stated previously, this creates feelings of vulnerability and dependency among men higher in sexism, which leads to their resentment. Regarding racial relationships, we do not see the subordinate groups systematically possessing any resources that the powerful groups desire. This relationship is only found between men and women.

Modern Sexism

Ambivalent sexism measures prejudice against women by examining two different genuine feelings toward women. However, it is not the only approach to understanding sexism. Inspired by research on *modern racism* (e.g., McConahay, 1986), Swim et al. (1995) suggested that sexism, like racism, has transformed from a blatant old-fashioned expression of prejudice into a much more subtle and covert form. The transformation of racism, according to McConahay (1986), follows societal changes: before the civil rights movement, people did not need to hide their prejudice against African Americans, and many laws actually discriminated against them. By the year 1945, the laws across Northern and Southern states prohibited African Americans from enjoying the same rights as White Americans. However, due to the efforts of the civil rights movement, the discriminating laws were replaced by new non-discriminating laws, and openly expressing prejudice against people of different races was not perceived as acceptable anymore. Therefore, people who harbor prejudice against other races learn to suppress their genuine biases in order to comply with social norms, and only when an excuse is available or in ambiguous situations is the prejudice released (Crandall & Eshleman, 2003). Swim et al. (1995) observed that women have parallel experiences with minorities regarding being the targets of prejudice. For example, research suggests that between the years of 1937 and 1988, the number of people accepting nontraditional roles for women (e.g., married women having employment) has increased about four-folds (Myers, 1993). However, family duties are still assumed mostly by women, and unequal treatment is still common in the workplace (Biernat & Wortman, 1991; Swim et al., 1995). Studies also show that with the same abilities, qualifications, and experiences, career women tend to have lower salaries and opportunities for advancement or promotion than their male counterparts (e.g., Lyness & Thompson, 2000; Stroh, Brett, & Reilly, 1992). These inconsistencies suggest that the prejudice against women has

changed to become harder to detect. Like racism, the expression of sexism has become more subtle and covert.

Thus, Swim et al. (1995) developed the modern sexism scale to gauge this new form of sexism. They found that sexism has evolved from the old-fashioned form, which blatantly expresses prejudice against women, to a new “modern” form, which hides under “politically correct” behaviors and expresses prejudice only in ambiguous and subtle ways. People higher in modern sexism do not explicitly claim that women are not as logical or smart as men. Instead, they find plausible excuses to maintain the status quo. There are three things they can do to achieve this goal: first, they may deny the existence of sex inequality (e.g., claiming that discrimination against women is in the past); second, they may resent the demands made by women (e.g., showing antipathy in the anger of women's groups); and third, they may disapprove of policies developed to help women (e.g., suggesting that the government has publicized too many concerns about the treatment of women than necessary). By alleging there is no discrimination, women are too sensitive and demanding, and laws should not overemphasize the issue of gender equality, one implies that the current situation in the society is fair for both genders and does not need to be changed. Therefore, the current inequality (i.e., the status quo) is maintained.

The Consequences of Sexism

For much of history, blatant old-fashioned sexism has suppressed women from enjoying the same rights as men. A simple examination of recent western history illustrates the costs of this blatant sexism: women were not allowed to vote, had extremely limited educational opportunities, were not allowed to own property, could not pursue careers outside the kitchen,

and had no say about their own health care and reproduction. In other words, women were perceived as and treated like second-class citizens. However, not being able to share equal privileges and rights as men were not the only negative consequences of sexism, especially when we consider that sexism has different forms. We will first discuss Swim and Hyers's (2009) summaries of three possible consequences of sexism: violence against women, objectification of women, and internalization of sexism. Then we will focus on the psychological well-being of the victims of sexism. Specifically, we will discuss research that has examined the psychological consequences of different forms of sexism on women. Finally, we will address the issue of women's support of the status quo in certain conditions, such as when facing a more subtle expression of sexism (i.e., modern sexism) or being reminded of the "women are nice" stereotype.

Three possible consequences of sexism by Swim and Hyers (2009)

Violence against women. Certain individuals high in sexism may feel it is necessary to resort to violence to make women stay in their expected traditional roles. Violence against women is an extreme form of sexist behavior and it causes extreme damage. Examples of this violence include rape, murder, physical or sexual abuse, sexual harassment, or any behaviors that lead to physical and/or psychological harm. The impacts on the female victims are vicious, and include death, disability, post-traumatic stress disorder (PTSD), depression, substance abuse, anxiety, loss of quality of life, and/or low self-esteem. The financial costs of these negative effects on the victims, including job turnovers, sick leave, loss of productivity, or medical expenses are astronomical.

Objectification of women. There are two possible consequences associated with objectification of women: first, because of sexualized portrayals in society (e.g., media influences), women may become less satisfied with their own body images. Second, women may become more likely to engage in *self-objectification*, which implies looking at oneself through a third-party perspective and evaluating oneself only by one's appearance instead of examining one's thoughts and feelings. Self-objectification makes women become more self-conscious and feel shame and anxiety because they cannot fit society's standards of beauty despite bestowing great efforts. This may also be associated with depression and sexual dysfunction.

Internalization of sexism. When gender stereotypes perpetuate, people accept them as their own values and allow the stereotypes to direct their behaviors accordingly. For heterosexual women, that means being satisfied with the domestic role, being taken care of by their male partners, and giving up the pursuit of higher education or higher status careers. Furthermore, sexism suggests that a "good" woman should put other people's needs above her own, especially in significant relationships. Studies show that women who endorse these beliefs are more likely to be depressed and are less likely to confront everyday sexism.

Psychological consequences of different forms of sexism

Swim and Hyers (2009) briefly summarize the general effects of sexism. However, we are more interested in the specific effects of the different forms of sexism. We will discuss research that focuses on the psychological consequences of these forms of sexism, including hostile/old-fashioned sexism, modern sexism, and benevolent sexism. Hostile sexism is grouped together with old-fashioned sexism because of their similar definition (their bases on the

generalization of negative stereotypes toward women) and similar psychological impacts on women.

Hostile/old-fashioned sexism. These two forms of sexism deliberately claim that women are inferior to and less competent than men, and therefore should not share equal opportunities or privileges with men. People higher in these two forms of sexism directly and frankly express prejudice against women. Research suggests that people nowadays tend to recognize hostile and old-fashioned sexism, and these forms of sexism elicit similar psychological consequences (i.e., anger-related emotions). For example, Barreto and Ellemers (2005a) measured participants' emotional reactions to hostile sexism. The results indicated that female participants were significantly more likely to feel angry when facing hostile sexism. Similarly, Barreto and Ellemers (2005b) had participants respond to old-fashioned sexism scales and found that female participants generally recognized old-fashioned sexism as sexist and reacted with anger. Because these two forms of sexism are based on the generalization of negative stereotypes, and both elicit similar psychological consequence, in this proposed study we will examine them together.

Modern sexism. Barreto and Ellemers (2005b) examined how much participants agreed with modern sexist statements and how they felt after reading these statements. They measured participants' negative emotions and how much the participants wanted to talk to individuals who held these sexist opinions. The results indicated that female participants were less likely to identify modern sexism as prejudice, though at the same time they became more anxious after reading statement of modern sexism. The researchers suggested that this is the danger of modern sexism: it is not only harmful to women's psychological well-being because it elicits anxiety, it

seems almost inoffensive; therefore, it remains unrecognized and thus unchallenged. It is disguised in a more socially acceptable form and therefore becomes difficult to contest.

Why the emotion of anxiety? Barreto and Ellemers (2005b) speculated that anxiety increases because modern sexism implies that women not only are inferior to men, but also are not making an effort and/or choosing not to pursue careers. If women accept that sex discrimination is no longer a problem, that women are demanding too much, and that society has given women too many favors, then they will find it difficult to explain the disadvantaged position of women in modern society unless they accept the rationalization that women are themselves responsible for it. This causes women to worry about their shortcomings and that elicits anxious feelings. As a consequence, women are less likely to challenge the expressed prejudice, are more likely to blame themselves for gender inequalities in the society, and therefore are more likely to support the status quo.

Benevolent sexism. Dardenne, Dumont, and Bollier (2007) investigated the effects of benevolent sexism from the employer on women's performance as applicants for a position. In their first study, female participants attended job interviews in a chemical factory and were expected to perform a test. They were told that all the male-coworkers recognized women to be more cultured and sophisticated, which would enhance the firm's moral sense and refined taste, the qualities usually lacking in all-male environment. The participants were also told that they had nothing to worry about because all the male-employers understood that as female employees, they might need some help, and the male-employers agreed to help them. It turned out the participants performed poorly, even worse than the participants who were blatantly told that women are the "weaker sex." It seems that the benign and innocent admiration from the male workers backfired and caused more damage than did direct hostility against women.

The results of Dardenne et al. (2007) indicated that women who were assured unsolicited help based on the “women are not as competent” stereotype or who were reminded of the differences between men and women performed inadequately. Even though they felt emotionally agitated with the offering of help (because it assumed their incapability for the work based on their gender) or the reminder of complementary gender stereotypes (because it potentially challenges their feelings to be taken seriously as a professional), they did not identify this as sexism. In fact, many people, including women, will not say the helping is sexist: after all, helping and showing admiration are pro-social behaviors. The reason for the female participants’ undermined performance, Dardenne et al. suggested, was that benevolent sexism elicited self-doubt and anxiety, and decreased the self-esteem of the participants. These negative effects created a preoccupied mindset that distracted the women from concentrating on their tasks.

Further, besides impairing women’s performance, benevolent sexism also causes women to support the status quo. Dardenne et al. (2007) proposed that because women’s performance suffers when they are reminded of benevolent sexism (i.e., women’s “nice but not competent” stereotypes), this gives high-status group (i.e., men) justification for maintaining their current high-status positions. Because the high-status group is “helping” instead of blatantly expressing prejudice, women find it hard to recognize it as sexism, and therefore doubt their own ability and agree that women should stay in their own place because they indeed are “not competent,” as indicated by their low performance.

System justification

From the research on the effects of both modern and benevolent sexism on women, a common theme emerges: women who are impacted by these two forms of sexism tend to support the status quo themselves as a result. For example, Jost and Kay (2005) found that when exposed to complementary gender stereotypes (e.g., men are competent and women are nice and delicate), women increased their support of the status quo and their belief that the current condition of gender bias in the society is justified, regardless of whether they endorsed the stereotypes or not. Barreto and Ellemers's (2005b) study on modern sexism also implied that women support the status quo: the results indicated that male participants in their study were more likely than female participants to recognize modern sexism. More specifically, these female participants were less likely to challenge the modern covert sexist statements (e.g., sex discrimination is not a problem now). It seems that they tend to believe the current gender inequality in society is fair.

Why would a subordinate group support the existing state of inequality? First, Steele (1997) summarized years of research and noted that stereotypes in society are very influential and subtle, and people do not have to endorse the stereotypes to be impacted. For example, women who are reminded of their own sex will perform significantly worse on a math task than those who are not, regardless of their math ability and whether they endorse the "women are not good at math" stereotype. Jost and Banaji (1994) further observed that stereotypes can serve as a rationalization to justify the current unequal situation. In cases of sexism, if people believe that men indeed are more competent and women are nicer and more delicate, it goes without saying that men should be the providers and hold the power to lead, and women should stay home, nurture the children, and support men's careers. Jost and Banaji termed this phenomenon

“system justification.” It suggests the rationalization of stereotypes in order to maintain the status quo.

Interestingly, not only the people in the groups that hold the power and privileges (in cases of sexism, men) support system justification, but those in subordinate groups tend to comply and support it as well. For example, Barreto and Ellemers (2005b) examined the results of female participants’ failing to recognize modern sexism and reasoned that when women experience a subtle form of prejudice, in order to protect the self from the harms of prejudice against them, their self-protective mechanisms deterred them from recognizing the prejudice. Jost and Banaji (1994) suggested that it is because people in subordinate groups are motivated to believe in a just world: everyone gets what she or he deserves. They want to believe the social system is fair and legitimate, even at the price of sacrificing personal privileges, so the facts that they are member of a subordinate group and have little hope of changing system will not be quite so disturbing. Obviously, modern and benevolent sexism have become very useful tools in maintaining the status quo. They convince both men and women to maintain gender inequality.

Stereotype threat

As Steele (1997) suggested, individuals do not have to endorse the stereotypes to be impacted. Specifically, when members of a stigmatized group are reminded of the stigma, the anxiety of being treated or judged accordingly will disrupt their performance. This phenomenon is termed “stereotype threat.” The effects of stereotype threat are pervasive. For example, Steele (1997) suggested that women who were reminded of their own sex performed worse on a math test, a stereotypical male domain. Davies, Spencer, and Steele (2005) found that when women were primed with traditional gender stereotypes, they were less likely to be willing to take

leadership roles in a group activity. As a consequence, women in leadership positions such as CEOs are much more likely to doubt their own abilities or feel that they do not deserve success (Eagly & Carli, 2007; Eagly & Chin, 2010).

The negative influence of stereotype threat is not only subtle, but also long term. Steele (1997) pointed out that if the situation of stereotype threat persists, the stigmatized individual will be more likely to engage in the process of disidentification. It is the process that the stigmatized individual removes themselves from the situation and redefines their own identify. For example, a woman in an engineer college may find herself struggling whenever her own sex becomes salient when she is evaluated by her math or related abilities. Eventually she may remove herself from the situation by changing her major (e.g., elementary education) and redefine herself (e.g., as a good elementary teacher instead of an engineer).

From an educator's perspective, Steele (1997) proposed that some strategies are associated with the alleviation of the negative effects of stereotype threat. They are a) optimistic teacher-student relationship, b) challenge over remediation, and c) stressing the expandability of intelligence. Specifically, when a teacher retains good relationships with students, gives students challenging works to signal that he or she believes in their ability, and conveys the message that hard work will expand their intelligence, the effects of stereotype threat can be improved. It seems to suggest that a good support system can lessen the influence of stereotype threat on individuals. Because the purpose of my studies was to examine the factor that could alleviate the negative effects of sexism on women, who often fall victims of stereotype threat, I therefore considered one variable that has been suggested by research to be positively related to individuals' well-being, social support.

The Role of Social Support

For the purpose of investigating variables that influence women's willingness to confront sexism, Kaiser and Miller (2004) measured female participants' optimism, the cost-benefit evaluation of confronting sexism, and their actual experience of confronting sexism. The results indicated that higher optimism is associated with more confidence in confronting sexism. But they speculated that optimism is not the only individual difference that is associated with confronting sexism. One of the other variables they suggested for further investigation is perceived social support. Though Kaiser and Miller did not specify why this particular variable may be important, studies show that social support is related to well-being, and perceived social support (i.e., the perception that help is available when one is in need) is more beneficial than other types of support (e.g., Cohen & Wills, 1985; Dubow & Ullman, 1989; Taylor, Sherman, Kim, Jarcho, Takagi, & Dunagan, 2004). In our studies, we investigated whether the perceived and actual social support could alleviate the negative effects of sexism.

Social support and its associations with well-beings

Research suggests a positive link between social support and one's well-being, and it is very likely to be a causal relationship; that is, social support causes increased well-being (Cohen & Wills, 1985). Studies show that social support is negatively correlated with neuroticism, depression, hostility (e.g., Cohen & Wills, 1985; Sarason, Sarason, & Shearin, 1986), and emotional distress (Schwarzer & Leppin, 1989). It has also been found to be positively correlated with social skills (Sarason, Sarason, & Shearin, 1986) and adaptation to new environment (Schwarzer & Leppin, 1991). Further, more than one review and meta-analysis has documented the benefits of social support. Cohen and Wills's (1985) comprehensive review of

studies suggested that social support contributes to individuals' well-being, and these beneficial effects are found among people with or without stress. Phrased differently, social support is beneficial regardless of the presence of stress: it can either help individuals under stress to gain more confidence to cope with their problems, or have general positive effects on individuals' well-being by providing them with feelings of stability and self-worth. Schwarzer and Leppin (1991) conducted a meta-analysis and the results also indicated a positive overall association between social support and one's well-being. Uchino, Cacioppo, and Kiecolt-Glaser's (1997) reviewed studies about social support and health. Their results showed that social support was associated with better cardiovascular, endocrine, and immune systems' health. Chu, Saucier, and Hafner's (2010) meta-analysis also found moderate associations between social support and well-being among children and adolescents. In summary, research generally shows that social support is positively associated with well-being and better coping with distress.

Emotional social support

However, social support can be categorized in more than one way, and the diverse definitions and measurements of social support pose as a challenge to researchers (e.g., Barrera, 1986). For example, there are different types of social support based on what kind of support is offered. Cohen (2004) defined social support as the psychological and tangible resources provided by one's social network for coping with distress in life. He further summarized social support into three types: instrumental support, informational support, and emotional support. Instrumental support consists of providing material help such as financial aid or food provision; informational support consists of providing assistance of guidance or advice for individuals to cope with difficulties or problems; and emotional support consists of providing care, love, and

empathy to individuals. Research shows that among these three types of social support, emotional support is believed to be an effective buffer to a variety of types of stress, and the perception that emotional support is available is associated with better health and psychological outcomes (Cohen, 2004; Rosengren, Orth-Gomer, Wedel, & Wilhelmsen, 1993; Zimet, Dahlem, & Zimet, 1988). Therefore, emotional support was selected as the main focus of our two studies. Specifically, we examined the role of emotional support in alleviating the negative effects of sexism in two different ways: by activating one's perception of availability of support (i.e., perceived social support), and by offering one actual support.

