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# System Threats and Gender Differences in Sexism and Gender Stereotypes

Sophie Lois Kuchynka

University of South Florida, skuchynka@mail.usf.edu

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System Threats and Gender Differences in Sexism and Gender Stereotypes

by

Sophie Kuchynka

A thesis submitted in partial fulfillment  
of the requirements for the degree of  
Master of Arts  
Department of Psychology  
College of Arts and Sciences  
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Major Professor: Jennifer K. Bosson, Ph.D.  
Jamie Goldenberg, Ph.D.  
Tammy Allen, Ph.D.

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## Abstract

In the United States, women's persistent gains in structural power may cause backlash among those motivated to preserve the status quo. The proposed study examines the conditions that prompt men and women to endorse sexism and promote gender stereotypes. System justification theory proposes that people are motivated to justify the socio-political system that governs them and threats to the stability of their system can increase individual's motivated defenses. I expect men to show the strongest motivated defenses when the hierarchy is threatened or viewed as unstable, because to protect group-based interests men will reinforce the legitimacy of the system through stronger endorsement of system defenses. In contrast, women will show the strongest system defenses when the hierarchy is viewed as stable, to avoid feeling trapped in an unchanging system that oppresses them. To test these ideas, 430 men and women were exposed to a gender status hierarchy that was portrayed as stable or unstable and then they responded to several measures of sexism and gender stereotypes. Support for the hypothesis was only found on one measure of gender stereotypes. Men reported more system justifying stereotypes of traditional women in the unstable condition, while women showed the opposite pattern. Exploratory results demonstrate that men's and women's reports of agentic stereotypes for traditional and nontraditional women depended on whether they were exposed to a stable or unstable gender hierarchy. Future directions and limitations are discussed in consideration of these exploratory findings.

## **Introduction**

Over the past three decades, women in the United States have progressively gained structural and economic power (Diekman, Goodfried, & Goodwin, 2004), and most Americans consider themselves egalitarian people (Gaertner & Dovidio, 1986; Katz & Hass, 1988; Katz, Wackenhut, & Hass, 1986; Monteith & Walters, 1998). Furthermore, people's beliefs and attitudes regarding gender relations and the role of women in society have become more progressive since the 1970s (Cotter, Hermsen, & Vanneman, 2008; Mason & Lu, 1988; Spence & Hahn, 1997). Despite this, both men and women in the U.S. maintain low-to-moderate levels of hostilely sexist beliefs about women, and endorsement of such beliefs underlies widespread gender inequities (Glick et al., 2000). While sexism entrenches the status quo, it also functions to enhance the gender hierarchy (Brandt, 2011). The goal of the proposed study is to investigate how women's structural and economic advances can cause backlash among those motivated to preserve the current system, because they perceive women's structural gains as system threats. To begin, I will recount past experimental findings and theories that reveal how a growing egalitarian climate presents new gender-based challenges.

### **Progress Toward Gender Equality**

Men's and women's endorsement of traditional gender role attitudes has declined (Spence & Hahn, 1997), and attitudes toward women have become less overtly negative (Cotter et al., 2008; Mason & Lu, 1988). More progressive gender attitudes are accompanied by women's societal gains: The gender wage gap decreased 13% from 1960 to 2000, women's labor

force participation has increased across domains, women hold more managerial positions now than ever before, and women's representation in legislature, elected offices, and Congress continues to rise (Diekman et al., 2004). While there is a cultural shift towards more gender egalitarian attitudes, some individuals may still be motivated to hold negative evaluations of women to help preserve and legitimize men's higher status in the gender hierarchy. Nevertheless, deliberate discrimination towards minority groups frequently results in stigmatization (Campbell, Schellenberg & Senn, 1997), and people recognize that openly prejudiced attitudes are socially undesirable (Gaertner & Dovidio, 1986). Therefore, openly expressing anti-woman beliefs may be at odds with contemporary societal norms, but those attitudes remain part of our culture and function to maintain men's dominant social position.

### **Resistance to Gender Equality**

Social Dominance Theory states that group-based hierarchies arise in societies that value dominant groups and debase the subordinates (Sidanius & Pratto, 1999). Social Dominance Orientation (SDO) is an individual difference variable that represents a generalized favoring of group-based hierarchies and opposition to intergroup equality (Kteily, Ho, & Sidanius, 2012). Paradoxically, Lee, Pratto, and Johnson (2011) found the largest gender differences on the SDO among cultures, including the U.S., with greater structural equality, closer male-female income levels, and more female professionals. While women eschew group-based hierarchies in places with increased structural equality, men still maintain higher support for these inequality-producing attitudes. This raises the question of why men support inequality-enhancing attitudes in seemingly egalitarian places. Perhaps witnessing the rise of gender equality presents a threat to the gender status hierarchy, which creates resistance to group-based equality. Next, I will provide a framework for why some people oppose rising gender equality.

## **System Justification Theory**

System Justification Theory (SJT) proposes that people are motivated to legitimize existing social inequalities, while justifying the socio-political system that governs them (Jost, Banji, & Nosek, 2004). The system is most supported when viewed as stable and legitimate (Laurin, Gaucher, & Kay, 2013), and dominant group members tend to espouse hierarchy-enhancing attitudes as long as they view their socio-political system as legitimate because doing so protects group-based interests (Sidanius & Pratto, 1999). However, because subordinates want to avoid feeling trapped in an oppressive system, they are motivated to view the system as fair and legitimate primarily when they see it as stable (Laurin, Shepherd, & Kay, 2010).

Accordingly, women should show the strongest system defense when the hierarchy is viewed as stable. Further, system-justification theory proposes that when faced with socio-political threats, people are motivated to reestablish the credence of the status quo by engaging in psychological processes that reaffirm its legitimacy (Lau, Kay, & Spencer, 2008). Therefore, dominant group members (men) may show increased motivated system defenses when the gender hierarchy is threatened, because doing so preserves the status quo.

Though individuals perceive some plasticity in the gender hierarchy it is still mostly viewed as stable (Diekmann et al., 2004). Additionally, perceptions of legitimacy and stability are often interconnected; so demonstrating that a socio-political system is fair and just leads to stronger perceptions of an enduring system (Brown & Diekmann, 2013). Even minor threats to the stability of the system can increase system justification tendencies through bolstering perceived system legitimacy. Brown and Diekmann (2013) found that the presence of only one female political candidate, regardless of her success, increases system justification through increased perceived system fairness and a stronger preference for stability. Individuals view the

accomplishment of one woman in an underrepresented domain (i.e., political candidacy) as evidence for structural equality and a just system, thereby legitimizing the current socio-political system. Tajfel (1984) found that when only a few token women achieve social mobility it also increases the legitimization of inequality. Consequently, the societal gains of a few women may not promote gender equality by breaking down traditional notions of gender roles, and instead may increase hierarchy-enhancing attitudes. Witnessing minimal demonstrations of structural equity serves as symbolic evidence that women no longer face group-based disadvantage, and the denial of gender discrimination leads to new forms of contemporary sexism (i.e., neosexism; Tougas et al., 1995).

There are a variety of motivated defenses and sets of beliefs that bolster support for the system when it is under threat. System threats increase individuals' gender essentialist beliefs (Morton, Haslam, Postmes, & Hornsey, 2009), reduce support for affirmative action policies (Phelan & Rudman 2011), and activate both men's and women's complementary stereotypes of themselves (Laurin, Kay, & Shephard, 2011). Under threat, one method to reaffirm perceived system legitimacy may be to increase support for negative stereotypes and generally unfavorable attitudes towards the threatening group. Morton et al. (2009) manipulated whether participants viewed the gender hierarchy as stable (i.e., women are not acquiring substantial economic and structural power compared to the past) or unstable (i.e., women are making substantial progress in structural and economic domains) and then measured participants' endorsement of gender essentialist beliefs. Gender essentialism is a set of beliefs about men and women's characteristics being distinct, fixed, and biologically determined (Smiler & Gelman, 2008), and endorsement of these beliefs is one means of system justification (Morton et al., 2009). Men showed increased support for essentialist beliefs when the hierarchy was perceived as unstable, whereas women

more strongly endorsed essentialist beliefs when the hierarchy was viewed as stable. This provides evidence that men and women will differentially endorse system-justifying beliefs depending on if the system is perceived as changing or unchanging.

Building on Morton et al.'s (2009) reasoning, my study proposes a similar set of system justifying motives, but an alternate set of defenses. System justification theory includes both beliefs that bolster the socio-political system and motivated system defenses. These cognitive and motivational components intersect to enhance and legitimize the system (Brown & Diekmann, 2004). If system-defending men feel threatened by women's acquisition of structural power they may be motivated to engage in a number of different strategies to reaffirm the legitimacy of the gender hierarchy. Potential reactionary defenses include: angry, resentful attitudes and feelings towards women (*hostile sexism*), positive group ascriptions that justify current gender role divisions (*benevolent sexism*), and polarized views of traditional and nontraditional women. Such views include negative stereotypes of women who are perceived as trying to press for social change (*stereotypes about feminists*) and subjectively positive stereotypes of stay at home mothers (*stereotypes about mothers*). In the next section, I discuss each of these defenses in turn.

Contrary to men, women should have a different set of motives to defend the gender hierarchy. When the hierarchy is threatened or viewed as unstable, women should show reduced motivation to defend the system, because they no longer feel a strong a sense of dependence on an unchanging oppressive system. This prediction may seem in contrast with the earlier presented findings of Brown and Diekmann (2004), but these researchers only exposed participants to a minor gender hierarchy threat (one female political candidate) and this may not be threatening enough to challenge the stability of the gender hierarchy. To actually challenge the stability of a socio-political system, women as a social group must display increases in

structural power, rather than isolated individual women raising their social status. However, when women perceive an unjust system as stable they may feel motivated to engage in psychological processes that eliminate the dissonance aroused by competing needs to accept and reject this system. That is, in the face of a stable but unfair gender system, women may adopt sexist sentiments to justify the inequalities of a system in which they feel stuck. In a sense, exposure to an unchanging and unjust system is theoretically the “threatening” condition for women.

### **Ambivalent Sexism Theory**

Ambivalent sexism theory posits hostile and benevolent sexism as complementary belief systems regarding women and their relations with men (Glick & Fiske, 1996, 2001). Hostile sexism consists of overtly negative evaluations of women who are perceived as thwarting men’s power or trying to control men with their sexuality. In contrast, benevolent sexism is a set of subjectively positive but patronizing attitudes towards women who are perceived as pure and in need of men’s protection. Hostile sexism is typically targeted toward gender role violators and often takes the form of antagonistic stereotypes or resentment towards women who are perceived as seeking independence or power. Benevolent sexism is saved for those who uphold their traditional gender role and offers the paternalistic rewards of protection and resources for women who are perceived as morally virtuous, weak, and less competent than men. Benevolent sexism is an effective tool to quell resistance against gender role divisions, because it ascribes women with flattering characteristics aimed to prove they are best suited for their traditional gender roles (Jost & Kay, 2005). Since these two forms of sexism are targeted toward different subtypes of women, they often coexist together.

Hostile sexism remains an especially important construct to measure, because it predicts pervasive gender inequalities. In countries with higher hostile sexism scores women hold fewer high status jobs, are less educated, have a lower standard of living, and experience reduced longevity as measured by the United Nations indices of gender equality (Glick et al., 2000). Admittedly, men's and women's endorsement of hostile sexism in the U.S. is not high relative to other nations'. In a study of 19 nations, the U.S. mean on hostile sexism was the 16<sup>th</sup> lowest. However, within the U.S., endorsement of hostile sexism predicts sexual harassment (Berdahl, 2007), resentment towards career women (Glick & Fiske, 1995), and rape proclivity (Masser, Viki, & Power, 2006).

Hostile and benevolent attitudes toward women can serve a system-justifying purpose of promoting the gender hierarchy. By demonstrating that society is made up of many social groups, all of which encompass disadvantages and advantages and both positive and negative traits, individuals can continue to view the system as fair and legitimate (Kay & Jost, 2003). Jost and Kay (2005) noted that positive (benevolent) trait ascriptions given to women function to undercut women's perceived competence, while also bolstering justification for gender role divisions and preserving gender inequalities. System justifying gender stereotypes are witnessed through cultural descriptions of men as independent and competent but not nurturing and women as communal and gentle but not agentic (Cuddy et al., 2009). Bearing this out, Jackman (1994) posited that ascribing pleasing but low status traits to women reduces resistance to gender-based role divisions by suggesting that feminine characteristics are valued by society and women are best equipped for their traditional gender roles. Therefore, individuals may be motivated to endorse both positive (benevolent) attitudes and negative (hostile) attitudes towards women to preserve the gender hierarchy and establish structural inequalities. Accordingly, I will test

whether exposure to an unstable (vs. stable) hierarchy increases men's endorsement of hostile and benevolent sexism, and if exposure to a stable (vs. unstable) hierarchy promotes women's endorsement of ambivalent sexism.

