### AN ABSTRACT OF THE THESIS OF

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Hostile sexism (HS) is an antagonistic attitude towards women; benevolent sexism (BS) is a positive attitude towards women that is sexist in terms of viewing women in restricted roles. HS and BS held simultaneously is defined as ambivalent sexism (AS). Despite negative outcomes associated with AS, BS, and HS, women on average report endorsing AS, BS, and HS. Our study examined the extent to which viewing and describing pictures of female celebrities in stereotypically feminine and counter-stereotypical forms influences young adult women's endorsement of AS, BS, and HS. It was predicted that highly-feminine images would increase participants' AS, BS, and HS. Participants were randomly assigned to view and describe a series of highly-feminine, unfeminine, or control (natural scenery) photos and complete pretest and posttest Ambivalent Sexism Inventory (ASI) measurements. Results indicated that women's endorsement of AS, BS, and HS did not change significantly between any of the

photo conditions, suggesting viewing and describing images of female celebrities did not impact women's endorsement of AS, BS, or HS. However, we were able to identify psychological entitlement and enjoyment of sexualization as positively related constructs, and feminist identity as a negatively related construct to women's endorsement of AS, BS, and HS. The importance and implications of identifying risk and protective factors on women's endorsement of AS, BS, and HS are discussed. ©Copyright by Haley Allemand May 23, 2017 All Rights Reserved

# Why Women Endorse Ambivalent Sexism: Risks of Young Women's Enjoyment of Sexualization and the Protective Powers of Feminism

by Haley Allemand

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I understand that my thesis will become part of the permanent collection of Oregon State University libraries. My signature below authorizes release of my thesis to any reader upon request.

Haley Allemand, Author

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### CHAPTER ONE- INTRODUCTION

In 2016, Hillary Clinton became the first woman to win a major two party nomination and run for President of the United States (Dann, 2016; Green 2016; Nicholas & Tau, 2016). This historic moment created the impression that the US was taking important steps toward achieving gender equality (Crary, 2016). Her ultimate defeat to Republican candidate Donald Trump, however, prompted confusion, discouragement, and frustration for Clinton supporters (Reston, 2016).

Former Secretary of State Clinton had over 35 years of political experience (Adair, 2008) while Donald Trump, entrepreneur and businessman, had none (Koran & Browne, 2016). Though it is estimated that about 33% of Clinton's statements made during the election were untrue, whereas about 71% of Trumps statements were untrue, Clinton was regarded in the public opinion as the less trustworthy and likable candidate (Soffen, 2016). A poll taken a few months before election day indicated 67% of US voters regarded Clinton as dishonest while only 56% regarded Trump as dishonest. In fact, in 2016, Clinton was regarded as dishonest by twice the number of voters than both Obama and Romney in the 2012 election, and triple the number of voters than both Obama and McCaine in the 2008 election (Soffen). Another 2016 poll taken a few months before election day, indicated that the most frequent US voter response when asked to specify the first word that came to mind when they heard the name Hillary Clinton was "dishonest," "untrustworthy" or "of poor character" (Kristof, 2016).

The 2016 Presidential election had the largest voting gender gap reported in US history, with Clinton winning the female vote by a 12 point margin, and Trump winning the male vote by

1

a 12 point margin (Mallone, 2016). Although Clinton claimed the majority of female voters, she lost the support of crucial populations of female voters, including the majority of White women (53%), which contributed greatly to her defeat. Clinton constructed her political platform with proposed policies that directly benefited women including protecting women's health and reproductive rights, reducing the gender pay gap, and confronting violence against women (Clinton, 2015). However, despite Clinton's feminist platform and her prioritization of female and women's issues, a substantial proportion of female voters did not support her as next President of the United States of America, which leads to the question, why? While there are many answers to that question, sexism and sexist ideologies has examined as a contributing factor (Ball, 2016).

#### Hostile, Benevolent, and Ambivalent Sexism

Glick and Fiske (1996) define two complementary forms of sexism. Hostile sexism (HS) is an antagonistic attitude towards women; benevolent sexism (BS) is defined an interrelated set of seemingly positive attitudes towards women that are sexist in terms of viewing women stereotypically and in restricted roles. BS contains three sub constructs including heterosexual intimacy, gender differentiation, and protective paternalism. HS and BS held simultaneously is defined as ambivalent sexism (AS).

HS and BS frequently occur in tandem as AS. Glick and Fiske (1996) report that across several studies, agreement with HS and BS beliefs typically show correlations between r = .40 -.50, indicating HS and BS are positively related ideologies and confirming the concept of AS. Additionally, Sibley and Becker (2010) report that it is most common for individuals to endorse AS, rather than only HS or BS. Additionally, Sibley and Becker found that the majority of women (69%) either mildly or moderately endorse AS. AS has been observed in the US, as well as in 18 other countries around the world (Glick et al., 2000). Further, research has shown that countries whose citizens are high in AS show greater gender inequity several years later than those whose citizens are low in AS, suggesting AS is a hierarchy-enhancing ideology, or an ideology which enforces and maintains hierarchical social inequalities, including patriarchy (Brandt, 2011).

As an example of how AS acts as a hierarchy-enhancing ideology, consider again the 2016 US Presidential election. At the Republican National Convention, pro-Trump paraphernalia circulated with phrases such as: "Trump the bitch," "don't be a pussy, vote for Trump," "nasty woman," and "lock her up" (Beinart, 2016). These phrases demonstrate an antagonistic and antipathetic view of not only Hillary Clinton, but more specifically women, that is indicative of HS (Beinart). In October 2016, film director Michael Moore sent out a tweet that read: "No women ever invented an atomic bomb, built a smoke stack, initiated a Holocaust, melted the polar ice caps or organized a school shooting" (Moore, 2016). Moore's statement in context implies that a woman would make a better leader than a man because she would possess an innate moral superiority and deficiency of aggressive and violent tendencies. These beliefs are consistent with BS, as they reinforce a feminine stereotype which is inherently antithetical to leadership qualities contained in the masculine stereotype (Daniels, 2016). In addition to apparent commentaries such as Moore's, BS played an additional, tenacious, and covert role in determining Clinton's fate in the 2016 election campaign. Fiske (coauthor of the theory of AS) explains that it is not uncommon for qualities such as "untrustworthy" and "unlikable" to be attributed to high-status women because woman are typically perceived in only one of two ways: benevolent and nurturing (stereotypically feminine) or untrustworthy and commanding (not stereotypically feminine) (Case-Levine, 2016). Understanding this tendency provides insight into how Clinton, despite having 35 more years of political experience, can be viewed as more dishonest than not only her opponent, but any (male) major-party Presidential candidate of the past eight years (Soffen 2016). Though sexism does not fully explain why Clinton lost the 2016 Presidential election, the relationship between BS, Clinton's violation of feminine gender roles and stereotypes, and the US voters' perception of her as untrustworthy, unlikable, and unfeminine can help explain how she lost to a much less qualified man.

BS is often disregarded as sexism because it does not fit the typical model of prejudice (Glick & Fiske, 1996). For example, the tweet sent out by Michael Moore was subjectively arguing that Clinton would be a well-equipped leader because, as a woman, she naturally possesses delicate, unaggressive and morally superior qualities that a man does not have. However, this comment also places unrealistic expectations on Clinton, who then needs to fit the feminine stereotype while assuming a stereotypically masculine gender role as a powerful leader. The contributions of HS and BS ideologies made to the 2016 US Presidential election is an example of how AS continues to act as a hierarchy enhancing ideology and how HS, BS, and AS that undermines gender equality.

#### **Origins of Hostile, Benevolent, and Ambivalent Sexism**

Glick and Fiske (1996) argue that AS has both biological and social roots which make it a commonly held ideology cross culturally. Patriarchy, gender differentiation, and sexual reproduction are factors experienced by all human societies that contribute to ambivalent feelings towards women (Harris, 1991; Stockard & Johnson, 1992 as cited in Glick & Fiske). For example, Glick and Fiske suggest that throughout evolution biological sex differences, such as men's average greater stature and physical strength, and women's ability to bear children, contributed to the relegation of women to more domestic duties (such as carrying a child to term and nourishing that child after birth) and men to duties outside the home. This relegation prevented women from competing for physical resources in the same way men could which, in turn, created a status differential between men and women and facilitated tendencies towards patriarchy and paternalistic attitudes towards women.

This early gender differentiation acted as a precursor to social constructs such as the Doctrine of Two Spheres which legitimizes distinct gender roles and stereotypes (Brannon, 2017). The Doctrine of Two Spheres asserts that men and women have separate and distinct areas of interests and influence, women's being within the home and men's outside the home. This notion contributes to the formation of the Cult of True Womanhood and Masculine Sex Role Identity, which has helped construct current gender roles and stereotypes. The Cult of True Womanhood asserts that women should be pious, sexually pure, submissive to men, and domestic. The Masculine Sex Role Identity asserts that men should be agentic and in control ("The Big Wheel"), stoic and strong ("The Sturdy Oak"), violent and aggressive ("Give' Em Hell"), and unfeminine ("No Sissy Stuff.") Research on the current content of gender roles and stereotypes indicates that gender roles and stereotypes have changed minimally from the formation of the Cult of True Womanhood and the Masculine Sex Role Identity (Haines, Deaux & Lofaro, 2016; Hosoda & Stone, 2000). Men are still regarded as independent, active, competitive, confident, strong, and agentic; women are still regarded as domestic, nurturing, delicate, graceful, soft, kind, and helpful. One cultural theme that has contributed to changes in the feminine gender role and stereotype, however, is increased sexualization of the female body. According to Hatton and Trautner (2011), the feminine gender roles has become hypersexualized over the past several decades, altering the feminine stereotype and gender role to

assert that women should be "sexy." These social rules dictating what men and women can and can't be restrict individuals' thoughts and behaviors.

BS and HS rest upon these restrictions defined in gender roles and stereotypes (Glick & Fiske, 1996). HS is used to overtly punish women who step outside the feminine stereotype or gender role with insults, threats, and violence while asserting masculine dominance. BS is used to reward women who adhere to the feminine stereotype with positive treatment, compliments, likability, popularity, attention, and enhanced social status. In addition to reinforcing restrictive gender roles and stereotypes and thereby reinforcing status differentials between men and women, sexist treatment and endorsement of sexist beliefs have several other psychological consequences for women.

### **Consequences of Sexism**

The consequences associated with HS are well-known and documented. The behaviors that manifest from HS beliefs, including misogynistic insults and name calling, undoubtedly hurt women. Additionally, high endorsement of HS is related to acts of violence against women including sexual assault (Lisak & Roth, 1988), sexual aggression (Lisco, Parrott & Tharp, 2002), and sexual harassment (Millburn, 2002). High endorsement of HS is also related to men and women's greater justification of violent acts against women including sexual assault (Cowan, 2000; Hipp et al., 2017), and wife abuse (Gölge, Sanal, Yavuz & Arslanoglu-Cetin, 2016). Additionally, high endorsement of HS is related to victim blaming in sexual assaults (Angelone, Mitchell & Grossi, 2015; Sakallı-Uğurlu, Salman & Turgut, 2010), as well as lower perceived perpetrator responsibility (Angelone et al.), and a demeaning of women's psychological distress after acts of stranger harassment such as stalking (Miglietta & Acquadro Maran, 2016). Women's endorsement of HS is also positively related to their risk of being a future victim of

violence. Research has shown that women with high endorsement of HS show more acceptance of dating violence toward women (Seuldki Lee, Begun, DePrince & Chu, 2016), and tolerance of continual sexual harassment towards women (Ruseel & Trigg, 2004).

BS, though it may offer seemingly positive rewards, is also related to a myriad of negative social, psychological, and physical consequences for women. Consistent with the notion that BS relies on the content of gender stereotypes and roles, BS maintains women's subservient position to men and prevents them from achieving social advancement. For example, Delacollette, Dumont, Sarlet and Dardenne (2013) found that men who strongly endorse AS were more likely to prescribe warm traits to women and subsequently view them as less competent than men who do not strongly endorse AS. Additionally, men who had high endorsement of BS, in particular, were more likely to consider women's warm traits as a personal benefit to them (e.g., interacting with a helpful women) than those who had low endorsement of BS. Hideg and Ferris (2016) have also shown that people who strongly endorse BS support employment equity policies for women, but only in traditionally feminine positions, which are often characterized by supportive duties, reduced pay, and belittled social status.

BS not only supports the relegation of women to low status social positions, but also socially punishes women who violate those prescriptions. For example, Viki (2005) has shown that individuals who strongly endorse BS evaluate women who violate gender role stereotypes more negatively than who do not strongly endorse BS. Research has thereby, consistently shown that BS, though seemly interpersonally positive, poses challenges for societal gender equality.

In addition to maintaining current social hierarchies which locate women beneath men, BS results in cognitive impairments which also affect women personally. Dardenne and Dumont (2007) demonstrated that being the target of BS treatment is actually worse for women's cognitive performance than being the target of HS treatment. Women who were randomly assigned to endure BS treatment during a simulated job interview performed worse on a problem solving task involving working memory than those who endured HS treatment. Dardenne and Dumont attributed this effect to the covert nature of BS, which leads women to use valuable cognitive resources to determine their feelings about the treatment in order to conclude if the treatment was sexist or not. Research has substantiated the cognitive demand being the target of BS treatment places on women, by showing with fMRI scans that BS treatment activates regions of the brain that are responsible for suppressing intrusive thoughts (Dardenne et al. 2013).

Dardenne and Dumont (2007) contend that BS treatment, in addition to using important cognitive resources, also activates knowledge of feminine stereotypes which places women at increased risk of stereotype threat. Stereotype threat is defined as succumbing to the threat of confirming negative stereotypes about a group to which one belongs (Steele & Aronson, 1995). Examples of situations where research has shown stereotype threat affects women includes mathematical performance (Spencer, Steele & Quinn, 1999), science and engineering aptitude and interest (Deemer, Lin & Soto, 2016), motor ability (Hermann & Vollmeyer, 2016; Huber, Brown & Sternad, 2016), and leadership tasks (Bergeron et al. 2006; Hoyt & Blascovich, 2010). By activating knowledge of feminine stereotypes, which define women as incompetent, BS treatment can lead women to question their competence and subsequently, contribute to poor task performance (Dardenne & Dumont).

Research has also demonstrated that AS, BS, and HS treatment can result in several negative psychological health outcomes for women. For example, Szymanski and Feltman (2014) have found that sexist treatment is related to women's experience of psychological distress including self-objectification and internalization of cultural beauty standards.

