RELATIONSHIP OF RACE TO PERCEIVED GENDER STEREOTYPES

by

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A Thesis Submitted in Partial Fulfillment

of the Requirements for the Degree

Master of Arts

Major Subject: Psychology

West Texas A&M University

Canyon, Texas

August 2019

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ABSTRACT

Gender and racial stereotyping are well-documented phenomena that may negatively impact the lives of the stereotyped. However, less is known about how gender stereotypes intersect with the race of the person being stereotyped. This study asked 153 undergraduate psychology students to quickly determine whether a set of gender-stereotyped words "go with" a set of photos or a set of phrases representing people and varying on both gender and race; proportion of response agreement was measured. As predicted, responses could not be explained entirely by gender stereotypes. Rather, unique patterns emerged for each gender × race category. Surprisingly, the phrase condition appeared to elicit more associations than the photo condition.

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CHAPTER I

INTRODUCTION

Stereotypes are characterizations generalized to a group of people, glossing over individual differences (American Psychological Association, 2018). People often characterize men and women differently, for instance, although there are fewer and smaller group differences than individual differences (e.g., Hyde, 2005; Hyde, 2014).

Consequences of Stereotypes

Stereotypes can have negative consequences for the people they are meant to represent. Stereotype threat may reduce test performance of African Americans (Aruguete & Hardy, 2016; Steele & Aronson, 1995), women (Doyle & Voyer, 2016; Spencer, Steele, & Quinn, 1999), and other negatively stereotyped groups through the anxiety of proving or disproving negative stereotypes about their math abilities, resulting in reduced speed and accuracy. Criminal trials may be biased against black men, who are often stereotyped as criminals (e.g., Blair, Judd, & Chapleau, 2004; Blair, Judd, & Fallman, 2004; Kleider, Cavrak, & Knuycky, 2012). Employers may be less likely to hire a job applicant if their race or gender is stereotyped as less competent, regardless of actual qualifications (e.g., Bertrand & Mullainathan, 2004; Reuben, Sapienza, & Zingales, 2014). Parents' belief in gender stereotypes about math ability predicts their daughters' math achievements (Eccles & Jacobs, 1986).

Drakulich (2015) analyzed the 2008-2009 American National Election Studies (ANES) Panel Study and found that White participants who held explicit and implicit biases against Black Americans thought economic inequalities between Black and White Americans were less severe, and those with implicit biases were less likely to think general income disparities in the country were a problem; those with biases also favored dispositional explanations for economic and criminal justice inequalities rather than structural ones (the fundamental attribution error), and were likely to be resentful of efforts to resolve inequalities with actions aimed at benefitting Black Americans. Conservatism and Republican Party identification were significantly correlated with both explicit and implicit bias, but even controlling for these measures, the effects of implicit bias remained significant.

Stereotypes may be used to justify prejudice against certain groups. Crandall, Bahns, Warner and Schaller (2011) presented participants with general geographic information about two unfamiliar countries, pairing one with a subliminal happy face and the other with a subliminal unhappy face. They then answered a series of questions about the people of those countries, such as whether they were likable people and whether participants would avoid the people from that country. Participants rated the country (counterbalanced between two groups) that had been paired with the happy face more positively, and the country that had been paired with the unhappy face more negatively. Then they were given a list of 29 traits and asked to indicate for each one whether it was truer of one country's people or the other. The traits were either related to warmth or competence; people from the country paired with the unhappy face were rated significantly lower on warmth than were people from the country paired with the happy

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face. They found similar results with a second experiment showing supraliminal images and words paired with country names, and in a third experiment where they rated each of the countries on 7-point scales rather than in a forced-choice format. The authors suggest that this shows that stereotypes can develop in response to prejudice even in the absence of active discrimination against a group. In other words, because the participants had certain affective dispositions toward each group after the manipulations, they made sense of those feelings cognitively by assigning differing sets of attributes to each group of people, in much the same way people have been shown to justify their past actions to reduce cognitive dissonance. It is also possible that people are specifically motivated to reduce unpleasant feelings associated with holding prejudices without justification.