### **Stereotypes of Activist Feminists**

Stereotypes of men and women can function as “psychological tools” that rationalize and uphold social inequality (Jackman, 1994). Negative stereotypes create negative expectancies among out-group members (Riek, Mania, & Gaertner, 2006), and negative stereotypes also represent negative feelings (e.g., hostility, resentment) toward the out-group (Stephan & Stephan, 1996). Moreover, group threats lead to greater debasement of low status groups by high status group members (Cadinu & Reggiori, 2002). The more high status group members feel threatened the more they may retaliate with negative stereotyping and hostile attitudes toward the threatening group.

Further, stereotypes may differ for low and high status group members. Proscriptions, or beliefs about how men and women should not behave, serve to reinforce the gender hierarchy by detailing what characteristics high and low status group members are not allowed to display (Rudman, Moss-Racusin, Phelan, & Nauts, 2012). For example, a woman showing weakness and naivety is tolerated because she is a low status member, but it is unacceptable for a man to show these low status traits. Alternatively, being arrogant and aggressive is tolerated among men because they belong to a high-status group, but it is not tolerated as readily among women. In fact, agentic women, such as female leaders, receive backlash for displaying dominant (high status) traits (termed a *dominance penalty*; Rudman et al., 2012), presumably because such women threaten the gender hierarchy. Based on this logic, in the current study I will measure negative stereotypes of activist feminists as a system justifying belief. Activist feminists, by

definition, pose a threat to the gender hierarchy and violate traditional gender role norms.

Although feminists are generally perceived as displaying female proscriptions that are designated for high status group members (e.g., agency, dominance, assertiveness), these stereotypes may be exaggerated, and viewed more negatively, when people are motivated to defend the system.

Thus, I will test whether exposure to an unstable gender hierarchy increases men's negative stereotypes about activist feminists, and whether exposure to a stable gender hierarchy increases women's negative stereotypes of feminists.

### **Stereotypes of Stay at Home Mothers**

The motherhood mandate posits that women's cultural value stems from having children and being the primary caregiver of the children (Russo, 1976). Societal standards dictate that women become mothers to fulfill their role as a woman. These cultural standards function to maintain women's lower status, because if women are restricted to the home and thus excluded from the public sphere that men occupy, they cannot threaten the gender status hierarchy as effectively. Further, ascribing subjectively positive traits (i.e., nurturing, compassionate) to mothers functions to reduce women's resistance to their low status roles. The motherhood mandate aligns with benevolent sexism's promotion of traditional gender roles. Benevolent sexism disarms women's resistance to their low status and restricted role by lauding and rewarding women's role within the home, while constraining their structural opportunities (Glick et al., 2000). Therefore, by praising women who uphold their traditional gender role of primary caretaker, women will more readily accept male to female status incongruities by also endorsing these deceptively pleasing ideologies (i.e., benevolent sexism, positive stereotypes of mothers). I anticipate that after women and men experience a system threat they will increase their positive perceptions of mothers when it comes to culturally valued low status traits (i.e., communal

characteristics), while reducing their reports of high status traits (i.e., agentic characteristics). Providing stay at home mothers with seemingly flattering evaluations functions to justify the gender status hierarchy by claiming that women are “best suited” for these low status and limiting roles.

### **Individual Difference Variables**

**System Justification.** I plan to treat individual differences in system justifying beliefs as a moderator of people’s reactions to a stable or unstable gender hierarchy. Depending on how strongly they perceive American society to be fair and legitimate, individuals will have different reactions to an unstable gender hierarchy. In general, if men or women believe contemporary society is unjust and needs improvement (low system-justifying beliefs), then they should react less defensively (compared to high system justifying men and women) to an unstable gender hierarchy. This should result in reduced support for the system defenses described above, since there is no need to reestablish convictions in the system. However, if individuals already view America’s socio-political system as just and legitimate (high system-justifying beliefs), they should display a stronger reaction to an unstable gender hierarchy. To reinforce their beliefs in a stable and fair system they will engage in defensive behavior (i.e., increased support for ambivalent sexism and stereotypes about traditional and nontraditional women).

However, I expect system-justifying individuals to show different effects depending on their group membership (i.e., man or woman) and whether the system is perceived as stable or unstable. High system-justifying men should show the strongest defense when the hierarchy is threatened (i.e., unstable). In contrast, women who are high in system justification should display the strongest reaction to a stable hierarchy. Since these women perceive the system to be operating as it should and unchanging, they will be motivated to reduce the dissonance of being

trapped in a system that oppresses them that they also view as fair and stable. To justify the system, these women should show increased support for system defenses such as stronger endorsement of ambivalent sexist attitudes and stereotypes about traditional and nontraditional women.

**Personal Need for Structure.** Individual's desire for structure interacts with how people understand and view their worlds (Neuberg & Newsom, 1993). An individual's need for structure is his or her need for clarity in situations and an annoyance at ambiguity (Thompson, Naccarato, Parker, & Moscovitz, 2001). Additionally, individuals high in need for structure stereotype others and organize their social information in less complex ways compared to those low in need for structure. Accordingly, individuals' personal need for structure may be an important variable to control for in my proposed study, because men high in need for structure may be more likely to interpret an unstable system as threatening and resort to more stereotyping to regain situational clarity. Also, women high in need for structure may react more defensively to a stable gender hierarchy, because endorsing sexism and stereotypes about women may be how they make sense of an unfair and unchanging system. I will therefore measure people's personal need for structure using the Personal Need for Structure Scale (Neuberg & Newsom, 1993) and only control for this in analyses if it meets the guidelines detailed by Porter and Raudenbush (1987).

### **Overview and Hypotheses**

The current study examines the role of system threats in men's and women's system-justifying attitudes toward traditional and non-traditional women. To accomplish this, I will expose men and women to a newspaper article that describes either an unstable (threat) or a stable (no threat) gender hierarchy (Morton et al., 2009). Participants will either read that women

are gaining structural power compared to the past or that the gender hierarchy is remaining stable. Each excerpt lists identical statistics to bolster the manipulation; the only difference between the two articles is how they frame women's structural power as either progressing or stable. After participants are exposed to one of these two conditions they will respond to four measures that reflect system defenses. In a random order, participants will rate their stereotypes of activist feminists and stay at home mothers and will respond to measures of hostile and benevolent sexism. I will also measure participants' endorsement of system justifying beliefs to serve as a moderator variable, and their personal need for structure as a potential control variable.

*Hypothesis 1.* On average, men as compared to women will report more hostile and benevolent sexism and more system justifying stereotypes of stay-at-home mothers and activist feminists.

*Hypothesis 2.* I expect a two-way interaction of participant gender X system stability to predict endorsement of the dependent measures. Specifically, exposure to a stable system will increase women's system defenses including an increase in hostile and benevolent sexism scores, and more system justifying stereotypes of stay-at-home mothers and activist feminists, whereas exposure to an unstable system will increase men's system defenses.

*Hypothesis 3.* I expect a three-way interaction of participant gender X system stability X system justification beliefs to predict the dependent measures. Specifically, the two-way patterns of participant gender X system stability described in Hypothesis 2 should be especially pronounced among men and women who are high in system justification beliefs. In contrast, men and women low in system justification beliefs may be less likely to display the predicted two-way pattern.

## Method

### Power Analysis

To detect a small effect of  $f^2 = 0.02$ , and using the standard criteria of  $\alpha = .05$  and power = 0.80, I need 400 participants for an 8 cell design.

### Participants

Three hundred and fifty participants (192 men and 153 women) were recruited from Amazon's Mechanical Turk (mTurk) and 81 (33 men and 46 women) from the University of South Florida SONA participant pool. All of the participants were English speaking men and women who are above age 18 and residents of the U.S. Because the number of male participants in the SONA pool is relatively small, I collected the majority of my participants through mTurk.

Since I treated gender as an independent variable, I eliminated anyone who did not identify as male or female from analyses ( $n=3$ ). Additionally, I filtered out 27 participants who did not correctly answer the manipulation check items resulting in a final sample of 401 students and non-students (see Table 1 for a list of full demographics).

### Design

Participants were randomly assigned to gender status hierarchy condition in a 2 (participant gender) X 2 (gender hierarchy: stable v. unstable) X 2 (system justification beliefs: high v. low) between subjects design. General system justification beliefs (Jost & Kay, 2003) was treated as a continuous moderator.

## Procedure

After participants agreed to take the study (by accepting the mTurk HIT or signing up through SONA), they were introduced to a study on “The Current State of Affairs in America.” I used this cover story to obscure my focus on gender relations. After participants read and agreed to the informed consent, they read and responded to the following materials listed in the order below. Participants responded to the four measures of system defenses in a random order. A complete list of items may be found in Appendix A.

## Materials

**General System Justification Scale (GSJS).** To measure participants’ system justification beliefs I used the General System Justification Scale (Kay & Jost, 2003). Example items include “In general, I find society to be fair” and “Everyone has a fair shot at wealth and happiness.” This 8-item scale is scored on a scale of 1 (strongly agree) to 9 (strongly disagree), and demonstrated good internal consistency ( $\alpha = .88$ ).

**Personal Need for Structure (PNS).** Neuberg and Newsom (1993) created the PNS to assess individuals’ preferences for structure and annoyance with situational ambiguity. Example items include “I enjoy having a clear and structured mode of life,” and “I like to have a place for everything and everything in its place.” The scale consists of 12 items that are responded to on a scale of 1 (strongly disagree) to 6 (strongly agree). This scale demonstrated good internal consistency ( $\alpha = .88$ ).

**Filler Materials.** To obscure my focus on gender relations, I included an initial filler article on demographic changes in the US over the past ten years. Participants read about American trends on inhabiting urban versus rural areas from the United States Census Bureau. This article shifts the participants’ attention away from the focus on men’s and women’s status

incongruities, but also maintains my cover story about “US affairs.” I purposefully chose an article that was approximately the same length as the manipulation articles (i.e., 207 vs. 227 words) and of a similar style (i.e., both appear to be excerpts from a newspaper article and include descriptive statistics and specific examples of where change is taking place). After participants read the article, they responded to several filler questions about it (e.g., “How positively do you feel about recent residential trends?”; and “Do you prefer to live in an urban or rural area?”). These questions serve the sole function of bolstering the cover story.

**Status Manipulation.** Morton et al. (2009) validated a gender status manipulation where participants read either a stable or unstable gender hierarchy excerpt. The participants are led to believe that the article is from a recent newspaper. There are two versions of the article: One version claims that inequalities between men and women today are equivalent to how they were in the past (*stable gender hierarchy* condition), and the second mentions areas where women are still disadvantaged compared to men, but notes that women are gaining power in many areas and women’s status is increasing overall (*unstable gender hierarchy* condition). Each version lists identical statistics, but alternatively frames these statistics as either showing progress or remaining stable. To make the manipulation more powerful the titles of the articles state either “Women still losing the war in the battle of the sexes,” or “Women losing the battle of the sexes, but might still win the war.” To further strengthen the manipulation, participants were also instructed to list any areas in which they believe women are disadvantaged relative to men or becoming more equal to men, depending on their condition.

**Gender Stereotypes.** I used a measure modified from Stephan et al. (1993) to assess stereotypes. Participants indicated the percentage of “activist feminists” and “stay at home mothers” they perceive to possess each of 16 different pre-selected traits. Participants responded

on a 10-point scale denoting 10% increments from 0%-100%. The sixteen traits were selected by reviewing past research on gendered stereotypes (Bosson & Michneiwicz 2013; Prentice & Carranza, 2002; Rudman et al., 2012). These traits reflect the dimensions of agency (i.e., competent, independent) and communion (i.e., warm, sensitive), and were selected to represent both favorable and unfavorable qualities. The agentic traits were aggressive, intimidating, dominating, arrogant, competent, confident, independent, and intelligent. The communal traits were emotional, warm, interested in children, sensitive to others, melodramatic, moody, naïve, uncertain. Participants also rated the favorability of these traits on a 10-point scale ranging from very unfavorable (-5) to very favorable (+5). I followed Stephan et al.'s (1993) instructions for coding these items. For each trait, the percentage estimate and the favorability rating were multiplied and the products were then averaged across traits to create composite stereotype / evaluation indexes. For each target I created a total stereotype / evaluation score (that combined agentic and communal traits), as well as separate agentic and communal stereotype / evaluation scores. Higher scores indicate more favorable stereotypes. The composites showed adequate internal reliability ( $\alpha$ s = .65, .68, .78, .70, .73, .68), respectively for overall stereotype index for mothers, overall stereotype index for feminists, mother's communion, feminist's agency, mother's agency, and feminist's communion.

**Ambivalent Sexism Inventory (ASI-S).** Glick and Fiske (1996) created the Ambivalent Sexism Inventory to measure people's benevolent and hostile sexism. The scale has two subscales that measure hostile and benevolent attitudes toward women. Example items include "no matter how accomplished he is, a man is not truly complete as a person unless he has the love of a woman" (benevolent sexism) and "many women are actually seeking special favors, such as hiring policies that favor them over men, under the guise of asking for equality" (hostile

sexism). The ASI short version consists of 12-items that are rated on scales of 1 (strongly disagree) to 6 (strongly agree) scale. The benevolent and hostile sexism subscales demonstrated strong internal consistency ( $\alpha = .88$  and  $.92$ , respectively).