Fredrickson, Roberts, Noll, Quinn and Twenge (1998) define self-objectification as the adoption of an outsider's-perspective as a view of oneself. Self-objectification can occur through the chronic sexual objectification of women's bodies in interpersonal, social, and media contexts. Research has identified several negative outcomes associated with women's self-objectification such as increased body shame, restricted eating, and diminished cognitive attention and performance (Fredrickson et al. 1998.) The consequences associated with self-objectification may explain, in part, the psychological distress women felt after experiencing sexist treatment (Szymanski & Feltman, 2014).

Endorsement of BS is also related to low relationship satisfaction. Newly married couples who strongly endorse BS report lower relationship satisfaction than those who do not endorse BS. Further, women in relationships who strongly endorse BS and marriage myths (e.g., believing in statements such as "we will live happily ever after," and "my fiancé makes up for what I am lacking") show greater negative psychological health outcomes, including higher depression and anxiety, than those who do not endorse BS and marriage myths (Casad, Salazar & Macina, 2015). Endorsement of HS and gender differentiation (a component of BS) is also related to greater endorsement of rape myths for women, placing women who endorse BS at greater risk for physical violence (Chapleau, Oswald & Russel, 2007).

Research has also shown that AS, BS, and HS are related to several negative physical health outcomes for women. For example, heterosexual women who are regularly the targets of BS treatment report using condoms less frequently than women who do not regularly experience such treatment, putting them at greater risk for contracting sexually transmitted infections (STI; Fitz & Zucker, 2015). This relationship was mediated by relational sex motives, or the desire to foster a partner's sexual satisfaction, suggesting that agreeing to behaviors contracted in the feminine gender role, including subservience and submissiveness to men, may become activated by BS treatment and subsequently influence women's sexual risk taking behaviors.

Salomon, Burgess and Bosson (2015) report further evidence that the experience of sexism has deleterious consequences for women's physical health. Women who endured HS and BS treatment both experienced negative cardiovascular symptoms; those who were randomly assigned the HS treatment experienced heightened cardiovascular reactivity, while those who were randomly assigned the BS treatment experienced impaired cardiovascular recovery. These results indicate that while both HS and BS treatment have a negative impact on women's health, they affect women's health differently. While HS poses an immediate threat to women's cardiovascular health, BS poses long-term consequences which may continue to develop or persist over time.

Paradoxically, despite the negative social, psychological, and physical health outcomes women experience as a consequence of sexist treatment, many women endorse AS, BS, and HS beliefs. Research has addressed several reasons why this may be.

#### **Endorsement of Sexism**

An analysis of AS across several cultures found that in countries where men indicate high levels of agreement with HS beliefs, women also report high levels of agreement with BS beliefs (Glick et al., 2000). Glick et al. explains that women may endorse BS to protect themselves from the immediate consequences and repercussions of HS. However, protection from harm induced from men's hostility towards women does not explain individual variability in women's endorsement of BS within the same culture. Research has explained this variability by identifying several variables which influence women's level of agreement with AS, BS and HS beliefs, including system justification, psychological entitlement, enjoyment of sexualization, feminist identification, religious affiliation, and ethnicity.

System justification. Consistent with research indicating AS is a hierarchy-enhancing ideology (Brandt, 2011), research has identified a relationship between system justification and endorsement of AS (Jost & Kay, 2005). System justification is defined as the perception of existing social arrangements as fair, legitimate, and justified (Jost & Banaji, 1994.) Jost and Kay (2005) suggest that women endorse AS, and in particular BS, because BS supplies superficial benefits which make the current social arrangements seem fair and gender inequality benign. Glick and Fiske (1996) also propose that BS provides explanation for the current social arrangements; for example, the notion that women are relegated to caregiving and assistive roles because they are naturally more nurturing than men, justifies women's prescribed dependence and lack of agency.

The notion that women endorse BS because it makes social arrangements easier to cope with is substantiated by research which shows that women's endorsement of BS is positively related to their system justification as well as greater life satisfaction (Connelly & Heesacker, 2012; Jost & Hunyady, 2005). Increased life satisfaction, by way of accepting current social arrangements, grants women an additional personal benefit which may encourage them to endorse BS beliefs.

Research has demonstrated a consistent relationship between several complementary stereotypes, ideologies, and individuals' system justification, particularly for those who are most harmed by the status quo (Jost, Banaji & Nosek, 2004). Research has shown that HS and BS exist as complementary ideologies in several locations around the world (Glick et al., 2000), however, the amount of gender inequality present in a society seems to impact the relationship between HS, BS, and system justification. For example, in countries with greater gender inequality, endorsement of HS, but not BS, is related to system justification whereas in countries with lower gender inequality, endorsement of BS, but not HS, is related to system justification (Mosso, Briane, Aiello & Russo, 2012.) This explains why in countries such as the US, where gender inequality is evident but lower than other countries (eg., Cuba, Botswana, Nigeria; Glick et al, 2000), BS is related to system justification, but HS is not.

Research has supported the idea that AS, BS, and HS are ideologies which work to maintain social inequalities between men and women. Jost and Kay (2005) experimentally demonstrated that priming women with HS and BS increased their support for the status quo. This finding suggests that HS and BS serve as ideologies which maintain gender inequality by increasing women's system justification, or acceptance of sexism. Once women's system justification is increased, they experience benefits such as increased life satisfaction, which encourages them to continue accepting sexism as a fixed and justified social construct. While this relationship psychologically makes sense, it still does not explain why some women are more attracted to the benefits system justification and endorsement of sexism offers than others. To explain individual differences in the importance and value the seemingly positive benefits BS offers, research has examined the relationship between psychological entitlement and endorsement of sexism.

**Psychological entitlement.** Psychological entitlement is defined as a stable belief that one deserves, and is entitled to more, than others (Campbell, Bonacci, Shelton, Exline & Bushman, 2004). Research has shown that psychological entitlement is positively related to outgroup prejudices including prejudice towards racial and sexual groups (Anastasio & Rose, 2014). Keiller (2010) has shown this relationship to be true for heterosexual men; heterosexual men who were high in psychological entitlement reported greater hostility towards women than those who were low in psychological entitlement. Psychological entitlement not only explains variability in men's endorsement of HS beliefs, but can partially explain variability in women's endorsement of BS beliefs.

For example, Travaglia, Overall, and Sibley (2009) have shown that heterosexual women who strongly endorse BS place greater value on status resources when looking for a romantic partner than heterosexual women who do not strongly endorse BS. Because individuals who are high in psychological entitlement believe they are entitled to more than others, they likely place greater importance on resources which enhance their status. BS rewards women who adhere to feminine stereotypes and gender roles by granting them personal benefits (e.g., free drinks, compliments, attention, popularity, etc.)

Research has shown that women's endorsement of BS, and the seemingly positive benefits BS offers, is related to women's level of psychological entitlement (Grubbs, Exline & Twenge, 2014; Hammond, Sibley & Overall, 2014). In a longitudinal study, Hammond et al. (2014) found that women's psychological entitlement was not only positively related to their endorsement of BS concurrently, but that their psychological entitlement also predicted changes in their endorsement of BS over time. Specifically, they found that women who were high in psychological entitlement experienced an increase in their agreement with BS beliefs one year later.

Women's level of psychological entitlement contributes to their perceived importance of status, rewards, and benefits. This may explain why research has shown that women high in psychological entitlement, who thus believe they are deserving of benefits and special treatment, also report stronger agreement with BS beliefs than those who are low in psychological

entitlement. Research has examined how the type of rewards women enjoy also relates to their endorsement of BS. Specifically, how finding male attention rewarding and enjoyable relates to women's level of endorsement of AS, BS, and HS.

**Enjoyment of sexualization.** Enjoyment of sexualization is defined as women finding appearance-based sexual attention from men positive and rewarding (Liss, Erchull & Ramsey, 2011). This attention is often obtained from flirting, wearing sexy clothing, and engaging in self-sexualizing behaviors.

Liss, Erchull and Ramsey (2011) have shown a positive relationship between women's enjoyment of sexualization and endorsement of BS. This relationship may be partially explained by agreement with current gender roles which assert that women should be considered "sexy" (Hatton & Trautner, 2011). Women who not only adhere to, but enjoy, this role also may also appreciate the benefits (e.g., male attention, physical compliments, likability, material rewards, promotions) they receive from behaving consistently with this feminine gender role. Liss et al. also indicated that the relationship between women's enjoyment of sexualization and endorsement of BS is also positively related to their negative eating attitudes and disordered eating practices. While no causal link has been demonstrated, this finding reaffirms the insidious danger of BS, which though offers positive benefits, can place women at greater risk for psychological and physical harm.

Consistent with the notion that women enjoy being sexualized because being perceived as sexy defines them as "good women" which allots them the seemingly positive benefits of BS, Erchull and Liss (2013) found that women who identified as feminists and reported greater enjoyment of sexualization also reported greater agreement with gender roles. Further, feminists' enjoyment of sexualization was also positively related to their system justification, indicating a perceived fairness and legitimacy in defined gender roles. The benefits women receive from BS seems to be informed by their level of psychological entitlement, or deservingness of special treatment, as well as the level of enjoyment they feel from receiving such benefits. However, the personal benefits women receive from BS undermines progress towards gender equality. Sexualization, for example, although it may be perceived as empowering by some women, encourages objectification and dehumanization of women's bodies (Fredrickson & Roberts, 1998.) Contrasting research has examined how a perceived need for collective movement towards gender equality, specifically through identification with a feminist movement, informs women's endorsement of AS, BS, and BS.

**Feminist identity.** Feminism is characterized as a movement concerned with the empowerment of women; a feminist, is then, someone who identifies with a movement concerned with this goal (Erchull & Liss, 2013). There are many factors which contribute to a woman's decision to identify as a feminist. Research has shown that exposure to HS increases women's engagement in collectivistic social action both in general and specific to gender equality (Becker & Wright, 2011). However, Becker and Wright also found that exposure to BS reduced women's engagement in such social change. The relationship between exposure to BS and reduced collectivistic action was mediated by women's gender-specific system justification. This finding indicates that while HS treatment may prompt a desire for growth towards gender equality in women, BS increases perceptions of gender inequality as fair, and thus, reduces perceived necessity of collectivist action towards social change.

Additionally, a meta-analysis done by Radke, Hornsey and Barlow (2016) indicated that women commonly report being unable to identify sexist acts against them as a reason they do not identify as feminists. This concern highlights yet another way BS undermines women's identification with feminism. BS is camouflaged as benefits, rewards, appreciation, and female superiority rather than sexism. Frequent exposure to BS, then, may make women feel as though they do not regularly encounter sexism, and thus, there is no need for a movement working for gender equality. In addition to exposure to BS, women also report feeling reluctant to identify as a feminists for concerns related to stigma.

For example, feminists are regarded as less warm, and less desirable romantic partners by their peers who are high in agreement with HS beliefs (Gervais & Hossman, 2005; Anastasospoulos, 2016; Travaglis, Overall & Sibley, 2009). Further, individuals high in HS are more likely to blame victims of sexual assault when the victim is described as a feminist than when she is not (Vidal-Fernandez & Megias, 2014). The reduced social status identification as a feminist offers women contributes to their reluctance in identifying with feminism (Radke et al., 2016).

However, research has shown that identification with feminism also protects women from negative consequences associated with sexism. For example, Fitz and Zucker (2014) found that women who did not identify with feminist beliefs had lower sexual self-efficacy than those who strongly identified with feminist beliefs. Additionally, heterosexual women who identified with liberal feminist beliefs that were targets of HS reported greater intent to use condoms in future sexual encounters than women who did not identify with feminist beliefs. Sabik and Tylka (2006) also found that feminist identity moderated the relationship between women's perceived sexist events and their disordered eating practices, such that, women who identified as feminists reported fewer disordered eating practices after being the target of perceived sexist events than those who did not. Additionally, Moradi and Subich (2002) showed that, while endorsement of BS is related to an increased risk of psychological distress for women (e.g., depression, compulsivity, psychoticism) identification with feminism significantly reduced that risk.

As of 2015, only 47% of emerging adult women identified as feminists (Gendron, 2015). However, research shows that, though women face considerable challenges in adopting the identity of a feminist, identification as a feminist has several benefits for women, protecting them from psychological and physical consequences associated with AS, BS, and HS.

In addition to feminism, research has examined several other identities individuals claim in relation to their endorsement of AS, BS, and HS. One identity which research has shown also influences individuals' endorsement of AS, BS, and HS, is religious affiliation.

**Religion.** Religion is a social institution which helps shape individuals' identity, values, and morals (Clark, 1958). Research has identified a positive relationship between religiosity and endorsement of AS, BS, and HS across several different religions (e.g., Glick et al., 2002), indicating the more important religion is to an individual, the stronger their agreement with sexist beliefs tends to be. This relationship may be explained, in part, by the emphasis religions place on traditional gender roles and gender hierarchies (Brinkerhoff & MacKie, 1985; Glick, Lamieras & Rodriguez Castro, 2002; Jensen & Jenson, 1993; Hunsnu, 2016).

Research has examined the positive relationship between Christian religiosity and endorsement of AS, BS, and HS beliefs across several studies (e.g., Burn & Busso, 2005; Glick et al., 2002; Maltby, Hall, Anderson & Edwards, 2010; Mikolajczak & Pietrzak, 2014). For example, Maltby, Hall, Anderson and Edwards (2010) found that the relationship between Christian religiosity and endorsement of AS was evident for men but not women. Glick et al. (2002), however, found that Catholic religiosity was related to greater endorsement of BS, but not HS, and was evident for both men and women. Similarly, Burn and Busso (2005) found that Christian scriptural literalism, or how literally individuals' interpreted religious text, was positively related to endorsement of BS, but not HS, for both men and women. Though the effects of gender on the relationship between Christian religiosity and endorsement of sexism are contested, the consistency of this relationship across several studies suggests individuals' identity as a Christian influences their agreement with sexist beliefs. Glick et al., suggests that this relationship may be explained in part by the justification religion provides for women's subordination to men. For example, religious stereotypes of women as pure and pious (e.g., the Virgin Mary), reinforces the belief that their purity and moral superiority must be protected by men.

Research has identified that the relationship between religiosity and endorsement of sexism is true not only for Christian religions, but other religions as well. For example, similar to Christian religiosity, Jewish religiosity has been shown to be positively related to endorsement of BS, but not HS for men and women (Gaunt, 2012). However, Tasdemir and Sakallı-Uğurlu (2010) found that Islamic religiosity was positively related to the endorsement of HS but not BS for men and women. Tasdemir and Sakalli-Ugurlu suggest that the differences in the relationship between Islamic and Christian religiosity and the endorsement of AS, BS, and HS may be partly accounted for by the greater gender inequality present in Islamic religion and culture. The differences found across religious affiliations and the relationship between religiosity and agreement with particular sexist beliefs highlights the importance of considering the relationship between culture and ethnicity and endorsement of AS, BS, and HS.