Perceived social support

Social support can also be categorized into different types based on what the social support instruments assess. According to Barrera (1986), the three types of measure are social network, enacted support, and perceived support. Social network generally measures the size of one's social connections (i.e., how many people one knows), enacted support measures the frequency of support one has actually received, and perceived support measures one's perceptions of how much support is available if needed. Among these three types of measures, perceived support is believed to be the most strongly associated with one's well-being (e.g., Chu, et al., 2010; Cohen & Wills, 1985; Dubow & Ullman, 1989; Taylor et al., 2004). It is believed to be related to the elevation of self-appraisal (Lakey & Cohen, 2000). In addition, Sarason, Sarason, and Shearin (1986) suggested that the perceived availability of social support is related to better social skills, and is a stable trait-like characteristic. It remains consistent even during going through changes of environment such as leaving home for college.

Why would the perception of the availability of support be more beneficial than the size of one's social network or actual received support? Regarding social network size, Rook (1984) and Dubow and Ullman (1989) found that merely counting one's number of relationships is not related to one's well-being. The relationships one possesses may either be too shallow to be meaningful or be the source of conflicts. It may thus be better to have fewer but deeper relationships for one to rely on for support. Concerning the differences between perceived and actual support, Taylor et al. (2004) summarized research and suggested that the perception that social support is available if needed gives individuals a sense of security, especially when one is under stress. Actual support, in contrast, can be intrusive, may not be what is needed, and can potentially lower the support recipient's self-esteem because it may imply the support recipient's inability and dependence. Evidently, perceived social support provides individuals with a sense of stability, self-worth, and security that benefits their physiological and psychological well-being.

If perceived social support can alleviate the negative effects of stress, will it be able to alleviate the negative effects of sexism? At least one study did investigate the role of perceived social support in the alleviation of the effects of sexism. Moradi and Funderburk (2006) examined perceived social support and the link between the frequency of confronting sexist events and psychological distress specifically among women who sought counseling help. Their results indicated that perceived social support is inversely related to psychological distress due to confronting sexist events, and the relationship is mediated by empowerment (e.g., the perception of one's power and competence). The study suggests that among women seeking counseling, perceived social support is associated with the improvement of psychological well-being when women are distressed by perceived sexist events.

Actual social support

However, perceived social support is not the only type of support that can be beneficial. Sarason and Sarason (1986) studied whether offering social support exerted significant effects on individuals who engaged in a problem-solving task. They first selected participants based on their levels of perceived social support and divided them into higher and lower groups, and then either offered these participants a supportive message or did not offer any message before the participants engaging in a problem-solving task. In other words, this study took a form of 2 (levels of perceived social support: higher versus lower) X 2 (offering of social support: present versus absent) between-participants design. The results indicated a main effect of levels of perceived social support: individuals higher in perceived social support performed better on the task than those lower in perceived social support. In addition, an interaction between levels of perceived support and offering of support conditions was also found: individuals higher in perceived social support performed equally well whether received or did not receive the supportive message, but those in lower perceived social support performed significantly better in the receiving supportive message condition. The researchers concluded that participants lower in perceived social support had higher anxiety (e.g., worrying over their performance) and lower confidence and thus their performance suffered. The offering of support by the experimenter, nevertheless, alleviated these negative effects by increasing participants' confidence and reducing their anxiety.

The mechanism of why social support may help the alleviation of the negative effects

Why would social support help individuals' well-being? According to Fredrickson (2001), when experiencing positive emotions, these emotions will broaden individuals'

perspective, and they will be more likely to desire to play, to explore, or to engage in similar activities. These activities promote individuals to discover novel ideas and increase personal resources, including physical, intellectual, social, and psychological resources. These resources will be successful coping strategies to stress. Further, positive emotions can overcome the negative effects of negative emotions. Negative emotions activate narrow mind-sets such as physiological (e.g., fight or flight) and psychological reactions (e.g., anxiety and/or depression). Research suggests that when one is under stress, positive emotions will help the individual to relax, and the physiological reactions will go back to baseline when one is calm.

I believe that Fredrickson's (2001) theory could potentially explain the mechanism of why social support may help women who experience sexism to alleviate the negative effects. When women experience sexism, the negative emotions will be promoted (e.g., anger or anxiety). When social support is reminded or provided, it will broaden their perspective, and the bonds in close relationships will promote positive emotions. The positive emotions will increase their likelihood to find the intellectual and psychological resources needed to cope with the stress. My studies, therefore, examined the relationship between social support and experiences with different forms of sexism. I hypothesized that higher levels of perceived social support were associated with better psychological outcomes (e.g., less anger, less anxiety, and/or higher self-esteem) when experiencing sexism. In addition, activating one's perceived social support helped one to better cope with the stress caused by sexism. Further, I hypothesized that female participants who received a supportive message from an experimenter after experiencing sexism would perform better on a problem-solving task than those who did not receive the message. The task involves scrambling letters to make a word, which was not a stereotypically masculine

task, so the participants' performances should not be influenced by the perceived nature of the task.

Chapter 3 - Methods

The main purpose of the proposed studies was to examine the relationship between social support and experiences with sexism. In Study 1, I first explored whether higher levels of perceived social support were associated with better coping with negative psychological distress caused by different forms of sexism and with a higher likelihood of confronting sexism. More specifically, I hypothesized that female participants who were higher in perceived social support would better cope with the distress that might arise from sexism, and therefore would report relatively better psychological outcomes such as less negative emotions, higher self-esteem, less support of gender stereotypes, and more desire to question the people holding sexist beliefs than the participants lower in perceived social support. In addition, I examined whether the activation of perceived social support itself help participants to cope with the psychological distress of sexism. I hypothesized that participants would report relatively better psychological outcomes as well if their perceived social support was activated right after they experience sexism than those who did not have activation of perceived support at all.

Further, in Study 2, I examined whether offering social support to female participants after they experienced sexism helped them to better cope with the negative effects. Specifically, I predicted that female participants who received a supportive message from an experimenter after experiencing one of the three forms of sexism would perform relatively better on a problem-solving task than those who did not receive the supportive message. I also measured their affect and self-esteem before and after they received social support and performed the task to observe if there were any significant changes. Therefore, this study examined whether the female participants were influenced by the stereotype threat and as a consequence compromised

their performance, and whether providing social support could alleviate the influences. In summary, both Study 1 and 2 examined whether social support, either the reminding of perceived social support or providing of actual support, could help female participants to cope with the stress from the experience of sexism.

Study 1

I first conducted a study to examine the relationships between perceived social support and the effects of sexism. The study followed a 4 (forms of sexism: hostile/old-fashioned, modern, benevolent, or control) X 2 (perceived social support: activation or no activation) between-participants design. Female participants were randomly assigned to experience either one of the three forms of sexism or control condition, and the activation of perceived social support was manipulated to be either right after experiencing sexism or to have no activation at all. I hypothesized that participants who were higher in perceived social support would show better psychological outcomes, manifested by reporting relatively less negative affect, higher self-esteem, less endorsement of complementary gender stereotypes, and more likely to have the desire to confront people with sexist beliefs than those who were lower in perceived support. Also, participants who were reminded of their perceived social support in the activation condition would also report better psychological outcomes than those who did not experience perceived support activation.

Method

Design and manipulations

This study partially used the design and procedure described in Barreto and Ellemers's (2005b) study. This study was a 4 (forms of sexism: hostile/old-fashioned, modern, benevolent,

or control) X 2 (perceived social support: activation or no activation) between-participants design. For the manipulation of sexism, female participants were randomly assigned to experience one of the three forms of sexism conditions by completing the designated sexism scale. This was an experience of sexism because participants were convinced that the items in the scale, which were sexist statements, were endorsed by the majority of students' opinions. In other words, participants were led to think that the majority of students were higher in sexism. I also included a control condition in which participants did not complete any sexism scale at all, and thus did not experience sexism of any kind.

In order to create an experience of sexism for participants, Barreto and Ellemers (2005b) modified old-fashioned and modern sexism scales that so all of the items became statements expressing higher sexism (i.e., no items were reversed). They presented all the items of both scales as sexist statements to the participants and convinced them that all these statements were endorsed by public opinions. They then asked the participants to indicate how much they agreed with these statements and how much they thought the people who supported these statements were sexist. The proposed study followed their procedure: the items of the scales measuring hostile/old-fashioned, modern, and benevolent sexism were modified so every item was a statement expressing higher prejudice. Then I convinced the participants that a previous study had surveyed many students in the university and shown that the majority of them agreed with these statements. I then asked participants to indicate how much they agreed with these statements and how much they thought the people who supported these statements were sexist.

Regarding the manipulation of perceived social support, every participant completed the perceived social support scale, but the participants in the perceived social support activation condition completed the perceived support scale scales before completing the scales that

measured their psychological outcomes (affect, self-esteem, gender stereotypes, and the desire to confront sexist people) as dependent variables, while the participants in the no activation condition completed the perceived social support scale after the dependent variable measures. After completing the surveys, participants were debriefed, thanked, and dismissed.

Participants

Participants were 305 female students at a Mid-western university enrolled in General Psychology classes who participated in the study to partially fulfill their research participation requirement. Two hundred ninety-four (96.4%) were single, 6 (2%) were married, 2 (0.7%) were divorced, 1 (0.3%) was widowed, and 2 (0.7%) did not identify marital status. There were 258 Caucasians (84.6%), 18 Blacks/African Americans (5.9%), 13 Hispanic/Latinos/as (4.3%), 10 Asians (3.3%), 1 Pacific Islander (0.3%), and 5 (1.6%) did not report their ethnicity. Two hundred forty-three (79.7%) were from the state of Kansas.

Measures

In addition to demographic information including the participants' sex, where they were from, marital status, and ethnicity, we also administered the measures of old-fashioned and modern sexism, ambivalent sexism, perceived social support, affect, self-esteem, complementary gender stereotypes, and desire for confrontation. All measures were answered using 9-point scales ranging from 1 = *not at all* or *strongly disagree* to 9 = *very much* or *strongly agree*. The items of affect, self-esteem, complementary gender stereotypes, and desire for confrontation measures were randomized in order to minimize possible order effects.

Old-fashioned and modern sexism. I assessed how much the participants agreed with old-fashioned and modern sexism and how much they thought people supporting these forms of sexism were sexists by using Swim et al.'s (1995) old-fashioned sexism and modern sexism scales. The old-fashioned sexism scale is a 5-item scale measuring one's beliefs on traditional gender roles, biased treatment of men and women, and female stereotypes of less capability (e.g., *Women are generally not as smart as men*). The modern sexism scale is an 8-item scale measuring one's rejection of gender inequality, resentment of women's demands, and refusal to support policies that benefit women (e.g., *Discrimination against women is no longer a problem in the United States*). All the reverse scored items will be revised so the items become statements expressing higher levels of sexism. For example, the item *I would be equally comfortable having a woman as a boss as a man* is reversed to *I do not feel comfortable having a woman as a boss*. The reliability alpha for the old-fashioned sexism scale was .72, and .92 for the modern sexism scale.

Ambivalent sexism. I assessed how much the participants agreed with ambivalent sexism and how much they thought people supporting this form of sexism are sexists by using Glick and Fiske's (1996) Ambivalent Sexism Inventory (ASI). It contains two sets of sexism scales: Hostile Sexism (HS) scale and Benevolent Sexism (BS) scale. HS is an 11-item scale measuring one's hostile attitude toward women (e.g., *Most women fail to appreciate fully all that men do for them*). BS scale is an 11-item scale measuring one's view towards women in positive but restricted stereotypic roles (e.g., *Many women have a quality of purity that few men possess*). All the reverse scored items were revised so the items became statements expressing higher levels of sexism. For example, the item *In a disaster, women ought not necessarily to be rescued before*

men was reversed to *In a disaster, women ought to be rescued before men*. The reliability alpha for the HS scale was .90, and for the BS scale was .87.

Perceived social support. Perceived Social Support was assessed using Zimet, Dahlem, and Zimet's (1988) The Multidimensional Survey of Perceived Social Support (MSPSS). It is a 12-item scale measuring one's perception of support availability (e.g., *There is a special person who is around when I am in need*). The reliability alpha for the scale was .91.

Affect. Affect was assessed with two scales: the first being Positive and Negative Affect Scales (PANAS) (Watson, Clark, & Tellegen, 1988). The scale contains twenty words, ten describe positive emotions (e.g., *proud, strong*) and ten describe negative emotions (e.g., *distressed, ashamed*). The second was adopted from Barreto and Ellemers's (2005b) measurement of six negative emotions: hostility-related emotions (*angry, indignant, and disappointed*) and anxiety-related emotions (*weak, tense, and sad*). The reliability alphas for all the scales were as following: Positive Affect .88, Negative Affect .89, hostility-related emotions .71, and anxiety-related emotions .72.

State self-esteem. I used the State Self-Esteem Scale (SSES) (Heatherton & Polivy, 1991) to assess participants' self-esteem that is temporarily influenced by our manipulations of sexism. It is a 20-item scale measuring short-lived (i.e., state) changes in self-esteem. There are three subscales: state self-esteem of performance (e.g., *I feel confident about my abilities*), social (e.g., *I feel self-conscious*), and appearance (e.g., *I feel good about myself*). The reliability alphas were .85, .86, and .85, respectively.

Complementary gender stereotypes. According to Dardenne et al. (2007), women exposed to benevolent sexism feel less confident in their competence because the exposure to complementary gender stereotypes reminds them of nurturing and warm but incompetent female

gender images. Jost and Kay (2005) summarized that the complementary gender stereotypes indicate the typical distinctions between women and men: women possess feminine traits such as nurturing, warm, and relationship oriented, while men possess masculine traits such as competent, confident, and achievement oriented. The traits that are associated with women are called communal traits, and the stereotypical traits that are associated with men are called agentic traits. In order to examine the influence of benevolent sexism, I employed the complementary gender stereotypes used by Jost and Kay (2005). There are a total of ten stereotypical words, five feminine (i.e., communal: *considerate, honest, happy, warm, and moral*) and five masculine (i.e., agentic: *assertive, competent, intelligent, ambitious, and responsible*). Participants indicated how much they felt the words describe themselves at that moment. If they were impacted by benevolent sexism, they should feel less competent, and it should be reflected in their self-appraisal of having less agentic stereotypes and more communal stereotypes. The reliability alpha for communal traits was .74, and .76 for agentic traits.

Desire for confrontation. Participants' desire for confrontation after reading the sexism statements will be assessed by Barreto and Ellemers's (2005b) five items of behavioral response scale. The items asked participants to indicate how much they want to do the following: *speak to someone who holds such sexist views, try to change the opinion of people with these views, understand why these people would hold such views, dislike people with these sexist views, and how unwilling they would be to collaborate with people who endorsed such views.* The reliability alpha was .67.

Results

Prior to analysis, all variables were examined for accuracy of data entry and missing values. The analysis showed that the missing values were less than 5% and were random,

therefore would be unlikely to create problems for data analysis. The data were also screened to see whether there were violations of the assumptions of the general linear model. The data did not violate the assumptions of normality, homogeneity of variance, linearity, and multicollinearity to any great degree.

Examining the manipulation check questions

First manipulation check question: agreeing with the sexist statements. I first examined how much the participants in the different sexism conditions agreed with the statements endorsing old-fashioned, modern, and benevolent sexism, and how much they thought people supporting these forms of sexism were sexists. I predicted that participants reading old-fashioned sexist statements would be less likely to agree with the statements than those reading the two other forms of sexist statements, and would be more likely to perceive the people supporting the statements as sexist than those reading the two other forms of sexism. A one-way ANOVA was performed on the three sexism conditions with participants' levels of agreement with the sexist statements as the dependent variable. The result was significant, $F(2, 234) = 41.11, p < .001$, which indicated that participants did agree with the statements of the three forms of sexism differently. Planned contrasts were conducted between the old-fashioned and modern sexism conditions and between the old-fashioned and benevolent sexism conditions. The results indicated that participants in the old-fashioned sexism condition ($M = 3.13, SD = 1.34$) agreed with the statements significantly less than those in the modern sexism ($M = 4.18, SD = 1.54$), $p < .001$, and the benevolent sexism conditions ($M = 5.18, SD = 1.55$), $p < .001$. Interestingly, a post hoc Bonferroni test comparing the modern and benevolent sexism conditions also revealed a significant difference at the corrected significant levels, $p < .001$, which indicated that

participants in the benevolent sexism condition were more likely to agree with the statements than those in the modern sexism condition (see Figure 1).

Second manipulation check question: perceiving people supporting the statement as sexist. Another one-way ANOVA was conducted on the three sexism conditions with the dependent variable of how much participants thought that people who supported these sexist statements were sexist. The result was significant, $F(2, 228) = 3.74, p < .05$, which indicated that how much participants thought that people supporting sexist statements to be sexist was influenced by the forms of sexism. However, planned contrasts revealed that participants in the old-fashioned sexism condition ($M = 4.22, SD = 2.19$) were no more likely to think people supporting the statements to be sexists than those in the modern sexism condition ($M = 3.63, SD = 2.16$), $p = .218$, and were no more likely than those in the benevolent sexism condition to think people supporting the statements to be sexists either ($M = 4.66, SD = 2.27$), $p = .419$. Furthermore, a post hoc Bonferroni test comparing the modern and benevolent sexism conditions revealed a significant difference at the corrected significant levels of .025, $p = .019$, which indicated that participants reading the benevolent sexism statements were more likely to think people supporting the statements to be sexist than those reading the modern sexism statements (see Figure 2).