**Manipulation Checks.** I initially included two manipulation check items. The first item asked participants to recall the primary conclusion from the gender status article they read (i.e., women are gaining power relative to men or women still lag behind men). The second item asked whether the gap between men's and women's status is decreasing, increasing or remaining stable over time. Participants also rated on a scale of 1 (not confident at all) to 7 (very confident) how confident they felt about their answers. After collecting data from 300 mTurk participants, I noticed that an inordinate number failed these manipulation checks. To address this issue, I changed the wording of manipulation check items for the remaining 50 mTurk participants. The new questions asked "What was the author's primary conclusion?" and "What answer does the author give to the question 'Have things really changed that much?'" The response options for the first item were "Women are gaining power and will continue to do so" and "Men are maintaining power and will continue to do so." The response options for the second item included "Yes," "No," and "Both yes and no."

**Attention Checks.** Two attention checks were embedded within the survey. The first attention check was located within the Personal Need for Structure Scale and asked participants to select the number 4. The second attention check was located within the favorability ratings and asked participants to select the number 3.

**Demographics.** I measured participants' race, age, gender, sexual orientation, level of education, household income, employment status, occupation, political orientation, and religiosity

## Results

### Preliminary Analyses

**Believability of Gender Stability Manipulation Materials.** I conducted analyses to check the believability of the gender status articles. On a scale of 1 (*not believable at all*) to 7 (*very believable*) the gender status article demonstrated high believability ( $M = 5.39, SD = 1.53$ ). These believability scores were comparable to the urban growth filler article ( $M = 5.38, SD = .07$ ). A t-test on article believability revealed no effect for condition,  $t(396) < 1, p = .85$ .

**Correlations and Covariate Selection.** See Table 2 for a list of bivariate correlations among all of the variables. According to the guidelines set out by Porter and Raudenbush (1987), the only variable that met criteria for inclusion as a covariate was education because it was significantly related to three of the four dependent variables but was uncorrelated with the gender stability manipulation, gender, and system justification. I did not use personal need for structure as a covariate because it was unrelated to the dependent variables. Therefore, in tests of Hypotheses 1-3, I only covaried education.

### Addressing Attention to the Study Materials

Several variables shed light on how much attention participants paid to the study materials. These included manipulation checks, attention checks, time to completion, and open-ended responses to the gender stability manipulation. Correlations among these attention checks appear in Table 3. In what follows, I describe each variable and summarize the results of analyses that include versus exclude people based on their responses to each variable.

**Manipulation Checks.** Two manipulation check items asked participants to recall the main conclusion from the gender status article that they read. Due to some ambiguous wording in these items, many participants failed the manipulation checks. To address this, I changed the wording of these items for the last 50 participants. For the 381 participants who completed the survey with the original wording of the manipulation check, 17% (65 participants) of the sample missed the first item and 32% (123 participants) of the sample missed the second item. For the last 50 participants who were exposed to the new wording, 4% (2 participants) missed the first item and 16% (8 participants) missed the second item. Because such a large proportion of the sample failed the manipulation checks, I excluded participants if they selected the only clearly wrong answer to the question of whether men's and women's status is changing over time (i.e., "the gap between women's and men's status is increasing over time" with the original wording and "no" with the updated wording). Out of 430 participants, 27 participants failed this modified manipulation check. A logistic regression analysis was conducted to predict manipulation check failure from gender, condition, and system justification beliefs. The predictors did not significantly distinguish between people who passed versus failed the manipulation check ( $\chi^2 = 2.174, p = .54, df = 3$ ), indicating that performance on the manipulation check was not influenced by any of the predictor variables. Moreover, failure of these manipulation checks was not correlated with any other index of attention (see Table 3).

I conducted all hypothesis tests including and excluding participants who failed the manipulation check. When I conducted the hypothesis tests including participants who failed the manipulation check, the effects for each test were slightly stronger. The only hypothesis test that significantly differed when I included versus excluded participants who failed the manipulation

check was the test of stereotypes of feminists. When I included people who failed the manipulation check and regressed stereotypes of feminists onto the predictors, the analysis revealed a marginally significant 3-way interaction ( $t = -1.76, p = .08$ ), compared to a non-significant 3-way interaction when excluding these participants ( $t = -1.59, p = .11$ ).

**Attention Checks.** Participants responded to two attention checks embedded within the survey. Four hundred and eleven participants selected the correct response for the first attention check and 21 participants selected an incorrect response. Four hundred and twenty two participants correctly answered the second attention check and 11 participants answered incorrectly. The second attention check was weakly correlated with time to completion ( $p < .01$ ) (see Table 3). Excluding participants based on attention check failure did not significantly alter any of the results compared to excluding participants based on manipulation check failure.

**Time to Completion.** Since the survey used an online platform, the amount of time participants spent taking the survey is an important variable to consider. The average time to complete the survey was 22.45 minutes with a standard deviation of 95.03 minutes. The data was positively skewed and kurtotic indicating that some participants spent an exceptionally long time to complete the survey, including one outlier that spent 1928 minutes completing the survey. A 2 (participant gender) X 2 (condition) factorial ANCOVA that controlled for education revealed that participant's time to completion did not differ as a function of gender or condition ( $ps > .1$ ). As shown in Table 3, time to completion was weakly correlated with the failure of attention check 2 ( $p < .01$ ), indicating that the longer it took to complete the survey the more likely participants were to fail the second attention check. When I excluded people who spent over an hour or under six minutes completing the survey, the results did not differ from excluding people based on manipulation check failure.

**Open-ended Response.** After reading the gender status article, participants completed an open-ended item to strengthen the manipulation. Participants were instructed to list three ways that women were still disadvantaged compared to men or becoming more equal to men, depending on their condition. Participants who provided zero or only one response were coded as failing this item, as were participants who did not follow the instructions and listed inappropriate responses. Out of 430 participants, 22 people failed this item. The open-ended response variable was not correlated with any other attention variables (see Table 3). When I excluded participants based on failure to respond to the open-ended item the results did not statistically differ from when I excluded people who failed the manipulation check.

**Alternative Exclusion Criteria.** Due to the large number of manipulation check failures, I came up with alternative exclusion criteria to filter out participants who did not pay adequate attention to the materials. If participants did not provide sufficient answers for the open-ended item or spent over an hour completing the survey in addition to failing the manipulation check they were filtered out of analyses. The analyses presented in the Results section use the modified manipulation check criteria to filter out participants, but I also conducted all of the analyses using the alternative exclusion criteria to investigate whether the results would remain consistent when using other attention-based exclusion criteria. The results of these analyses showed slightly weaker effects compared to only excluding participants who failed the manipulation check, because the alternative exclusion criteria filtered out more people and thus reduced power. For example, the two marginal interactions for overall stereotypes of feminists and mothers become non-significant with the new exclusion criteria ( $ps > .10$ ). Furthermore, the results of these analyses did not demonstrate any other significant differences from the analyses that only excluded people based on manipulation check failure with the exception of one finding.

An unexpected marginally significant condition X SJB interaction emerged for predicting benevolent sexism ( $t = -1.88, p = .06$ ), such that people high in system justification decreased their benevolent sexist attitudes in the unstable condition. This finding neither supports nor contradicts my hypotheses. The alternative exclusion criterion demonstrates that no matter what attention measures I used to filter out participants the results remain consistent.

### **Primary Analyses**

Hypothesis 1 states that, on average, men will score higher than women on the four measures of system defenses. Hypothesis 2 predicted that a two-way interaction should emerge for gender X condition such that exposure to a stable system should increase women's system defenses, while exposure to an unstable system should increase men's system defenses.

Hypothesis 3 proposes a three-way interaction of condition X gender X system justification beliefs (SJB) such that the two-way gender X condition interaction should be strongest among men and women who are high in SJB.

To test Hypothesis 1, I submitted the four measures of system defenses to four separate 2 (participant gender: man vs. woman) X 2 (condition: stable vs. unstable) factorial ANCOVAs that controlled for education. To test Hypotheses 2-3, I used Hayes' (2013) PROCESS macro (Model 3) to test for moderation with two independent variables. I conducted four tests that regressed each of the dependent variables onto: gender, gender hierarchy condition, system justification belief scores, and all 2-and 3-way interactions, while controlling for education. See Table 4 for a list of the means and standard deviations for the primary and exploratory dependent measures split by gender. Additionally, I separated the favorability ratings from the percentage scores among all of the stereotype variables to further investigate the components that created the stereotype scores.

**Hypothesis 1.** To test Hypothesis 1, I submitted hostile sexism to a 2 (participant gender) X 2 (condition) factorial ANCOVA, which revealed a statistically significant main effect for gender,  $F(1, 356) = 16.22, p < .001, \eta^2 = .04$ , such that men held higher levels of hostile sexism ( $M = 3.09, SD = 1.08$ ) than women did ( $M = 2.60, SD = 1.23$ ). No main effect was found for condition and there was not a statistically significant interaction ( $ps > .14$ ). The main effect of gender on benevolent sexism was also significant,  $F(1, 356) = 3.66, p = .05, \eta^2 = .01$ , such that men held higher benevolent sexism scores ( $M = 3.43, SD = 1.15$ ) compared to women ( $M = 3.19, SD = 1.19$ ). A marginally significant main effect also emerged for condition on benevolent sexism,  $F(1, 356) = 3.71, p = .06, \eta^2 = .01$  such that people in the stable condition ( $M = 3.40, SD = 1.18$ ) had higher benevolent sexism scores than the people in the unstable condition ( $M = 3.19, SD = 1.17$ ). There was not a significant interaction of gender X condition ( $p = .13$ ). Next, I found a significant main effect of gender on feminist stereotypes,  $F(1, 355) = 4.44, p = .04, \eta^2 = .01$ , where men reported less favorable ratings of feminists ( $M = 375.38, SD = 95.21$ ) compared to women ( $M = 394.93, SD = 88.48$ ). The main effect for condition and the interaction were not significant ( $ps > .60$ ). No effects emerged for mother stereotypes ( $ps > .26$ ). Therefore, I found moderate support for Hypothesis 1 in that men scored higher than women on three of the four measures of system defense.

**Hypotheses 2 and 3.** The first tests for Hypotheses 2 and 3 yielded a non-significant 3-way interaction for hostile sexism ( $t = .34, p = .74$ ) and no significant two-way interactions (see Table 5). Next, regressing the predictors onto benevolent sexism also produced a non-significant 3-way interaction ( $t = -.18, p = .85$ ) and no significant two-way interactions (see Table 6). Thus, no support for Hypothesis 2 or 3 was found on the measures of hostile or benevolent sexism.

The third test for Hypotheses 2 and 3 revealed a marginally significant 3-way interaction for stereotypes of stay-at-home mothers ( $t = -1.83, p = .07$ ), that qualified a marginally significant two-way interaction of gender X condition ( $t = 1.84, p = .06$ ) (see Table 7). The overall model was significant at step 3,  $F(7, 347) = 2.23, p = .03$ , but there was not a significant change in  $R^2, \Delta R^2 = 0.001, p = .93$ . However, the overall model was significant at step 4,  $F(8, 346) = 2.38$ , and there was also a marginally significant change in  $R^2, \Delta R^2 = 0.01, p = .06$ . See Figure 1 for the two-way interaction and Figure 2 for the three-way interaction.

As illustrated in Figure 1, exposure to a stable hierarchy increased women's, but decreased men's, system justifying stereotypes of mothers though none of the simple effects were significant ( $ts < 1.09, p > .11$ ). That is, women reported less favorable stereotypes of mothers in the unstable condition relative to the stable condition and men showed the opposite effect. This provides support for Hypothesis 2.

To decompose the three-way interaction, I examined the gender X condition interactions at both low and high levels of SJB. The gender X condition interaction was trending at low levels of SJB, ( $t = 1.53, p = .11$ ), but not at high levels of SJB ( $p > .22$ ). Figure 2 demonstrates the higher order three-way interaction, but the simple effects test revealed no significant simple effects of condition on stereotypes of mothers at each level of the moderators ( $ts < .84, ps > .17$ ). Women low in SJB decreased their favorable stereotypes of mothers in the unstable condition, whereas men showed the opposite pattern, though the interaction test and simple effects were non-significant. This pattern is not consistent with my predictions because I expected this pattern to emerge more strongly among those high in SJB. Hypothesis 3 was therefore not supported.