Automatic Response Testing

Studies have shown that people may be inclined to show a lack of explicit prejudice even when they privately hold prejudices (e.g., Akrami & Ekehammar, 2005; Sigall & Page, 1971). This is particularly the case for those who are aware of their audience's lack of prejudice and who are motivated to conform to that audience (e.g., Devine, Plant, Amodio, Harmon-Jones, & Vance, 2002; Klein, Snyder, & Livingston, 2004; Monteith, Deneen, & Tooman, 1996). Even children may avoid the open expression of their biases (Rutland, Cameron, Milne, & McGeorge, 2005). Taking this a step further, some people will defend the words and actions of others against charges of racism (e.g., Condor, Figgou, Abell, Gibson & Stevenson, 2006). Finally, people may not even be aware that they have certain associations with a group of people (e.g., Greenwald & Banaji, 1995). Thus, assessing a person's biases using explicit measures is inadequate.

Greenwald, McGhee and Schwartz (1998) developed the Implicit Association Test (IAT) in order to measure underlying mental associations between various objects, people groups, and emotional valences, on the assumption that these associations are automatic and may not match a person's explicit attitudes. White participants were shown a series of words and asked to classify them into groups by pressing one of two buttons as quickly as possible. The words were divided into four categories: White-sounding first names, Black-sounding first names, pleasant words, and unpleasant words. First, participants pressed one button for Black names (e.g., "Latonya") and the other for White names (e.g., "Meredith"). Next, they pressed one button for pleasant words (e.g., "happy") and the other for unpleasant words (e.g., "grief"). Third, they were asked to press one key for a pair of categories (either Black names/pleasant words and White names/unpleasant words, or White names/pleasant words and Black names/unpleasant words). Then they categorized only names again, but using opposite keys from the first task block, and finally, all four categories with opposite pairings from the third task block. The experimenters calculated the difference in time it took participants to categorize Black names when paired with pleasant words versus White names paired with pleasant words. This represented a difference in the strength of implicit association between concepts. Participants demonstrated a stronger association with pleasant words and White-sounding first names than with pleasant words and Black-sounding first names, despite the fact that the participants explicitly claimed no bias against Black people.

Furthermore, implicit bias has been linked to discriminatory actions. In a study of generosity, White participants who demonstrated higher implicit biases against Black

people on the IAT were also less generous when asked to split money between themselves and Black partners, though no such correlation held for White partners (Stepanikova, Triplett, & Simpson, 2011).

Blair and Banaji (1996) distinguished stereotype activation, an automatic process, from stereotype application, a controllable process. In stereotype activation, a person is primed with situational cues that activate the stereotype in the person's mind. Stereotype application involves the use of the stereotype in judgment after it has been activated. However, even the automatic process of stereotype activation may be brought under control within certain circumstances. Blair and Banaji (1996) conducted a series of experiments in which subjects were primed with words that were either stereotypically masculine, stereotypically feminine, or gender-neutral. Then they were shown a first name that was either masculine or feminine, and were instructed to hit a key on the keyboard to indicate which it was. Each participant encountered numerous trials of each type, such that masculine, feminine, and gender-neutral words all preceded both feminine and masculine names. In the first two experiments, participants were told simply to respond to the names with one key for masculine names and one key for feminine names, regardless of what word preceded the name. In these experiments, participants were generally faster to respond when the prime word matched the name's gender than when it did not. In the third and fourth experiments, some subjects were warned either that most of the initial words would match the gender of the following names, or that most of the initial words would be the opposite of the following names. Those subjects in the latter group showed a reversal of stereotyping responses when they had relatively low cognitive demands (i.e., when they were shown the prime word for 2,000 milliseconds). Even with

high cognitive demands (i.e., when they were shown the prime word for only 350 or 250 milliseconds), participants demonstrated a reduction of the impact of stereotypes, although they failed to completely reverse them.

Race and Gender

While the previous study demonstrates the existence of automatic gender stereotypes, however, it does not take into account other factors that would determine how real people would be stereotyped, such as their race or ethnicity. A Black woman may be stereotyped differently from a White woman, a Hispanic woman, or an Asian woman, despite the fact that they all share a gender. Likewise, men of different racial and ethnic backgrounds may be viewed differently by others.