The results of the first manipulation check question were approximately in line with our expectations: participants would be least likely to agree with the old-fashioned sexist statements and more likely to agree with the benevolent sexist statements. Interestingly, participants in the benevolent sexism condition were also more likely to agree with the sexist statements than those in the modern sexism condition. It suggested that the seemingly benign nature of the benevolent sexism was significantly more agreeable than the modern sexism.

Surprisingly, the results of the second manipulation check question suggested that participants in the old-fashioned sexism condition were no more likely to see the people who supported these sexist statements as sexist compared to those in other two sexism conditions. Further, participants in the benevolent sexism condition were significantly more likely to see people supporting these sexist statements as sexist compared to those in the modern sexism condition. Why were participants more likely to see people supporting benevolent sexism as sexist, but at the same time more likely to agree with benevolent sexism? My speculation is that maybe participants perceived benevolent sexism as a “good” or “traditional” kind of sexism, therefore though they recognized people supporting benevolent sexism as sexist, they agreed with at least some of the statements because that is the way the tradition is. Phrased differently, though they did recognize benevolent sexism as sexist, the participants were more likely to agree with this type of sexism because the traditional gender stereotypes were deep in their belief system.

Structure of regression models

I performed a series of hierarchical multiple regressions to examine the associations between perceived social support scores (MSPSS), the conditions of perceived social support activation and no activation (activation/no activation), the forms of sexism (hostile/old-fashioned, modern, benevolent, and control), and each of the dependent variables (i.e., affect, self-esteem, gender stereotypes, and the desire to confront sexist people). More specifically, I standardized perceived social support scores (MSPSS) to z-scores, and dummy coded the other categorical variables. For the perceived social support activation/no activation variable, I coded the activation condition as 1 and the no activation condition as 0. I also dummy coded the forms of sexism (hostile/old-fashioned, modern, benevolent, and control) by creating 3 dummy

variables: the first variable was coded so that the hostile/old-fashioned condition was coded as 1 and the other conditions were coded as 0; the second variable was coded so that modern condition was coded as 1 and the other conditions were coded as 0; and the third variable was coded so that benevolent condition was coded 1 and the other conditions were coded as 0. I entered standardized perceived social support scores (MSPSS) as the predictor in the first step to examine how well it predicted the criterion variables. Perceived social support was entered in the first step before sexism and social support activation conditions because research suggested that it was a stable trait-like characteristic. In the second step, I entered manipulated variables dummy coded forms of sexism (hostile/old-fashioned, modern, and benevolent) as predictors. And finally, in the third step, I entered dummy coded conditions of perceived social support (activation /no activation) as one predictor.

Predicting positive affect. The result of the first step suggested a significant effect, $F(1, 303) = 34.02, p < .001, R^2 = .10$. Social support scores (MSPSS) significantly predicted positive affect, $\beta = .32, p < .001$, which indicated that higher levels of perceived social support were associated with more positive affect. The result of the second step, however, did not significantly improve the model, R^2 change = .005, $p = .644$. Examining each predictor's *beta* value revealed that none of the forms of sexism (hostile/old-fashioned, modern, benevolent, and control) significantly predicted positive affect: hostile/old-fashioned ($\beta = -.06, p = .382$), modern ($\beta = -.05, p = .509$), and benevolent ($\beta = -.09, p = .204$), which indicated that participants in the sexist conditions did not have less positive affect than those in control conditions. The result of the third step suggested that the model was not significantly improved, R^2 change = .007, $p = .138$. The predictor conditions of perceived social support did not significantly predict positive

affect, $\beta = -.08$, $p = .138$, suggested that participants in the activation condition did not have more positive affect than those in the no activation condition (see Table 1).

Predicting negative affect. The result of the first step suggested a significant effect, $F(1, 303) = 13.69$, $p < .001$, $R^2 = .04$. Social support scores (MSPSS) significantly predicted negative affect, $\beta = -.21$, $p < .001$, which indicated that higher levels of perceived social support were associated with less negative affect. However, the result of the second step suggested that the model was not significantly improved, R^2 change = .006, $p = .60$. Examining each predictor's *beta* value revealed that none of the forms of sexism significantly predicted negative affect: hostile/old-fashioned ($\beta = -.07$, $p = .316$), modern ($\beta = .01$, $p = .943$), and benevolent ($\beta = -.06$, $p = .407$), which indicated that participants in the sexist conditions did not have more negative affect than those in control condition. The result of the third step suggested that the model was improved at marginally significant level, R^2 change = .012, $p = .056$. The predictor conditions of perceived social support did marginally significantly predict negative affect, $\beta = .11$, $p = .056$, suggesting that participants in the activation condition marginally had more negative affect than those in the no activation condition.

I suspected the reason that participants in the activation condition marginally had more negative affect than those in the no activation condition was because some participants in the activation condition had lower levels of perceived social support, and therefore completing the social support scale activated negative affect for these individuals. I entered the product term carrying the interaction between social support scores X activation/no activation as a predictor in the fourth step to see if it significantly predicted negative affect. The model was not

significantly improved, R^2 change = .002, $p = .446$. The social support scores X activation/no activation interaction was not a significant predictor, $\beta = .06$, $p = .446$, suggesting that the relationship between social support and negative affect did not differ significantly across the activation and no activation conditions (see Table 2).

Predicting hostile-related affect. The result of the first step suggested a significant effect, $F(1, 303) = 16.37$, $p < .001$, $R^2 = .05$. Social support scores (MSPSS) significantly predicted hostile-related affect, $\beta = -.23$, $p < .001$, which indicated that higher levels of perceived social support were associated with less hostile-related affect. However, the result of the second step suggested that the model was not significantly improved, R^2 change = .01, $p = .367$. Examining each predictor's *beta* value revealed that none of the forms of sexism significantly predicted hostile-related affect: hostile/old-fashioned ($\beta = -.07$, $p = .321$), modern ($\beta = .05$, $p = .481$), and benevolent ($\beta = -.02$, $p = .797$), which indicated that participants in the sexist conditions did not have more hostile-related affect than those in the control condition. The result of the third step suggested that the model was improved at marginally significant level, R^2 change = .01, $p = .076$. The predictor conditions of perceived social support marginally predicted hostile-related affect, $\beta = .10$, $p = .076$, suggesting that participants in the activation condition marginally had more hostile-related affect than those in the no activation condition. I again suspected the reason was because some participants in activation condition had lower perceived social support, and therefore completing the social support scale activated hostile affect for these individuals. However, entering the product term carrying the interaction between social support scores X activation/no activation as a predictor in the fourth step did not significantly improve the model,

R^2 change $< .001$, $p = .725$. The social support scores X activation/no activation interaction was not a significant predictor, $\beta = .03$, $p = .725$, suggesting that the relationship between social support and hostile affect did not differ significantly across the activation and no activation conditions (see Table 3).

Predicting anxiety-related affect. The result of the first step suggested a significant effect, $F(1, 303) = 13.30$, $p < .001$, $R^2 = .04$. Social support scores (MSPSS) significantly predicted anxiety-related affect, $\beta = -.21$, $p < .001$, which indicated that higher levels of perceived social support were associated with less anxiety-related affect. However, the result of the second step suggested that the model was not significantly improved, R^2 change = $.005$, $p = .665$. Examining each predictor's *beta* value revealed that none of the forms of sexism significantly predicted hostile-related affect: hostile/old-fashioned ($\beta = -.01$, $p = .886$), modern ($\beta = .02$, $p = .778$), and benevolent ($\beta = .07$, $p = .328$), which indicated that participants in the sexist conditions did not have more anxiety-related affect than those in the control condition. The result of the third step suggested that the model was improved at marginally significant level, R^2 change = $.01$, $p = .063$. The predictor conditions of perceived social support marginally predicted anxiety-related affect, $\beta = .11$, $p = .063$, suggested that participants in the activation condition marginally had more anxiety-related affect than those in the no activation condition. However, entering the product term carrying the interaction between social support scores X activation/no activation as a predictor in the fourth step did not significantly improve the model, R^2 change $< .001$, $p = .870$. The social support scores X activation/no activation interaction was

not a significant predictor, $\beta = .01, p = .870$, suggesting that the relationship between social support and anxiety affect did not differ significantly across the activation and no activation conditions (see Table 4).

Predicting performance state self-esteem. The result of the first step suggested a significant effect, $F(1, 303) = 38.55, p < .001, R^2 = .11$. Social support scores (MSPSS) significantly predicted performance state self-esteem, $\beta = .34, p < .001$, which indicated that higher levels of perceived social support were associated with higher performance state self-esteem. However, the result of the second step suggested that the model was not significantly improved, R^2 change = .004, $p = .692$. Examining each predictor's *beta* value revealed that none of the forms of sexism significantly predicted performance state self-esteem: hostile/old-fashioned ($\beta = .08, p = .229$), modern ($\beta = .04, p = .526$), and benevolent ($\beta = .04, p = .534$), which indicated that participants in the sexist conditions did not have more performance state self-esteem than those in the control condition. The result of the third step again suggested that the model was not significantly improved, R^2 change = .004, $p = .244$. The predictor conditions of perceived social support did not significantly predict performance state self-esteem, $\beta = -.06, p = .244$, suggested that participants in the activation condition did not have higher performance state self-esteem than those in the no activation condition (see Table 5).

Predicting social state self-esteem. The result of the first step suggested a significant effect, $F(1, 303) = 39.90, p < .001, R^2 = .12$. Social support scores (MSPSS) significantly predicted social state self-esteem, $\beta = .34, p < .001$, which indicated that higher levels of perceived social support were associated with higher social state self-esteem. However, the

result of the second step suggested that the model was not significantly improved, R^2 change = .005, $p = .632$. Examining each predictor's *beta* value revealed that none of the forms of sexism significantly predicted social state self-esteem: hostile/old-fashioned ($\beta = .06$, $p = .408$), modern ($\beta = -.003$, $p = .965$), and benevolent ($\beta = .066$, $p = .33$), which indicated that participants in the sexist conditions did not have more social state self-esteem than those in the control condition. The result of the third step again suggested that the model was not significantly improved, R^2 change = .005, $p = .21$. The predictor conditions of perceived social support did not significantly predict social state self-esteem, $\beta = -.07$, $p = .21$, suggested that participants in the activation condition did not have higher social state self-esteem than those in the no activation condition (see Table 6).

Predicting appearance state self-esteem. The result of the first step suggested a significant effect, $F(1, 303) = 30.75$, $p < .001$, $R^2 = .09$. Social support scores (MSPSS) significantly predicted appearance state self-esteem, $\beta = .30$, $p < .001$, which indicated that higher levels of perceived social support were associated with higher appearance state self-esteem. However, the result of the second step suggested that the model was not significantly improved, R^2 change = .006, $p = .54$. Examining each predictor's *beta* value revealed that none of the forms of sexism significantly predicted appearance state self-esteem: hostile/old-fashioned ($\beta = .02$, $p = .78$), modern ($\beta = -.07$, $p = .302$), and benevolent ($\beta = -.03$, $p = .652$), which indicated that participants in the sexist conditions did not have more appearance state self-esteem than those in the control condition. The result of the third step suggested that the model was significantly improved, R^2 change = .016, $p = .02$. Unexpectedly, the predictor conditions of

perceived social support significantly predicted appearance state self-esteem, $\beta = -.13, p = .02$, suggested that participants in the activation condition have lower appearance state self-esteem than those in the no activation condition. However, entering social support scores X activation/no activation interaction as a predictor in the fourth step did not significantly improve the model, R^2 change = .001, $p = .557$. The social support scores X activation/no activation interaction was not a significant predictor, $\beta = .04, p = .557$, suggesting that the relationship between social support and appearance self-esteem did not differ significantly across the activation and no activation conditions (see Table 7).

Predicting communal traits. The result of the first step suggested a significant effect, $F(1, 303) = 54.64, p < .001, R^2 = .15$. Social support scores (MSPSS) significantly predicted communal traits for our all-female participants, $\beta = .39, p < .001$, which indicated that higher levels of perceived social support were associated with higher communal traits. However, the result of the second step suggested that the model was not significantly improved, R^2 change = .004, $p = .662$. Examining each predictor's *beta* value revealed that none of the forms of sexism significantly predicted communal traits: hostile/old-fashioned ($\beta = .08, p = .236$), modern ($\beta = .04, p = .590$), and benevolent ($\beta = .02, p = .767$), which indicated that participants in the sexist conditions did not have higher communal traits than those in the control condition. The result of the third step again suggested that the model was not significantly improved, R^2 change = .001, $p = .615$. The predictor conditions of perceived social support did not significantly predict communal traits, $\beta = -.03, p = .615$, suggesting that participants in the activation condition did

not differ significantly than those in the no activation condition regarding communal traits (see Table 8).

Predicting agentic traits. The result of the first step suggested a significant effect, $F(1, 303) = 27.67, p < .001, R^2 = .08$. Social support scores (MSPSS) significantly predicted agentic traits for our all-female participants, $\beta = .29, p < .001$, which indicated that higher levels of perceived social support were associated with higher agentic traits. However, the result of the second step suggested that the model was not significantly improved, R^2 change = .003, $p = .837$. Examining each predictor's *beta* value revealed that none of the forms of sexism significantly predicted agentic traits: hostile/old-fashioned ($\beta = .04, p = .54$), modern ($\beta = -.003, p = .96$), and benevolent ($\beta = -.01, p = .84$), which indicated that participants in the sexist conditions did not have higher agentic traits than those in the control condition. The result of the third step again suggested that the model was not significantly improved, R^2 change = .001, $p = .99$. The predictor conditions of perceived social support did not significantly predicted agentic traits, $\beta = .001, p = .99$, suggested that participants in the activation condition did not differ significantly than those in the no activation condition regarding agentic traits (see Table 9).

Predicting desire for confrontation. The result of the first step suggested no effect, $F(1, 303) = .004, p = .95, R^2 < .001$. Social support scores (MSPSS) was not a significant predictor of desire for confrontation, $\beta = .004, p = .950$, which indicated that perceived social support was not associated with desire for confrontation. The result of the second step again suggested that the model was not significantly improved, R^2 change = .02, $p = .149$. Examining each predictor's *beta* value revealed that none of the forms of sexism significantly predicted desire for

confrontation: hostile/old-fashioned ($\beta = .11, p = .148$), modern ($\beta = .07, p = .338$), and benevolent ($\beta = -.04, p = .558$), which indicated that participants in the sexist conditions did not have higher desire for confrontation than those in the control condition. The result of the third step again suggested that the model was not significantly improved, R^2 change $< .001, p = .846$. The predictor conditions of perceived social support did not significantly predict desire for confrontation, $\beta = .01, p = .846$, suggested that participants in the activation condition did not have a stronger desire than those in the no activation condition for confrontation (see Table 10).

Discussion

In Study 1 I examined the relationship between social support and the effects of sexism. Specifically, I examined whether perceived social support would alleviate the negative affects activated by different forms of sexism. I hypothesized that after experiencing different forms of sexist statements, participants with higher levels of perceived social support would show better psychological outcomes, manifested by reporting relatively more positive affect, less negative affect, higher self-esteem, less endorsement of complementary gender stereotypes, and more likely to have the desire to confront people with sexist beliefs than would those who were lower in perceived support. Also, participants who were reminded of their perceived social support in the activation condition would also report better psychological outcomes than those who did not experience perceived support activation.

The results, however, only partially supported our hypotheses. Participants with higher levels of perceived social support were indeed more likely to report more positive affect, less negative affect (including hostile and anxiety related affect), and higher state self-esteem. But

higher levels of perceived social support were also associated with stronger endorsement of both communal and agentic gender stereotypes; further, perceived social support was not associated with the desire to confront people with sexist beliefs. Different forms of sexism were not associated with any of the dependent variables, suggesting that reading different forms of sexist statements did not influence the participants' affect, state self-esteem, endorsement of complementary gender stereotypes, or desire to confront people with sexist beliefs. Participants who were primed by perceived social support after viewing the sexist statements did not differ significantly from those who were not primed on any of the dependent variables.

The results that participants in the social support activation condition had marginally higher levels of negative affect, hostile affect, and anxiety affect, and had significantly lower levels of appearance self-esteem than those in the no activation condition were unexpected. I speculated that because relationships with family and friends can also be sources of conflicts (Barrera, Chassin, & Rogosch, 1993; Rook, 1984), the participants might have been reminded of the negative side of the support they had when completing the perceived social support scale, and hence had the negative affect and lower self-esteem.

The manipulation check questions revealed some interesting findings. Participants did agree with old-fashioned sexist statements significantly less than they agreed with the modern and benevolent sexist statements. Interestingly, participants also agreed with the modern sexist statements significantly less than they agreed with the benevolent sexist statements. This suggested that benevolent sexism is more likely to be accepted even by women themselves. However, that does not necessarily mean that women did not recognize this type of statements as sexist. The result of the second manipulation check question suggested that participants were more likely to perceive people supporting the benevolent sexist statements as sexist than they

would those supporting modern sexist statements. I speculated that though the participants understood the benevolent sexist statements were sexist, the seemingly benign nature and the traditional gender stereotypes deeply engraved in their minds made them more likely to agree with this type of sexism.