The last regression test produced a non-significant 3-way interaction for stereotypes of activist feminists ( $t = -1.59, p = .11$ ), that qualified an unexpected significant two-way

interaction of SJB X condition ( $t = 2.00, p = .05$ ) and another unexpected significant two-way interaction of gender X SJB ( $t = -1.60, p = .03$ ) (see Table 8). The overall model at step 3 was not significant  $F(7, 347) = 1.53, p = .16$ , and did not have a significant increase in  $R^2, \Delta R^2 = 0.01, p = .29$ . Additionally, the overall model at step 4 was not significant  $F(8, 346) = 1.64, p = .11$ , and did not have a significant increase in  $R^2, \Delta R^2 = 0.001, p = .11$ . See Figures 3 and 4 for the 2-way interactions. As shown in Figure 3, people high in SJB report more favorable stereotypes of feminists in the unstable condition, ( $t = 1.55, p = .12$ ) compared to the stable condition, whereas people low in SJB report more favorable stereotypes of feminists in the stable condition ( $t = -1.35, p = .17$ ) compared to the unstable condition. Figure 4 illustrates that men low in SJB report less favorable stereotypes of feminists compared to men high in SJB ( $t = 1.67, p = .09$ ). No significant effect of SJB on feminist stereotypes emerged for women ( $p > .17$ ). Thus, I found no support for Hypothesis 2 or 3 on stereotypes of feminists.

Overall, my hypothesis tests provided little support for Hypothesis 2 and Hypothesis 3.

### **Follow-Up Analyses**

According to the stereotype content model, warmth and competence reflect two primary dimensions that underline stereotypes of social groups (Fiske, Cuddy, Glick, & Xu, 2002). Warmth reflects perceptions of low competition, while competence reflects perceptions of high status. Stereotyping a group of people as low on one dimension and high on another can function to maintain their non-threatening social position (e.g., housewives are warm but incompetent). Since my stereotype measures contain traits relevant to warmth and competence, for exploratory purposes I analyzed the stereotypes of stay-at-home mothers and activist feminists separately along competence and warmth dimensions. In the context of the stereotype content model, system-justifying stereotypes of traditional women highlight their warmth (i.e.,

communion) and reduce their competence (i.e., agency). These stereotypes underscore how traditional women are not suited for high-status roles. Alternatively, non-traditional women are likely to be stereotyped as higher in agency but lower in communion. This is consistent with Jost and Kay's (2005) findings about complementary stereotypes' ability to help people rationalize the status quo. Thus, to defend the gender status hierarchy men and women would should decrease traditional women's agency and/or increase their communion, and decrease non-traditional women's communion and/or increase their agency, when exposed to an unstable system.

I conducted four exploratory analyses using Hayes' (2013) PROCESS Model 3, moderation with two independent variables, separately regressing each of the composite variables onto: gender, gender hierarchy condition, system justification belief scores, and all 2- and 3-way interactions. In each analysis, I controlled for education. I also covaried the other stereotype dimension (e.g., agentic, communal) in analyses on each dimension.

**Mother Stereotypes.** I conducted two regression analyses, separately for agentic and communal stereotypes of stay-at-home mothers. Regressing agentic stereotypes of stay-at-home mothers onto the predictors produced a significant 3-way interaction ( $t = -2.73, p = .01$ ) that qualified significant two-way interactions of condition X gender ( $t = 2.14, p = .03$ ) and condition X SJB ( $t = 2.44, p = .02$ ) (see Table 9). Furthermore, the overall model at step 3 was significant,  $F(7, 347) = 2.04, p = .05$ , but the increase in  $R^2$  was not significant,  $\Delta R^2 = 0.003, p = .76$ . The overall model at step 4 was significant,  $F(8, 346) = 2.58, p < .01$ , and the increase in  $R^2$  was also significant,  $\Delta R^2 = 0.02, p = .01$ . There were no significant findings for communal stereotypes of mothers, all ( $ts < .94, ps > .34$ ). See Figure 5 and 6 for the two-way interactions and Figure 7 for the three-way interaction.

As shown in Figure 5, women reduced their perceptions of stay-at-home mother's agency in the unstable condition, ( $t = 2.54, p = .01$ ), and the simple effect is not significant for men ( $p > .53$ ). Figure 6 demonstrates that people high in SJB reported more agentic stereotypes of stay-at-home mothers in the unstable condition ( $t = 1.41, p = .16$ ), and there is not a significant effect for people low in SJB ( $p > .57$ ).

To decompose the three-way interaction, I examined the gender X condition interactions at both low and high levels of SJB. The gender X condition interaction test was significant at high levels of SJB ( $t = 2.32, p = .02$ ) but not at low levels of SJB ( $p > .22$ ). As shown in Figure 7b, men high in SJB reported more favorable agentic stereotypes of stay-at-home mothers in the stable condition ( $t = -1.98, p = .05$ ) compared to the unstable condition. High SJB women trended in the opposite direction where they reported more favorable agentic stereotypes of mothers in the unstable condition ( $t = 1.28, p = .20$ ). Though only stereotypes of stay-at-home mothers' agency and not communion were influenced by the manipulation, these findings are still consistent with my theorizing. Men high in SJB reduce their perceptions of mothers' agency when the system is viewed as unstable, whereas women high in SJB report more favorable agentic stereotypes in the stable condition.

**Feminist Stereotypes.** I conducted two regression analyses, separately for agentic and communal stereotypes of activist feminists. Regressing agentic stereotypes of feminists onto the predictors produced a non-significant 3-way interaction ( $t = -1.39, p = .16$ ) (see Table 10), that qualified a significant two-way interaction of condition X SJB ( $t = 2.19, p = .03$ ). The overall model was not significant at step 3,  $F(7, 347) = 1.56, p = .15$ , and the increase in  $R^2$  was not significant,  $\Delta R^2 = 0.007, p = .48$ . Also, the overall model was marginally significant at step 4,  $F(8, 346) = 1.69, p = .09$ , and the increase in  $R^2$  was not significant,  $\Delta R^2 = 0.007, p = .11$ . There

were no significant interactions for communal stereotypes of feminists, all ( $t_s < 1.7, p_s > .09$ ). See Figure 8 for the two-way interaction.

As depicted in Figure 8, a simple effects test showed that people low in SJB reported more positive agentic perceptions of feminists in the stable condition than the unstable condition ( $t = -1.66, p = .09$ ), and the simple effect for people high in SJB was non-significant ( $t = 1.46, p = .14$ ). I did not predict any 2-way condition X SJB interactions, thus these findings are unexpected and do not support or contradict my theorizing. Additionally, there were no significant interactions for perceptions of feminists' communion. Possible explanations for these findings are considered in the Discussion section.

## **Discussion**

Since women continue to gain structural power it is important to understand people's shifting attitudes and stereotypes toward women and how these stereotypes might be used to defend structural inequality between men and women. One of the primary goals of this project was to investigate men and women who differ in their level of system justification beliefs and how they react to a changing or unchanging gender status hierarchy. Specifically, I examined the system defenses men and women use to rationalize the status quo when exposed to stable or unstable system. Support for my hypotheses were mixed and several unexpected findings emerged.

### **Support for Hypotheses 1, 2, and 3**

Hypothesis 1 proposed that men would have higher scores on the four measures of system defenses compared to women. I found good support for Hypothesis 1 because men held higher hostile and benevolent sexism scores, compared to women, and also had less favorable attitudes toward feminists on average. However, men, as compared to women, did not report more favorable stereotypes about stay-at-home mothers. Therefore, three of the four system defenses provided support for Hypothesis 1.

Hypothesis 2 predicted a 2-way interaction of gender X condition such that men would demonstrate more system defenses in the unstable condition and women would follow the opposite pattern. A marginally significant two-way interaction of condition X gender emerged for favorability ratings of stay-at-home mothers such that women increased their favorability ratings in the stable condition and men showed the opposite effect (although neither of these

simple effects were significant), which provides support – albeit weak support – for Hypothesis 2. Increasing favorable perceptions of traditional women may be one way for men to defend traditional gender roles when they are exposed to a changing system. Women, in contrast, show non-significantly more favorable attitudes toward traditional women in the stable versus the unstable condition, which may be a way for women to defend the status quo when they believe gender relations are unchanging.

Hypothesis 3 proposed a series of 3-way condition X gender X SJB interactions such that the proposed effects of Hypothesis 2 should be especially strong among men and women high in SJB. A marginally significant 3-way interaction emerged for favorability of stay-at-home mothers (although none of the interaction tests or simple effects were significant). There was a trending interaction of condition X gender at low levels of SJB such that men increased their favorability of mothers in the unstable condition and women showed the opposite effect. However, people high in SJB showed the opposite pattern, which contradicts my predictions. Men high in SJB should increase their favorable perceptions of traditional women when they are exposed to a changing gender status hierarchy, whereas women high in SJB should report more favorable ratings of traditional women the gender status hierarchy is perceived as unchanging as a way to rationalize the status quo. Since this predicted pattern was only found among those low in SJB, these findings do not provide support for Hypothesis 3.

While people's favorable perceptions of stay-at-home mothers and activist feminists were affected by system stability threats, endorsement of hostile and benevolent sexism was not influenced by the manipulation. That is, there were no significant interactions predicting benevolent or hostile sexism. Hostile and benevolent sexism reflect broad attitudes toward women that may be more resistant to change and stable over time compared to perceptions of

different groups of women on gendered traits. The only observed influence of the gender status manipulation on sexist attitudes was a marginally significant main effect of condition on benevolent sexism such that people in the stable condition reported higher levels of benevolent sexism compared to the unstable condition. This is consistent with the system justification literature, because benevolent sexist attitudes can simultaneously rationalize the gender status hierarchy and also reduce women's resistance to their lower status by providing them with resources and protection as long as they adhere to their traditional gender role. However, if women are perceived as violating their traditional gender role and gaining a higher status (unstable condition) then people's benevolent sexist attitudes are potentially reduced because they either perceive women as not in need of the protection provided by benevolent sexist attitudes anymore, or they believe that women do not deserve the seemingly positive benefits of benevolent sexism because they are not upholding their traditional gender role.

### **Exploratory Analyses**

Since the stereotype measures contained a variety of traits (i.e., agentic and communal), I created communal and agentic stereotype composites and tested these in a series of exploratory, follow-up analyses. Favorable stereotypes about traditional women's agency depended on whether people view the system as stable or unstable. Viewing women as low in agency may be an effective way for people to rationalize the status quo, because it stereotypes women as incapable of earning a higher status. The strongest and most consistent effects were found when people rated stay-at-home mothers' agency. Women who are high in SJB increased their favorable perceptions of mothers' agency when they were exposed to an unstable and changing system, while men high in SJB showed the opposite effect.

Men and women who hold high system justification beliefs perceive the social system in the U.S. as fair and legitimate. Therefore, when high SJB men rate stay-at-home mothers as lower in agency after exposure to an unstable system they are likely defending current gender relations within the U.S. by believing that traditional women do not possess the traits necessary for gaining a higher social status. Alternatively, women who perceive the status quo as fair increase their beliefs about traditional women's agency after they learn that the gender status hierarchy is changing. While men want to protect group-based interests, and thus feel a stronger need to defend the system when they believe that the system's stability is under threat, women want to reduce the dissonance that occurs from being stuck in an unfair and unchanging social system. Therefore, women high in SJB are more likely to defend the status quo when they believe it is unchanging. When confronted with a reminder that the women are gaining power, however, women high in SJB are freer to perceive traditional women as having the positive, agentic traits that can improve their status. Thus, high SJB women in the stable condition reacted like high SJB men in the unstable condition because both defended the gender status hierarchy by reducing traditional women's high status traits.

There were no significant interactions for perceptions of women's communion. One explanation is that perceptions of women's communion are less susceptible to change because the female gender role is already strongly associated with communal traits, whereas agentic traits are a relaxed prescription for women (Prentice & Carranza, 2002). That is, the female gender role is typically not associated with high status traits such as competence and intelligence, thus there may be more malleability and variance in how people stereotype women's levels of agency. Additionally, there may be something specific about the gender status manipulation that only influenced people's perceptions of women's agency. For instance, the manipulation solely

talks about women's structural advancements in the professional sphere (i.e., the closing gender wage gap, more female professionals, etc.), which may activate people's stereotypes of women's agency instead of communion.

### **Unexpected Findings**

Two unexpected condition X SJB interactions emerged for stereotypes (overall stereotype composite and agentic ratings) of feminists. I did not predict any condition X SJB interactions, so these unexpected findings neither contradict nor support my hypotheses. Both of these interactions demonstrated consistent patterns such that low SJB people increased their favorability and agentic ratings of feminists in the stable condition and high SJB people showed the opposite pattern (although none of these simple effects reached significance). One explanation for this pattern could be that people who perceive the system as unfair (i.e., those low in SJB) increase their favorable attitudes toward, and agentic perceptions of, those who push for social change when the system is viewed as unchanging. Alternatively, people who perceive the system as fair (i.e., those high in SJB) may decrease their favorable attitudes toward activists when the system is viewed as stable because they view the system as legitimate and not in need of change.