**Ethnicity.** Race refers to groups of people who share certain biological traits which society deems socially significant; ethnicity refers to identification with a social group based on a

common national or cultural tradition (Betancourt & López, 1992). Research has examined the relationship between both racial and ethnic differences in endorsement of AS, BS, and HS.

Research has shown that individuals' level of sexism is positively related to their level of racism (Glick & Fiske, 1996; Siganius & Pratto, 1999 as cited by McMahon & Kahn, 2016). This indicates that individuals who hold multiple oppressed identities (e.g., black women) experience oppression and prejudice differently than those who claim only one oppressed identity (e.g., white women.) For example, McMahon and Khan demonstrated that race influences how women are targeted in acts of HS and BS. They found that white women were targets of BS, but not HS, acts more than racial minorities. However, black women who behaved consistently with feminine stereotypes were targets of BS acts more often than white women. This finding reaffirms that individuals' intersecting identities inform their experiences with sexism, emphasizing the need for consideration of institutions which shape those identities.

Research has demonstrated that HS and BS are complementary ideologies across 19 cultures (Glick et al., 2000). In doing so, research has identified several similarities in endorsement of AS, BS, and HS. For example, in the majority of cultures, BS and HS are studied as positively related ideologies; also, in the majority of cultures, men are more sexist than women (Glick). However, given the influence culture has on individuals' social relations, several differences across cultures and ethnicities have also been identified.

For example, Bermudez, Sharp and Taniguchi (2015) examined the relationship between cultural values and stereotypes and individuals' endorsement of AS, BS, in Hispanic individuals living within the US. Cultural aspects such as machismo (masculine stereotype) and marianismo (feminine stereotype), contribute to gender inequality and gender hierarchies evident within Hispanic culture. Bermudez et al., found that these gender stereotypes informed individuals' endorsement of AS, BS, and HS. For example, Hispanic men had high endorsement of HS, reflecting stereotypes of the machismo (dominant and hostile), while Hispanic women demonstrated a strong relationship between endorsement of HS and BS and traditional family roles, reflecting the marianismo stereotype (nurturing and domestic.) This research emphasizes how cultural stereotypes and gender roles inform individuals' endorsement of AS, BS, and HS. Research has shown that even within the same racial category, ethnic and cultural characteristics can inform differences between ethnic identities in AS, BS, and HS. For example, Leon-Ramierz and Ferrando Pierto (2015) found that individuals in Mexico have significantly higher endorsement of AS, BS, and HS than those in Spain. This finding indicates that despite sharing a broad racial category (Hispanic/Latino), cultural and ethnic differences (e.g., economic differences in gender inequality) between Mexicans and Spaniards can inform individual differences in endorsement of AS, BS, and HS.

Several variables have been identified in the literature which interact to contribute to individuals' endorsement of AS, BS, and HS including individuals' level of system justification, psychological entitlement, enjoyment of sexualization, identification with religion, feminism, and ethnicity. Consistent in all of these explanations is the relationship between traditional gender roles and an individuals' endorsement of AS, BS, and HS. Unsurprisingly, research has shown that simply engaging in activities which reinforce gender differentiation and gender stereotypes can impact individuals' endorsement of ambivalent sexism.

**Gender roles and stereotypes.** Zell, Strickhouser, Lane and Teeter (2016) found that asking individuals to read fabricated news stories about large gender differences, and asking them to write about why these gender differences were so large, subsequently lead to higher levels of endorsement of AS than those who were not asked to write such explanations.

Conversely, asking individuals to read fabricated news stories about small gender differences, and asking them to write about why gender differences were so small, subsequently lead to lower levels of endorsement of AS. Research by Vial and Napier (2017) has also shown that asking women to write about a time when they adhered to the feminine gender role, or a time when they did not, shows similar effects on their endorsement of AS. Specifically, women who wrote about a time when they felt powerful (against the feminine gender role) had lower endorsement of AS compared to a control condition. Additionally, those who wrote about a time when they felt powerless (consistent with the feminine gender role) had higher endorsement of AS compared to the same control condition.

Research has shown that engaging in social institutions that promotes traditional gender roles and impact individuals' endorsement of AS, BS, and HS. One of the institutions that individuals living within the US interact with most frequently is the media. The media also reinforces traditional stereotypes, including gender stereotypes, which influence individuals' perception of the self and others (Clarke-Stewart & Parke, 2014). Research has examined the extent to which exposure to media influences individuals' endorsement of AS, BS, and HS.

**Media.** It is estimated that individuals living within the US spend on average 10 hours and 39 minutes per day consuming media (Howard, 2016). Research indicates that about 99% of US homes contain at least one television set and at least one video game console; 83% of US homes with children meet this criteria (Clarke-Stewart & Parke, 2014). Research summarized by Clarke-Stewart and Parke shows that 40% of infants younger than three months are exposed to roughly one hour of TV per day. By adolescence, individuals within the US are engaging with media on average nine hours a day (Wallace, 2015). This research illustrates the large role media plays in the majority of US citizens lives and further, demonstrates that this impact beings early, during infancy, and continues to grow exponentially throughout development.

The amount of media individuals are exposed to, justifiably, has created immense interest in identifying exactly what impact this consumption has on individuals' social development. Research demonstrates that media acts as a source of knowledge for individuals (Clarke-Stewart & Parke, 2014). People who engage frequently with media, including television and video games, report perceptions of reality, such as crime rates, that are more consistent with media portrayals than actual incidence (Clarke-Stewart & Parke). Additionally, media content biases individuals' perceptions of minority groups, including racial minorities, sexual minorities, and women (Clarke-Stewart & Parke; Milestone & Meyer, 2012).

Women continue to be underrepresented in a variety of types of media, accounting for roughly 43% of reoccurring characters on television programs (Clarke-Stewart & Parke, 2014). Of additional concern, is the manner in which women are portrayed in the media. Research shows that women are most commonly portrayed as subservient, vindictive, materialistic, and sexualized (Collins, 2011; Clarke-Stewart & Parke). Additionally, only 24% of what women say about themselves in television programs is positive (Clarke-Stewart & Parke). Media depictions of women are consistent with gender stereotypes and roles (Collins). This is true not only of adult women depicted in the media, but also girls. Research has identified that girls have become increasingly sexualized at an increasingly young age (APA Task Force, 2008). Concerning, is that girls are learning early on that their worth comes from their sexual appearance and adherence to the feminine stereotype. These notions are linked to several negative consequences including anxiety, shame, depression, low self-esteem, and self-disgust (Clarke-Stewart & Parke). However, research has also identified that exposure to media containing conterstereotypic depictions can counteract consumers' notions of stereotypes (Cheryan, Siy, Vichayapai, Drury & Kim, 2011).

Research has examined the relationship between individual's engagement with media and endorsement of AS, BS, and HS. Stermer and Burkley (2015) investigated specifically how frequent interaction with sexist video games relates to individual's endorsement of AS. Results indicated that men, but not women, who frequently played video games with highly sexist content, reported greater endorsement of BS than men who did not frequently play such video games. Fox and Potocki (2016) have also shown that video game consumption is related to men's acceptance of rape myths, and is mediated by their endorsement of HS. However, boys play on average twice as many video games as girls, perhaps contributing to these moderating effects (Clarke-Stewart & Parke, 2014).

Research examining media consumed more often by women has also been shown to be related to women's endorsement of AS. Altenburger, Carotta, Bonomi and Snyder (2017) found that women who read Fifty Shades fiction frequently more highly endorsed AS, BS, and HS, than those who do not read Fifty Shades fiction. Fifty Shades is a fictional book series that has sold over 100 million copies worldwide, and follows the story of a heterosexual man and woman's relationship (Trachtenberg, 2013 as cited in Altenburger et al). The book has been criticized for narrowly portraying male and female heterosexual relations restricted within gender roles.

Emerging adults are exposed to an incredible amount of media. The effects of being exposed to different types of media on young adults' development and well being have been the source of much psychological research (Berger, 2012). Research on undergraduate students, most of whom are emerging adults, suggests that endorsement of AS begins to take form early

within this developmental period and continues to mold throughout adulthood. Given the pervasive messages regarding gender contained within the media young adults are frequently exposed to, and the known relationship between gender stereotypes and AS, the effects stereotyped-media plays in women's development should be carefully examined.

### **Identity Development**

Infants as young as six months old are able to distinguish between male and female faces; by 24 months, children begin to demonstrate gendered language including gender labeling; by age three, children begin demonstrating knowledge regarding gendered activities (Brannon, 2017). Most children by age six demonstrate gender constancy. Gender constancy encompasses gender stability, the knowledge that gender is an unchanging personal characteristic, and gender consistency, the knowledge that a person's gender does not change with gender atypical behavior (Brannon). The point at which gender identity is formed varies by definition, however, many accept the development of gender constancy as a marker of gender identity.

Individuals' gender identity continues to develop throughout adolescence. Individuals begin to acknowledge and apply rules about gender roles, while simultaneously recognizing the variability of individuals within gender (Brannon, 2017). Understanding of gender progresses even throughout emerging adulthood, when the formation of a personal identity becomes of paramount importance to individuals.

Adolescence is a developmental period characterized by individuals' development of complex critical thinking regarding the self, others, and the individuals' social environment (Berger, 2012). According to Erickson (as cited by Clarke-Stewart & Parke, 2014), the main developmental crisis of adolescence is the formation of identity or role confusion. This phase of development is characterized by individuals developing a sense of self which informs the

specific roles they will occupy. In late adolescence, this is evident by individuals' preoccupation with self-description. However, while many individuals develop an identity during adolescence, many continue to struggle with role confusion into emerging adulthood (Clarke-Stewart & Parke).

The struggle to define one's identity during late adolescence may be due, in part, to the development of complex relational thinking skill after the age of 20, which allows individuals to understand themselves relative to others (Berger, 2012.) According to Berger, there are four main aspects of individuals' identity which include religious identity, sex and gender identity, political and ethnic identity, and vocational identity. Individuals collect information regarding each of these aspects of identity throughout development, via family, peers, media, etc. Individuals also often rely on knowledge of stereotypes to understand and develop this sense of identity (Berger). Thus, the stereotypes portrayed in the media bias individuals' perception, emphasizing gender roles and narrow restrictions, and subsequently impacting their identity development. Research summarized by Berger has shown that despite negative stereotypes and prejudices, identification with minority identities is healthier for individuals than deidentification. However, this means that individuals within emerging adulthood may be accepting gender roles and stereotypes as a way to achieve identity development. Further, during emerging adulthood, romantic intimacy development becomes increasingly important for individuals. Heterosexual men and women, in particular, rely on social clues regarding gender contained in the media to understand male and female dynamics to better understand how to develop romantic relationships.

Emerging adulthood is also characterized by an increase in mood disorders (e.g., anxiety and depression) especially for women, who experience depression twice as often than men (Berger, 2012). Understanding the gender difference in mood disorders during emerging adulthood is complex, but can be partially explained by several psychological and social factors that affect men and women differently.

Emerging adults are preoccupied with considering new ideas and cognitive flexibility, questioning personal and social values (Berger, 2012). In fact, by the end of the college years, emerging adults have defined a set of personal values, making emerging adulthood a critical developmental period to examine the social influences shaping individuals' identity. Understanding how identity development, both group and personal, influences women's acceptance of stereotypical and sexist behavior during emerging adulthood is then crucial for women's healthy development.

### **Present Study**

The present study evaluated the effects viewing pictures of female celebrities, in stereotypically feminine, and counter-stereotypical forms, has on young adult women's endorsement of AS, BS, and HS. Young adult women (18-39 years old) at Oregon State University (OSU) were first given a portion of the Ambivalent Sexism Inventory (ASI; Glick & Fiske,1996) to measure their baseline endorsement of AS, BS, and HS. The young adult women were then randomly assigned to view either a series of highly-feminine female celebrities' photos, unfeminine female celebrities' photos, or control natural scenery photos. After viewing the set of photos they were assigned, they were given the remaining portion of the ASI, to evaluate the effects viewing the set of phots had on their endorsement of AS, BS, and HS. We predicted the following:

**Hypothesis one.** Viewing highly-feminine images of female celebrities will increase participants' endorsement of AS, BS, and HS.
**Hypothesis two.** Viewing unfeminine images of female celebrities will decrease participants' endorsement of AS, BS, and HS.

We also predicted that participants' endorsement of AS, BS, and HS would only change after viewing and describing images with gender stereotype content, thus, those who viewed images of natural scenes devoid of gender stereotype content would demonstrate not change in their endorsement of AS, BS, or HS.

Highly feminine media depictions of women were defined as pictures of female celebrities embodying characteristics consistent with current gender roles and stereotypes including domestic, nurturing, delicate, graceful, soft, kind, helpful, or sexualized (Haines et al, 2016; Hatton & Trautner, 2011). Unfeminine media depictions of women were defined as pictures of female celebrities embodying characteristics inconsistent with current gender roles and stereotypes including agentic, aggressive, strong, competent, independent, or unconcerned with appearance. Control photos were defined as photos of natural scenery which elicited no feminine stereotypes. Photos which met these criteria were evaluated by undergraduate OSU students in a pilot study (Study 1) to determine which best depicted highly-feminine, unfeminine, and control photos. Photos which were rated by the participants in Study 1 as highly-feminine, unfeminine, and control pictures were used as the experimental stimuli in Study 2.

The ASI (Glick & Fiske, 1996) was used to measure women's endorsement of AS, BS, and HS. The ASI is a multi-dimensional scale commonly used in research to measure endorsement of AS, as well as BS and HS independently. Split-half reliability was calculated in Study 1 to assess the appropriateness of splitting the ASI into two parts in Study 2 to gain pretest and posttest measurements of AS, BS, and HS.

Because the ASI (Glick & Fiske, 1996) relies on heterosexual intimacy as a construct to measure endorsement of sexist beliefs, participation was limited to self-identified heterosexual women. Several of the questions contained in the ASI (e.g., "no matter how accomplished he is, a man is not truly complete as a person unless he has the love of a woman;" "every many ought to have a woman whom he adores") do not consider the experiences of individuals in nonheterosexual relationships and thus, their level of endorsement of AS, BS, and HS can not be accurately measured in this study. This study was further limited to biologically female, selfidentified (cis-gendered) women. We deemed it necessary to limit participation to cis-gendered women for two reasons. First, there is not sufficient research to determine if the socialization experiences of trans-women differ from cis-gendered women, and in what ways. Given this uncertainty, we would need to ask women whether they identified as cis-women or trans-women, which relates to the second reason; because trans-women are not equally represented within the population of OSU, we were concerned with trans-women's data being easily identifiable, and thus, we could not ensure their anonymity prior to participating in the study. For example, in the case of a security breach of the data, their identity as a trans-woman, in conjunction with any other identities they indicated, would put their data at greater risk for identification, thus compromising the anonymity that was promised.