If psychologists are to find ways to combat stereotypes, we must first understand them. That means understanding the complex ways in which a person's characteristics may interact and inform stereotyping. Many studies have assessed how men and women as a whole are stereotyped differently (e.g., Bem 1974; Sullivan, Moss-Racusin, Lopez, & Williams, 2018). However, this necessarily assumes that gender stereotypes are universal, even within a given population such as American college students. What broad studies of gender stereotyping neglect is the intersection of race with gender, and how gendered stereotypes change when the race of the people being stereotyped changes.

Some research has revealed how explicit stereotypes differ across racial/gender intersections (e.g., Ghavami & Peplau, 2013). Similarly, numerous statistics illustrate real-world inequalities between racial groups within genders (e.g., income, U.S. Bureau of Labor Statistics, 2017a; school discipline, U.S. Department of Education, 2016). The present study aims to address general gender stereotypes and determine how they may be

automatically applied differently across gender × race categories, rather than universally across one whole gender category or another.

A Note on Terms

Any research regarding race must acknowledge race as a social construct in which categories and their names change over time and place. This paper compiles sources that use varying terms for the same or similar racial categories. For the purposes of this research, "African American" and "Black" are used to denote the same group of people, and while "Black" is generally a broader term that can be applied to people both inside and outside of the United States or North America, the scope of this research is limited to American subjects and stereotypes. Similarly, "White" is used interchangeably with "European" or "European American" in this context. While "Hispanic" and "Latino/a/x" are not fully overlapping categories, they are often grouped together in both casual and official governmental contexts (e.g., U.S. Bureau of Labor Statistics, 2017a), and therefore are considered one broad category in this research for the purposes of stereotyping. Finally, "Asian" and "Asian American" are used to denote the same racial category, while some sources will further break subjects down into smaller cultural or national Asian subsets.

Additionally, it must be noted that these are simplistic ways of categorizing people groups. Not only are the four categories chosen for this research not intended to encompass all peoples, but individuals may identify or be identified with more than one of these categories simultaneously. "Hispanic" and "Latino/a/x" in particular are often used to denote an "ethnicity" on top of "race," so that a person may be "White Hispanic" or "Black Latinx," etc. However, for the purposes of this research, this category has its

own stereotypes (e.g., Ghavami & Peplau, 2013) and should therefore be separated out. Furthermore, children of interracial parentage may identify or be identified with multiple races at once. Finally, some people may be mistaken for members of racial categories with which they do not identify. Nevertheless, the aim of this research is to assess differences in stereotyping across broad racial and ethnic categories, so these four categories were chosen because they were expected to be familiar enough to college undergraduates in West Texas that they could identify and stereotype them. For a deeper analysis of racial constructs in North America, see Smedley & Smedley (2012).

Gender is also a social construct. Distinct from biological sex, it is the "psychological, behavioral, social, and cultural aspects of being male or female" (American Psychological Association, 2018). It is a more complex construct than a simple male/female binary, but as this research is focused on popular gender stereotypes, nonbinary gender categories are outside the scope of this study.

CHAPTER II

LITERATURE REVIEW

Intersectionality

Intersectionality refers to both an academic and a practical approach to examining social problems with multiple axes (e.g., gender and race) at a time. The term came into use in the late 1980s to explain the particular difficulties Black women face in fighting discrimination—or, indeed, proving it—in courts; Crenshaw (1989) described the problem wherein anti-discrimination laws tend to be defined or interpreted around either White women or Black men, two groups who only differ in one way from the most-privileged group, White men. Thus, approaching only one problem at a time still leaves Black women at a disadvantage. The concept of intersectionality has since been used across multiple disciplines, including feminist studies, legal studies, anthropology, and history, as well as in social justice movements (Cho, Crenshaw, & McCall, 2013). Shields (2008) argues that gender must be understood within specific social contexts, such as race, socioeconomic status, and sexual orientation, which differ within genders. Practically speaking, people are not just male or female, nor just Black or White. They can be members of many different groups at once. Furthermore, the intersections of multiple group memberships can have a greater impact on them than the sum of their individual groups.