This first study examined the relationships between perceived social support and the effects of three forms of sexism, as well as the effects of activating perceived social support on female participants experiencing sexism. More specifically, I examined the potential benefits of activation of perceived social support on the alleviation of the effects of sexism. After all, research suggests that perceived social support is more beneficial than other types of support (e.g., Cohen & Wills, 1985; Dubow & Ullman, 1989; Taylor et al., 2004). Moradi and Funderburk (2006) also suggested that among women seeking counseling, perceived social support is associated with the improvement of psychological well-being. However, the completion of the perceived social support scale as a social support prime did not produce significant effects in Study 1. I speculated that if social support was actually offered instead of simply reminding participants of their own perceived support, there might be more significant effects. Specifically, I was also interested in whether receiving actual social support, such as by receiving a supportive message, would help individuals experiencing sexism to better cope with the distress.

This was, as a matter of fact, examining whether social support could alleviate the effects of stereotype threat. I had the participants experienced sexism, which activated their memory of gender stereotypes. As a consequence, their performance on a certain problem solving task should be hindered because of the anxiety, as Steele (1997) and Dardenne et al. (2007) suggested. I hypothesized, however, that offering social support should help to alleviate the

negative effects of stereotype threat. Thus, I conducted another study to examine this hypothesis.

Study 2

I examined whether receiving a supportive message helped individuals who experienced sexism to better cope with the distress. This study employed a 4 (forms of sexism: hostile/old-fashioned, modern, benevolent, and control) X 2 (social support: present or absent) between-participants design. Different from the first study, however, this experiment was staged to simulate a job application. Sexism was expressed as written instructions from a job recruiter, as had been done by Dardenne et al. (2007). As in Study 1, participants were randomly assigned to one of the three forms of sexism or a control condition.

Regarding the manipulation of the social support conditions, this study generally followed the procedures done by Sarason and Sarason (1986) with some modification to focus on the provision of emotional support. In their study, the experimenter provided support to the participants by simply saying that their participation was appreciated, and if they needed help in any way they should feel free to ask. In this study, the participants in the social support present condition received a supportive message from an experimenter, and those in the social support absent condition received no supportive message at all. The supportive message was the experimenter introducing herself and having the participants introducing themselves as well. Further, the experimenter expressed interests in their self-introduction. I hypothesized that participants who received such treatments would feel emotionally supported, and therefore would perform better in a problem-solving task than those who did not. Further, I predicted that those who received the supportive message would also report relatively less negative affect and higher self-esteem than those who did not receive a supportive message. I had participants

complete the measurement of affect and self-esteem twice, once before the social support, once after the social support and problem-solving task, so we could examine whether participants' affect and state self-esteem changed by social support offered by the experimenter. The analyses of affect and self-esteem variables would take the form of 4 (forms of sexism: hostile/old-fashioned, modern, benevolent, or control) X 2 (social support: present or absent) X 2 (time of measurement: before or after) mixed factorial ANOVAs.

Method

Participants

Participants were 179 female students at a Mid-western university who participated in the study in exchange for credits to partially fulfill their research participation requirement. Sixteen participants did not report their age. For those who reported their age ($N = 163$), ages ranged from 18 to 33 years old, with a mean age of 19.38 ($SD = 2.20$), and 92.6% were between 18 and 21 years old. There were 140 Caucasians (78.2%), 12 Blacks/African Americans (6.7%), 7 Hispanic/Latinos/as (3.9%), 4 Asians (2.2%), and 16 (8.9%) did not report their ethnicity.

Procedure and materials

Cover story and procedure. The experiment was staged as a simulation of a job application, and the applicants were told they would be evaluated in terms of their qualifications. Participants were randomly assigned to one of the three forms of sexism or control conditions and tested in small groups. In all conditions, a female experimenter led the participants to a room and explained that this was an experiment simulating a job application. She asked the participants to imagine themselves having been looking for a job for a while, finally having found a position in a company, and being invited to come in for an evaluation of their qualifications. She described the process of the experiment: the participants first read

instructions about the position, then completed some surveys for gauging personality (which were actually measures of affect and state self-esteem), performed a problem-solving task, which was the basis of the evaluation, and finally completed the personality surveys again. The experimenter emphasized that the task was a valid and widely used test in many companies for evaluating job candidates. In addition, the experimenter engaged in a brief supportive interaction with participants who were in the social support present condition right after they read the instructions. Those in social support absent condition did not have the supportive interaction with the experimenter. After the problem-solving task, participants were asked some manipulation check questions, debriefed, thanked, and dismissed.

The manipulation of sexism. The instructions, which were alleged to come from a real job recruiter in a company, first explained that the position required a person with good social skills and sensitivity to clients' needs. These requirements were stereotypically feminine, so the female participants should not feel threatened or helpless about this position.

After the job description, the instructions were manipulated to express hostile/old-fashioned, modern, or benevolent sexism. The expressions of hostile/old-fashioned and benevolent sexism were taken directly from Dardenne et al. (2007). These instructions explained that this position was open for women because of the new employment law on gender quotas, which required industry to employ a certain percentage of women. Thus, female applicants should expect to work in a male-only environment.

The participants in the hostile/old-fashioned sexism condition read the following instructions:

The reason why we are recruiting women is because we are now obligated to follow a new employment law on quota. Industry is now restricted to employ a given

percentage of people of the weaker sex. I hope women here won't be offended, they sometimes get so easily upset! You'll work with men only, but don't believe what those feminists are saying on TV, they probably exaggerate women's situation in industry simply to get more favors (p. 767)!

The participants in the benevolent sexism condition read the following instructions:

The reason why we are recruiting women is because we are now obligated to follow a new employment law on quota. You have to know that women who may be hired will work with men only. This should not be a problem because they are fully aware of the importance of hiring women in their firm. Indeed, all of them think that the presence of women, who are more cultured and sophisticated than men, will allow the firm to benefit from their moral sense and refined taste, whereas these aspects are often lacking where only men work (p. 771).

For the modern sexism condition, we created the expression of modern sexism based on the items of the modern sexism scale, as Dardenne et al. (2007) did in their study of hostile and benevolent sexism. In other words, the expression of modern sexism reflected the ideas contained in the modern sexism scale: denial of continuing discrimination against women, resentment toward women's demands, and resentment about special favors for women.

Thus, the participants in the modern sexism condition read the following instructions:

The reason why we are recruiting women is because we are now obligated to follow a new employment law on quota. I don't understand why people always say that women often miss out on good jobs due to sexual discrimination. Everybody nowadays knows that people in our society treat men and women equally now. That means discrimination against women is no longer a problem in the United States. But some

people just keep on pushing it. You'll work with men only, and I believe it shouldn't be a problem because our society has reached the point where women and men have equal opportunities for achievement.

Regarding participants in the control condition, their instructions from the recruiter contained the job description only. There was no mentioning of quota or the expression of any form of sexism.

The surveys alleged to measure personality. I was also interested in whether participants' affect influenced their performance on the problem-solving task through self-esteem, as Dardenne et al. (2007) suggested. Therefore, participants first completed the affect measure, followed by the state self-esteem measure. I had participants complete the survey twice, once before the social support, once after the social support and problem-solving task. The purpose of measuring twice was to examine whether participants' affect and state self-esteem changed by social support offered by the experimenter. The experimenter explained to the participants that they would complete some survey questions that evaluated whether their personality was suitable for the job position. The surveys alleged to gauge participants' personality were in fact two of the dependent variable measures in Study 1: the affect and state self-esteem.

The problem-solving task. The problem-solving task that was said to be the basis of the qualification evaluation consisted of anagrams, which involved rearranging scramble letters to make new words. This task was emphasized to be a valid and widely used test in many companies for evaluating job candidates. I adopted the instructions of the task from Sarason and Sarason (1986) and made some minor modifications for the purpose of our study. The participants read the instruction as follows:

There is a series of scrambled words and your job will be to rearrange each group of letters so that they make a meaningful English word. Ability to organize material such as the letters on the next page has been found to be an important requirement for this position. Most college students should be able to successfully complete all the anagrams.

The task was not perceived as stereotypically masculine, therefore should not create any sex-based anxiety among participants that could potentially hinder their performance. There were 53 anagrams; participants were instructed to complete as many anagrams as possible within 10 minutes.

The manipulation of social support. In the social support present condition, the experimenter purposely interacted with the participants to make them feel supported. This was done by the experimenter first introducing herself, including her name, where she was from, her major in college, and her favorite TV shows and movies. The actual script is as follows:

My name is (stating her name) and I am a freshman here from Wichita Kansas. Do we have any Wichitans here? Well if you're not from there consider yourself lucky. Anyways, I am hoping to be a psych major in 2 years so I also have to take general psychology and receive research credits just like you in order to pass my class and keep my parents from killing me. This is my first time away from home and none of my friends came down here with me so I kind of had to start over from scratch like I'm sure some of you had to. I'm also finding college to be a whole different ballpark when it comes to exams and work load in comparison to High school. Anyways, some of my favorite TV shows are Law and Order SVU and Law and Order CI. My favorite movies are Finding Nemo and The Hangover. But, aside from that, I must say I'd

rather be at home or on Facebook like I'm sure you would but since we're all stuck here today I say we make the best of it! Now that we have heard a bit about me let's start at the right side of the room (points to right side of room) and go down the rows and everyone just say your name and something interesting about yourself. Also, saying there's nothing interesting about yourself is not an option today so make up some crazy story to make yourself sound as interesting and exciting as possible, if you have to. I don't care. So let's start with you.

After reciting the script, she invited the participants to introduce themselves as well. To every participant who was talking about herself, the experimenter looked at her, nodded, and repeated the last sentence of her talk when the participant was finished.

I conducted pilot studies to examine whether the script and behaviors (i.e., looking at the participants, nodding, repeating the last sentence of her talk) did make the participants feel supported. I randomly assigned volunteers to each of the 4 X 2 conditions, and after the social support offered by the experimenter I asked them whether they found the experimenter to be supportive. The results showed that those who received support from the experimenter significantly found her to be more supportive than those in control condition, suggesting that participants did significantly feel supported because of these behaviors (self-introduction, looking straight at them, nodding, and repeating what they say) from the experimenter.

The participants in the social support absent condition did not receive such supportive behaviors from the experimenter except being told that they have 10 minutes to complete the survey and the problem-solving task.

The manipulation check questions. Participants' perceived sexism was measured by a single question, adopted from Dardenne et al. (2007): "Do you find that the introductory text was

sexist?” In addition, participants’ perception of how supportive the experimenter was was measured by a single question: “*How supportive do you feel the experimenter is?*” Other manipulation check questions included “*Do you feel uncomfortable when reading the recruitment letter?*” “*How much do you feel that the experimenter really listened to you?*” “*How much do you feel that the experimenter was mean to you?*” “*How serious were you in trying to do your best on the problem-solving task?*” and “*How much did you want to do the problem-solving task well?*”

Results

Prior to analysis, all variables were examined for accuracy of data entry and missing values. The analysis showed that the missing values were less than 5% and were random, therefore would be unlikely to create problems for data analysis. The data were also screened to see whether there were violations of the assumptions of the general linear model. The data did not violate the assumptions of normality, homogeneity of variance, linearity, and multicollinearity to any great degree.

Examining the manipulation check questions

The manipulation check question: “Do you find that the introductory text was sexist?”. I predicted that participants reading the old-fashioned sexist text would be more likely to feel the text to be sexist than those reading the two other forms of sexist texts. A one-way ANOVA was performed on the three sexism conditions with participants’ feeling that the text was sexist as the dependent variable. The result was significant, $F(3, 175) = 21.32, p < .001$, which indicated that participants did find the different forms of introductory text to be sexist differently. Planned contrasts were conducted between the old-fashioned and modern sexism conditions and between the old-fashioned and benevolent sexism conditions. The results indicated that participants in the

old-fashioned sexism condition ($M = 7.34$, $SD = 2.22$) did not find the text to be more sexist than those in the modern sexism condition ($M = 6.91$, $SD = 1.87$), $p = .839$. Participants in the old-fashioned sexism condition, however, did find the text to be significantly more sexist than those in benevolent sexism condition ($M = 5.36$, $SD = 2.58$), $p < .001$. Interestingly, a post hoc Bonferroni test comparing the modern and benevolent sexism conditions also revealed a significant difference at the corrected significant levels of .025, $p = .011$, which indicated that participants in the benevolent sexism condition found the text to be less sexist than those in the modern sexism condition (see Figure 3).

The manipulation check question: “How supportive do you feel the experimenter is?” I predicted that participants in the social support condition would feel much more support from the experimenter than those in the support absent condition. A one-way ANOVA was performed on the two social support conditions with participants’ feeling that the experimenter was supportive as the dependent variable. The result was significant, $F(1, 177) = 12.03$, $p < .001$, which indicated that participants did find the experimenter to be more supportive in the social support activation condition ($M = 7.18$, $SD = 1.64$) than those in social support absent condition ($M = 6.23$, $SD = 2.00$). This suggested that our social support manipulation was successful (see Figure 4).

The manipulation check question: “Do you feel uncomfortable when reading the recruitment letter?” I predicted that participants reading the old-fashioned sexist text would be more likely to feel uncomfortable than those reading the two other forms of sexist texts. A one-way ANOVA was performed on the three sexism conditions with participants’ degrees of feeling uncomfortable when reading the text as the dependent variable. The result was significant, $F(3, 175) = 24.65$, $p < .001$, which indicated that participants did have different degrees of

uncomfortable feelings across the different forms of sexism conditions. Planned contrasts were conducted between the old-fashioned and modern sexism conditions and between the old-fashioned and benevolent sexism conditions. The results indicated that participants in the old-fashioned sexism condition ($M = 5.82, SD = 2.40$) did not find the text to make them more uncomfortable than those in the modern sexism condition ($M = 5.13, SD = 2.62$), $p = .516$. Participants in the old-fashioned sexism condition, however, did find the text to make them significantly more uncomfortable than those in the benevolent sexism condition ($M = 4.25, SD = 2.83$), $p < .05$. A post hoc Bonferroni test comparing the modern and benevolent sexism conditions suggested no significant difference, $p = .291$, indicating that participants in the benevolent and modern sexism conditions did not find the text to make them uncomfortable differently (see Figure 5).

The manipulation check question: “How much do you feel that the experimenter really listened to you?”. I predicted that the participants in the social support condition would feel the experimenter really listened to them more than those in the support absent condition would. A one-way ANOVA was performed on the two social support conditions with participants’ feeling that the experimenter was listening as the dependent variable. The result was significant, $F(1, 177) = 16.07, p < .001$, which indicated that participants did find the experimenter to be listening more in the social support activation condition ($M = 7.50, SD = 1.72$) than did those in the social support absent condition ($M = 6.34, SD = 2.13$). This further suggested that our social support manipulation was successful (see Figure 6).

The manipulation check question: “How much do you feel that the experimenter was mean to you?”. A one-way ANOVA was performed on the two social support conditions with participants’ feeling that the experimenter was mean as the dependent variable. The result was

not significant, $F(1, 177) = 1.83, p = .178$, which indicated that participants did not find the experimenter to be less mean in the social support activation condition ($M = 1.38, SD = 1.13$) than did those in the social support absent condition ($M = 1.64, SD = 1.44$). This suggested that the experimenter did not show signs of non-supportive behavior such as meanness in either condition (see Figure 7).

The manipulation check questions: “How serious were you in trying to do your best on the problem-solving task?” and “How much did you want to do the problem-solving task well?”. I examined whether there were differences across conditions on how much the participants tried to engage in the problem-solving task. I first combined the last two manipulation questions asking how serious and how much the participants wanted to perform the task well. A two-way ANOVA (4 sexism conditions X 2 social support conditions) was performed with the average of the participants’ self-report on these two questions as the dependent variable to make sure that there was no differences across the conditions in any systematic way. The results indicated no main effect for sexism conditions, $F(3, 171) = 0.57, p = .634$, suggesting that participants’ report on these two questions did not depend on sexism conditions. There was no main effect for social support condition, $F(1, 171) = 0.91, p = .341$, suggesting that participants’ report on these two questions did not depend on social support conditions. Finally, there was no significant interaction between these two variables, $F(3, 171) = 0.87, p = .458$, suggesting that participants’ report on these two questions did not depend on sexism conditions and social support conditions (see Table 11).

Additionally, in order to make sure that there was no significant difference across the 8 conditions, I further conducted a one-way ANOVA across all 8 conditions with the average of the participants’ self-report on these two questions as the dependent variable. The results

indicated no significant effect, $F(7, 171) = 0.76, p = .626$, suggesting that participants' report on these two questions did not differ significantly across 8 conditions (see Table 12).

Because these two items were only moderately correlated, $r(179) = .64, p < .001$, I further conducted a two-way ANOVA on each question to examine if there was any systematic difference. For the first question, there was no main effect for sexism conditions, $F(3, 171) = 0.92, p = .430$, main effect for social support condition, $F(1, 171) = 0.40, p = .531$, or significant interaction between these two variables, $F(3, 171) = 1.13, p = .340$ (see Table 13). The results of the one-way ANOVA also indicated no significant effect, $F(7, 171) = .96, p = .464$ (see Table 14). For the second question, there was no main effect for sexism conditions, $F(3, 171) = 0.27, p = .846$, main effect for social support condition, $F(1, 171) = 1.15, p = .286$, or significant interaction between these two variables, $F(3, 171) = 0.68, p = .566$. These results suggested that across all conditions, participants' self report on these two questions were very similar (see Table 15). The results of the one-way ANOVA also indicated no significant effect, $F(7, 171) = .56, p = .792$ (see Table 16). Further, participants all reported having very high desire to perform well for this task ($M = 8.01, SD = 1.27$). Therefore, I was confident that all participants were equally eager to do their best on the task.