## CHAPTER TWO - STUDY 1

Study 1 was a pilot study conducted to gather ratings of different photographs to determine the final set of stimuli for Study 2. Photos of 30 female celebrities, depicted both in highly-feminine and unfeminine forms, and 20 photos of natural scenes were collected by the first author and trained research assistants.

The ASI (Glick & Fiske, 1996) was given to participants in Study 1 to assess the average and range of agreement with AS, BS, and HS beliefs within young adult women. Split-half reliability of the ASI was also assessed in Study 1 to determine the appropriateness of splitting the inventory in half to gain pretest and posttest measurements in Study 2.

### Method

# **Participants**

Ninety-eight undergraduate students enrolled in psychology courses at Oregon State University participated in Study 1. All participants reported that they were biologically female, between the ages of 18 - 39, English speaking, and identified as heterosexual women. One participant did not meet the above criteria and was excluded from data analysis (final N = 97). **Materials** 

A total of 90 photos were distributed to participants for evaluation. Pictures of thirty female celebrities were included; each celebrity had at least two photos in the sample (n = 70); one photo that met prior specified criteria as a highly-feminine depiction (n = 35), and at least one photo that met criteria as an unfeminine depiction (n = 35). The remaining 20 photos were of natural scenes that met prior specified criteria as neutral stimuli.

Highly-feminine depictions were defined as pictures of women that embodied the modern feminine stereotype. According to the literature, the modern feminine stereotype consists of

characteristics including: expressiveness, concern with appearance, sexiness, flirtatiousness, submissiveness, delicateness, and domesticity (Haines, Deaux & Lofaro, 2016; Hatton & Trautner, 2011; Hosoda & Stone, 2000). Public pictures found on the internet (through public search engines including Google, Yahoo, and Bing) of female celebrities that depicted the above characteristics (e.g., a woman depicted putting on makeup; knock-kneed or otherwise off balance; laying down seductively, etc.) were collected by the first author and trained research assistants. All collected pictures were evaluated by the group for fit to the above criteria prior to being included in Study 1.

Unfeminine depictions were defined as pictures of women that embodied counterstereotypical feminine characteristics. These characteristics included: stoicism, agency, competency, activeness, competitiveness, aggressiveness, sturdiness, independence, and leadership. Public pictures found on the internet of female celebrities that depicted the above characteristics (e.g., a woman depicted fighting; playing a sport; speaking confidently to a group of people, etc.,) were collected, again, by the first author and trained research assistants. All pictures were evaluated by the group for fit to the above criteria prior to being included in Study 1.

Only female celebrities who had pictures which met criteria for both highly-feminine and unfeminine depictions were included in Study 1. The 30 female celebrities were: Charlize Theron, Kiki Palmer, Rebel Wilson, Zendaya, Jennie Finch, Maria Sharapova, Ming Na Wen, Janelle Monae, America Ferrera, Halle Berry, Gina Carano, Danica Patrick, Tessa Thompson, Alex Morgan, Selma Hayek, Ronda Rousey, Uma Thurman, Mindy Kaling, Lucy Lu, Britney Spears, Rosario Dawson, Angelina Jolie, Gal Gadot, Sarah Palin, Zoe Saldana, Ali Krieger, Venus Williams, Victoria Justice, Reece Witherspoon, and Tina Fey. Photos of natural scenes were included as neutral stimuli to test their appropriateness as control stimuli in Study 2. Neutral stimuli were defined as pictures of natural scenes that did not provoke negative emotional responses (e.g., a dying tree; dried up lake; desolate desert, etc.,) responses that could be associated with feminine stereotypes (e.g., delicate flowers, sunsets, etc.,) or unfeminine stereotypes (e.g., sturdy mountains, raging rivers, etc.) Photos that included people, animals, or human-made objects (e.g., benches, cobble stone pathways, houses, etc.,) were also excluded from collection. Photos of natural scenes which met the above criteria were collected, again, by the first author and trained research assistants. All pictures were evaluated by the group in regards to how well they fit the above criteria prior to being included in Study 1.

Participants were asked to rate the 70 celebrity photos on a scale from 1 - 5 (1 = not at all, 3 = neither, 5 = very) in regards to how feminine the celebrity appeared in the photo. Participants were also asked to rate on a scale 1 - 5 how familiar they were with the celebrity, as well as how likable and how attractive they found the celebrity to be. Familiarity, likability and attractiveness ratings were included to ensure that all celebrities were favored similarly and therefore, control for familiarity, likability, and attractiveness as potential confounding variables in Study 2. Participants were also asked to indicate the perceived race, age, and weight of the celebrities to determine the representativeness of the sample images.

To evaluate the photos of natural scenes as appropriate control stimuli, participants were asked to indicate the first word they thought of when shown the photo. First word responses that contained negative valences (e.g., lonely, dead/dying, etc.,) adjectives consistent with feminine stereotypes (eg., angelic, beautiful, fragile etc.,) or unfeminine stereotypes (e.g., powerful, sturdy, strong, etc.,) were not considered neutral responses. Examples of neutral first word responses included words such as: scenic, nature, grass, green, etc.

To evaluate agreement with AS, BS, and HS beliefs, participants were asked to complete the ASI (Glick & Fiske, 1996). The ASI asks individuals to indicate their agreement (0 = disagree strongly, 5 = agree strongly) with HS and BS beliefs to determine a score which corresponds to their overall agreement with AS beliefs. According to a series of six studies done by Glick & Fiske (1996), average scores typically range from 1.78 (SD = .89) to 2.41 (SD = .82) on a 5-point scale. Items on the inventory demonstrate good internal consistency in measuring AS beliefs ( $\alpha = .83 - .92$ ) as well as BS beliefs ( $\alpha = .73 - .85$ ) and HS beliefs ( $\alpha = .80 - .92$ ) independently. The ASI is determined to be a good measurement of sexist attitudes, given strong convergent validity scores with other scales validated to measure sexist attitudes. In the present study, the full inventory was distributed to participants to evaluate their agreement with AS attitudes as well as both HS and BS attitudes independently as well as evaluate split-half reliability of the scale.

## Procedure

OSU students enrolled in psychology courses signed up online to participate in a study in exchange for extra credit in their course. The study was described as an online survey requiring the participant to rate a series of photos and complete a brief inventory. Participation in the study was explicitly restricted to heterosexual, English speaking women between the ages of 18-39. After participants signed up online, they were given a link which directed them to the online consent form of the study. Before beginning the study, participants were required to read the consent form which outlined the risks, benefits, and activities included in the study. Participants were required to indicate their consent prior to beginning the study. Those who did not provide consent to participate in the study were directed to a page that thanked them for their interest in the study and then directed out of the study website. Participants were randomly assigned to complete the ASI (Glick & Fiske, 1996) either before or after rating the photos. Participants were randomly assigned to view one third (n = 30) of the photos and indicate their responses on the corresponding measures. Once participants completed both the ASI and ratings of the photos, they were directed to a debriefing page which gave details of the intent of the study. Participation in the study took participants 18 - 145 minutes (M = 37.26, SD = 23.61) to complete. Data from the one participant who took more than 84.48 minutes (two standard deviations above the mean completion time) was closely examined to determine if their answers indicated inattention to the study which would lead to excluding the participant as an outlier. Because the participant's answers did not indicate thoughtlessness or inattention, and seemed reasonable given other participants' answers, it was determined that the participant likely completed the study within a standard amount of time but neglected to close out of the study website, resulting in an inaccurate completion time. The participant's data were, therefore, not excluded from analysis.

#### Results

# **Female Celebrity Photos**

The female celebrity photos that received average femininity rating above 3 were categorized as highly-feminine and those that received average femininity rating below 3 were categorized as unfeminine. Photos that received an average femininity rating of 3 were classified as neither highly-feminine nor unfeminine and excluded from further analysis.

Photos which met the above criteria as either highly-feminine or unfeminine were then categorized further: those who had a model depicted both in the highly-feminine and unfeminine categories and those who appeared in one but not the other category. Only female celebrities who had photos represented in both the highly-feminine and unfeminine categories were included in further analysis. Of the 12 female celebrities who had photos categorized as both highlyfeminine and unfeminine, the ten female celebrities who had photos rated as most unfeminine as well as most feminine were selected as stimuli in Study 2.

Twenty photos of natural scenery were evaluated as potential control stimuli for Study 2. Pictures that had more than 5% of the words given as first responses that did not meet a priori criteria for neutral responses were not considered as control stimuli for Study 2. Pictures that had more than 95% of their responses classified as neutral were numbered and randomly selected using a random number generator (Random.org) to be used as control stimuli in Study 2.

# **Stimuli for Study 2**

On a 5-point scale (1 = not at all, 5 = very), the ten female celebrity targets (each evaluated twice) received an average likability rating of 3.33 (SD = .70), familiarity rating of 1.92 (SD = .75) and attractiveness rating of 3.44 (SD = .73). For information regarding how the models were rated in regards to their perceived race, age, and race, see Table 1.

**Highly-feminine stimuli.** The ten photos that were selected using the above criteria as highly-feminine received an average femininity rating of 4.28 (SD = .77). The female celebrity targets depicted in these photos received an average likability rating of 3.38 (SD = .82), an average attractiveness rating of 3.69 (SD = .87) and an average familiarity rating of 1.87 (SD = .89).

**Unfeminine stimuli**. The ten photos that were selected using the above criteria as unfeminine received an average femininity rating of 2.45 (SD = .90). The female celebrity targets received an average likability rating of 3.30 (SD = .80), an average attractiveness rating of 3.43 (SD = .73), and an average familiarity rating of 2.03 (SD = .79).

To determine if the models depicted in the two conditions differed significantly in their femininity, attractiveness, likability, and femininity ratings, four independent samples t-tests were conducted. As predicted, the two groups differed significantly in femininity ratings, t(18) = 11.25, p < .001, confirming that the two groups depicted opposing levels of femininity as intended. The two groups also differed significantly in attractiveness ratings, t(18) = 2.89, p = .01, with the highly-feminine photos being rated as significantly more attractive than the unfeminine photos, providing further indication that the two groups activated feminine stereotypes. The two groups did not differ significantly in regards to likability, t(18) = .58, p = .57, or familiarity, t(18) = .39, p = .70, suggesting these to be unlikely confounding variables in Study 2.

**Control stimuli.** Ten photos of natural scenery were used as control stimuli for Study 2. Included were 4 (40%) pictures of fields, 4 (40%) pictures of wooded areas, and 2 (20%) pictures of bodies of water.

## Ambivalent Sexism Inventory (ASI).

The ASI was evaluated for overall average AS scores as well as both average BS and HS scores independently. Split-half reliability of the ASI was assessed to determine if the ASI could be split into a pretest and posttest in Study 2.

Average scores on the ASI ranged from 1.00 - 3.68 (M = 2.17, SD = .60), indicating moderate endorsement of AS beliefs. The range of scores reported here is slightly larger than the range of female participants' scores originally reported by Glick and Fiske (1996) (1.78-2.41). However, the average score reported here is similar to the average score for female participants originally reported by Glick and Fiske (1996) (M = 1.98, SD = .82). Average scores on the BS subset items ranged from .91 - 3.73 (M = 2.17, SD = .60), indicating moderate agreement with BS beliefs. Glick and Fiske reported a nearly identical average BS score for female participants (M = 2.16, SD = .85). Scores on the HS items ranged from .45 - 3.82 (M = 2.17, SD = .76), which is slightly higher than the average HS score for female participants reported by Glick and Fiske (M = 1.80, SD = .85). BS and HS scores showed a slightly stronger positive correlation (r = .55, p < .001) than what is typically reported (r = .40 - .50) according to Glick and Fiske. These observed differences were overall minimal and were a function of the sample size.

Split-half reliability was used on the first (Question 1 - 11) and second (12 - 22) half of the ASI to determine if these two parts could be split into a pretest and posttest in Study 2. Split-half reliability showed good reliability according to Cronbach's alpha ( $\alpha = .77$ ), suggesting it appropriate to split the test into a pretest and posttest in Study 2.

# CHAPTER THREE – STUDY 2

# Method

Study 2 tested the effects of viewing different types of photos on young adult women's endorsement of AS, BS, and HS. Ten female celebrities depicted both in highly feminine and unfeminine forms (as determined by ratings gathered in Study 1,) were used as stimuli to test these effects. Ten photos of natural scenery, determined to elicit neutral responses in Study 1, were included in Study 2 as control stimuli and were not expected to change the participants' endorsement of AS, BS, or HS. The ASI was split into two parts; one part was given to participants at the beginning of the study to establish their baseline level of endorsement of AS, BS, and HS (pretest); the other part was given to participants after viewing the photos to assess changes in their endorsement of AS, BS, and HS (posttest.)

# **Participants**

One hundred sixty five undergraduate students enrolled in a psychology course at Oregon State University participated in Study 2. All participants were biologically female, between the ages of 18-39, English speaking, and identified as a heterosexual woman. Participants' religious affiliations are presented in Table 2; participants' race and ethnicities are presented in Table 3.

# Materials

Twenty photos of female celebrities were used as the experimental stimuli. Each female celebrity had two photos in the sample, one selected from Study 1 as a highly-feminine depiction and one selected from Study 1 as an unfeminine depiction. The models depicted were Jennie Finch, Gina Carano, America Ferrera, Tessa Thompson, Ronda Rousey, Uma Thurman, Gal Godet, Venus Williams, Janelle Monae and Danica Patrick.

The ASI (Glick & Fiske, 1996) was split into two parts in order to obtain pretest and posttest measurements of participants' endorsement of AS, BS, and HS. There were 11 questions included in each part; one part had six questions evaluating agreement with HS beliefs and five questions evaluating agreement with BS beliefs; the other part had five questions evaluating agreement with HS beliefs and six questions evaluating agreement with BS beliefs. The order in which participants received the two halves was counterbalanced, such that each participant was randomly assigned to take one of the halves as a pretest measurement and the other as a posttest measurement. Participants' pretest and posttest levels of AS were determined by their ASI score; participants' pretest and posttest levels of HS were determined by their HS subset score on the ASI; participants' pretest and posttest levels of HS were determined by their HS subset score on the ASI.

The Enjoyment of Sexualization Scale (ESS; Liss, Erchull & Ramsey, 2010), System Justification Scale (SJS; Kay & Jost, 2003) and Psychological Entitlement Scale (PES; Campbell, 2004) were also included in order to control for factors which previous research has indicated contributes to individuals' endorsement of AS, BS, and HS (e.g., Liss, Erchull & Ramsey; Jost & Kay, 2005; Connelly & Heesacker, 2012; Hammond, Sibley & Overall, 2014; Liss et al., 2010 ).