### **Future Directions and Limitations**

The manipulation check failure created a troubling limitation for this study. Almost half of the sample missed at least one of the two manipulation check items, which raised the concern of whether participants thoroughly read the materials. Some participants reported that the two manipulation check items were ambiguously worded. Therefore, the manipulation check failure could be due to a lack of attention or poorly worded and confusing items. The survey included several other measures of attention including two attention checks, the open-ended response

item, and participants' time to completion of the study. When participants were excluded from analyses based on these other four attention variables, the results did not statistically differ compared to when I excluded participants based on manipulation check failure, indicating that the results are not due to random noise or error from participant's lack of attention. Thus, even though the manipulation check items may not have served as adequate exclusion criteria, the results remained consistent no matter what exclusion criteria I used to filter out participants who did not pay attention to the survey.

The predicted three-way interactions did not emerge for perceptions of agency or favorable stereotypes of activist feminists and the anticipated two-way interactions of gender X condition also did not reach significance for perceptions of agency or favorable stereotypes of activist feminists. With regard to my gender status manipulation, I wonder if 'breadwinner wives' serves as a better exemplar of non-traditional women compared to 'activist feminists.' Breadwinner wives represent a potentially threatening group of women because they do not adhere to their traditional gender role; they possess a higher social status than their husbands in the professional sphere, and they are also perceived as threatening the happiness of their husbands (Hettinger, Hutchinson, & Bosson, 2013). Furthermore, the gender status manipulation specifically refers to women who are gaining status in the professional sphere, which might make breadwinner wives a more suitable target for system defending beliefs than feminists. Thus, in follow up studies it might be fruitful to manipulate the stability of the gender hierarchy and then ask people to report their agentic and communal stereotypes of stay-at-home mothers and breadwinner wives

It is also important in follow-up work to identify whether people's need to justify the system is, indeed, the mechanism behind these effects. To test this, researchers could assign men

and women to either a stable or unstable gender status hierarchy condition, and then expose them to one of two vignettes that detail a stay-at-home mother who is either high or low in agency. After this, people could rate the perceived fairness of the gender system (Jost & Kay, 2005). If the need to justify the system is the mechanism that drives these effects, then women who are exposed to a stable system should perceive gender relations in the U.S. as more fair after reading about a mother who is low in agency, and the opposite should occur among men.

### **Conclusions**

Though I found weak support for my original hypotheses, the exploratory analyses revealed ways in which men and women may stereotype traditional women to defend the gender status hierarchy. Specifically, I found that men high in SJB reduce stay-at-home mothers' agency when exposed to an unstable system and women high in SJB demonstrated the opposite pattern. Therefore, reducing traditional women's agency may be an effective way to defend the status quo, because it stereotypes women as not possessing the necessary characteristics to gain a higher status. Future research should examine the system-justifying mechanism behind these effects and if stereotyping other groups of women besides stay-at-home mothers can function as a way for people to defend the gender status hierarchy

## Tables and Figures

Table 1. *Participant demographics by sample.*

Variable	mTurk	SONA
Sex		
Male	192 (54.9%)	33 (40.7%)
Female	153 (43.7%)	46 (56.8%)
Race		
White	307(87.7%)	54 (66.7%)
Black	19 (5.4%)	12 (14.8%)
Asian	11 (3.1%)	6 (7.4%)
Native American	3 (.9%)	0 (0%)
Middle Eastern	1 (.3%)	1 (1.2%)
Other	6 (1.7%)	3 (3.7%)
Age	39.35 (13.26)	20.86 (3.07)
Political Orientation	3.47 (1.65)	3.88 (1.3)
Student	42 (12%)	79 (97.5%)
Employed	250 (71.4%)	44 (54.3%)
Income	5.73 (3.36)	6.62 (3.87)

*Note.* Age, political orientation, and income are presented as means with standard deviations in parentheses. Gender is coded as 0 for women and 1 for men. Student variable is coded as 1 for student and 2 for non-student. Employed variable is coded as 1 for yes and 2 for no.

Table 2. Bivariate correlations among all variables.

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.	19.	20.
<i>Primary Variables</i>																				
1. Gender																				
2. SJB	.04																			
3. HS	.21**	.11*																		
4. BS	.10	.22**	.40**																	
5. Mom avg.	-.02	.11*	.05	.26**																
6. Fem avg.	-.11*	.06	-.19**	.15**	.70**															
<i>Covariates</i>																				
7. Education	-.01	.09	-.12*	-.14**	-.16*	-.09														
8. Age	.01	.12*	-.06	-.01	-.01	.01	.19**													
9. Race	-.01	-.04	.05	.11	.01	.09	-.05	-.15*												
10. Sex Orient	-.05	.23**	-.09	-.16**	-.13*	-.04	.01	-.15**	.02											
11. Income	.01	-.06	-.01	.05	-.03	.02	.20**	-.05	-.08	-.05										
12. Religiosity	-.01	-.01	-.13*	-.15**	-.09	-.03	-.01	-.01	-.06	-.07	.01									
13. Student	.02	-.01	-.11*	-.05	-.09	-.10*	.23**	.57**	-.05	-.10*	-.03	.09								
14. Employed	-.04	-.09	.04	.02	.04	-.01	-.22**	-.01	.04	.06	-.08	-.01	-.14**							
15. PNS	-.09	-.02	-.02	.01	.03	.03	-.03	.08	-.03	-.17**	-.04	.04	.14**	.08						
16. Political	.11*	.34**	.41**	.38**	.10	-.14**	-.07	.07	-.01	-.18**	.17**	-.15**	-.02	.01	.11*					

Table 2. *Bivariate correlations among all variables continued.*

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.	19.	20.
17. Social	-.07	.28**	.43**	.40**	.11*	-.15**	-.07	.06	.03	-.17**	.13*	-.14**	-.02	.04	.12*	.85*				
<i>Exploratory Variables</i>																				
18. Fem agent	-.14**	.06	-.24**	.10	.55**	.87**	-.07	.03	.01	-.05	.02	-.01	-.06	-.07	.03	.11*	.15**			
19. Fem communal	-.02	.04	-.05	.17**	.60**	.77**	-.08	-.02	.03	-.02	.02	-.05	-.10*	.06	.00	-.12*	-.09	.36**		
20. Mom communal	-.02	.14**	.17**	.34**	.80**	.58**	-.09	.01	-.02	.16**	.03	-.08	-.08	.01	.08	.12*	.17*	.31**	.62**	
21. Mom agent	-.01	.05	.07	.10	.85**	.60**	-.17**	-.02	.07	-.05	-.07	-.07	-.07	.05	-.03	.04	.02	.59**	.37**	.36**

*Note.* SJB represents system justification beliefs. HS represents hostile sexism and BS represents benevolent sexism. PNS represents scores on personal need for structure. Gender is coded as 0 for women and 1 for men. Race is coded as 1 for white, 2 for black, 3 for Asian, 4 for Native American, 5 for Middle Eastern, 6 for bi-racial. Student variable is coded as 1 for student and 2 for non-student. Employed variable is coded as 1 for yes and 2 for no. Higher political orientation values denote more conservatism. Significance of correlations is indicated by asterisk:  $p < .05^*$ ,  $p < .01^{**}$

Table 3. *Bivariate correlations among attention variables.*

	1.	2.	3.	4.	5.
1. Open Ended Response					
2. Attention Check 1	.06				
3. Attention Check 2	-.03	.03			
4. Time to Completion	-.01	.01	.14**		
5. Manipulation Check 1	-.04	.02	.04	.03	
6. Manipulation Check 2	.01	.03	.03	.03	.46**

*Note.* Open ended response, attention check 1, attention check 2, manipulation check 1, and manipulation check 2 are coded as 0 for correct and 1 for incorrect. Significance of correlations is indicated by asterisk:  $p < .05^*$ ,  $p < .01^{**}$

Table 4. List of means and standard deviations for all dependent variables split by participant gender

Variable	Women	Men
Favorability		
Positive Communion	1.07 (4.89)	1.02 (4.92)
Positive Agency	1.87 (5.47)	1.74 (5.43)
Negative Communion	4.83 (1.80)	5.33 (1.68)
Negative Agency	-.59 (3.34)	-.36 (3.49)
Percentages		
Positive Communion for Feminists	6.61 (1.65)	6.21 (1.56)
Negative Communion for Feminists	4.61 (2.20)	6.06 (2.08)
Negative Agency for Feminists	6.46 (2.31)	7.03 (2.01)
Positive Agency for Feminists	8.59 (1.69)	7.79 (1.85)
Positive Agency for Mothers	7.62 (1.62)	7.48 (1.52)
Negative Agency for Mothers	4.19 (1.56)	4.57 (1.55)
Negative Communion for Mothers	4.88 (1.80)	5.33 (1.68)
Positive Communion for Mothers	8.39 (1.23)	8.29 (1.23)
Stereotype Measures		
Overall Feminist Stereotype Composite	396.85 (90.47)	375.66 (95.64)
Overall Mother Stereotype Composite	402.10 (87.07)	395.61 (80.09)
Agentic Stereotypes of Feminists	492.66 (124.10)	455.59 (124.20)
Communal Stereotypes of Feminists	301.65 (97.39)	295.50 (102.68)
Agentic Stereotypes of Mothers	416.88 (111.71)	408.31 (99.74)
Communal Stereotypes of Mothers	387.58 (91.10)	382.76 (100.64)
Sexism Measures		
Hostile Sexism	2.61 (1.23)	3.13 (1.08)
Benevolent Sexism	3.20 (1.20)	3.45 (1.13)

*Note.* The values for each variable are presented as means with standard deviations in parentheses.

Table 5. Multiple regression output for gender, SJB, and condition predicting hostile sexism.

Variable	Model 1			Model 2			Model 3			Model 4		
	B	SE B	$\beta$	B	SE B	$\beta$	B	SE B	$\beta$	B	SE B	$\beta$
Intercept	3.46	.29		2.92	.33		2.93	.41		2.89	.44	
Education	-.10	.04	-.12**	-.11	.04	-.13***	-.11	.04	-.13**	-.11	.04	.13**
Gender				.49	.12	.20***	.74	.41	.31*	.87	.56	.36
Condition				-.06	.12	.20	-.51	.40	-.22	-.41	.51	-.17
SJB				.09	.04	.12**	.09	.06	.14	.10	.07	.14
GenderXCondition							.35	-.28	.04	.10	.78	.04
GenderXSJB							-.09	.08	-.20	-.11	.10	-.26
ConditionXSJB							.06	.08	.14	.04	.11	.09
ConditionXGenderXSJB										.05	.15	.09
R <sup>2</sup>		.02			.07			.08			.08	
F change in R <sup>2</sup>		5.42**			7.21***			.1.4			.11	

Note. SJB represents system justification beliefs. Gender is coded as 0 for women and 1 for men. Condition is coded as 0 for stable and 1 for unstable. Asterisks denote significance.  $p < .10^*$ ,  $p < .05^{**}$ ,  $p < .01^{***}$

Table 6. Multiple regression output for gender, SJB, and condition predicting benevolent sexism.

Variable	Model 1			Model 2			Model 3			Model 4		
	B	SE B	$\beta$	B	SE B	$\beta$	B	SE B	$\beta$	B	SE B	$\beta$
Intercept	4.01	.28		3.31	.32		3.18	.40		3.16	.43	
Education	-.11	.04	-.14***	-.13	.04	-.16***	-.14	.04	-.3.26***	-.14	.04	-.17***
Gender				.22	.12	.09*	-.21	.41	-.09	-.15	.54	-.06
Condition				-.19	.12	.09	.69	.39	.29**	.74	.50	.31
SJB				.17	.04	.23***	.18	.06	.25***	.19	.07	.26***
GenderXCondition							-.37	.24	-.13	-.49	.76	-.18
GenderXSJB							.13	.07	.29**	.11	.10	.26
ConditionXSJB							-.15	.07	-.33*	-.16	.10	-.36
ConditionXGenderXSJB							.					
R <sup>2</sup>		.02			.09			.11			.11	
F change in R <sup>2</sup>		6.82***			8.85***			3.25**			.03	

Note. SJB represents system justification beliefs. Gender is coded as 0 for women and 1 for men. Condition is coded as 0 for stable and 1 for unstable. Asterisks denote significance.  $p < .10^*$ ,  $p < .05^{**}$ ,  $p < .01^{***}$

Table 7. Multiple regression output for gender, SJB, and condition predicting stereotypes of stay-at-home mothers.