Thomas, Hacker and Hoxha (2011) interviewed seventeen Black women between the ages of 15 and 22 years about what it means to be African American, what it means to be a woman, and what it means to be an African American woman. A number of their responses to what it means to be African American and what it means to be a woman included gendered racial identity. An even larger portion of all responses included stereotypes of African Americans, women, or African American women. The authors named three specific images of Black women: "Mammy," the nurturing figure; "Jezebel," the highly sexualized woman; and "Sapphire," the "angry, hostile, and emasculating" woman. The young women interviewed showed an awareness of these stereotypical images and society's expectations for them as Black women to fit into these categories. They were notably cognizant of the "Jezebels" or "sex objects" depicted in popular music videos. They also struggled with their own self-esteem and body image as they were compared to the "European" standards of beauty. Additionally, they emphasized a need to be "tough" to overcome the negativity and stereotypes they faced as Black women; this is in contrast to stereotypical "feminine" traits such as submissiveness or passivity. These self-reports suggest emergent stereotypes and identity features of the "African American woman" intersection, separate from the "African American" or "woman" categories individually.

In a study of 41 Philadelphia Black men's thoughts on sexuality and what it means to be a Black man, Bowleg and colleagues (2011) found that their focus groups emphasized three basic things about societal expectations of Black men. Black men are expected to have sex with multiple women, should not be gay or bisexual, that Black men who do have sex with other men are weak and thus not "real" Black men, and that Black

men who have sex with both men and women are "vectors of transmission" for HIV. Implied further in their discussions were the ideas that they were unable to decline sex if their or a woman's sexual desires presented themselves, and that women should be responsible for the use of condoms. Though the focus group facilitators apparently asked, "Is this experience specific to Black men or men in general" at the end of each discussion question, the authors fail to make this distinction in their analysis. In addition, the small sample and discussion group format of the study make it difficult to generalize to a larger population of Black men.

What may offer further support, however, is a 1997 study by Whitehead, in which researchers interviewed over 350 low-income inner-city Black men in and around Baltimore, Maryland and Washington, D.C. Whitehead argues that this and other research support the theory of "fragmented" gendered selves of low-income Black men. That is, the American ideal of masculinity involves economic, sociopolitical, and sexual power, and those men who lack economic and sociopolitical status (e.g., many Black men) may try to make up for this with exaggerated sexual prowess ("need to sexually control and/or conquer females"). If this is the case, or even if enough people believe that such men are especially sexually aggressive, this could form a stereotype of the masculinity of Black men.

Likewise, if Whitehead's theory of masculinity among low socioeconomic groups is true, other marginalized men should be similarly affected. Marín (2003) reviewed HIV risk and prevention in Hispanic communities, and concluded that marginalization, as well as cultural factors, was linked to HIV risk in Hispanic communities. Those who had faced more overt discrimination engaged in riskier sexual behaviors, and many facing

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poverty were likely to be sexually exploited. As in many cultures, Hispanic men and

women may endorse a traditional gender role for men, emphasizing strength and

protection of families (often called "machismo" when referring to Hispanic cultures).

Hispanic men may be expected to prove their masculinity through sex, which may

include having multiple partners and using sexual coercion. They may also prove their

manhood through taking risks and hiding emotions such as fear and sadness.

Meanwhile, women are expected to comply with men's desires (Marín, 2003).

Hispanic men and women may view sexual desire as out of men's control, and some may

even condone sexual violence if women "tease." Many also believe women should not

know as much about sex as men, while both men and women are often uncomfortable

with the topic of sex. However, the author notes that in US studies, those Hispanic men

who express more traditional gender role beliefs tend to be less acculturated than those

who embrace less traditional gender roles; this suggests a difference in "mainstream"

American culture and "traditional Hispanic" culture.

Additionally, young Hispanic girls are more likely to report having boyfriends

two or more years older than them than are non-Hispanic girls (Marín, 2003). These age

differences are often desired, perhaps because of a belief that older boys will be more

responsible; such age differences are common among Hispanic couples. However,

among young Hispanics, these age differences are also associated with having sex and

unwanted sexual advances. Thus, part of the power difference between men and women

is supported by the difference in age.