The analysis of the problem-solving task

A 4 (forms of sexism: hostile/old-fashioned, modern, benevolent sexism, and control) X 2 (social support: present or absent) between-participants ANOVA was performed on the number of correct anagrams. I expected a main effect for sexism conditions: participants in the hostile/old-fashioned condition and control condition would perform significantly better than those in the modern and benevolent sexism conditions. I also expected a main effect for social support conditions. More specifically, participants in the social support present conditions were

predicted to perform significantly better than those in the no-support conditions. The results, however, indicated that there was no main effect for sexism conditions, $F(1, 3) = 0.48, p = .698$, suggesting that the number of anagrams answered correctly were not significantly different across sexism conditions. There was no main effect found for social support conditions either, $F(1, 1) = 0.29, p = .588$, suggesting that the number of anagrams answered correctly were not influenced by whether social support from the experimenter was present or absent. There was no significant interaction between the sexism and social support conditions, $F(1, 3) = 0.19, p = .902$, suggesting that the number of anagrams answered correctly in the various sexism conditions did not depend on the levels of social support conditions (see Table 17).

The analyses of the change of the affect and the state self-esteem

I also conducted a series of 4 (forms of sexism: hostile/old-fashioned, modern, benevolent, or control) X 2 (social support: present or absent) X 2 (time of measurement: before or after) mixed factorial ANOVAs on the affect and the state self-esteem measurement before and after the problem-solving task. The affect measurements were positive affect, negative affect, hostile affect, and anxiety affect. The state self-esteem measurements were performance self-esteem, social self-esteem, and appearance self-esteem.

Positive affect. The results of the analysis indicated a main effect for the first time and second time of measurement of positive affect, $F(1, 171) = 29.94, p < .001$, suggesting a significant change of positive affect across times of measurement. Examining the descriptive statistics revealed that the first time of measurement of positive affect ($M = 6.38, SD = 1.30$) was significantly higher than the second time of measurement ($M = 5.96, SD = 1.62$), suggesting that disregarding sexism and social support conditions, participants in general felt less positive affect at the second time of measurement. There was no significant interaction between times of

positive affect measurement and sexism conditions, $F(3, 171) = 0.37, p = .776$, suggesting that the change of positive affect across times did not depend on the conditions of sexism. There was no significant interaction between times of positive affect of measurement and social support conditions, $F(1, 171) = 1.23, p = .269$, suggesting that the change of positive affect across times did not depend on the presence or absence of social support. Finally, there was no significant three-way interaction among the change of positive affect across times, sexism conditions, and social support conditions, $F(3, 171) = .88, p = .451$, suggesting that the change of positive affect across times did not depend on the conditions of sexism and social support. These results suggested that participants across all sexism and social support conditions generally felt less positive affect after completing the problem-solving task (see Figure 8).

Negative affect. The results of the analysis indicated no main effect for the first time and second time of measurement of negative affect, $F(1, 171) = 1.24, p = .268$, suggesting that there was no significant change of negative affect across times of measurement. There was no significant interaction between times of negative affect measurement and sexism conditions, $F(3, 171) = 1.20, p = .312$, suggesting that the change of negative affect across times did not depend on the conditions of sexism. There was no significant interaction between times of negative affect measurement and social support conditions, $F(1, 171) = 1.47, p = .228$, suggesting that the change of negative affect across times did not depend on the presence or absence of social support. Finally, there was no significant three-way interaction among the change of negative affect across times, sexism conditions, and social support conditions, $F(3, 171) = 0.04, p = .991$, suggesting that the change of negative affect across times did not depend on the conditions of sexism and social support. These results suggested that participants across all sexism and social

support conditions generally did not report differences in negative affect before and after completing the problem-solving task (see Figure 9).

Hostile affect. The results of the analysis indicated a marginally significant main effect for the first time and second time of measurement of hostile affect, $F(1, 171) = 3.79, p = .053$, suggesting a change of hostile affect at marginally significant level across times of measurement. Examining the descriptive statistics revealed that the first time of measurement of hostile affect ($M = 1.96, SD = 1.56$) was lower than the second time of measurement ($M = 2.18, SD = 1.43$), suggesting that disregarding sexism and social support conditions, participants in general felt marginally more hostile affect at the second time of measurement. There was a significant interaction between times of hostile affect measurement and sexism conditions, $F(3, 171) = 3.18, p < .05$, suggesting that the change of hostile affect across times depended on the conditions of sexism. Simple effect analyses were used to probe the significant interactions. The results revealed that participants in the modern sexism condition had increased hostile affect from the first time ($M = 1.91, SD = 1.48$) to the second time ($M = 2.38, SD = 1.58$), $F(1, 171) = 5.94, p < .05$. Also, participants in the control condition had increased hostile affect from the first time ($M = 1.51, SD = 0.76$) to the second time ($M = 1.88, SD = 1.13$) as well, $F(1, 171) = 4.54, p < .05$. There was no significant interaction between times of hostile affect measurement and social support conditions, $F(1, 171) = .74, p = .390$, suggesting that the change of hostile affect across times did not depend on the presence or absence of social support. Finally, there was no significant three-way interaction among the change of hostile affect across times, sexism conditions, and social support conditions, $F(3, 171) = 0.59, p = .643$, suggesting that the change of hostile affect across times did not depend on the conditions of sexism and social support. These results suggested that participants in the modern sexism condition and the control

condition, disregarding receiving social support or not, increased significantly on hostile affect after completing the problem-solving task (see Figure 10).

Anxiety affect. The results of the analysis indicated no main effect for the first time and second time of measurement of anxiety affect, $F(1, 171) = 1.07, p = .303$, suggesting that there was no significant change of anxiety affect across times of measurement. There was no significant interaction between times of anxiety affect of measurement and sexism conditions, $F(3, 171) = 0.93, p = .429$, suggesting that the change of anxiety affect across times did not depend on the conditions of sexism. There was no significant interaction between times of anxiety affect measurement and social support conditions, $F(1, 171) = 1.31, p = .254$, suggesting that the change of anxiety affect across times did not depend on the presence or absence of social support. Finally, there was no significant three-way interaction among the change of anxiety affect across times, sexism conditions, and social support conditions, $F(3, 171) = 1.07, p = .362$, suggesting that the change of anxiety affect across times did not depend on the conditions of sexism and social support. These results suggested that participants across all sexism and social support conditions generally did not felt significant change on anxiety affect before and after completing the problem-solving task (see Figure 11).

Performance self-esteem. The results of the analysis indicated a main effect for the first time and second time of measurement of positive affect, $F(1, 171) = 54.49, p < .001$, suggesting a significant change of performance self-esteem across times of measurement. Examining the descriptive statistics revealed that the first time of measurement of performance self-esteem ($M = 7.46, SD = 1.13$) was significantly higher than the second time of measurement ($M = 6.69, SD = 1.47$), suggesting that disregarding sexism and social support conditions, participants in general felt less performance self-esteem on the second time of measurement. There was no significant

interaction between times of performance self-esteem of measurement and sexism conditions, $F(3, 171) = 0.07, p = .974$, suggesting that the change performance self-esteem across times did not depend on the conditions of sexism. There was no significant interaction between times of performance self-esteem measurement and social support conditions, $F(1, 171) = 1.26, p = .264$, suggesting that the change of performance self-esteem across times did not depend on the presence or absence of social support. Finally, there was no significant three-way interaction among the change of performance self-esteem across times, sexism conditions, and social support conditions, $F(3, 171) = 1.68, p = .173$, suggesting that the change of performance self-esteem across times did not depend on the conditions of sexism and social support. These results suggested that participants across all sexism and social support conditions generally felt less performance self-esteem after completing the problem-solving task (see Figure 12).

Social self-esteem. The results of the analysis indicated no main effect for the first time and second time of measurement of social self-esteem, $F(1, 171) = 1.03, p = .311$, suggesting that there was no significant change of social self-esteem across times of measurement. There was no significant interaction between times of social self-esteem measurement and sexism conditions, $F(3, 171) = 0.83, p = .480$, suggesting that the change of social self-esteem across times did not depend on the conditions of sexism. There was no significant interaction between times of social self-esteem measurement and social support conditions, $F(1, 171) = .38, p = .539$, suggesting that the change of social self-esteem across times did not depend on the presence or absence of social support. Interestingly, there was a significant three-way interaction among the change of performance self-esteem across times, sexism conditions, and social support conditions, $F(3, 171) = 3.45, p < .05$, suggesting that the change of social self-esteem across times depended on the conditions of sexism and social support. Simple effect analyses were

used to probe the significant interaction. The results revealed that in the social support present condition, there was no significant difference on social self-esteem across all sexism conditions. But in the social support absent condition, the participants in the modern sexism condition had significant decrease of the social self-esteem from the first time ($M = 6.35, SD = 1.68$) to the second time ($M = 5.75, SD = 2.00$), $F(3, 171) = 8.44, p < .05$. It suggested that for the participants in the modern sexism condition, when there was no social support, they were more likely to have a significant decrease of social self-esteem after completing the problem-solving task. There was no significant interactions found among other sexism conditions (see Figure 13).

Appearance self-esteem. Finally, the results of the analysis indicated no main effect for the first time and second time of measurement of appearance self-esteem, $F(1, 171) = 1.76, p = .187$, suggesting that there was no significant change of appearance self-esteem across times of measurement. There was no significant interaction between times of appearance self-esteem measurement and sexism conditions, $F(3, 171) = 0.19, p = .902$, suggesting that the change of appearance self-esteem across times did not depend on the conditions of sexism. There was no significant interaction between times of appearance self-esteem measurement and social support conditions, $F(1, 171) = 1.74, p = .190$, suggesting that the change of appearance self-esteem across times did not depend on the presence or absence of social support. Finally, there was no significant three-way interaction among the change of appearance self-esteem across times, sexism conditions, and social support conditions, $F(3, 171) = 0.19, p = .904$, suggesting that the change of appearance self-esteem across times did not depend on the conditions of sexism and social support. These results suggested that participants across all sexism and social support conditions generally did not felt significant change on appearance self-esteem before and after completing the problem-solving task (see Figure 14).

Discussion

In Study 2, I examined whether receiving actual social support, such as by receiving a supportive message, would help individuals experiencing sexism to better cope with the distress. I predicted that female participants who received a supportive message from an experimenter after experiencing one of the three forms of sexism would perform relatively better on a problem-solving task than those who did not receive the supportive message.

The results, however, did not support this prediction. The problem-solving task performance was not significantly different across sexism or social support conditions, and there was no significant interaction between these two independent variables. There were some significant changes for the affect and self-esteem. In summary, participants in general felt less positive affect and lower performance self-esteem after the completion of the problem-solving task. Participants in the modern and control sexism conditions increased their hostile affect after the completion of the problem-solving task, but those in the old-fashioned and benevolent sexism conditions were not affected. Further, in the social support absent condition, participants in the modern sexism condition showed a reduction of social self-esteem from the first time to the second time measure. The participants generally showed no significant changes in negative and anxiety affect, or in their appearance self-esteem. These results seemed to suggest that the problem-solving task was hard enough to reduce most participants' positive affect and their performance self-esteem. Also, those who either experienced modern sexism or no sexism at all were more likely to increase hostile affect after this somewhat difficult task. Finally, there was no significant change of social self-esteem across times among participants in the social support present condition. But for those in the social support absent condition, those who experienced

modern sexism (but not other forms of sexism) had reduction of social self-esteem from the first time to the second time of measurement.

The manipulation check questions also offered some interesting findings. Participants in the old-fashioned and modern sexism conditions did not feel the introductory text to be sexist differently, and did not find the text to make them uncomfortable differently. These seemed to suggest that these individuals found the modern sexism to be quite similar to the old-fashioned sexism condition. Further, participants seemed to accept the benevolent sexism more relative to the other two forms of sexism: at least they were significantly less likely to feel the benevolent introductory text to be sexist than the other two forms of sexist text.

Taken together, these results seemed to suggest that the sexist introductory text could exert some influence on the affect and some types of state self-esteem, but maybe not enough to cause a significant influence on participants' problem-solving task performance. Modern sexist statement also made the participants more hostile, rather than anxious, and the social support may have helped individuals experiencing modern sexism to retain their performance self-esteem.

Chapter 4 - General Discussion

These two studies examined whether social support alleviated the negative effects of sexism for female participants. Specifically, in Study 1, I investigated the effects of three different forms of sexism (i.e., hostile/old-fashioned, modern, and benevolent sexism) and whether higher perceived social support was associated with better psychological outcomes, such as more positive affect and less negative affect, higher self-esteem, less endorsement of communal gender stereotypes and more endorsement of agentic gender stereotypes, and stronger desire to confront people who hold sexist beliefs. Also, I examined whether the activation of perceived social support was associated with these better psychological outcomes. In Study 2, I examined whether receiving actual social support helped individuals experiencing sexism to perform better on a problem-solving task than those who did not receive a supportive message. I also measured changes in their affect and self-esteem before and after they received social support, and expected the participants who received social support would have better outcomes, indicated by higher positive affect, lower negative affect, and higher self-esteem.

The results, however, only partially supported our hypotheses. The results of Study 1 suggested that higher levels of perceived social support indeed were associated with most of the better psychological outcomes and higher agentic gender stereotypes, as expected. However, they were also associated with communal gender stereotypes, and were not significantly related to the desire to confront people with sexist beliefs. Further, reading different forms of sexist statements did not produce significant effects on any of the participants' psychological outcome variables. Participants who were primed by the perceived social support scale had marginally higher levels of negative affect, hostile affect, and anxiety affect, and had significantly lower appearance self-esteem than those who were not primed. The results of Study 2 suggested that

the problem-solving task performance was not significantly different across sexism or social support conditions, and there was no significant interaction between these two variables. Regarding changes in affect and self-esteem, participants in the modern and control sexism conditions increased their hostile affect after the completion of the problem-solving task, but those in the old-fashioned and benevolent sexism conditions were not affected. Also, those who were in the modern sexism condition without receiving social support reported reduced levels of social self-esteem at the second measure.

These results were different from previous research. For example, Barreto and Ellemers (2005b) found that female participants generally recognized old-fashioned sexism as sexist and reacted with anger. They were, however, less likely to identify modern sexism as prejudice, though at the same time they became more anxious after reading statements of modern sexism. Dardenne et al. (2007) suggested that benevolent sexism elicited self-doubt and anxiety, decreased the self-esteem of the participants, and as a consequence created a preoccupied mindset that distracted the women from concentrating on their tasks. In addition, modern and benevolent sexism has caused women to support the status quo (Barreto & Ellemers, 2005b; Dardenne et al., 2007; Jost & Kay, 2005). Moradi and Funderburk (2006) examined the relationships between perceived social support and psychological distress caused by experiencing sexist events among a sample of women who were seeking mental health service. The results indicated that there was a significant relationship between perceived social support and psychological distress caused by sexism, and this relationship was mediated by empowerment. These pieces of research evidence suggested that women who experience the modern or benevolent sexism should report more anxiety and perform significantly worse than those who experience old-fashioned sexism or do not experience sexism at all. However, my

participants in general did not show this pattern; they seemed to be minimally influenced by the more subtle forms of sexism (i.e., modern and benevolent sexism).

I speculate that the main reason for the different results of my studies from the previous research was the different backgrounds of the participants. The participants of my studies were mainly from the Midwest region of the United States. This region is noted for its conservative climate and the defense of traditional values (for example, see Frank, 2004). It is possible that my participants, who have grown up immersing in those traditional values, have perceived traditional gender stereotypes as part of their lives. Though their higher education might have helped them recognize sexism when facing it, the deeply engrained values in their belief system were still too strong to change. In fact, they might have already developed the coping strategy (e.g., ignoring it) for the gender stereotypes when experiencing them and thus were not agitated. Oppositely, the participants of Barreto and Ellemers (2005a, b) and Dardenne et al. (2007) were from Netherlands and Belgium, respectively. Their different cultural background could have exerted influences on their perception of gender stereotypes quite differently from my participants, and thus the different results.

In addition, the priming of social support in Study 1 and the offering of social support in Study 2 did not cause significant impacts on most of their affect, self-esteem, and anagram performance. According to Fredrickson (2001), positive emotions broaden one's perspective and thus help one to find resources to cope with stress. However, though perceived social support was related to in general better psychological outcomes (Study 1), and though participants indeed felt supported by the experimenter (Study 2), the priming and offering of support did not cause the results I expected. I contemplate it was because the priming and offering of support did not cause significantly strong enough positive emotions. Regarding the priming effect in Study 1,

participants might also recall conflicts with social network members. Regarding the offered support in Study 2, the emotional support offered was by an experimenter, a stranger that they did not know. It is possible that emotional support, though could be effective across situations (Cohen, 2004), requires history of previous relationship to find its impact. Otherwise, it could be perceived as impersonal and therefore would not trigger strong positive emotions. Phrased differently, though the participants felt supported, they only perceived the experimenter as “nice and polite” but not necessarily made them feel cheerful. Also, emotional support may not be the best support in this situation. Maybe another type of support (e.g., informational support) could be more effective in helping participants gaining more positive emotions. In general, not enough positive emotions was the potential reason for the manipulation of social support failed to create expected results.