Variable	Model 1			Model 2			Model 3			Model 4		
	B	SE B	$\beta$	B	SE B	$\beta$	B	SE B	$\beta$	B	SE B	$\beta$
Intercept	458.10	19.40		434.8	22.90		432.26	28.60		452.50	30.58	
Education	-9.10	2.99	-.17***	-9.70	2.99	-.17***	-9.55	3.00	-.17***	-9.55	2.99	-.17***
Gender				-2.75	8.59	-.02	7.85	28.91	.05	-39.11	38.61	-.24
Condition				-4.10	8.51	-.03	-12.06	27.72	-.07	-52.88	35.52	-.33
SJB				6.23	2.62	.13**	6.89	4.35	.14	2.72	4.91	.06
GenderXcondition							5.88	17.27	.03	100.14	54.38	.52*
GenderXSJB							-2.77	5.27	-.09	6.69	7.38	.22
ConditionXSJB							1.11	5.24	.03	9.56	6.97	.32
ConditionXgenderXSJB										-19.21	10.51	-.52*
R <sup>2</sup>		.03			.04			.04			.05	
F Change in R <sup>2</sup>		9.18***			2.01			.15			3.34*	

Note. SJB represents system justification beliefs. Gender is coded as 0 for women and 1 for men. Condition is coded as 0 for stable and 1 for unstable. Asterisks denote significance.  $p < .10^*$ ,  $p < .05^{**}$ ,  $p < .01^{***}$

Table 8. Multiple regression output for gender, SJB, and condition predicting stereotypes of activist feminists.

Variable	Model 1			Model 2			Model 3			Model 4		
	B	SE B	$\beta$									
Intercept	420.69	22.12		409.61	26.13		466.46	32.53		466.50	34.82	
Education	-4.69	3.41	-.07	-5.07	3.41	-.08	-5.03	3.41	-.08	-5.03	3.41	-.08
Gender				-17.57	9.82	-.10*	-60.47	32.87	-.33*	-106.86	43.95	-.58**
Condition				2.03	9.72	.01	-34.60	31.52	-.19	-74.91	40.44	-.41*
SJB				4.10	2.99	.07	-3.52	4.95	-.06	-7.64	5.58	-.14
GenderXCondition							-.74	19.64	-.01	92.37	61.90	.42
GenderXSJB							8.82	5.99	.26	18.17	8.40	.53**
ConditionXSJB							7.56	5.95	.22	15.91	7.94	.46**
.ConditionXGenderXSJB										-18.97	11.96	-.45
R <sup>2</sup>		.01			.02			.03			.04	
F change in R <sup>2</sup>		1.90			1.63			1.25			2.51	

Note. SJB represents system justification beliefs. Gender is coded as 0 for women and 1 for men. Condition is coded as 0 for stable and 1 for unstable. Asterisks denote significance.  $p < .10^*$ ,  $p < .05^{**}$ ,  $p < .01^{***}$

Table 9. Multiple regression output for gender, SJB, and condition predicting agentic stereotypes of stay-at-home mothers.

Variable	Model 1			Model 2			Model 3			Model 4		
	B	SE B	$\beta$	B	SE B	$\beta$	B	SE B	$\beta$	B	SE B	$\beta$
Intercept	492.43	24.96		482.75	29.56		485.43	36.94		520.82	39.33	
Education	-12.26	3.84	-.17***	-12.60	3.86	-.17***	-12.49	3.87	-.17***	-12.45	3.85	-.17***
Gender				-.85	11.11	-.01	22.20	37.33	.11	-59.93	49.65	-.28
Condition				-14.07	10.10	-.07	-36.85	35.79	-.17**	108.23	45.68	-.52**
SJB				3.94	3.38	.06	2.93	5.63	.05	-4.37	6.31	-.07
GenderXCondition							-8.61	22.30	-.03	156.23	69.93	.62**
GenderXSJB							-3.80	6.81	-.09	12.75	9.49	.33
ConditionXSJB							5.41	6.76	.14	20.19	8.97	.52**
ConditionXGenderXSJB										-33.58	13.52	-.70**
R <sup>2</sup>		.03			.04			.04			.6	
F change in R <sup>2</sup>		10.17***			1.03			.36			6.18**	

Note. SJB represents system justification beliefs. Gender is coded as 0 for women and 1 for men. Condition is coded as 0 for stable and 1 for unstable. Asterisks denote significance.  $p < .10^*$ ,  $p < .05^{**}$ ,  $p < .01^{***}$

Table 10. Multiple regression output for gender, SJB, and condition predicting agentic stereotypes of activist feminists.

Variable	Model 1			Model 2			Model 3			Model 4		
	B	SE B	$\beta$	B	SE B	$\beta$	B	SE B	$\beta$	B	SE B	$\beta$
Intercept	502.00	30.85		495.16	36.30		532.86	45.29		561.15	48.44	
Education	-2.99	4.75	-.03	-3.43	4.74	-.04	-3.24	4.74	-.04	-3.23	4.74	-.04
Gender				-34.87	13.64	-.14***	-55.57	45.74	-.47**	-121.23	61.16	-.47**
Condition				-3.10	13.50	-.01	-61.63	43.86	-.24	-118.68	56.27	-.46**
SJB				5.35	4.15	.07	-2.64	27.33	-.01	-8.47	7.73	-.11
GenderXCondition							-2.38	27.33	-.01	129.38	86.13	.42
GenderXSJB							4.47	8.34	.09	17.71	11.69	.37
ConditionXSJB							12.18	8.28	.25	23.99	11.04	.50**
ConditionXGenderXSJB										-26.85	16.65	-.46
R <sup>2</sup>		.001			.02			.03			.04	
F change in R <sup>2</sup>		.40			.2.69**			.82			2.60	

Note. SJB represents system justification beliefs. Gender is coded as 0 for women and 1 for men. Condition is coded as 0 for stable and 1 for unstable. Asterisks denote significance.  $p < .10^*$ ,  $p < .05^{**}$ ,  $p < .01^*$

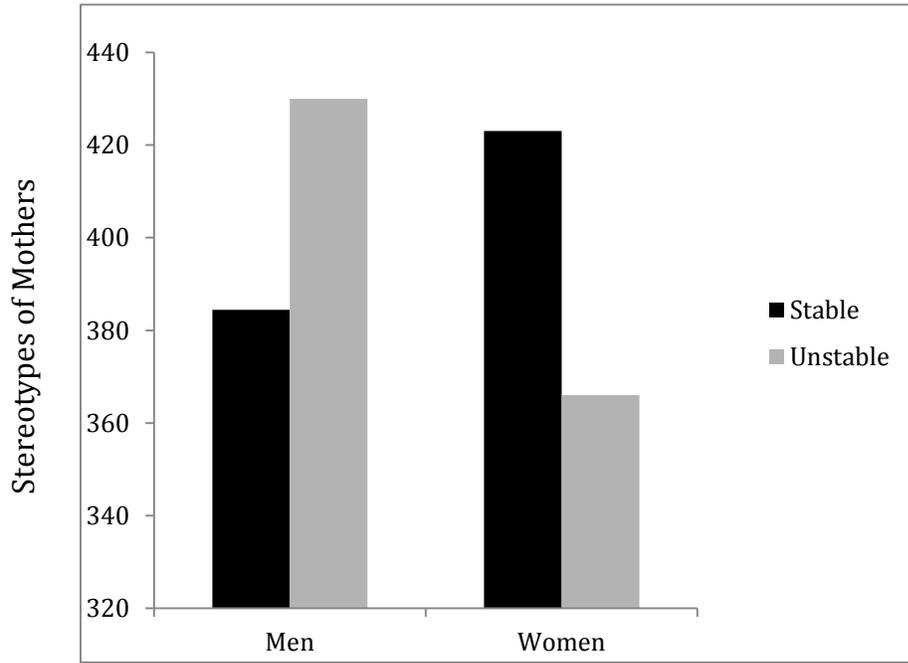


Figure 1. 2-way interaction of condition X gender regressed onto favorable stereotypes of stay-at-home mothers.

Low SJB

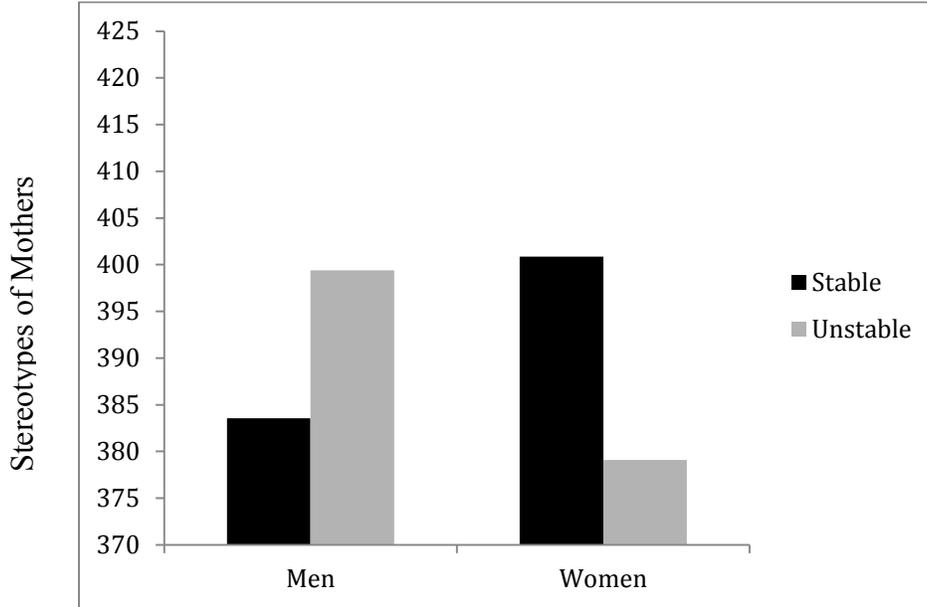


Figure 2a. 3-way interaction condition X gender X system justification beliefs regressed onto favorable stereotypes of stay-at-home mothers, separated by level of system justification beliefs.

High SJB

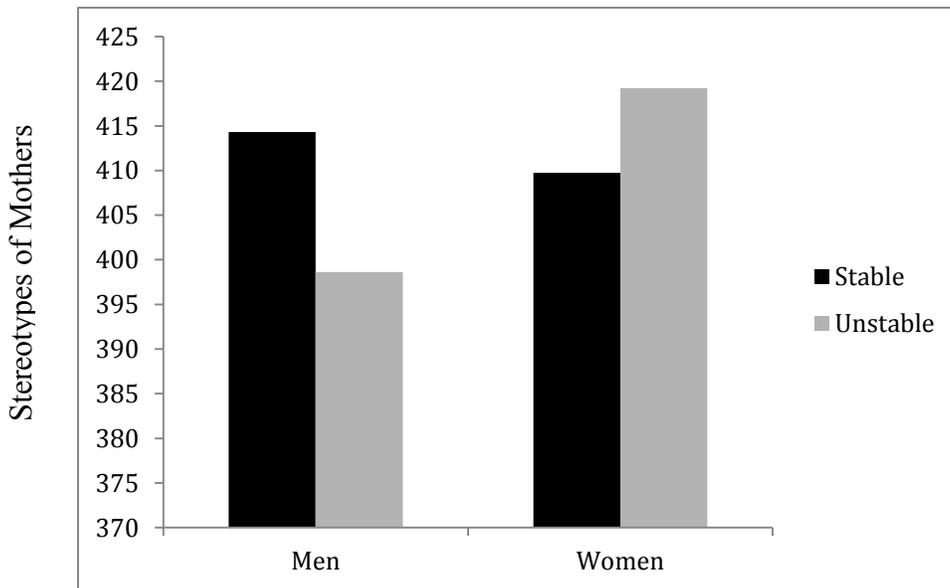


Figure 2b. 3-way interaction condition X gender X system justification beliefs regressed onto favorable stereotypes of stay-at-home mothers, separated by level of system justification beliefs.

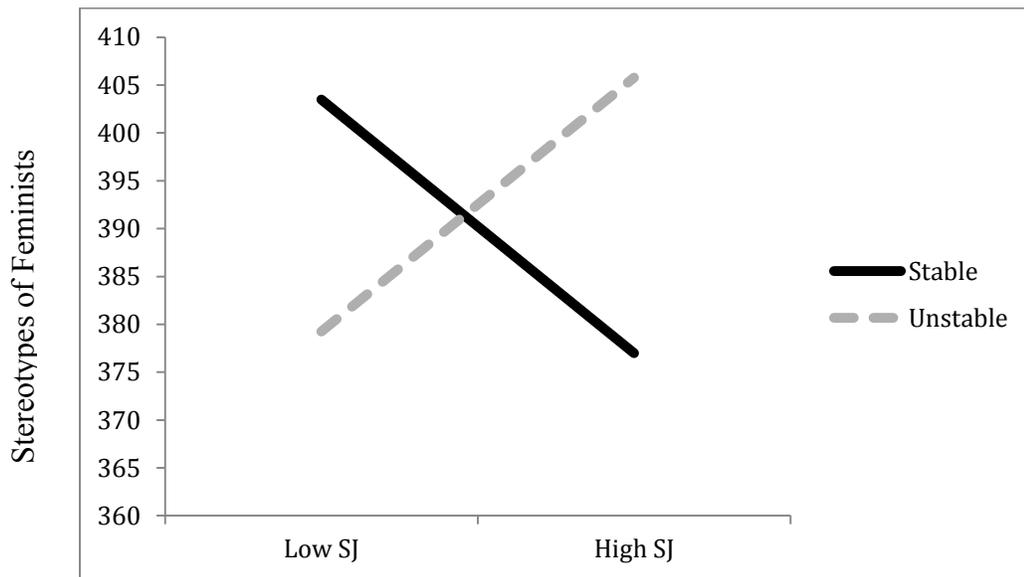


Figure 3. 2-way interaction condition X system justification beliefs regressed onto favorable stereotypes of activist feminists.