Asian women are often stereotyped as feminine in a subservient way. Pyke and

Johnson (2003) interviewed daughters of Korean and Vietnamese immigrants to the

United States on their experiences of gender and gendered expectations. They found that the women were aware of a submissive, quiet stereotype of Asian women; for many, they felt pressured to conform to this stereotype when around their families and other Asians and Asian-Americans, though they often reported acting differently around their White peers; others tried to rebel against the stereotype at all times; still others said their White acquaintances, such as teachers, expected them to embody the stereotype, and the women found themselves conforming to it around those people. Asian women may feel pressured to conform to the quiet, submissive stereotype, which could be detrimental to their career aspirations (Pyke & Johnson, 2003).

Hsu and Iwamoto (2014) compared White and Asian American male college students' responses to standardized self-report measures of masculinity (CMNI-46 and CMNI-29) and found that, though there were differences among the various ethnic subgroups of Asian Americans, they scored higher overall on subscales of Heterosexual Presentation, Power Over Women, and Primacy of Work. These differences in how men of different races see themselves may be linked to differences in stereotyping.

Gender and Race

Leadership traits tend to be associated with masculinity, but not with femininity. Furthermore, women and racial minorities are at risk for stereotype threat, which can reduce their performance if they feel they are being judged as representative of their minority groups (Sanchez-Hucles & Davis, 2010). Women of color who face discrimination in the workplace may find it difficult to separate the effects of racism and sexism. Therefore, it may be difficult to react appropriately to address the specific

problem, leaving women of color particularly disadvantaged (Sanchez-Hucles & Davis, 2010).

Hoffman and Hurst (1990) found that people assign certain personality traits to people based on whether they are caretakers or workers (e.g., women or men). These stereotypes may serve to rationalize a sexual division of labor. However, if men and women differ in their likelihood to work from one racial group to another, it is possible that their stereotyped personality traits may also differ within genders.

Damaske (2011) investigated the differences in career expectations of women of different races and classes. She interviewed 80 women about how they had developed their work expectations during their transitions into adulthood. Most of the Black, White, Asian, and Latina women interviewed from middle-class families of origin expected to work continuously throughout their adult lives. Of those from working-class families, White and Latina women were divided almost evenly in expectations to work continuously or not. Black and Asian women from working-class families, however, all expected to work continuously.

These trends seem to be partly reflected in overall United States employment data. According to the U.S. Bureau of Labor Statistics (2017b), 56.8 percent of women age 16 and older were employed in 2016. Men in all ethnic groups were more likely than the women in those groups to be employed, but Black women were almost as highly employed as Black men (54.8% vs. 58.3%, respectively), making Black women the most likely to be employed of all women (U.S. Bureau of Labor Statistics, 2017a); this makes sense based on Damaske's (2011) findings that both the middle-class and working-class Black women she interviewed expected to work continuously in adulthood. However,

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Black men were less likely to be employed than other men (U.S. Bureau of Labor Statistics, 2017a). Meanwhile, the largest gender gap was among Hispanics (52.3% of women vs. 71.9% of men), and Hispanic men were the most likely of all men to be employed. The median weekly wage of full-time employed men was greater than that of women ($915 vs. $749, respectively). Asian women earned the most of all women (median $902 per week), while Hispanic women earned the least (median $586 per week). Asian men also earned the most of all men (median $1,151 per week), while Hispanic men earned the least (median $663 per week). However, it is important to note that Asian Americans are largely concentrated in high cost-of-living states such as California, Hawaii, and New York, and that many statistics on Asian Americans as a whole gloss over the real income disparities between Asian subgroups and discrimination toward them all (Lai, 2013).

There are many possible contributing factors to all of these differences in employment rates and income, such as the age at which various people enter the workforce (perhaps some ethnic and gender groups are less likely than others to get jobs as teenagers), responsibilities toward their families (staying home with children or financially supporting the family), expectations of their families (such as whether or not to go to college), and type of employment sought (e.g., women make up more than half of education and health services workers; U.S. Bureau of Labor Statistics, 2017b). Nonetheless, many of the differences in employment rates and income are striking, and are likely to be noticed by the general population.

Perceptions of Others

Social judgments often differ between a whole targeted group and a subgroup (e.g., Kang & Bodenhausen, 2015; Kang, Chasteen, Cadieux, Cary, & Syeda, 2014). In a study in which participants were asked to generate lists of stereotypes for ten different racial/ethnic and gender groups, certain unique stereotypes emerged at intersections that could not be explained from simply combining general racial stereotypes with general gender stereotypes (Ghavami & Peplau, 2013). Furthermore, general stereotypes of women conformed most closely to stereotypes of White women, and less so to racial minority women, particularly Black women.