The perception of stereotypes as part of life could potentially explain the insignificant results of my studies. The participants in these two studies seemed to recognize the more subtle forms of sexism as sexist, yet at the same time accepted them as normative, and therefore were not psychologically agitated. In Study 1, the manipulation check questions revealed that participants agreed with old-fashioned sexism the least and benevolent sexism the most. This suggested that they at least recognized old-fashioned sexism as a direct and blatant expression of prejudice against women. However, they did not see people who supported old-fashioned sexism as more sexist than those who supported the other two forms of sexism. Instead, they saw people who supported benevolent sexism as more sexist than people who supported the other two forms of sexism. Taken together, they agreed with benevolent sexism and at the same time saw people supporting benevolent sexism as sexist. These contradictory results, as I proposed, potentially suggest that the participants had traditional gender stereotypes deep in their

belief system, and/or believed that though the statements were sexist, they were so common that it almost made them agreeable. If that was the case, they may not have felt anxious when experiencing sexism. After all, it is pervasive and everyone experiences it. They may see sexism as “that is the way it is,” and therefore would not feel agitated. More research should explore this possibility.

In addition, participants in Study 1 who were primed with perceived social support had marginally higher levels of negative affect and significantly lower levels of appearance self-esteem than those in no activation condition. This finding is unexpected and interesting. For the participants who were primed with their perceived social support, they should have been reminded of their experiences with members within their social network. Research indicates that relationships within one’s social network (e.g., family, friends, or romantic partners) can also be sources of conflicts (Barrera, Chassin, & Rogosch, 1993; Rook, 1984), therefore I speculated that some memory of conflicts were activated and hence produced the marginally significant higher levels of negative affect. Also, the significantly lower levels of appearance self-esteem suggested that when primed with perceived social support, female participants became self-conscious about their appearance. Does it mean that they were reminded of expectations from social network members and/or inevitably compared themselves to the social network members? And why did only appearance self-esteem, but not the other types of self-esteem, show this effect? I believe these questions deserve further research.

Study 1 also investigated the association between perceived social support and the likelihood of confronting sexists and/or sexist events. Kaiser and Miller (2004) found that many women experienced sexism, but they did not always express their uncomfortable feelings. They also found that optimism was associated with higher likelihood of confrontational responses to

sexists. They encouraged researchers to examine whether perceived social support is related to the likelihood of confronting sexists and/or sexist events. The results of Study 1, however, suggested that perceived social support was not associated with higher likelihood of a confrontational strategy. Nevertheless, our study involved only completing online scales and therefore did not necessarily translate to behaviors. Future research should investigate whether one's perceived social support will lead to higher likelihood of confronting behavior.

The results of Study 2 suggested that our manipulations of sexism, social support, and the cover story about the importance of the problem-solving task were successful. However, the manipulations did not produce significant effects on participants' performance of the problem-solving task. Specifically, participants in the different sexism conditions did find the introductory text to be sexist differently, and those who were in the social support condition did find the experimenter to be more supportive than those in the absent condition. Also, they strongly reported wanting to perform well on the problem-solving task. Yet these differences were not reflected on their problem-solving performance, or on most of their measures of affect and self-esteem. The results suggested that the participants were not influenced by the stereotype threat and/or social support regarding their performance on anagrams: they performed equally across all conditions, including control condition. Regarding the minimal effects of stereotype threat, I again suggest that because the participants already perceived gender stereotypes as a norm in the society, they might not be significantly agitated that hindered their performance. Further, I followed Dardenne et al.'s (2007) study and used a gender-neutral task (i.e., anagram). It is possible that if I used a male-domain task (e.g., math exam), the effects would be more significant, as the research of stereotype threat suggests. Phrased differently, maybe the participants were not anxious enough because the task of anagram was not a

stereotypically male task; they were not threatened significantly to be held back regarding the performance.

I did, in Study 2, find that participants in general had a significant decrease in their positive affect and performance self-esteem, suggesting that the problem-solving task was somewhat difficult for them. I also found that for the participants in the modern sexism and control conditions, their hostile affect increased after the problem-solving task regardless of whether they received social support or not. Those in the old-fashioned and benevolent sexism conditions did not show significant changes in their hostile affect. I do not know why this happened, because previous research suggested that only those who experience old-fashioned sexism should feel hostile affect. Examining the items for hostile affect (i.e., angry, indignant, and disappointed), however, I speculate that perhaps participants in the old-fashioned and benevolent sexism conditions somehow accepted the sexist beliefs (i.e., that women are inferior and are not competent) and as a consequence were not disappointed by their performance. Participants in the modern and control conditions, on the other hand, may not have accepted these beliefs and therefore were disappointed by their performances. Further research should explore this possibility and the mechanism behind it.

Also in Study 2, I found that in the social support absent condition, participants in the modern sexism condition had a significant decrease in social self-esteem. Phrased differently, for participants in the modern sexism condition, those who had no social support were more likely to feel self-conscious and inferior to others after the problem-solving task comparing to those who had social support. I speculate that for the participants who experienced modern sexism, not only did they recognize it as a form of prejudice, they somehow felt uncertain and started wondering whether the “gender equality” claim was in fact true at all. As a consequence,

for those who did not receive social support, after the somehow difficult task they felt significantly disappointed and inferior to others. This result indicated that social support worked as a buffer for those who experienced modern sexism, which was consistent with our expectations. I suggested that at least for the participants in the modern sexism condition, when social support was provided, it broadened their perspective, and it increased the likelihood for them of finding the intellectual and psychological resources needed to cope with the stress, as Fredrickson (2001) suggested. Future research should further investigate this effect of social support. Also, why were the participants in the benevolent sexism condition, which is also a subtle form of sexism, not protected by the social support? I believe future research should investigate this question.

These studies have some potential limitations. First, the participants were female students attending a mid-western university, therefore the results may not be generalized to different regions and populations. Furthermore, these college students may have more knowledge and resources to cope with sexism because of their education. Many other women in the society do not have these privileges. Therefore, future research should study women of different population. Second, different cultures may have different forms of sexism with diverse effects, and therefore the results may not apply to non-American cultures. Another important limitation is the time frame. I examined the short-term effects of sexism and social support. However, some of the variables may take a much longer time in real life to see their effects. Future research can benefit from doing further longitudinal and/or diary research in order to probe the more long-term effects and their stability. Also, my studies examined only participants' psychological outcomes based on their self-reports. Future research will benefit from studying actual behavioral responses instead of self-reported attitudes. In addition,

observations or quasi-experiments in real settings such as real job applications and evaluations in workplaces may provide additional insight.

Another important limitation is my focus on only one single type of social support. As Cohen (2004) noted, there are three types of social support based on the resources: instrumental, informational, and emotional. Due to time frame and resource limitations, I focused only on emotional support. It is possible that one of the other two types of support may be more strongly related to the alleviation of the negative effects of sexism. Research suggests that social support is most effective when the support offered matches what is demanded in the situation (Cohen, 2004; Cohen & Wills, 1985). Maybe emotional support does not match the need of individuals who fall victim to sexism. Or maybe in order for emotional support to be effective, a previous established positive relationship is required. From this point of view, emotional support may not be suitable in the situation. Instead, they may need more informational support such as information about the achievement of women who are similar to themselves or are in similar situation. The study done by Davies et al. (2005) may support this view: they found that women were less likely to take leadership role after being primed with gender stereotypes, but this effect could be reduced when they were presented with a message claiming that research did not find any gender difference regarding leadership ability. If emotional support has to be studied, however, a situation can be created to magnify the effect of the support. For example, a confederate can act as a sexist, and after the participants experience the sexist behavior, another confederate or an experimenter can approach the participants and comment “I really do not agree,” or “he is such a sexist.” By giving such support, the participants may feel truly supported and thus experience positive emotions. Future research should explore whether instrumental

support, informational support, or emotional support will better buffer the stress caused by sexism.

I also suggest further research on the effects of social support on coping with sexism. For example, studies show that different sources of support (e.g., family members, peers, school, or community) have different magnitudes of effects on individuals (e.g., Chu et al., 2010; Criss, Shaw, Moilanen, Hitchings, & Ingoldsby, 2009). Future study should investigate whether different sources of support will have different magnitudes of effects on alleviating the effects of sexist events. Also, future research should investigate whether there is a significant relationship between social support and actual behaviors intended to challenge the status quo (e.g., collective planning of actions to change current situations such as equal job opportunity for both sexes). Finally, another suggestion for future research is to examine whether the sex of the social support provider will make a difference on the psychological well-being and/or performance of the participants who experience sexism. Barreto and Ellemers (2005b) suggested that sexist behavior is more likely to be recognized as prejudice if it comes from a man. However, what if a man provides social support after female participants experience sexism? Will the female participants feel and act differently if the support provider is a woman? It will provide insightful implication to examine the potential interactions between different forms of sexism and support provider's sex.

Many people believe that sexism is no longer a problem in modern society. As I have stated, this is far from the truth: sexism has morphed into more subtle and seemingly benign forms, and on many occasions even women themselves do not recognize it. In fact, women sometimes even support it or perceive it as normative, as our studies may suggest. As a consequence, the subtle forms of sexism are less challenged and therefore perpetuate their

harmful effects. These studies assessed whether social support could protect women, a stigmatized group, from the harmful effects of prejudice against them. The results suggested that perceived social support was associated with better psychological outcomes (e.g., more positive affect, less negative affect, and higher state self-esteem), and at least for women experiencing modern sexism, offering social support can prevent them from suffering lower social self-esteem (e.g., feeling inferior and self-conscious). I believe the results of our studies can contribute to the research on coping strategies to deal with sexism, and may benefit individuals who experience this seemingly harmless yet damaging prejudice.

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Table 1

Hierarchical regression analyses predicting positive affect

Predictor variable	ΔR^2	p	β	t	p
Step 1 PSS	.101	<.001	.32	5.83	<.001
Step 2	.005	.644			
Old-fashioned sexism			-.06	-.88	.382
Modern sexism			-.05	-.66	.509
Benevolent sexism			-.09	-1.27	.204
Step 3	.007	.138			
PSS activation			-.08	-1.49	.138

Note. PSS = Perceived social support

Table 2

Hierarchical regression analyses predicting negative affect

Predictor variable	ΔR^2	p	β	t	p
Step 1 PSS	.043	<.001	-.21	-3.70	<.001
Step 2	.006	.599			
Old-fashioned sexism			-.07	-1.00	.316
Modern sexism			-.01	.07	.943
Benevolent sexism			-.09	-.06	.407
Step 3	.012	.056			
PSS activation condition			.11	1.92	.056
Step 4					
PSS X PSS activation condition	.002	.446	.06	.76	.446

Note. PSS = Perceived social support

Table 3

Hierarchical regression analyses predicting hostile-related affect

Predictor variable	ΔR^2	p	β	t	p
Step 1 PSS	.051	<.001	-.23	-4.05	<.001
Step 2	.010	.367			
Old-fashioned sexism			-.07	-1.00	.321
Modern sexism			.05	.71	.481
Benevolent sexism			-.02	-.26	.797
Step 3 PSS activation	.010	.076	.10	1.78	.076
Step 4 PSS X PSS activation condition	<.001	.725	.03	.35	.725

Note. PSS = Perceived social support

Table 4

Hierarchical regression analyses predicting anxiety-related affect

Predictor variable	ΔR^2	p	β	t	p
Step 1 PSS	.042	<.001	-.21	-3.65	<.001
Step 2	.005	.665			
Old-fashioned sexism			-.01	-.14	.886
Modern sexism			.02	.28	.778
Benevolent sexism			.07	.98	.328
Step 3 PSS activation	.011	.063	.11	1.86	.063
Step 4 PSS X PSS activation condition	<.001	.870	.01	.16	.870

Note. PSS = Perceived social support

Table 5

Hierarchical regression analyses predicting performance state self-esteem

Predictor variable	ΔR^2	p	β	t	p
Step 1 PSS	.113	<.001	.34	6.21	<.001
Step 2	.004	.692			
Old-fashioned sexism			.08	1.21	.229
Modern sexism			.04	.64	.526
Benevolent sexism			.04	.62	.534
Step 3	.004	.244			
PSS activation			-.06	-1.17	.244

Note. PSS = Perceived social support

Table 6

Hierarchical regression analyses predicting social state self-esteem

Predictor variable	ΔR^2	p	β	t	p
Step 1 PSS	.116	<.001	.34	6.32	<.001
Step 2	.005	.632			
Old-fashioned sexism			.06	.83	.408
Modern sexism			-.003	-.04	.965
Benevolent sexism			.07	.98	.330
Step 3	.005	.212			
PSS activation			-.07	-1.25	.212

Note. PSS = Perceived social support

Table 7

Hierarchical regression analyses predicting appearance state self-esteem

Predictor variable	ΔR^2	p	β	t	p
Step 1	.092	<.001			
PSS			.30	5.54	<.001
Step 2	.006	.542			
Old-fashioned sexism			.02	.28	.780
Modern sexism			-.07	-1.03	.302
Benevolent sexism			-.03	-.45	.652
Step 3	.016	.020			
PSS activation			-.13	-2.34	.020
Step 4					
PSS X PSS activation condition	.001	.557	.04	.59	.557

Note. PSS = Perceived social support

Table 8

Hierarchical regression analyses predicting communal traits

Predictor variable	ΔR^2	p	β	t	p
Step 1	.153	<.001			
PSS			.39	7.39	<.001
Step 2	.004	.662			
Old-fashioned sexism			.08	1.19	.236
Modern sexism			.04	.54	.590
Benevolent sexism			.02	.30	.767
Step 3	.001	.615			
PSS activation			-.03	.50	.615

Note. PSS = Perceived social support

Table 9

Hierarchical regression analyses predicting agentic traits

Predictor variable	ΔR^2	p	β	t	p
Step 1 PSS	.084	<.001	.29	5.26	<.001
Step 2	.003	.837			
Old-fashioned sexism			.04	.61	.542
Modern sexism			-.03	-.05	.959
Benevolent sexism			-.01	-.20	.842
Step 3	<.001	.991			
PSS activation			.001	.01	.991

Note. PSS = Perceived social support

Table 10

Hierarchical regression analyses predicting desire for confrontation

Predictor variable	ΔR^2	p	β	t	p
Step 1	<.001	<.950			
PSS			.004	.06	.950
Step 2	.018	.149			
Old-fashioned sexism			.11	1.45	.148
Modern sexism			.07	.96	.338
Benevolent sexism			-.04	-.59	.558
Step 3	<.001	.846			
PSS activation			.01	.19	.846

Note. PSS = Perceived social support

Table 11

Analysis of variance of the combination of the two manipulation check questions: "How serious were you in trying to do your best on the problem-solving task?" and "How much did you want to do the problem-solving task well?"

Source	SS	df	MS	F	p
Sexism Conditions	2.79	3	0.93	0.57	.634
Social Support Conditions	1.48	1	1.48	0.91	.341
Sexism X Social Support	4.24	3	1.42	0.87	.458
Error	277.90	171	1.63		

Table 12

One-way analysis of variance of the combination of the two manipulation check questions:

“How serious were you in trying to do your best on the problem-solving task?” and “How much did you want to do the problem-solving task well?”

Source	SS	df	MS	F	p
Conditions	8.59	7	1.23	0.76	.626
Error	277.90	171	1.63		

Table 13

Analysis of variance of the manipulation check question: "How serious were you in trying to do your best on the problem-solving task?"

Source	SS	df	MS	F	p
Sexism Conditions	4.74	3	1.58	0.92	.430
Social Support Conditions	0.68	1	0.68	0.40	.531
Sexism X Social Support	5.77	3	1.92	1.13	.340
Error	292.45	171	1.71		

Table 14

One-way analysis of variance of the manipulation check question: How serious were you in trying to do your best on the problem-solving task?"

Source	SS	df	MS	<i>F</i>	<i>p</i>
Conditions	11.46	7	1.64	0.96	.464
Error	292.45	171	1.71		

Table 15

Analysis of variance of the manipulation check question: "How much did you want to do the problem-solving task well?"

Source	SS	df	MS	<i>F</i>	<i>p</i>
Sexism Conditions	1.85	3	0.62	0.27	.846
Social Support Conditions	2.61	1	2.61	1.15	.286
Sexism X Social Support	4.64	3	1.55	0.68	.566
Error	389.14	171	2.28		

Table 16

One-way analysis of variance of the manipulation check question: "How much did you want to do the problem-solving task well?"