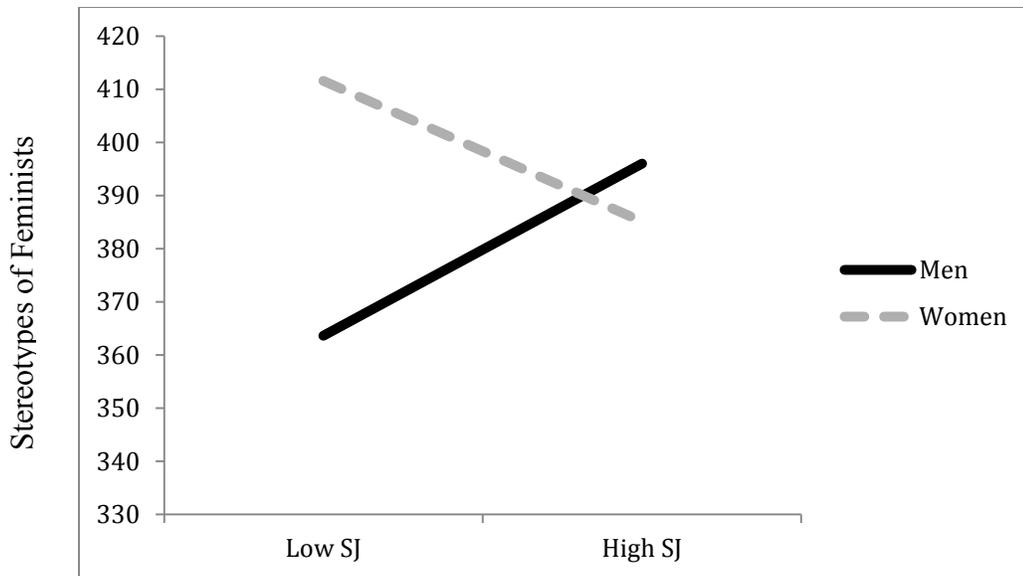


Figure 4. 2-way interaction gender X system justification beliefs regressed onto favorable stereotypes of activist feminists.

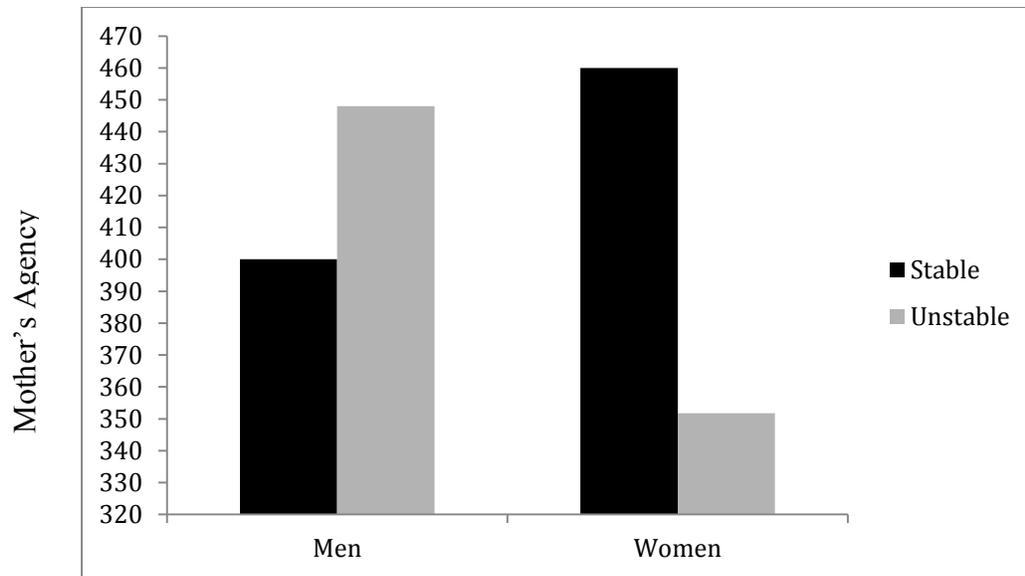


Figure 5. 2-way interaction condition X gender regressed onto agentic stereotypes of stay-at-home mothers.

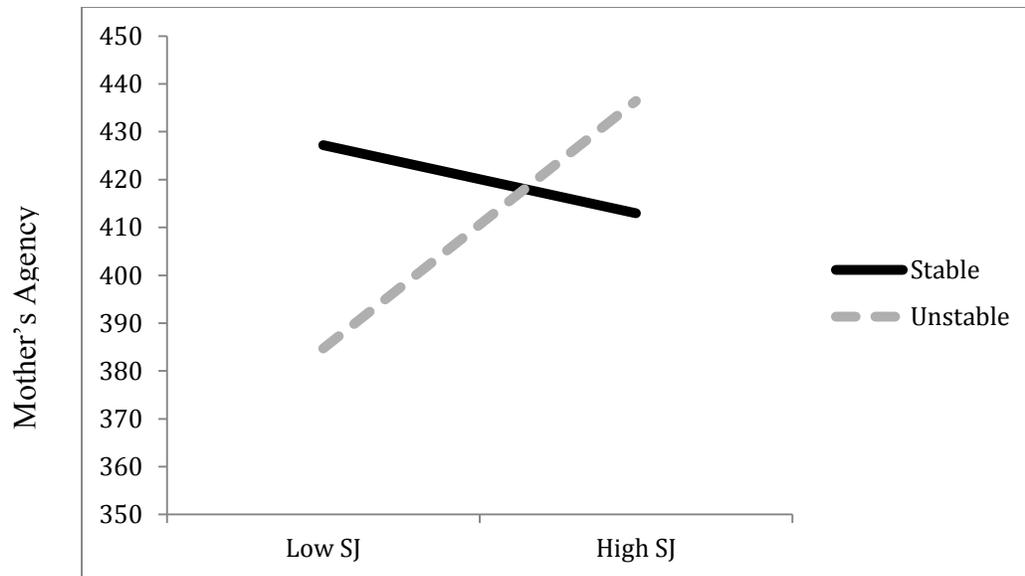


Figure 6. 2-way interaction condition X system justification beliefs regressed onto agentic stereotypes of stay-at-home mothers.

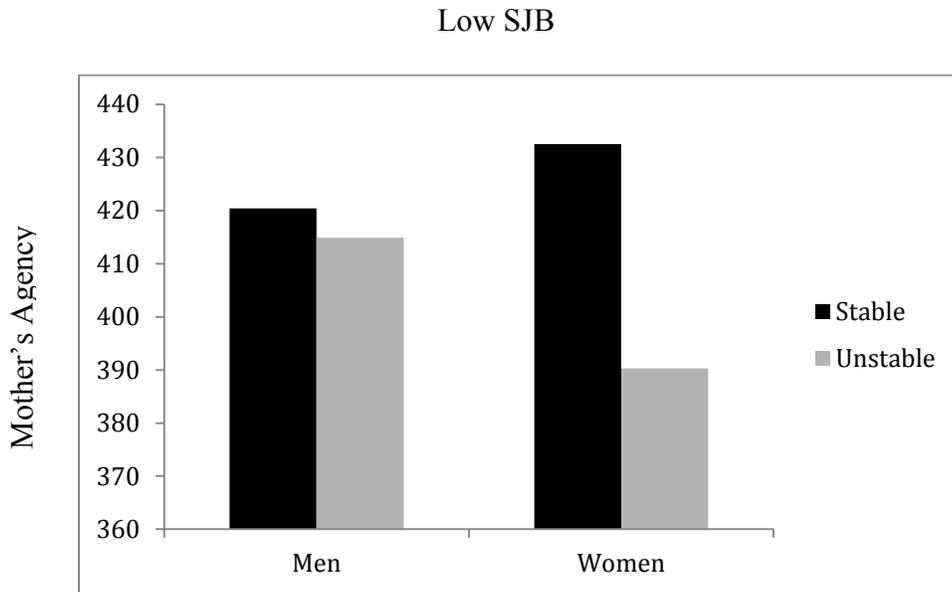


Figure 7a. 3-way interaction condition X gender X system justification beliefs regressed onto agentic stereotypes of stay-at-home mothers, separated by level of system justification beliefs.

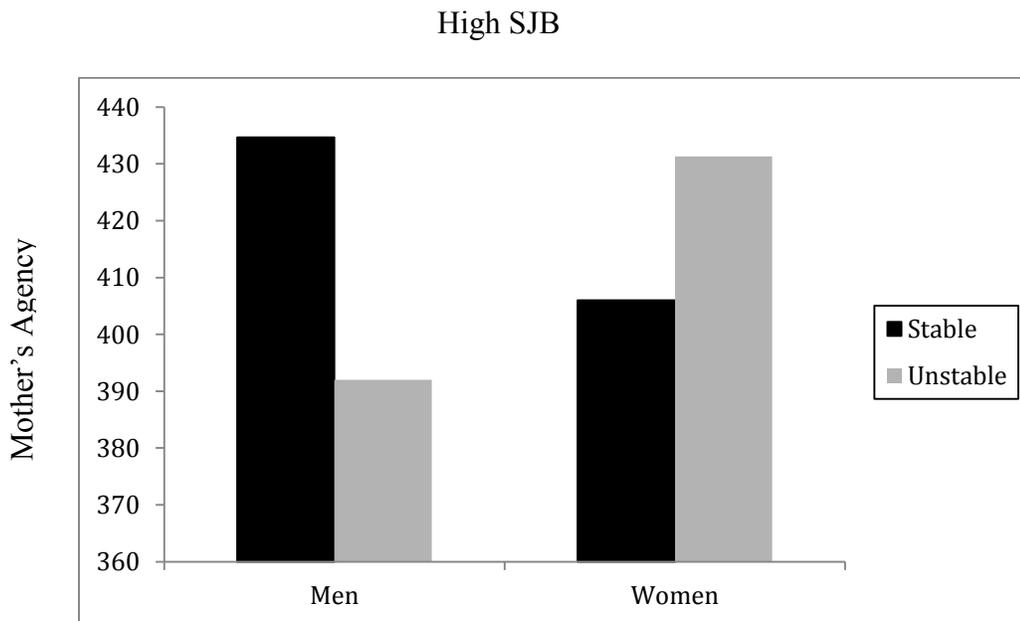


Figure 7b. 3-way interaction condition X gender X system justification beliefs regressed onto agentic stereotypes of stay-at-home mothers, separated by level of system justification beliefs.

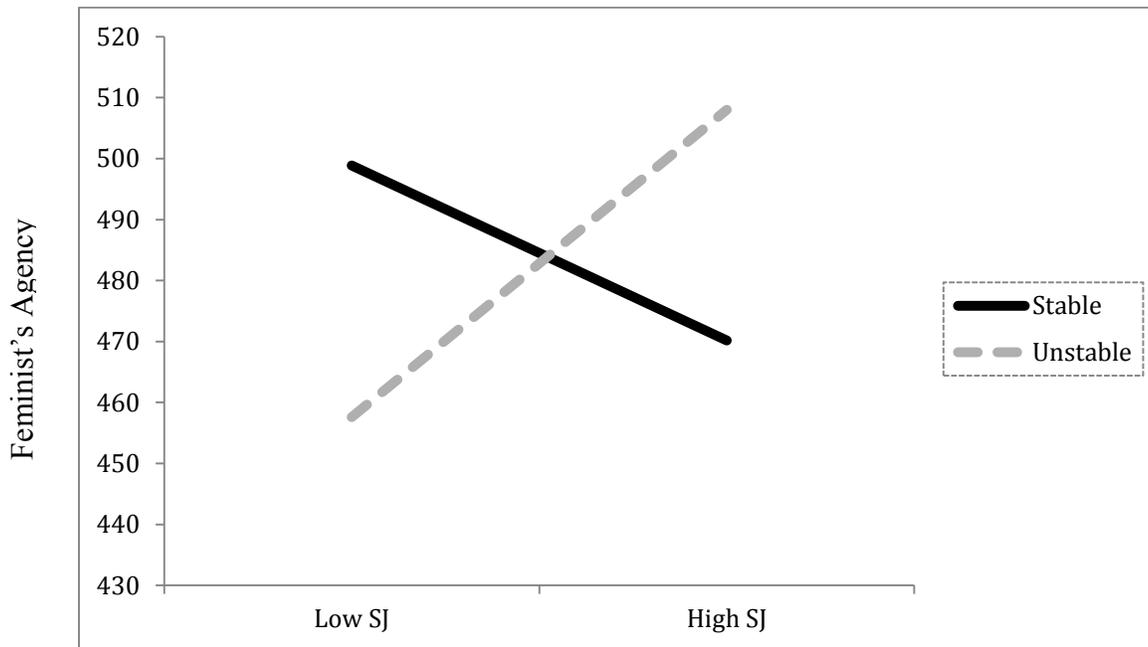


Figure 8. 2-way interaction condition X system justification beliefs regressed onto agentic stereotypes of activist feminists.