The ESS (Liss et al., 2010) was used to evaluate the level of enjoyment participants feel from receiving sexualized, appearance-based attention from men. The scale contains eight items to which respondents indicate their agreement on a 6-point scale (1 = disagree strongly, 6 = agree strongly), where higher scores indicate greater levels of enjoyment of sexualization. The ESS has demonstrated good internal consistency ( $\alpha$  = .85) and convergent validity with scales measuring related constructs, determining it to be an appropriate measure of women's enjoyment of sexualization.

The SJS (Kay & Jost, 2003) was used to measure participants' perceptions of fairness, legitimacy, and justifiability with the current social system. The scale contains eight items to which respondents indicate their agreement on a 9-point scale (1 = strongly agree, 9 = strongly disagree) where higher scores indicate greater levels of system justification. The SJS has demonstrated acceptable internal consistency across four studies (Kay & Jost, 2003) ( $\alpha$  = .75 - .87) as well as good convergent validity with scales measuring related constructs, determining it to be an appropriate measure of system justification.

The PES (Campbell et al., 2004) was used to evaluate participants' perceptions that they deserve more and are entitled to more than others. The scale contains nine items to which respondents indicate their agreement on a 7-point scale (1 = strongly disagree, 7 = strongly agree,) where higher scores indicate greater levels of psychological entitlement. Across nine studies conducted by Campbell et al. (2004), the PES demonstrated good internal consistency ( $\alpha$  = .87) and convergent validity with scales measuring related constructs, determining it to be an appropriate measure of psychological entitlement.

A series of word jumble puzzles were included as a filler task to reduce possible influence answering the first set of inventories may have on viewing the photos and, subsequently, the posttest ASI measurement. Participants were given a set of 20 nature-related words including: aquatic, climate, grassland, environment, glacier, forest, evergreen, natural, field, mountain, clouds, petal, orchard, vegetable, wind, fern, temperature, season, light, wildlife, raindrop, coastline, soil, ocean and river. Participants were presented with the words spelt incorrectly (e.g., tauqcia, mliteac, or sladnsgra) and asked to identify the correct nature-related word.

### Procedure

OSU students enrolled in psychology courses signed up online to participate in a study in exchange for extra credit in their course. The study was described as an online research study requiring participants to complete a series of inventories, word jumbles, and view a series of photos. Participation in the study was explicitly restricted to female heterosexual, English speaking, women between the ages of 18 - 39. Once individuals signed up to participate in the study they were given a link which took them to a consent form outlining the potential risks and benefits as well as activities included in the study. Participants were required to indicate their consent prior to beginning the study. If individuals did not indicate their consent to participate, they were then directed to the final page of the study which thanked them for their interest and directed them out of the study website.

Once individuals consented to participate they were required to indicate whether they were biologically female, between the ages of 18 - 39, identified as a woman and heterosexual. If individuals answered "no" to either of the above qualifications, they were directed to a screen which thanked them for their interest, reiterated the eligibility requirements for participation in the study, and directed them out of the study website. Individuals who met all the eligibility requirements to participate were directed to the next part of the study.

Participants were first randomly assigned to complete one of the halves of the ASI (Glick & Fiske, 1996). At this point, participants were also instructed to complete the ESS (Erchull & Ramsey, 2010), SJS (Kay & Jost, 2003) and PES (Campbell, 2004) in a randomly assigned order.

After completing their first set of inventories, participants were directed to the filler task. Participants were instructed to spend ten minutes solving the nature-related word jumbles given. All words were presented together so participants could choose which to solve first. After participants had spent ten minutes solving the puzzles, they were able to advance to the next part of the study.

Participants were randomly assigned to view either the set of ten highly-feminine celebrity photos (highly-feminine condition,) unfeminine celebrity photos (unfeminine condition,) or natural scenery photos (control condition.) Participants viewed each of the ten photos they were assigned for one minute each. While viewing the photos, participants were asked describe the photo they were viewing in a text box to ensure that their attention was given to the photo in a meaningful manner. After one minute of viewing the photo, they were directed to the next, until they had viewed all ten photos in the set they were assigned. Immediately after viewing the photo stimuli, participants were instructed to complete whichever half of the ASI (Glick & Fiske, 1996) they had not previously completed, to gain a posttest measurement of their endorsement of AS, BS, and HS.

Once participants finished the posttest measurement of the ASI, they were asked to fill out a series of demographic questions including their religion, importance of their religion to them, their race and ethnicity, and feminist identity. These questions were asked at the end of the study to reduce the potential risk of eliciting any stereotype threat (Danaher & Crandall, 2008). After answering the set of demographic questions, they were directed to a debriefing screen that provided more details of the intent of study and thanked them for their participation prior to being directed out of the study website.

### **Analysis Plan**

There were three main types of analyses: covariate analyses, primary analyses, and posthoc regression analyses. The covariate analyses were used to identify variables that needed to be controlled for in the primary analyses. The primary analyses were used to determine the effect viewing the photos had on participants' endorsement of AS, BS, and HS, while controlling for necessary covariates. The post-hoc regression analyses were used to identify how much variance the covariates accounted for in pretest and posttest AS, BS, and HS scores.

**Covariate analyses.** Psychological entitlement, system justification, enjoyment of sexualization, religious affiliation, religiosity, ethnicity, and feminist identification were analyzed as potential covariates.

*Psychological entitlement*. Six correlational analyses were used to assess psychological entitlement as a covariate. Three correlations examined the relationship between PES scores and pretest AS, BS, and HS scores to determine if psychological entitlement was significantly related to baseline endorsement of AS, BS, or HS and should therefore, be controlled for in any of the primary analyses. The other three correlations examined the relationship between PES scores and AS, BS, and HS change scores to evaluate if psychological entitlement was related to participants' change in endorsement of AS, BS, or HS throughout the experiment, and should therefore, be controlled for in any of the primary analyses.

*System justification.* Six correlational analyses were used to assess system justification as a covariate. Three correlations examined the relationship between SJS scores and pretest AS, BS, and HS scores to determine if system justification was significantly related to baseline levels of AS, BS, and HS and should therefore, be controlled for in any of the primary analyses. The other three correlations examined the relationship between SJS scores and AS, BS, and HS change

scores to determine if system justification was significantly related to participants' change in endorsement of AS, BS, or HS throughout the experiment, and should therefore, be controlled for in any of the primary analyses.

*Enjoyment of sexualization*. Six correlational analyses were used to assess enjoyment of sexualization as a covariate. Three correlations examined the relationship between ESS scores and pretest AS, BS, and HS scores, to determine if enjoyment of sexualization was significantly related to baseline levels of AS, BS, or HS and should therefore, be controlled for in any of the primary analyses. The other three correlations examined the relationship between ESS scores and AS, BS, and HS change scores to determine if enjoyment of sexualization was related to how much participants' AS, BS, and HS scores changed throughout the experiment, and should therefore, be controlled for in any of the primary analyses.

*Religious affiliation.* Six one-way ANOVAs were used to assess religious affiliation as a covariate. Three one-way ANOVAs tested whether pretest AS, BS, and HS scores differed significantly between religious affiliations to determine if religious affiliation should be controlled for in any of the primary analyses. The other three one-way ANOVAs tested whether AS, BS, and HS change scores differed significantly between religious affiliations to determine if religious affiliations affiliations to determine if religious affiliations a

*Religiosity.* Six correlations were used to assess religiosity as a covariate. Three correlations examined the relationship between religiosity scores and pretest AS, BS, and HS scores to determine if religiosity was significantly related to baseline levels of AS, BS, or HS and should therefore, be controlled for in any of the primary analyses. The other three correlations examined the relationship between religiosity scores and AS, BS, and HS change scores to determine if religiosity was significantly related to how much participants' AS, BS, and HS

scores changed throughout the experiment, and should therefore, be controlled for in the primary analyses.

*Ethnicity*. Six one way-ANOVAs were used to assess ethnicity as a covariate. Three oneway ANOVAs tested whether pretest AS, BS, and HS scores differed significantly between ethnicities to determine if ethnicity should be controlled for in any of the primary analyses. The other three one-way ANOVAs tested whether AS, BS, and HS change scores differed significantly between ethnicities to determine if ethnicity should be controlled for in any of the primary analyses.

*Feminist identification.* Six one-way ANOVAs were used to assess feminist identification as a covariate. Three one-way ANOVAs tested whether pretest AS, BS, and HS scores differed significantly between different identifications with feminism, and should therefore, be controlled in any of the primary analyses. The other three one-way ANOVAs tested whether AS, BS, and HS change scores differed significantly between different identifications with feminism and should therefore, be controlled for as a covariate in any of the primary analyses.

# **Primary Analyses**

Primary analyses were concerned with identifying the impact viewing the photos had on participants' endorsement of AS, BS, and HS. To determine this, three Repeated Measures Analyses of Covariance (ANCOVAs) were used. We had the following predictions:

**Hypothesis 1:** Viewing the highly-feminine images of female celebrities will increase participants' endorsement of AS, BS, and HS.

If participants' posttest ASI scores are significantly greater than their pretest ASI scores, it will be determined that viewing the highly feminine photos increased endorsement of AS. If participants' posttest BS subset ASI scores are significantly greater than their pretest BS subset ASI scores, it will be determined that the highly feminine photos increased endorsement of BS. If participants' posttest HS subset ASI scores are significantly greater than their pretest HS subset ASI scores, it will be determined that the highly feminine photos increased endorsement of HS.

**Hypothesis 2:** Viewing the unfeminine images of female celebrities will decrease participants' endorsement of AS, BS, and HS.

If participants' posttest ASI scores are significantly lower than their pretest ASI scores, it will be determined that viewing the unfeminine photos decreased endorsement of AS. If participants' posttest BS subset ASI scores are significantly lower than their pretest BS subset ASI scores, it will be determined that the unfeminine photos decreased endorsement of BS. If participants' posttest HS subset ASI scores are significantly lower than their pretest HS subset ASI scores, it will be determined that the unfeminine photos decreased endorsement of BS. If participants' posttest HS subset ASI scores are significantly lower than their pretest HS subset ASI scores, it will be determined that the unfeminine photos decreased endorsement of HS.

It was also predicted that participants' endorsement of AS, BS, and HS would only change after viewing photos containing gender stereotype content, thus, participants who viewed the photos of natural scenes would experience not change in their endorsement of AS, BS, and HS. If participants' posttest ASI scores are statistically no different than their pretest ASI scores, it will be determined that viewing the control photos had no effect on endorsement of AS. If participants' posttest BS subset ASI scores are statistically no different than their pretest BS subset ASI scores, it will be determined that viewing the control photos had no effect on endorsement of an endorsement of BS. If participants' posttest HS subset ASI scores are statistically no different than their pretest HS subset ASI scores, it will be determined that viewing the control photos had no effect on endorsement of BS. If participants' posttest HS subset ASI scores are statistically no different than their pretest HS subset ASI scores, it will be determined that viewing the control photos had no effect on endorsement of BS. If participants' posttest HS subset ASI scores are statistically no different than their pretest HS subset ASI scores, it will be determined that viewing the control photos had no effect on endorsement of HS.

## **Post-hoc Regression Analyses.**

Post-hoc regression analyses were conducted to assess the amount of variance in pretest and post-test sexism scores (AS, BS, and HS) that was accounted for by psychological entitlement, system justification, enjoyment of sexualization, religious affiliation, religiosity, ethnicity, and feminist identification. In analyses of post-test scores, we controlled for photo condition and respective pretest scores. Thus, three multiple linear regression analyses were conducted for pre-test scores and three hierarchical multiple linear regression analyses were conducted for post-test scores.

### Results

One hundred sixty five undergraduate female Oregon State University students participated in Study 2. Of those, 59 (36%) were randomly assigned to view the set of highly feminine photos, 55 (33%) were randomly assigned to view the set of unfeminine photos, and 51 (31%) were randomly assigned to a view the set of control photos. Given previous research which has identified several variables that are related to individuals' endorsement of AS, BS, and HS, covariate analyses were conducted first to determine which variables needed to be controlled for during primary analyses.

## **Covariate Analyses.**

Psychological entitlement, system justification, enjoyment of sexualization, religious affiliation, religiosity, ethnicity, and feminist identity were examined as covariates.

**Psychological entitlement.** Participants' PES (Campbell et al., 2004) scores ranged from 1.00 - 5.78 (M = 3.07, SD = .92) on a 7-point scale. PES scores correlated significantly with pretest AS scores (r = .26, p < .001) as well as pretest BS scores (r = .29, p < .001). The correlation between PES scores and pretest HS scores approached significance (r = .15, p = .06).

PES scores did not correlate significantly with AS change scores (r = .09, p = .27), BS change scores (r = .07, p = .38) or HS change scores (r = .05, p = .56).

Given the significant correlations between participants' PES scores and pretest AS and BS scores, psychological entitlement was held as a covariate in primary analyses concerning endorsement of AS and BS. However, psychological entitlement was not held as a covariate in primary analyses concerning endorsement of HS.

**System justification.** Participants' SJS scores (Kay & Jost, 2003) ranged from 1.63 -8.13 (M = 3.07, SD = 1.23) on a 9-point scale. SJS scores correlated significantly with pretest HS scores (r = .19, p = .01). The correlations between SJS scores and pretest AS (r = .12, p = .12) as well as pretest BS (r = .02, p = .84) scores were not significant. SJS scores were significantly correlated with AS change scores (r = .20, p = .008), however the correlation between SJS scores and HS change scores only approached significance (r = .14, p = .07). SJS scores did not correlate significantly with BS change scores (r = .13, p = .09).

Given the significant correlations between participants' SJS scores and pretest HS scores, as well as AS change scores, system justification was held as a covariate in primary analyses concerning endorsement of AS and HS. However, system justification was not held as a covariate in primary analyses concerning endorsement of BS.

**Enjoyment of sexualization.** Participants' scores on the ESS (Liss et al., 2010) ranged from 1.75 - 6.00 (M = 3.73, SD = .75) on a 6-point scale. ESS scores correlated significantly with pretest AS scores (r = .24, p < .001), as well as pretest BS scores (r = .25, p < .001). However, the correlation between ESS scores and pretest HS scores only approached significance (r = .14, p = .07). ESS scores did not significantly correlate with AS change scores (r = .11, p = .17) or BS change scores (r = .01, p = .92), however, ESS scores did correlate significantly with HS change scores (r = .16, p = .04).