Source	SS	df	MS	F	p
Conditions	8.84	7	1.26	0.56	.792
Error	389.14	171	2.28		

Table 17

Analysis of variance of number of correct anagrams

Source	SS	df	MS	<i>F</i>	<i>p</i>
Sexism Conditions	95.11	3	31.70	0.48	.698
Social Support Conditions	19.52	1	19.52	0.29	.588
Sexism X Social Support	38.16	3	12.72	0.19	.902
Error	11338.53	171	66.31		

Figure 1

Mean differences of the participants in different sexism conditions agreeing with the sexist statements

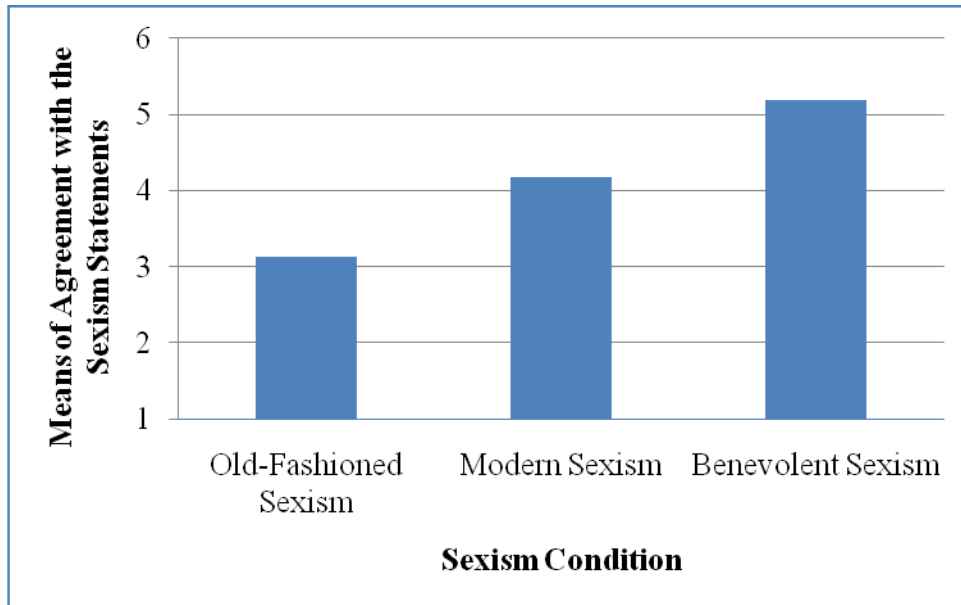


Figure 2

Mean differences of the participants in different sexism conditions perceiving people supporting the statement as sexist

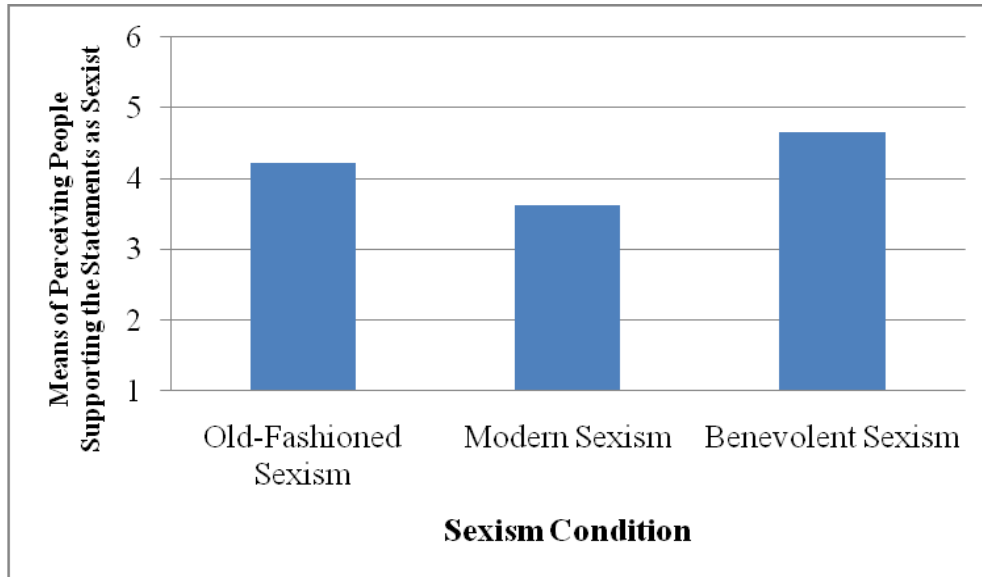


Figure 3

Mean differences of the manipulation check question: “Do you find that the introductory text was sexist?”

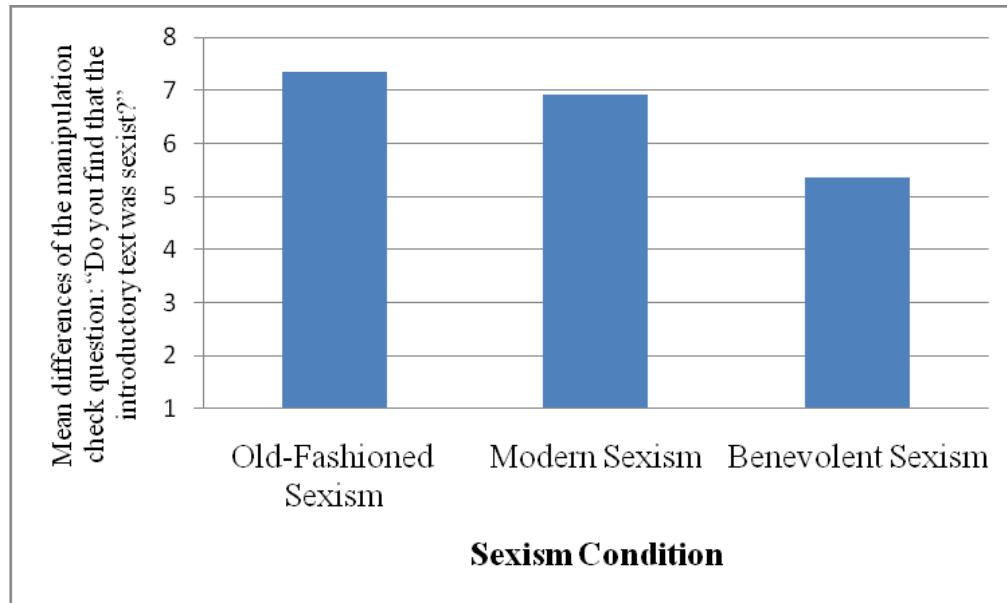


Figure 4

Mean differences of the manipulation check question: “How supportive do you feel the experimenter is?”

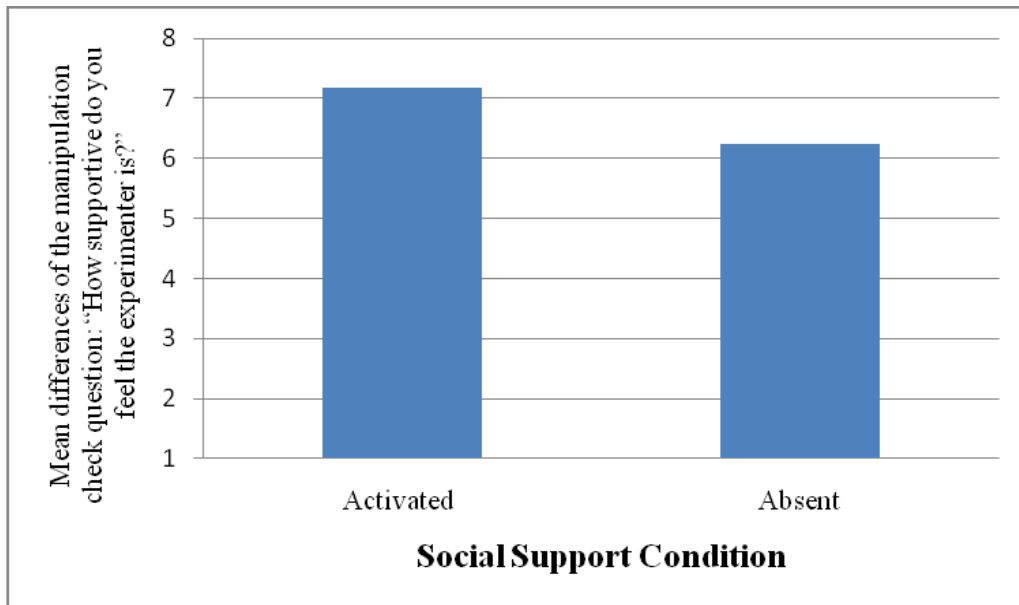


Figure 5

Mean differences of the manipulation check question: “Do you feel uncomfortable when reading the recruitment letter?”

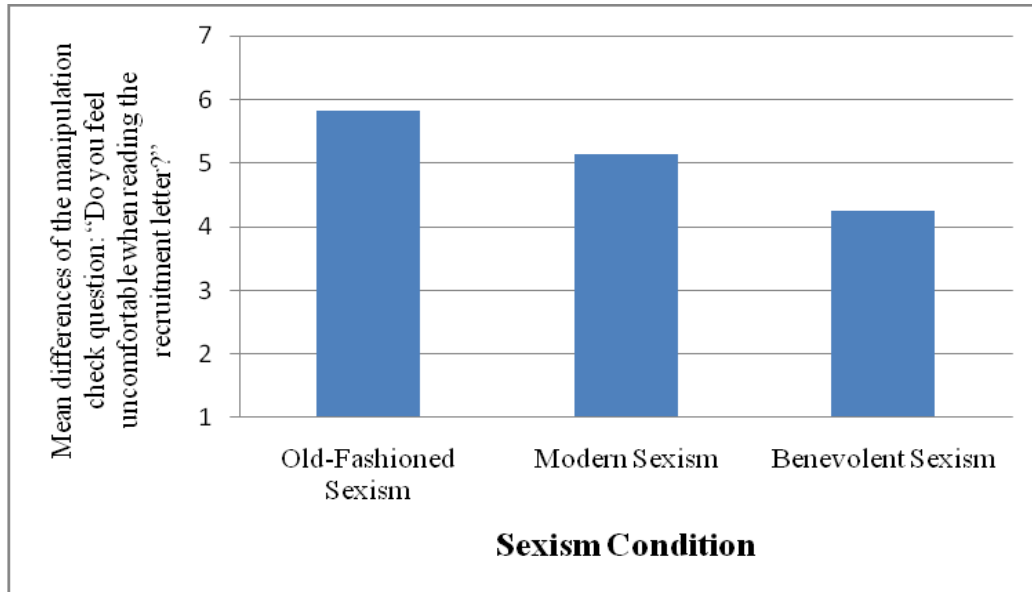


Figure 6

Mean differences of the manipulation check question: “How much do you feel that the experimenter really listened to you?”

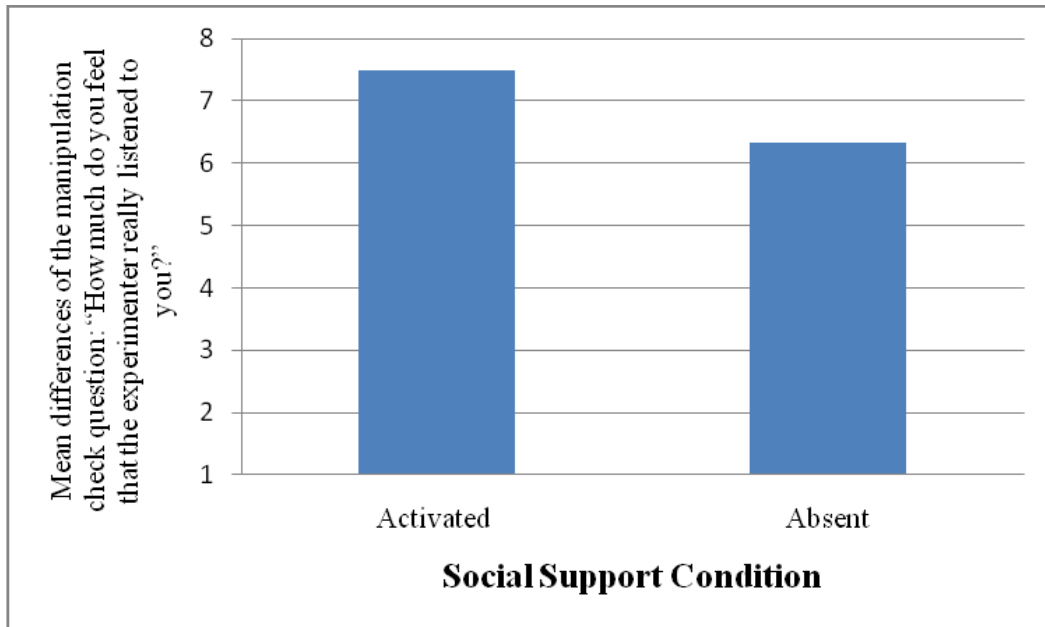


Figure 7

Mean differences of the manipulation check question: “How much do you feel that the experimenter was mean to you?”