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## Appendix B: Articles

### Filler Article.

In this survey, we are interested in what people think about new findings in population trends. You will be presented with a recent newspaper or magazine article. After reading the article, you will be asked to indicate your thoughts about what you have read. Please read the article carefully. Once you are sure you have understood the article, answer the questions that follow.

Census Bureau Reports

Monday, March 26, 2012

Page 1 of 1



## Growth in Urban Population Outpaces Rest of Nation

The nation's urban population increased by 12.1 percent from 2000 to 2010, outpacing the nation's overall growth rate of 9.7 percent for the same period, according to the U.S. Census Bureau. The Census Bureau released the new list of urban areas today based on 2010 Census results.

Urban areas — defined as densely developed residential, commercial and other nonresidential areas -- now account for 80.7 percent of the U.S. population, up from 79.0 percent in 2000. Although the rural population -- the population in any areas outside of those classified as “urban” or “suburban” — grew by a modest amount from 2000 to 2010, it continued to decline as a percentage of the national population.

Of the 10 most densely populated urbanized areas, nine are in the West, with seven of those in California. Urbanized areas in the U.S., taken together, had an overall population density of 2,534 people per square mile.

The population within the nation's 486 urbanized areas grew by 14.3 percent from 2000 to 2010. For any given urbanized area, population increase may be attributed to a combination of internal growth, outward expansion to include new growth, and outward expansion encompassing existing communities that previously were outside the urbanized area

Follow up questions.

We are interested in your thoughts on recent population trends. Please rate your agreement with the following questions.

How positively do you feel about recent residential trends?

1                      2                      3                      4                      5  
Not positive                      Neutral                      Very positive  
at all

Do you prefer to live in an urban or rural area? Please check the box that applies to you.

I prefer a rural area.  
I prefer an urban area.  
Neither.  
I don't care.

## Status Manipulation (unstable hierarchy).

In this survey, we are interested in what people think about new findings in gender differences. You will be presented with a recent newspaper or magazine article. After reading the article, you will be asked to indicate your thoughts about what you have read. Please read the article carefully. Once you are sure you have understood the article, answer the questions that follow.

The Guardian: Women may win war

2014-09-02

Page 1 of 1



### Women losing the battle of the sexes, but might still win the war

At the beginning of the last century, inequalities between men and women were taken for granted. Men automatically occupied high status skilled positions in the workforce and most jobs required women to resign once they were married. If they were able to work at all, women earned significantly less than men. At the beginning of this century, most Americans probably considered gender inequality to be a thing of the past. Have things really changed that much?

According to a recent report by the United Nations, the answer is both yes and no. In terms of achieving total gender equality across all domains – education, politics, the courtroom, and at home – the answer is no. According to a United Nations report titled *The World's Women 2014*, women lag behind their male counterparts on some measures. For example, women earn 22% less than what men earn for the same work, and they hold only 14.3% of corporate leadership positions. However, in terms of increases in women's status and power over time, the answer is a resounding yes. Between 1960 and 2013, the gender gap in wages decreased by 18%. Most men and women now say they would prefer a female boss to a male boss, and women are now entering and graduating college at higher rates than men. There is no question that women are gaining power, and will continue to do so.

Where work is concerned women may have (temporarily) lost the battle of the sexes. However, changing attitudes in society mean that soon they may win the war.

### **Status Manipulation (stable hierarchy).**

In this survey, we are interested in what people think about new findings in gender differences. You will be presented with some recent newspaper and magazine clippings. After reading the article, you will be asked to indicate your thoughts about what you have read. Please read each article carefully. Once you are sure you have understood the article, answer the questions that follow

The Guardian: Women still losing the war

2014-09-02 Page 1 of 1



### **Women still losing the war in the battle of the sexes**

At the beginning of the last century, inequalities between men and women were taken for granted. Men automatically occupied high status skilled positions in the workforce and most jobs required women to resign once they were married. At the beginning of this century, most American women would consider inequality to be a thing of the past. Have things really changed that much?

According to a recent report, the answer is a resounding no. Statistics compiled for the United Nations report titled *The World's Women 2014* show that on many measures women's inequality remains as real as it was 100 years ago. In the areas of employment, salary, education, politics, the courtroom and at home, women continue to lag behind men. Men still earn 22% more than women do for the same job and women hold only 14.3% of corporate leadership positions. Regardless of employment, age, number of children, and marital status, women still spend significantly more hours on housework than their male counterparts. There is no question that men are maintaining power, and will continue to do so.

Despite the significant gains made by women over the years, it seems they may be still losing the war in the battle of the sexes.

### **Status Manipulation Follow Questions.**

List your examples in the spaces below, with one example per space. Please list 3 ways in which women are becoming more equal (disadvantaged) relative to men.

---

## Status Manipulation Checks.

Based on the gender difference article you read, please answer the following questions.

1. What is the article's primary conclusion?

1. Women are gaining power relative to men.
2. Women still lag behind men.

How confident are you that you answered the above question correctly?

1	2	3	4	5	6	7
Not confident at all						Very confident

2. According to the article, which of the following statements is true?

1. The gap between women's and men's status has increased over time.
2. The gap between women's and men's status has decreased over time, but women still lag behind men.
3. The gap between women's and men's status has decreased over time and women continue to gain more power.

How confident are you that you answered the above question correctly?

1	2	3	4	5	6	7
Not confident at all						Very confident

## Appendix C: Dependent Measures

### Stereotypes of Feminists.

Activist feminists are women who advocate and fight for the rights and equal treatment of women. Past research shows that individuals perceive activist feminists to embody a variety of characteristics. Please indicate the percentage of activist feminists you perceive to possess each of these sixteen traits.

What percentage of activist feminists do you think are Aggressive?

0	1	2	3	4	5	6	7	8	9	10
0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%

How favorable or unfavorable do you think the trait Aggressive is?

-5	-4	-3	-2	-1	0	1	2	3	4	5
Very					Neither					Very Favorable
Unfavorable					Favorable or					
					Unfavorable					

Other fifteen traits include:

Emotional, warm, interested in children, sensitive to others, intimidating, dominating, arrogant, melodramatic, moody, naïve, uncertain, competent, confident, independent, intelligent

### Stereotypes of Stay-at-Home Mothers.

Stay-at-home mothers are women who do not hold jobs outside the home, and instead devote their time to raising children and taking care of the household. Past research shows that individuals perceive stay-at-home mothers to embody a variety of characteristics. Please indicate the percentage of stay-at-home mothers you perceive to possess each of these sixteen traits.

What percentage of stay-at-home mothers do you think are Aggressive?

0	1	2	3	4	5	6	7	8	9	10
0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%

How favorable or unfavorable do you think the trait Aggressive is?

-5	-4	-3	-2	-1	0	1	2	3	4	5
Very					Neither					Very Favorable
Unfavorable					Favorable or					
					Unfavorable					

Other fifteen traits include:

Emotional, warm, interested in children, sensitive to others, melodramatic, moody, naïve, uncertain, competent, confident, independent, intelligent, intimidating, dominating, arrogant

### Ambivalent Sexism Inventory Short (Glick and Fiske, 1996).

**Directions:** Below is a series of statements. Please indicate the degree to which you agree or disagree with each statement right now. There are no right or wrong answers.

1                      2                      3                      4                      5                      6  
Strongly                      Strongly  
disagree                      agree

- \_\_\_ 1. Many women have a quality of purity that few men possess.
- \_\_\_ 2. Women should be cherished and protected by men.
- \_\_\_ 3. Women seek to gain power by getting control over men.
- \_\_\_ 4. Every man ought to have a woman whom he adores.
- \_\_\_ 5. Men are incomplete without women.
- \_\_\_ 6. Women exaggerate problems they have at work.
- \_\_\_ 7. Once a woman gets a man to commit to her, she usually tries to put him on a tight leash.
- \_\_\_ 8. When women lose to men in a fair competition, they typically complain about being discriminated against.
- \_\_\_ 9. Many women get a kick out of teasing men by seeming sexually available and then refusing male advances.
- \_\_\_ 10. Women, compared to men, tend to have a superior moral sensibility.
- \_\_\_ 11. Men should be willing to sacrifice their own well being in order to provide financially for the women in their lives.
- \_\_\_ 12. Feminists are making unreasonable demands of men.

## Appendix D: Demographics

### Demographic Questionnaire.

Thank you for completing the questionnaires. Please take a moment to complete the following personal information:

Sex: Male Female Neither of these describes me

Age \_\_\_\_\_

What is your racial/ethnic heritage?

- 1) White / Anglo or European American (non-Hispanic)
- 2) Black / African American / Caribbean
- 3) Hispanic / Latino(a)
- 4) Asian / Pacific Islander
- 5) Indian / South Asian
- 6) Arab / Middle Eastern
- 7) Other \_\_\_\_\_

Are you a college or university student? Yes No

Please circle the number from the scale below that best describes your sexual orientation:

1	2	3	4	5	6	7
Exclusively heterosexual						Exclusively homosexual

How religious are you?

1	2	3	4	5	6	7
Extremely religious	Very religious	Somewhat spiritual	Neither religious nor non- religious	Somewhat non- religious	Very non- religious	Extremely non- religious

How would you describe your political orientation?

1	2	3	4	5	6	7
Very liberal						Very conservative



Please indicate which of the following occupational categories to which you belong.

- 1) Management
- 2) Business and Financial Operations
- 3) Computer and Mathematical
- 4) Architecture and Engineering
- 5) Life, Physical, and Social Science
- 6) Community and Social Service
- 7) Legal
- 8) Education, Training, and Library
- 9) Arts, Design, Entertainment, Sports, and Media
- 10) Healthcare Practitioners and Technical
- 11) Healthcare Support
- 12) Protective Services
- 13) Food Preparation and Serving
- 14) Building and Grounds Cleaning and Maintenance
- 15) Personal Care and Service
- 16) Sales
- 17) Office and Administrative Support
- 18) Farming, Fishing, and Forestry
- 19) Construction and Extraction
- 20) Installation, Maintenance, and Repair
- 21) Production
- 22) Transportation and Material Moving

## Appendix E: IRB Approval Letter



RESEARCH INTEGRITY AND COMPLIANCE  
Institutional Review Boards, FWA No. 00001669  
12901 Bruce B. Downs Blvd., MDC035 • Tampa, FL 33612-4799  
(813) 974-5638 • FAX (813) 974-7091

November 26, 2014

Sophie  
Kuchynka  
Psychology  
Tampa, FL  
33613

RE: **Expedited Approval for Initial  
Review** IRB#: Pro00019984

Title: Attitudes about the current state of affairs in the United States.

**Study Approval Period: 11/26/2014 to 11/26/2015**

Dear Ms. Kuchynka:

On 11/26/2014, the Institutional Review Board (IRB) reviewed and **APPROVED** the above application and all documents outlined below.

**Approved**

**Item(s): Protocol**

**Document(s):**

[Protocol for US Attitudes 11/5/14](#)

**Consent/Assent Document(s)\*:**

[Adult IC 11/5/14](#) (\*\*granted a waiver)

\*Please use only the official IRB stamped informed consent/assent document(s) found under the "Attachments" tab. Please note, these consent/assent document(s) are only valid during the approval period indicated at the top of the form(s). \*\*Waivers are not stamped.

It was the determination of the IRB that your study qualified for expedited review which includes activities that (1) present no more than minimal risk to human subjects, and (2) involve only procedures listed in one or more of the categories outlined below. The IRB may review research through the expedited review procedure authorized by 45CFR46.110 and 21 CFR 56.110. The research proposed in this study is categorized under the following expedited review category: (7) Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

Your study qualifies for a waiver of the requirements for the documentation of informed consent as outlined in the federal regulations at 45CFR46.117(c) which states that an IRB may waive the requirement for the investigator to obtain a signed consent form for some or all subjects if it finds either: (1) That the only record linking the subject and the research would be the consent document and the principal risk would be potential harm resulting from a breach of confidentiality. Each subject will be asked whether the subject wants documentation linking the subject with the research, and the subject's wishes will govern; or (2) That the research presents no more than minimal risk of harm to subjects and involves no procedures for which written consent is normally required outside of the research context.

As the principal investigator of this study, it is your responsibility to conduct this study in accordance with IRB policies and procedures and as approved by the IRB. Any changes to the approved research must be submitted to the IRB for review and approval by an amendment.

We appreciate your dedication to the ethical conduct of human subject research at the University of South Florida and your continued commitment to human research protections. If you have any questions regarding this matter, please call 813-974-5638.

Sincerely,



Kristen Salomon, Ph.D., Vice  
Chairperson USF Institutional  
Review Board