Given the significant correlations between participants' ESS scores and pretest AS and BS scores, as well as HS change scores, enjoyment of sexualization was held as a covariate for primary analyses concerning endorsement of AS, BS, and HS.

**Religious affiliation.** Religious affiliation was collapsed into three categories, including those who identified as Christian (n = 79, 48%), those who identified as religious but not Christian (religious-NC) (n = 14, 9%), and those who identified as not religious (n = 69, 42%). Three participants (1%) chose not to answer and were excluded from further analyses concerning religious affiliation. Information regarding how religious affiliation was distributed within the sample prior to the collapsing of categories is presented in Table 3. The average pretest AS, BS, and HS scores in each religious affiliation category are presented in Table 4.

A one-way ANOVA indicated pretest AS scores differed significantly between the three religious affiliation categories, F(2, 159) = 3.99, p = .02. Scheffe post-hoc comparisons indicated that those who identified as Christians had significantly higher AS pretest scores than those who did not identify as religious (p = .03), but not significantly higher scores than those who identified as religious-NC (p = .30). Those who identified as religious-NC likewise did not differ significantly from those who were not religious in pretest AS scores (p = .98).

A one-way ANOVA indicated that the three religious affiliation groups did not differ significantly in pretest BS scores, F(2, 159) = 2.42, p = .09.

A one-way ANOVA indicated pretest HS scores differed significantly between the three religious affiliation categories, F(2, 159) = 3.97, p = .02. While Scheffe post-hoc comparisons indicated that no group significantly differed from one another in pretest HS scores, LSD post-

hoc comparisons indicated that Christians had significantly higher pretest HS scores than those who identified as not religious (p = .01), as well as from those who identified as religious-NC (p = .04). LSD post-hoc comparisons indicated that those who identified as religious-NC and those who identified as not religious did not differ significantly in their pretest HS scores (p = .80).

A one-way ANOVA indicated that the three religious affiliation categories did not differ significantly in their AS change scores, F(2, 159) = .77, p = .46, BS change scores, F(2, 159) = .26, p = .77, or HS change scores F(2, 159) = 1.95, p = .15.

Results indicated that AS and HS differed significantly between religious affiliations, such that Christians had the highest endorsement of AS and HS pretest scores. Pretest endorsement of BS scores did not differ significantly between religious affiliations. Given the results of the one-way ANOVAs testing differences in pretest scores, religious affiliation was held as a covariate in primary analyses concerning endorsement of AS and HS. Religious affiliation was not held as a covariate in primary analyses concerning endorsement of BS.

**Religiosity.** On a 5-point scale, the average religiosity score for those who identified with a religion was 3.27 (SD = 1.28). Those who did identified as religious-NC had a slightly higher average religiosity score (M = 3.71, SD = 1.38) than those who identified as Christian (M = 3.18, SD = 1.83).

There were no significant correlations between religiosity and pretest AS scores (r = -.03, p = .78), pretest BS scores (r = .00, p = .94), or pretest HS scores (r = -.05, p = .60). Similarly, there were no significant correlations between religiosity and AS change scores (r = .18, p = .28) or BS change scores (r = -.02, p = .84), and the correlation between religiosity and HS change scores only approached significance (r = .18, p = .06). Results indicated that religiosity is not

associated with endorsement levels of AS, BS, or HS, thus, religiosity was not held as a covariate for primary analyses concerning endorsement of AS, BS, or HS.

**Ethnicity.** Ethnicity was collapsed into two categories, those who identified as White (German, Irish, European, etc., n = 101, 61%), and those who did not identify as White (Hispanic, Black, Asian, etc., n = 33, 20%). A considerable number of participants (n = 31, 19%) chose not to indicate their ethnicity, and were excluded from further analyses concerning ethnicity. Information regarding how ethnicity was distributed within the sample prior to the collapsing of categories is presented in Table 3. The average pretest AS, BS, and HS scores within the ethnicity categories are presented in Table 6.

Independent samples t-tests indicated that those who identified as White and those who did not identify as White did not differ significantly in their pretest AS, t(132) = .88, p = .38, pretest BS, t(132) = 1.02, p = .31, or pretest HS, t(132) = .52, p = .60, scores.

Similarly, independent samples t-tests indicated that those who identified as White did not differ significantly from those who did not identify as White in AS change scores, t(132)= .94, p = .35, BS change scores, t(132) = .18, p = .85, or HS change scores, t(132) = 1.21, p= .23. Given the nonsignificant differences found in AS, BS, and HS scores between individuals who identified as White and non-White, ethnicity was not held as a covariate in the primary analyses concerning endorsement of AS, BS, or HS.

**Feminist identity.** Sixty-eight (41%) of the participants identified as feminists, 47 (29%) did not identify as feminists (n = 47, 29%), and 50 (30%) were unsure if they identified as feminists or not. The average pretest AS, BS, and HS scores within each feminist identification category are presented in Table 6.

A one-way ANOVA indicated that those who identified as feminists, those who did not (non-feminists), and those who were unsure if they identified as feminists (unsure-feminists), differed significantly in pretest AS scores, F(2, 162) = 29, p < .001. Scheffe post-hoc comparisons indicated that feminists had significantly lower pretest AS scores than non-feminists (p < .001) and unsure-feminists (p < .001). Scheffe post-hoc comparisons indicated that non-feminists (p < .001). Scheffe post-hoc comparisons indicated that non-feminists did not differ significantly in pretest AS scores (p = .20).

A one-way ANOVA indicated that feminists, non-feminists, and unsure-feminists differed significantly in pretest BS scores F(2, 162) = 15.01, p < .001. Scheffe post-hoc comparisons indicated feminists had significantly lower pretest BS scores than non-feminists (p< .001) and unsure-feminists (p < .002). However, non- feminists and unsure-feminists did not differ significantly in pretest BS scores (p = .31).

A one-way ANOVA indicated that feminists, non-feminists, and unsure feminists also differed significantly in their pretest HS scores F(2, 162) = 24.67, p < .001. Scheffe post-hoc comparisons indicated feminists had significantly lower pretest HS scores than non-feminists (p< .001) and unsure-feminists (p < .001). Scheffe post-hoc comparisons indicated that nonfeminists and unsure-feminists did not differ significantly in pretest HS scores (p = .44).

A one-way ANOVA indicated that feminists, non-feminists, and unsure-feminists did not differ significantly in their AS change scores, F(2, 162) = 2.30, p = .10, BS change scores F(2, 162) = 2.4, p = .09, or HS change scores F(2, 162) = .70, p = .51.

Results indicated endorsement of AS, BS, and HS strongly differed by feminist identification. Feminists had significantly lower AS, BS, and HS pretest scores than nonfeminists and unsure-feminists. Non-feminists and unsure-feminists, however, did not significantly differ from one another in AS, BS, or HS. Given these nonsignificant differences, non-feminists and unsure-feminists were collapsed into a single category (non-feminists ) All further analyses concerning feminist identification used this collapsed variable. Feminist identification was held as a covariate in primary analyses concerning AS, BS, and HS.

# **Primary Analyses**

Three repeated measures ANCOVAs were used to test the hypotheses and determine the extent to which viewing the photos had on participants' endorsement of AS, BS, and HS.

**Descriptive statistics.** Pretest AS scores ranged from 0.00 - 4.00 (M = 1.89, SD = .77) on a 5-point scale. Pretest BS scores ranged from 0 - 4.33 (M = 1.97, SD = .88), and pretest HS scores ranged from 0 - 4.17 (M = 1.82, SD = .90). Average pretest AS, BS, and HS scores are all slightly lower than what was reported in Study 1, however, still consistent with findings reported by Glick & Fiske (1996).

*Highly feminine condition*. Participants who were randomly assigned to view the set of highly-feminine photos, the average pretest AS score was 1.75 (SD = .76). The average posttest AS score was 1.77 (SD = .75), resulting in an average AS change score of .02 (SD = .52). The average pretest BS score was 1.77 (SD = .90). The average posttest BS score was 1.84 (SD = .82), resulting in an average BS change score of .07 (SD = .81). The average pretest HS score was 1.75 (SD = .86). The average posttest HS score was 1.65 (SD = .93), resulting in an average HS score of -.10 (SD = .76).

Unfeminine condition. For participants randomly assigned to view the set of unfeminine photos, the average pretest AS score was 2.0 (SD = .77). The average posttest AS score was 1.96 (SD = .80), resulting in an average AS change score of -.04 (SD = .53). The average pretest BS score was 2.20 (SD = .86). The average posttest BS score was 2.02 (SD = .90), resulting in an average BS change score of -.18 (SD = .85). The average pretest HS score was 1.79 (SD = .98).

The average posttest HS score was 1.89 (SD = .96), resulting in an average HS change score of .10 (SD = .95).

*Control condition.* For participants assigned to view the set of control photos, the average pretest AS score was 1.94 (SD = .77). The average posttest AS score was 1.96 (SD = .77), resulting in an average AS change score of .02 (SD = .51). The average pretest BS score was 1.97 (SD = .87). The average posttest BS score was 1.95 (SD = .87), resulting in an average BS change score of -.02 (SD = .60). The average pretest HS score was 1.97 (SD = .87). The average posttest HS score was 1.98 (SD = .94), resulting in an average HS change score of -.01 (SD = .75).

**Inferential statistics.** Hypothesis one predicted that participants randomly assigned to the highly-feminine condition would experience an increase in their endorsement of AS, BS, and HS after viewing the set of highly-feminine photos. Hypothesis two predicted that participants randomly assigned to the unfeminine condition would experience a decrease in their endorsement of AS, BS, and HS after viewing the set of unfeminine photos. It was also predicted that participants randomly assigned to the control condition would experience no significant change in their endorsement of AS, BS, and HS, after viewing the set of control photos. Three repeated measures ANCOVAs were used to test these hypotheses.

*Ambivalent sexism.* The first repeated measures ANCOVA tested the hypotheses with the photo condition as the between-subjects variable, AS pretest and posttest scores as the within-subjects variables, and psychological entitlement, system justification, enjoyment of sexualization, religious affiliation, and feminist identification as covariates. Results indicated a marginally significant within-subjects effect, F(1, 154) = 3.28, p = .07, indicating posttest AS scores were marginally greater than pretest AS scores. Results also indicated a nonsignificant

between-subjects effect, F(1, 154) = 2.01, p = .13, indicating participants' AS scores did not differ significantly between photo conditions. Results indicated a nonsignificant interaction effect, F(2, 154) = 1.08, p = .34, indicating that photo condition did not significantly predict varying levels of AS change scores as hypothesized.

*Benevolent sexism.* The second repeated measures ANCOVA tested the hypotheses with photo condition as the between-subjects variable, BS pretest and posttest scores as the within-subjects variables, and psychological entitlement, enjoyment of sexualization, and feminist identity as covariates. Results indicated a nonsignificant within-subjects effect, F(1, 155) = 3.04, p = .09, indicating the pre and posttest BS scores were not significantly different. Results indicated a nonsignificant between-subjects effect, F(1, 155) = 2.02, p = .16, indicating participants' BS scores did not differ significantly between photo conditions. Results also indicated a nonsignificant interaction effect, F(2, 155) = 1.90, p = .15, indicating that photo condition did not significantly predict varying levels of BS change scores as hypothesized.

*Hostile sexism.* The third repeated measures ANCOVA tested the hypotheses with photo condition as the between-subjects variable, endorsement of HS pre and posttest scores as the within-subjects variables, and system justification, enjoyment of sexualization, religious affiliation, and feminist identification as covariates. Results indicated a significant within-subjects effect, F(1, 155) = 6.64, p = .01, indicating posttest HS scores were significantly greater than pretest HS scores. However, results indicated a nonsignificant between-subjects effect, F(1, 155) = 1.89, p = .17, indicating participants' HS scores did not differ significantly between photo conditions. Results also indicated a nonsignificant interaction effect, F(2, 155) = 1.15, p = .32, indicating that photo condition did not significantly predict varying levels HS change scores as hypothesized.

The three repeated measures ANCOVAs indicated that, with the exception of hostile sexism, pre and posttest endorsement of sexism scores were not significantly different. Further, results indicated that AS, BS, and HS change scores did not differ significantly between the three photo conditions. The three repeated measures ANCOVAs indicated that, contrary to our hypotheses, the photos the participants were exposed to did not significantly predict their change in endorsement of AS, BS, and HS.

### **Post-hoc Regression Analyses**

After conducting the primary analyses, post-hoc regression analyses were conducted to determine the amount of variance in AS, BS, and HS scores the covariate variables accounted for. Three multiple regressions analyses were used to determine which covariates most strongly explained variation in pretest AS, BS, and HS scores. Additionally, three hierarchical multiple regressions analyses were used to determine which covariates most strongly explained variation in pretest AS, BS, and HS scores. Additionally, three hierarchical multiple regressions analyses were used to determine which covariates most strongly explained variation in posttest AS, BS, and HS scores while controlling for photo condition and pretest scores.

Variables that the covariate analyses determined were significantly related to AS, BS, and HS scores were put into their respective models as independent variables to determine the variance in scores they accounted for. In order to include religious affiliation into the regression models, religious affiliation was dummy coded to create two dichotomous variables. The first included those who identified as Christian and those who did not identify as religious; the second included those who identified as RNC and those who did not identify as religious.

**Ambivalent sexism scores.** Results from the multiple regression analysis on pretest AS scores are presented in Table 7. Significant covariates determined from the correlational analyses, including, psychological entitlement, system justification, enjoyment of sexualization, religious affiliation, and feminist identification, were included as the independent variables.

Results indicated that the covariates were significantly associated with pretest AS scores, F(6, 155) = 14.858, p < .001, explaining 34% of the variance in pretest scores. Feminist identification was negatively related to pretest AS scores ( $\beta = ..47, p < .001$ ), indicating that identification with feminism was significantly associated with lower pretest AS scores. Psychological entitlement ( $\beta = .23, p = .001$ ) and enjoyment of sexualization ( $\beta = .14, p = .04$ ) were positively related to pretest AS scores, indicating that greater scores on the psychological entitlement and enjoyment of sexualization scales were significantly associated with greater pretest endorsement of AS scores. Christianity was also positively related to pretest AS scores ( $\beta$ = .18, p = .008), indicating that identification with Christianity was significantly associated with greater pretest AS scores. System justification and RNC were not significantly associated with pretest AS scores.

Results from the hierarchical multiple regression analysis on posttest AS scores are presented in Table 8. Step one included photo condition as the independent variable and posttest AS scores as the dependent variable. Results indicated that photo condition did not significantly predict posttest AS scores, F(1, 160) = .12, p = .73.

Step two added pretest AS scores as an independent variable. Results indicated pretest AS scores significantly predicted posttest AS scores, F(2, 159) = 117.00, p < .001, accounting for 59% of the variance in posttest scores.