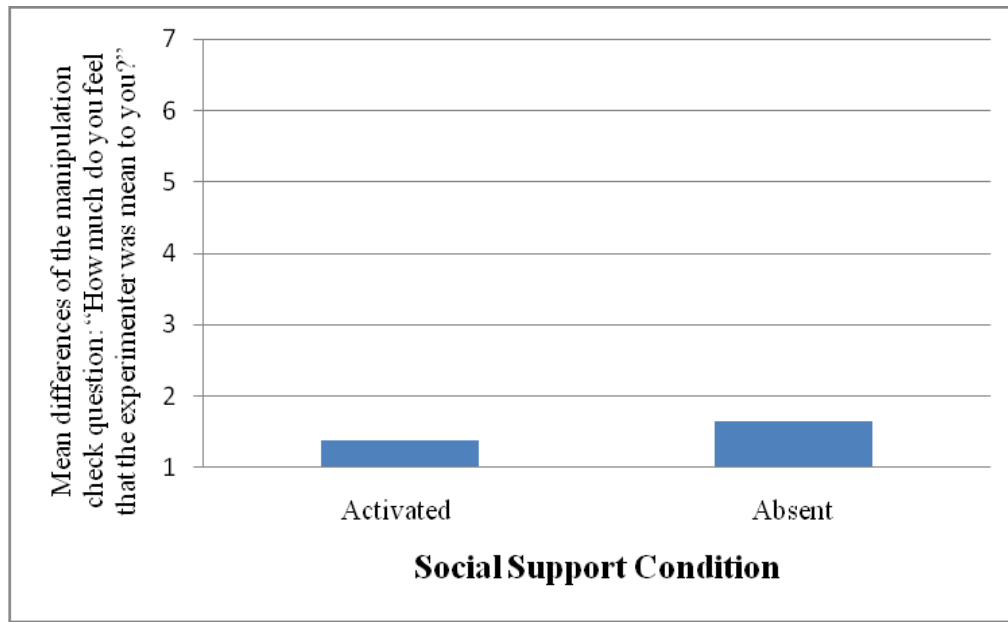


Figure 8

Mean differences of the positive affect across times of measurement

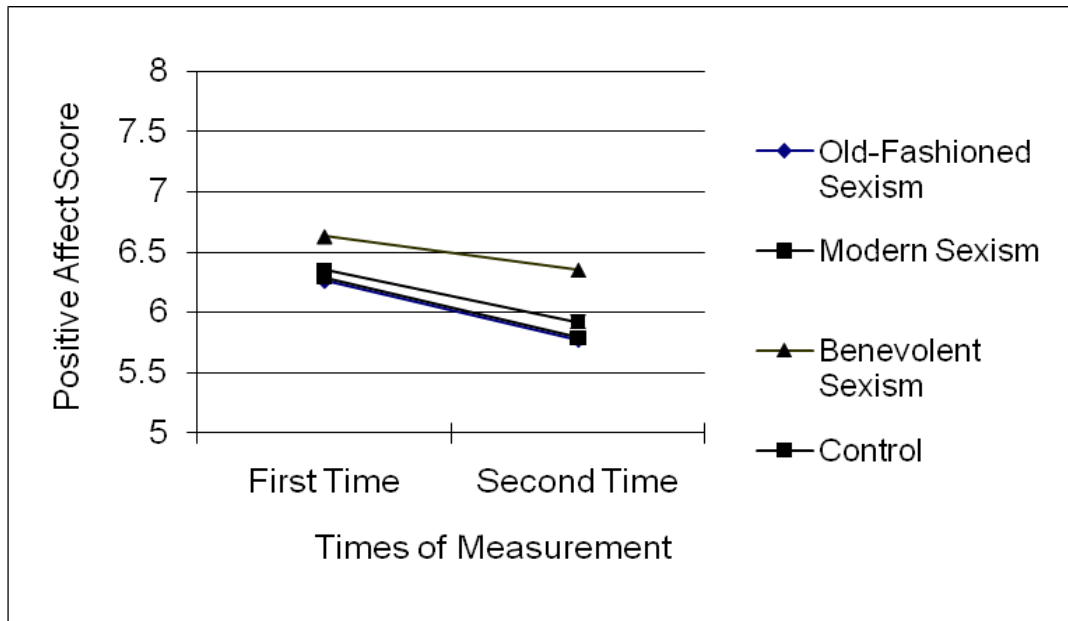


Figure 9

Mean differences of the negative affect across times of measurement

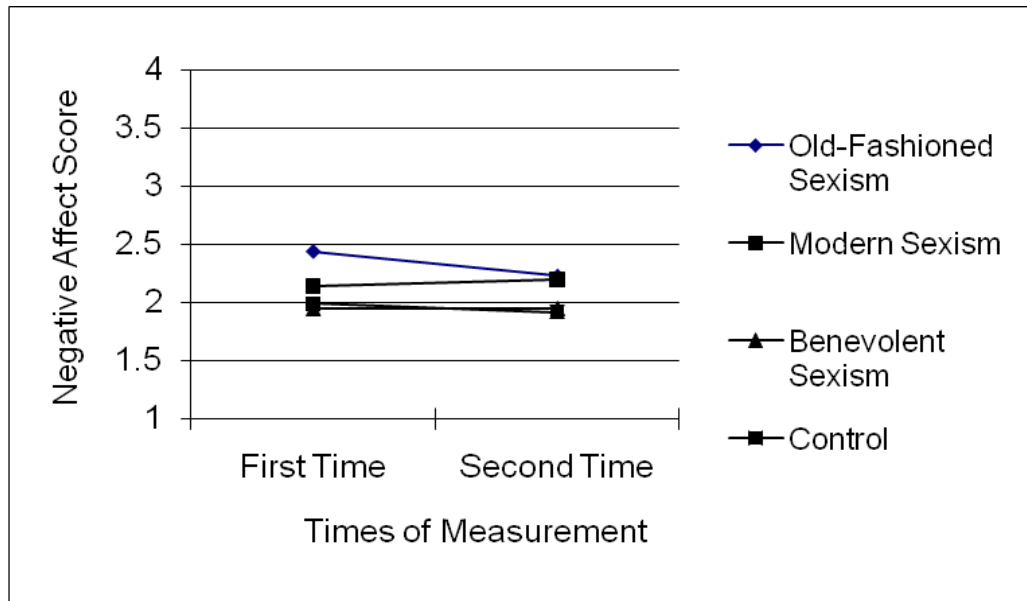


Figure 10

Mean differences of the hostile affect across times of measurement

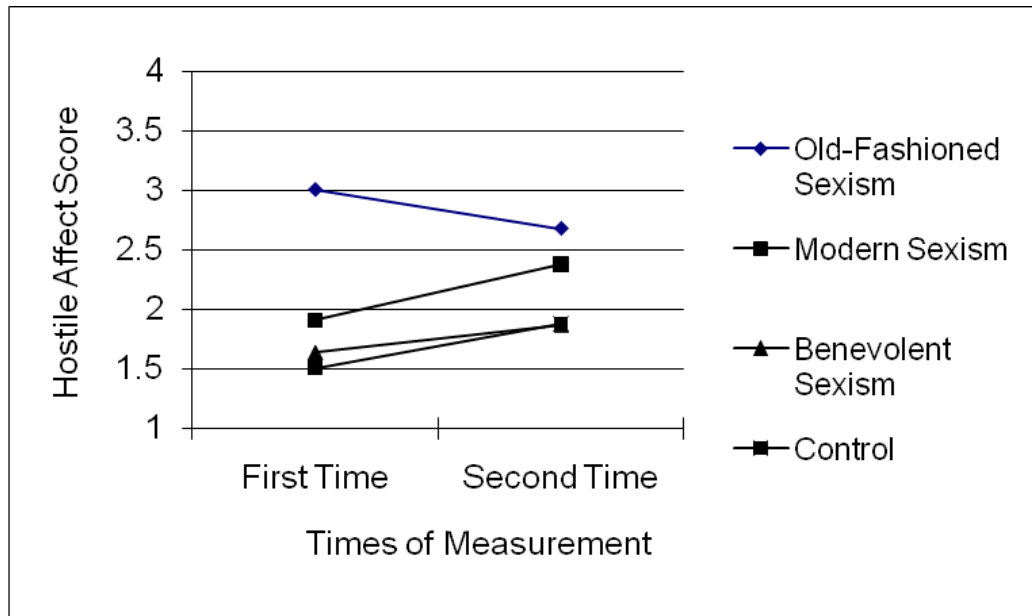


Figure 11

Mean differences of the anxiety affect across times of measurement

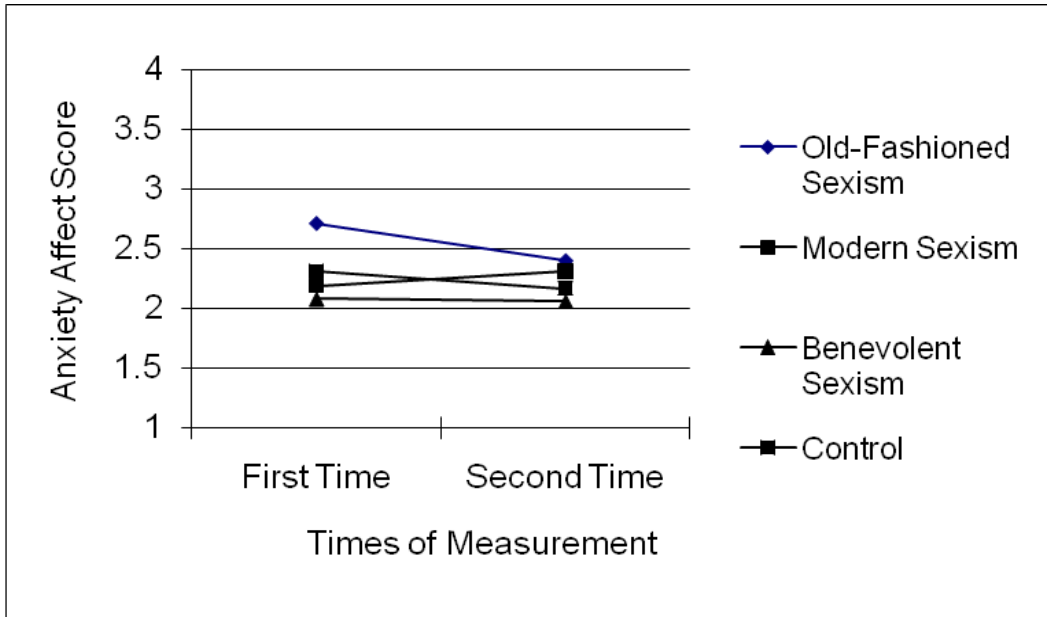


Figure 12

Mean differences of the performance self-esteem across times of measurement

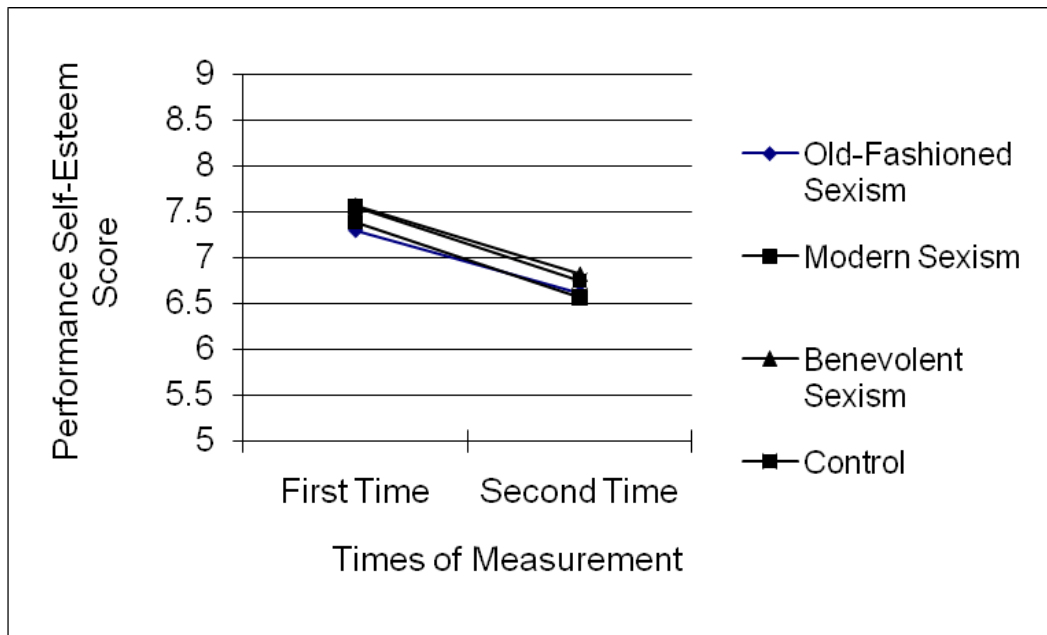


Figure 13

Mean differences of the social self-esteem across times of measurement in the social support absent condition

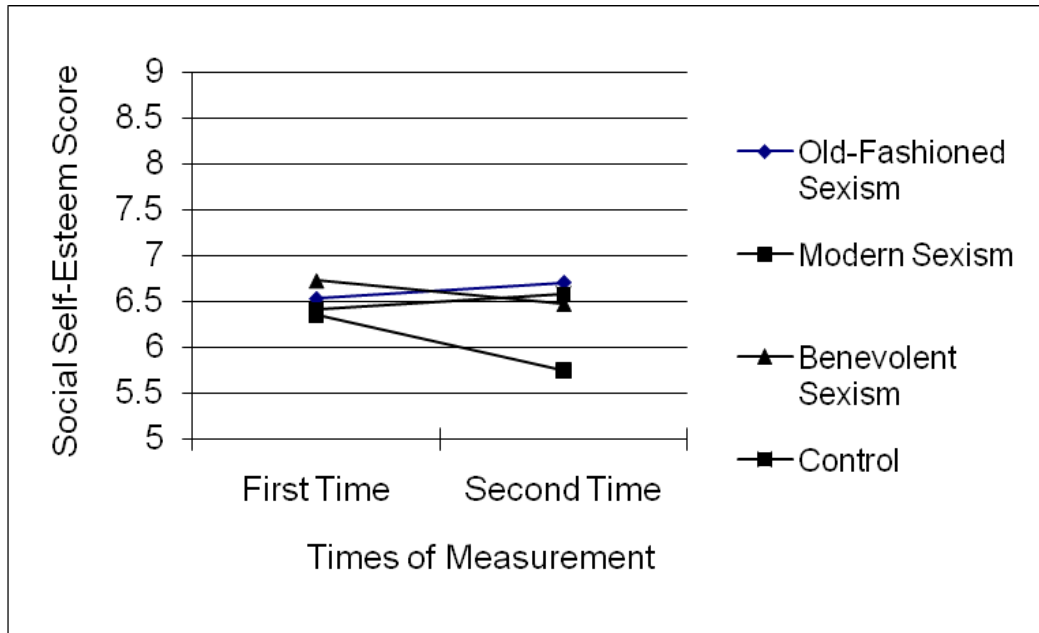
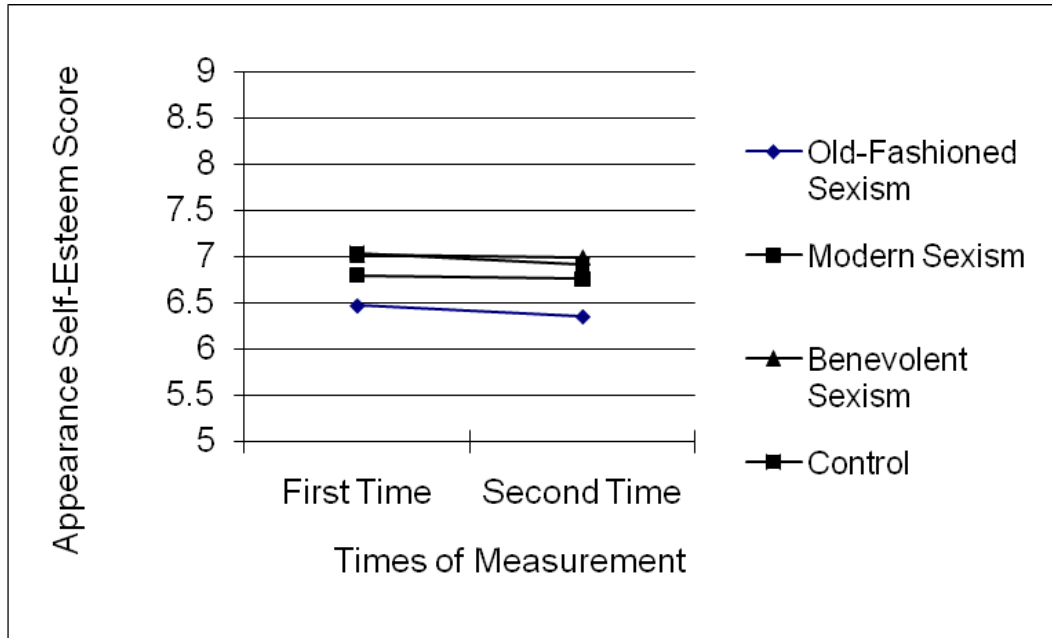


Figure 14

Mean differences of the appearance self-esteem across times of measurement



Appendix A - Sexism Manipulation in Study 1: Old-Fashioned/Hostile Sexism

1. Women are generally not as smart as men.
2. I would not be comfortable having a woman as a boss.
3. It is more important to encourage boys than to encourage girls to participate in athletics.
4. Women are not as capable of thinking logically as men.
5. When both parents are employed and their child gets sick at school, the school should call the mother rather than the father.
6. Many women are actually seeking special favors, such as hiring policies that favor them over men, under the guise of asking for “equality.”
7. Most women interpret innocent remarks or acts as being sexist.
8. Women are too easily offended.
9. Feminists are seeking for women to have more power than men.
10. Most women fail to appreciate fully all that men do for them.
11. Women seek to gain power by getting control over men.
12. Women exaggerate problems they have at work.
13. Once a woman gets a man to commit to her, she usually tries to put him on a tight leash.
14. When women lose to men in a fair competition, they typically complain about being discriminated against.
15. There are actually very many women who get a kick out of teasing.
16. Feminists are making entirely unreasonable demands of men.

Appendix B - Sexism Manipulation in Study 1: Modern Sexism

1. Discrimination against women is no longer a problem in the United States.
2. Women rarely miss out on good jobs due to sexual discrimination.
3. It is rare to see women treated in a sexist manner on television.
4. On average, people in our society treat husbands and wives equally.
5. Society has reached the point where women and men have equal opportunities for achievement.
6. It is difficult to understand the anger of women's groups in America.
7. It is difficult to understand why women's groups are still concerned about societal limitations of women's opportunities.
8. Over the past few years, the government and news media have been showing more concern about the treatment of women than is warranted by women's actual experiences.

Appendix C - Sexism Manipulation in Study 1: Benevolent Sexism

1. No matter how accomplished he is, a man is not truly complete as a person unless he has the love of a woman.
2. In a disaster, women ought to be rescued before men.
3. People are not truly happy in life if they are not romantically involved with a member of the other sex.
4. Many women have a quality of purity that few men possess.
5. Women should be cherished and protected by men.
6. Every man ought to have a woman whom he adores.
7. Men are not complete without women.
8. A good woman should be set on a pedestal by her man.
9. Women, compared to men, tend to have a superior moral sensibility.
10. Men should be willing to sacrifice their own well being in order to provide financially for the women in their lives.
11. Women, as compared to men, tend to have a more refined sense of culture and good taste.

Appendix D - Multidimensional Survey of Perceived Social Support (MSPSS)

1. There is a special person who is around when I am in need.
2. There is a special person with whom I can share my joys and sorrows.
3. My family really tries to help me.
4. I get the emotional help and support I need from my family.
5. I have a special person who is a real source of comfort to me.
6. My friends really try to help me.
7. I can count on my friends when things go wrong.
8. I can talk about my problems with my family.
9. I have friends with whom I can share my joys and sorrows.
10. There is a special person in my life who cares about my feelings.
11. My family is willing to help me make decisions.
12. I can talk about my problems with my friends.

Appendix E - Positive and Negative Affect Scales (PANAS)

1. Interested
2. Distressed
3. Excited
4. Upset
5. Strong
6. Guilty
7. Scared
8. Hostile
9. Enthusiastic
10. Proud
11. Irritable
12. Alert
13. Ashamed
14. Inspired
15. Nervous
16. Determined
17. Attentive
18. Jittery
19. Active
20. Afraid

Appendix F - Six Negative Emotions

1. Hostility-related emotions: angry, indignant, and disappointed.
2. Anxiety-related emotions: weak, tense, and sad.

Appendix G - State Self-Esteem Scale (SSES)

1. I feel confident about my abilities.
2. I am worried about whether I am regarded as a success or failure.
3. I feel satisfied with the way my body looks right now.
4. I feel frustrated or rattled about my performance.
5. I feel that I am having trouble understanding things that I read.
6. I feel that others respect and admire me.
7. I am dissatisfied with my weight.
8. I feel self-conscious.
9. I feel as smart as others.
10. I feel displeased with myself.
11. I feel good about myself.
12. I am pleased with my appearance right now.
13. I am worried about what other people think of me.
14. I feel confident that I understand things.
15. I feel inferior to others at this moment.
16. I feel unattractive.
17. I feel concerned about the impression I am making.
18. I feel that I have less scholastic ability right now than others.
19. I feel like I'm not doing well.
20. I am worried about looking foolish.

Appendix H - Complementary Gender Stereotypes

Feminine (i.e., communal) traits: considerate, honest, happy, warm, and moral.

Masculine (i.e., agentic) traits: assertive, competent, intelligent, ambitious, and responsible.

Appendix I - Desire for Confrontation

1. How much do you want to speak to someone who holds such sexist views?
2. How much do you want to try to change the opinion of people with these views?
3. How much do you want to understand why these people would hold such views?
4. How much do you dislike people with these sexist views?
5. How unwilling would you be to collaborate with people who endorsed such views?

Appendix J - The Problem-Solving Task in Study 2: Anagrams

The following is a series of disarranged words and your job will be to rearrange each group of letters so that they make a meaningful English word. You have 10 minutes; please do as many questions as you can.

Example: geg → egg

1. hchiw _____
2. trieh _____
3. obatu _____
4. olwdu _____
5. tifrs _____
6. ewart _____
7. tearf _____
8. iwrtw _____
9. kinht _____
10. ecpal _____
11. noduf _____
12. urdne _____
13. lango _____
14. liwhe _____
15. hitmg _____
16. usodn _____
17. notef _____
18. eohus _____

19. odlrw _____
20. voeab _____
21. nbeag _____
22. gilth _____
23. sytor _____
24. itehw _____
25. tadyo _____
26. oyngu _____
27. lhoew _____
28. derha _____
29. aenrl _____
30. eyomn _____
31. vnieg _____
32. orpgu _____
33. lcabk _____
34. eetnr _____
35. enatg _____
36. aritt _____
37. omanw _____
38. hftig _____
39. stifh _____
40. ilhcd _____
41. lsilt _____

42. rayrm _____

43. ascls _____

44. olfao _____

45. rupep _____

46. ontfr _____

47. lnifa _____

48. leeva _____

49. crfoe _____

50. paltn _____

51. irnbg _____

52. seprs _____

53. ahrce _____