Step three added the covariates, including psychological entitlement, system justification, enjoyment of sexualization, religious affiliation, and feminist identification, as independent variables. The addition of these variables significantly increased the variance explained in posttest AS scores to 64%, F(1, 160) = 37.27, p < .001, indicating that while controlling for pretest AS scores, covariates significantly predicted posttest AS scores.

System justification ( $\beta$  = .16, *p* = .001) and enjoyment of sexualization ( $\beta$  = .12, *p* = .02) were positively related to posttest AS scores, indicating greater system justification and enjoyment of sexualization scores predicted greater posttest AS scores. The relationship between psychological entitlement and posttest AS scores approached significance ( $\beta$  = .10, *p* = .06), indicating that greater psychological entitlement scores marginally predicted greater posttest AS scores.

**Benevolent sexism scores**. Results from the multiple linear regression analysis on pretest BS scores are presented in Table 9. Significant covariates determined from the correlational analyses, including psychological entitlement, enjoyment of sexualization, and feminist identification, were included as the independent variables.

Results indicated that the covariates were significantly associated with pretest BS scores, F(3, 161) = 18.30, p < .001, accounting for 24% of the variance in pretest scores. Feminist identification was negatively related to pretest BS scores ( $\beta = -.37, p < .001$ ), indicating identification with feminism was significantly associated with lower pretest BS scores. Psychological entitlement ( $\beta = .25, p < .001$ ) and enjoyment of sexualization ( $\beta = .16, p = .03$ ) were positively related to pretest BS scores, indicating greater psychological entitlement and enjoyment of sexualization was significantly associated with greater pretest BS scores.

Results from the hierarchical regression analysis on posttest BS scores are presented in Table 8. Step one included the photo condition as the independent variable. Results indicated condition did not significantly predict posttest BS scores, F(1, 163) = .23, p = .63.

Step two added pretest BS scores as an independent variable. Results indicated pretest scores significantly predicted posttest scores, F(2, 162) = 49.99, p < .001, accounting for 37% of the variance in posttest scores.

Step three added the significant covariates including psychological entitlement,

enjoyment of sexualization, and feminist identification, as independent variables. The addition of these covariates significantly increased the variance explained to 42%, F(5, 159) = 24.33, p < .001, indicating that while controlling for pretest BS scores, covariates predicted posttest BS scores.

Psychological entitlement was positively related to posttest BS scores ( $\beta$  = .20, *p* = .003), indicating (similar to pretest BS scores) that greater psychological entitlement predicted greater posttest BS scores. Enjoyment of sexualization and feminist identification did not significantly predict posttest BS scores.

**Hostile sexism scores**. Results from the multiple regression analysis on pretest HS scores are presented in Table 11. Significant covariates determined from the correlational analyses, including system justification, enjoyment of sexualization, religious affiliation, and feminist identification, were included as independent variables.

Results indicated that the covariates were significantly related to pretest HS scores, F(5, 156) = 12.26, p < .001, explaining 26% of the variance in pretest scores. Feminist identification was negatively related to pretest HS scores ( $\beta = -.44$ , p < .001), indicating identification with feminism was significantly associated with lower pretest HS scores. The relationship between system justification and pretest HS scores approached significance ( $\beta = .13$ , p = .06), indicating greater system justification was marginally associated with greater pretest HS scores. Likewise, the relationship between Christianity and pretest HS scores approached significance ( $\beta = .14$ , p = .06), indicating that identification with Christianity was marginally associated with greater pretest HS scores. Enjoyment of sexualization and RNC were not significantly related to pretest HS scores.

Results from the hierarchical linear regression analysis on posttest HS scores are presented in Table 10. Step one included the photo condition as the independent variable and posttest HS scores as the dependent variable. Results indicated condition did not significantly predict posttest HS scores, F(1, 160) = .02, p = .88.

Step two added pretest HS scores as an independent variable. Results indicated pretest HS scores significantly predicted post test scores, F(2, 159) = 31.73, p < .001, accounting for 44% of the variance in posttest scores.

Step three added significant covariates including, system justification, and enjoyment of sexualization, religious affiliation, and feminist identification as independent variables. The addition of these covariates significantly increased the variance explained in posttest HS scores to 55%, F(7, 154) = 26.78, p < .001, indicating that while controlling for pretest HS scores, the set of covariates significantly predicted posttest HS scores.

System justification ( $\beta = .18, p = .002$ ) and enjoyment of sexualization ( $\beta = .18, p = .001$ ) were positively related to posttest HS scores, indicating that greater system justification and enjoyment of sexualization scores significantly predicted greater posttest HS scores. Feminist identification was negatively related to posttest HS scores ( $\beta = .18, p = .005$ ), indicating identification with feminism significantly predicted lower posttest HS scores.

Results from the regression analyses showed the several covariates significantly influenced participants' pre and posttest AS, BS, and HS scores. Specifically, participants' identification with feminism, psychological entitlement, enjoyment of sexualization, and identification with Christianity were associated with their pretest AS scores. Additionally, while controlling for pretest AS scores, participants' level of system justification and enjoyment of sexualization significantly predicted their posttest AS scores, while their level of psychological entitlement marginally predicted posttest AS scores.

Participants' feminist identification, enjoyment of sexualization, and psychological entitlement significantly predicted their pretest BS scores. Additionally, while controlling for pretest BS scores, participants' level of psychological entitlement also significantly predicted both their pretest and posttest BS scores.

Participants' feminist identification significantly predicted their pretest HS scores, while their system justification scores and identification with Christianity marginally predicted pretest HS scores. Additionally, while controlling for pretest HS scores, participants' level of system justification, enjoyment of sexualization, and identification with feminism significantly predicted posttest HS scores.

#### **CHAPTER FOUR - DISCUSSION**

Research has shown that AS, BS, and HS beliefs are related to the beliefs contained in gender roles and gender stereotypes (Glick & Fiske, 1996). For example, HS rests on the notion that men are naturally more competent than women, and thus, women simply do not belong in high status positions such as leadership roles. BS rests on a similar notion, that men and women are different, but that women's innate delicate and nurturing nature, makes women better suited for care-giving or assistive positions rather than leadership roles. AS, relies upon beliefs contained both in HS and BS, punishing women who step outside of feminine gender roles (e.g., with insults, violence, etc.) and rewarding women who adhere to them (e.g., with compliments, enhanced social status, etc.) Gender roles, gender stereotypes, and AS, BS, and HS ideologies work together to maintain social gender hierarchies (e.g., Brandt, 2011). Research has shown that exposing women to BS, HS, and AS, not only has several negative psychological and physical outcomes (e.g., Dardenne & Dumont, 2007; Salomon et al., 2015), but can also increase their system justification, or acceptance of current social arrangements (Jost & Kay, 2005). Research has also shown that frequent exposure to content portraying gender roles or reinforcing gender stereotypes is related to individuals' endorsement of AS, BS, and HS (e.g., Zell et al., 2016). Our study sought to determine the extent to which viewing and describing images of female celebrities in highly-feminine and unfeminine forms has on women's endorsement of AS, BS, and HS.

Given the relationship between high levels of endorsement of AS, BS, and HS and frequent engagement with gender stereotype-consistent content (e.g., Altenburger et al., 2017), we predicted that viewing and describing highly-feminine depictions of female celebrities would increase women's endorsement of AS, BS, and HS. We also predicted that, given the relationship between low levels of endorsement of AS, BS, and HS and women's engagement with gender stereotype-inconsistent content (e.g., Cheryan et al., 2011), viewing and describing unfeminine depictions of female celebrities would decrease women's endorsement of AS, BS, and HS. We also predicted that participants' endorsement of AS, BS, and HS would only be affected by stereotype consistent or inconsistent content, and therefore, women who were asked to view and describe photos of natural scenes would experience no significant change in their endorsement of AS, BS, or HS.

Contrary to our hypotheses, we observed no significant difference in how participants' endorsement of AS, BS, and HS changed between the three photo conditions. Our results indicate that viewing and describing media depictions of women in stereotype-consistent and stereotype-inconsistent ways does not impact young adult women's endorsement of AS, BS, or HS.

Previous research has found that women who engage with gender stereotype-consistent content through reading and writing have higher levels of endorsement of AS, BS, and HS than those who engage with content devoid of gender stereotype information (e.g., Zell et al, 2016) Additionally, women who engage with gender stereotype-inconsistent content through reading and writing have lower levels of endorsement of AS, BS, and HS than those who engage with content devoid of gender stereotype-inconsistent content through reading and writing have lower levels of endorsement of AS, BS, and HS than those who engage with content devoid of gender stereotype information. While previous research has largely relied on manipulating the content of materials participants read and write about to test the effects gender stereotypes has on endorsement of AS, BS, and HS (e.g., Vial & Napier, 2017; Zell et al., 2016), our study manipulated the stereotype related content of photos participants viewed and described. The inconsistency of our results with previous research, suggests then, that viewing
and describing images which portray gender stereotypes does not have the same effect on women's endorsement of AS, BS, or HS that reading and writing about gender stereotypes does.

Further, though we asked participants to write a description of the photo they were viewing in a text box, after data collection it was discovered that participants varied widely in how much of a description they provided. For example, while some participants provided detailed and meaningful descriptions, others provided brief few-word responses which indicated little engagement with the material, while other participants provided no description at all, suggesting no engagement with the material. The variability in how much participants wrote about the photos helps to explain why, despite previous research showing writing about gender stereotypes is related to women's endorsement of AS, BS, and HS, we found no evidence of such an effect in our study. It is possible that participants did not write enough, and thus did not engage enough with the photos for the gender stereotype content to affect their endorsement of AS, BS, or HS. In order to ensure participants engage sufficiently with the gender stereotype related content portrayed in the photos, we would either need to implement more experimental control in the study design or add an additional manipulation check.

A way to add experimental control in our research design would be to conduct this study in a controlled lab setting. By conducting this study online, outside of a controlled setting, we were unable to monitor that the participants spent the full ten minute exposure time viewing and describing the photos rather than engaging in extraneous activities (e.g., browsing online, texting, using social media, etc.) Within a controlled lab setting, however, we would be able to monitor participants' activity, and thus, be able to determine that each participant spent the full ten minute exposure time engaging with the content of the photos. Further, if we were able to conclude that participants' spent the full exposure time meaningfully engaging with the photos, we would be able to determine with greater confidence whether the content of the photos affected participants' endorsement of AS, BS, or HS.

Another option to ensuring participants engaged meaningfully with the photos for the full exposure time, would be to add a manipulation check into the research design. For example, the number of words participants provided in each photo description could be used as an indication of the amount of time they spent engaging with each photo. Using the average typing speed (40 WPM) as a marker, it could be reasonably concluded that participants who provided roughly a 40 word description of each photo spent the full minute viewing and describing the photo, thus engaging thoroughly with the content. However, those who provided descriptions much less than 40 words likely spent exposure time engaging in extraneous activities, and thus, likely did not fully engage with the content of the photo, creating a reasonable argument for their data to be excluded from analysis.

Previous research has shown that frequent exposure to media portraying traditional gender roles is related to increased endorsement of AS, BS, and HS (e.g., Altenburger et al., 2017). Though we did not find evidence to suggest that participants engaging with images of female celebrities depicted in stereotype-consistent and stereotype-inconsistent forms influenced their endorsement of AS, BS, or HS, through our post-hoc regression analyses we were able to identify several variables which place women at greater risk for endorsing AS, BS, and HS.

#### **Risk Factors**

Previous research has shown that psychological entitlement, enjoyment of sexualization, and system justification are positively related to levels of agreement with AS, BS, and HS beliefs (e.g., Jost & Kay, 2005; Grubbs et al., 2014; Liss et al., 2011). Previous research has also shown that endorsement of AS, BS, and HS varies across different identifications with religion, ethnicity, and feminism (e.g., Glick et al., 2000; Glick et al., 2002; Fitz & Zucker., 2014).

Our post-hoc regression analyses indicated that participants' psychological entitlement, enjoyment of sexualization, and identification with Christianity accounted for a significant amount of variance in their pretest AS scores. Additionally, enjoyment of sexualization and system justification accounted for a significant amount of variance in participants' posttest AS scores. These results indicate that enjoyment of sexualization is more consistently related to young adult women's endorsement of AS than the other variables we studied.

Enjoyment of sexualization and psychological entitlement also accounted for a significant amount of variance in participants' pretest BS scores. Participants' psychological entitlement, additionally, accounted for a significant amount of variation in posttest BS scores, indicating psychological entitlement is consistently related to women's endorsement of BS.

The relationship between young adult women's enjoyment of sexualization and endorsement of AS, as well as their psychological entitlement and endorsement of BS, suggests that appearance-based attention from men may appeal to women high in psychological entitlement as a personal benefit, explaining their high endorsement of AS and BS. These findings identify young adult women who show high psychological entitlement and report a high level of enjoyment of sexualization as those who are at greatest risk for endorsing and perpetuating AS and BS beliefs. This finding is important not only for identifying women who are at risk for being affected by the negative health outcomes associated with AS and BS (e.g., sexual risk taking, Fitz & Zucker, 2014), but also for identifying psychological variables which impede women's social advancement beyond current social arrangements of patriarchy. Our post-hoc regression analyses also indicated that participants' enjoyment of sexualization and system justification accounted for a significant amount of variance in posttest HS scores. This finding further contributes to the identification of young adult women's enjoyment of sexualization as a factor which places women at greater risk for endorsing AS, BS, and HS.

Results from this analysis also suggests that women's agreement with current social arrangements is related to their agreement with HS beliefs. This relationship was somewhat surprising; while it is consistent with research conducted in societies outside of the US, it is contrary to what has been found within the US. For example, Mosso et al. (2012) found that system justification is related to HS in countries with comparatively large disparities between men and women, while system justification is related to BS in countries with smaller disparities in social status between men and women, such as the US. The inconsistency could indicate that gender inequality in the US has increased since 2012, explaining the relationship between women's HS and system justification. However, this finding may also be explained by unique characteristics of emerging adult women within universities. For example, Li and Harton (2017) found that the relationship between system justification and BS was stronger in a sample of women from mTurk than a sample of women from a university. Universities often have a heavy emphasis on Greek life membership and male-dominated party culture (Jozkowski & Wiersma-Mosley, 2017).

The mTurk sample in Li and Harton's study also included adult women rather than emerging adult women. Thus, developmental differences between women in emerging adulthood and adulthood, may also help explain inconsistencies between results of previous research and our results. For example, our sample largely consisted of introduction to psychology students, which is a course often taken at OSU within the first few years of ones' college career. It is possible that the women in our sample were too early within in the period of emerging adulthood to have fully developed beliefs about complex social constructs, such as gender inequality. Further, it is possible that in this early stage of emerging adulthood, women in our sample had not yet grappled with understanding how BS, as a hidden form of sexism, contributes to social inequality. However, it is more likely that they have considered how HS, a more recognizable form of sexism, contributes to social inequality, explaining the relationship between system justification and HS, but not BS, we found. To test this assumption, however, we would either need to compare our results to a sample of adult women outside of a University, or follow up with our participants longitudinally to determine if the relationship between BS and system justification emerged later in adulthood.

The identification of psychological characteristics which place young adult women at greater risk for endorsing AS, BS, and HS is crucial for not only protecting women from the myriad negative health consequences associated with AS, BS, and HS, but further, for reducing gender inequality. The ways in which AS, BS, and HS maintain gender inequality is facilitated by women's endorsement of these beliefs. For example, women's endorsement of these beliefs suggests that gender hierarchies are natural, justified, and benign, which contradicts action towards gender equality. Through our post-hoc regression analyses we were able to determine that young adult women's enjoyment of sexualization is an individual characteristic which relates to high endorsement of AS, BS, and HS. Importantly, our post-hoc regression analyses also determined that young adult women's identification as a feminist is negatively related to young adult women's endorsement of AS, BS, and HS. Thus, identification as a feminist has the potential to protect young adult women not only from the negative health consequences

associated with AS, BS, and HS, but also from perpetuating gender inequality through endorsing AS, BS, and HS beliefs.

#### **Feminism as a Protective Factor**

Identification as a feminist accounted for a significant amount of variance in participants' AS, BS, and HS pretest scores. Participants who identified as feminists had significantly lower pretest AS, BS and HS scores than those who did not identify as feminists as well as those who were unsure if they identified as feminists. Additionally, feminist identification accounted for a significant amount of variance in pretest AS, BS, and HS scores.

Feminism, though it can be defined in many ways, is characterized by a common goal of women's empowerment (Erchull & Liss, 2013); these results indicate that young adult women who identify with this common goal also tend to express lower agreement of AS, BS, and HS beliefs than those who do not identify with feminism or are unsure if they identify as feminists. This finding is crucial for not only identifying feminism as a movement which can offer personal benefits for young adult women, in the way of protecting them from negative health consequences of AS, BS, and HS, but also in legitimizing feminism as a social movement which can help reduce women's acceptance of gender inequality and thus, contribute to social change.

Additionally, we found that women who did not identify as feminists were statistically no different in their agreement with AS, BS, and HS beliefs than those who were unsure if they identified as feminists. A substantial proportion of our sample (30%) indicated that they were unsure if they identified as feminists or not. The unsure women may be explained by developmental characteristics of emerging adulthood; it is possible that the women in our sample who were unsure if they identified as feminists are grappling with role confusion (Clarke-Stewart & Parke, 2014), still contemplating their set of cultural values, group identities, and beliefs to

understand their own identity within complex social structures. If this is true, then the "feministunsure" women are perhaps especially vulnerable to endorsing AS, BS, and HS as a way to achieve their identity. Because individuals typically have achieved their identity and defined their set of cultural beliefs and values by the end of their college years (Clarke-Stewart & Parke), it is important to consider education of women on the protective functions of feminism within early adulthood as an important vehicle towards gender equality.

#### **General Limitations and Future Considerations**

This research has some limitations which should be considered while interpreting the results and conclusions. The first limitation concerns demographic characteristics of the sample. This research was conducted at OSU with undergraduate women enrolled in psychology courses. Though the results of the ASI were consistent with those reported by Glick and Fiske (1996), results of this study should be carefully considered given the demographic characteristics of OSU. For example, roughly 60% of our sample identified as White, which limits the generalizability of our results largely to specifically White emerging adult women. Additionally, socioeconomic status (SES) of University samples as well as US regional characteristics of the Pacific Northwest can be also be considered as limitations to the generalizability of our results.

In addition to the demographic limitations inherent in sampling only from OSU, restricting participation in our study to young adult cis-gendered, heterosexual women further limited the generalizability of our results. Given the characteristics of ASI as well as concerns with data confidentiality, we deemed it necessary to limit our sample in this way, however, by doing so, the results of this experiment may not apply to all women. Importantly, nonheterosexual and trans-identifying women's experiences with AS, BS, and HS are not reflected in the results of this study. Future research would benefit from identifying more inclusive measures of sexism which describe the experiences of women with varying sexual orientations as well as identifications with their sex and gender.

#### **CHAPTER FIVE - CONCLUSION**

While our study found no evidence to indicate that viewing and describing images of female celebrities in stereotype-consistent and stereotype-inconsistent forms impacts women's endorsement of AS, BS, or HS, we were able to identify risk and protective factors in women's endorsement of AS, BS, and HS. The identification of these risk factors is important to understanding future obstacles that stand in the way of gender equality. Additionally, the identification of feminism as a protective factor for women encourages hope in overcoming those obstacles.

Feminism is a malleable construct which claims many different definitions, however, shares the common goal of women's empowerment. In our study, women were not given a definition of feminism to identify or not identify with, rather, they were simply asked to indicate whether or not they identified as a feminist. This allowed women to rely on their own definition of feminism, suggesting that the protective functions of feminism reaches beyond a homogenous definition. However, the identification of women's enjoyment of sexualization as a factor which places women at an increased risk of endorsing AS, BS, and HS, suggests that not all types of women's perceived empowerment offer women the same protective functions. While many women do report feeling empowered from male-based attention (Liss et al., 2011) our results indicate that this sense of empowerment is actually related to higher levels of women's agreement with AS, BS, and HS beliefs. This suggests that rewarding women for adhering to gender roles with feelings of empowerment is especially threatening to not only women's health, but also the maintenance of gender inequality. Rather, the identification with a movement which recognizes the need for social change in fostering women's empowerment offers hope for women both personally and collectively.

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Reducing women's endorsement of AS, BS, and HS is a crucial next step in improving the health of women and reducing gender inequality. Emerging adulthood is a critical developmental period for individuals to define their set of cultural and personal belief systems including their level of endorsement of sexism, acceptance of gender inequality, and identification with feminism. Our research revealed that a substantial portion of emerging adult women have not yet determined if they identify as feminists or not, and thus, are potentially still in a critical period of developing these values. Intervening at this phase, with education regarding what feminism as a social movement and the protective factors a feminist identity offers women, would likely help reduce young women's role confusion and may facilitate growth towards gender equality.

AS, BS, and HS are traditions that have been around for most of human history (Glick & Fiske, 1996). However, AS, BS, and HS as traditions should not make women feel complacent with the current states of gender inequality. Women only reap the rewards of BS when they behave according to their prescribed gender role, in other words, when they behave as sexy, domestic, agreeable, and complacent. Further, our research suggests that the perceived benefits if AS, BS, and HS, including appearance-based attention, fosters a false sense of empowerment which increases women's risk for negative health outcomes, maintains social constructions of gender, reduces a perceived need for social change, and makes gender equality nearly impossible to conceive. Our study suggests that young adult women may benefit most from recognizing the potential of women's empowerment beyond current gender roles and sexist ideologies, and identify with feminism as a movement towards true gender equality.

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### TABLES

### Table 1

D	Dana a marti	-f 11	<b>F</b>	Calabaita Tana da	
Perceivea	Demographics	of the	remaie	Celebrity Targets	

	Study 1	Study 2
	Percent of Sample	Percent of Sample
Race		
White	57	60
Black or African American	27	30
Asian	7	0
Hispanic or Latino	7	10
Middle Eastern	1	0
Weight		
Below average	10	0
Average	87	100
Above average	3	0
Age		
18-21	6	0
22-30	57	90
31-50	11	1

*Note*. This table shows race, weight and age ratings of female celebrity targets used in Study 1 and Study 2. Race, weight and age demographic characteristics were determined by participant ratings.

Participants' Religious Affiliations

Religion	<i>n</i> (%)
Christian <sup>1</sup>	71 (43)
Catholic <sup>1</sup>	8 (5)
Judaism <sup>2</sup>	1 (< 1)
Islam <sup>2</sup>	2 (1)
Hindu <sup>2</sup>	3 (2)
Buddhist <sup>2</sup>	8 (5)
Mormon <sup>2</sup>	1 (< 1)
Unitarian Universalist <sup>2</sup>	1 < 1)
Spiritual but not religious <sup>3</sup>	8 (5)
Agnostic <sup>3</sup>	12 (7)
Atheist <sup>3</sup>	11 (7)
Not religious <sup>3</sup>	38 (23)
Did not answer	1 (< 1)

*Note.* <sup>1</sup> Religious affiliations which were collapsed into the Christian category; <sup>2</sup> Religious affiliations which were collapsed into the religious but not Christian (RNC) category; <sup>3</sup> Answers which were collapsed into the not religious category.

Participants' R	ace and E	Ethnicities
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Ethnicity	Example	<i>n</i> (%)
White	German, Irish, English, Italian,	101 (61)
	Polish, French.	
Hispanic, Latino, or of Spanish origin <sup>1</sup>	Mexican, Mexican-American,	7 (4)
	Puerto Rican, Cuban, Salvadoran,	
	Dominican, Colombian	
Black or African American <sup>1</sup>	Jamaican, Haitian, Nigerian,	1 (< 1)
	Ethiopian, Somalian.	
Asian <sup>1</sup>	Chinese, Filipino, Asian-Indian,	24 (15)
	Vietnamese, Korean, Japanese	
Middle Eastern or North African <sup>1</sup>	Lebanese, Iranian, Egyptian,	1 (1)
	Syrian, Moroccan, Algerian	
Did not answer		31 (18)

Note. <sup>1</sup> Ethnicities which were collapsed into the Non-White category

#### Table 4.

Religious affiliation	Pretest AS		Pretest BS		Pretest HS	
	М	SD	М	SD	М	SD
Christian	2.07	.70	2.12	.76	2.02	.85
Not Christian	1.73	.84	1.97	1.03	1.50	1.06
Not religious	1.74	.78	1.80	.95	1.68	.88

Average Pretest AS, BS, and HS Scores Across Religious Affiliations

Ethnicity	Pretest AS		Pretest BS		Pretest HS	
	М	SD	М	SD	М	SD
White	1.79	.79	1.86	.89	1.73	.91
Non-White	1.90	.75	2.0	.84	1.83	1.00

Average Pretest AS, BS, and HS Scores Across Ethnicities

### Table 6.

Feminist identification	Pretest AS		Pretest BS		Pretest HS	
	М	SD	Μ	SD	М	SD
Feminist	1.43	.86	1.57	.78	1.31	.81
Non-Feminist	2.33	.53	2.38	.77	2.28	.66
Unsure-Feminist	2.09	.76	1.97	.89	1.82	.90

Average Pretest AS, BS, and HS Scores Across Feminist Identifications

Multiple Regression Analysis of Pretest AS Scores by Covariates
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	SE	Beta
Psychological entitlement	.06	.23**
System justification	.04	.03
Enjoyment of sexualization	.07	.14*
Christianity	.10	.18**
Religious not Christian	.19	04
Feminism	.10	47***
Adjusted R <sup>2</sup>	.34*	

*Note.* \**p* < .05 \*\**p* < .01 \*\*\**p* < .001

F(6, 155) = 14.86, p < .001

	Step 1		Step 2		Step 3	
	SE	Beta	SE	Beta	SE	Beta
Condition	.08	.03	.05	02	.04	02
Pretest AS score			.05	.77***	.61	.64***
Psychological entitlement					.04	.091
System justification					.03	.16**
Enjoyment of sexualization					.05	.12*
Christianity					.08	.08
Non-Christianity					.14	.08
Feminism					.09	09
Adjusted R <sup>2</sup>	006		.59*		.64*	

Hierarchical	Multinle Re	poression	Analysis	for Postt	est AS Scores	s by Covariates
menurunu	manpic Re	gression	1 mai yous	j01 I 0510		by Covariances

Note. \*p < .05, \*\*p < .01, \*\*\*p < .001,  $^{1}p = .06$ 

Step 1 to 2  $\triangle$  R<sup>2</sup>: F(2, 159) = .117.00, p < .001; Step 2 to 3  $\triangle$  R<sup>2</sup>: F(8, 153) = 37.27, p < .001

	SE	Beta
Psychological entitlement	.07	.25***
Enjoyment of sexualization	.08	.16*
5.5		
Feminism	.12	37***
Adjusted R <sup>2</sup>	.24*	

# Multiple Regression Analysis of Pretest BS Scores by Covariates

*Note.* \**p* < .05, \*\* *p* < .01, \*\*\**p* < .001

F(3, 161) = 18.30, p < .001

	Step 1		Step 2		Step 3	
	SE	Beta	SE	Beta	SE	Beta
Condition	03	.98	.06	03	.06	006
Pretest BS score			.06	.62***	.07	.50***
Psychological entitlement					.06	.20*
Enjoyment of sexualization					.07	.08
Feminism					.12	11
Adjusted R <sup>2</sup>	005		.37*		.42*	

Hierarchical Multiple Regression Analysis for Posttest BS Scores by Covariates

*Note.* \*p < .05, \*\*p < .01, \*\*\*p < .001,  $^{1}p = .06$ 

Step 1 to 2  $\triangle$  R<sup>2</sup>: F(2, 162) = 49.99, p < .001; Step 2 to 3  $\triangle$  R<sup>2</sup>: F(5, 159) = 24.33, p < .001

# Multiple Regression Analysis for Pretest HS Scores by Covariates

	SE	Beta
System justification	.05	.131
Enjoyment of sexualization	.08	.09
Christianity	.13	.141
Non-Christianity	.23	08
Feminism	.13	44***
Adjusted R <sup>2</sup>	.26*	

Note. \*p < .05, \*\*p < .01, \*\*\*p < .001,  $^{1}p = .06$ 

F(5, 256) = 12.23, p < .001

	Step 1		Step 2		Step 3	
	SE	Beta	SE	Beta	SE	Beta
Condition	.09	01	.07	.02	.06	.008
Pretest HS scores			.06	.70	.07	.53
System justification					.04	.18*
Enjoyment of sexualization					.07	.18**
Christianity					.11	.04
Non-Christianity					.19	.111
Feminism					.12	18
Adjusted R <sup>2</sup>	006		.44*		.53*	

Hierarchical Multiple Regression Analysis for Posttest HS Scores by Covariates

*Note.* \*p < .05, \*\*p < .01, \*\*\*p < .001,  $^{1}p = .06$ 

Step 1 to 2  $\triangle$  R<sup>2</sup>: F(2, 159) = 64.39, p < .001; Step 2 to 3  $\triangle$  R<sup>2</sup>: F(7, 154) = 26.78, p < .001