For instance, "Blacks" as a category were labeled "ghetto/unrefined," "criminals," and "athletic," among other attributes. However, "Black Men" as a category were labeled "quick to anger," "rapper," and "hypersexual," among other attributes, despite the fact that those labels were not listed for either "Blacks," or "Men" (nor were they listed for "Black Women" in this case). "Black Women" as a category were described with words and phrases such as "big butt," "overweight," "hair weaves," "assertive," "promiscuous," "not feminine," "aggressive," and "like to eat fried chicken," despite the fact that these words and phrases did not appear in the lists for "Blacks" or "Women." (Interestingly, despite the fact that it was not included in the "Blacks," "Men," *or* "Women" categories, "dark-skinned" appeared in both the "Black Men" and "Black Women" categories.)

"Latinos" overall were described with words like, "poor," "have many of [*sic*] children," "illegal immigrants," "day laborers," "hard workers," etc. "Latino Men" were given unique attributes such as "jealous," "violent," and "drunks" that were not listed

under "Latinos" or "Men." "Latina Women" were given phrases like "feisty," "curvy," "good cooks," "early motherhood," "sexy," and "maids," which were not phrases found under "Latinos" or "Women." (Interestingly, both "Latino Men" and "Latina Women" were also described as "promiscuous," despite the fact that it was not listed under the main category "Latinos" or "Men" or "Women.")

"Whites" were described with attributes such as "high status," "rich," "intelligent," "arrogant," "privileged," "racist," "ignorant," "red-neck," and "blue eyes." "White Men" had the unique attributes of "assertive," "successful," and "educated," none of which were listed under "Whites" or "Men," while "White Women" were described as "ditsy" and "sexually liberal," none of which were listed under "Whites" or "Women." Here it is interesting to note the valence of similar ideas as they apply to different groups of people. While Latinos of both genders and Black women were described as "promiscuous," and Black men were described as "hypersexual," all of which have negative connotations, White women had the subtle distinction of being "sexually liberal," which sounds much less negative.

Finally, "Asian Americans" were described with words and phrases such as "intelligent," "bad drivers," "good at math," "nerdy," "short," "shy," "skinny," "small eyes," "quiet," "lack social skills," and "wear glasses." "Asian American Men" were given the unique attributes of "small build," "speak English with accent," "small penis," and "effeminate," none of which fell under "Asian American" or "Men." "Asian American Women" were described as "family-oriented," "over-achievers," and "foreign," none of which were listed under "Asian American" or "Women." (Interestingly, both "Asian American Men" and "Asian American Women" were

described as "studious," despite the fact that it was not listed under "Asian American" or "Men" or "Women.")

Wilkins, Chan and Kaiser (2011) asked participants to rate each of six racial and gender groups (Asian, White, and Black men and women) on masculinity and femininity. Asians were rated as most feminine (least masculine), Blacks the least feminine (most masculine), and Whites were in the middle. In a follow-up study, the researchers asked participants to rate Asian faces on "phenotypic prototypicality" (i.e., how "Asian" they looked), masculinity and femininity, and attractiveness. Asian male faces rated more "Asian" were rated as less masculine and less attractive. Asian phenotypic prototypicality did not predict masculinity, femininity, or attractiveness in Asian female faces. However, faces rated as more feminine were also rated more attractive, and more masculine were rated less attractive.

Johnson, Freeman and Pauker (2012) conducted a series of studies in which they used computer-generated faces on a continuum from Black to White to Asian and asked participants to classify the faces by gender. They then measured mouse trajectory (as an indicator of whether the participant saw the gender and racial categories of a single face as competing or not) and response time. Their results were similar to those of the aforementioned explicit study by Wilkins et al. (2011). They found that mouse trajectories were most direct for female Asian faces and least for female Black faces, but also most direct for male Black faces and least for male Asian faces. For female faces, reaction time decreased when moving from Black faces to Asian faces, and for male faces, reaction time decreased when moving from Asian to Black faces. In other words, Asian faces overall were associated more strongly with the "female" category, and Black

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faces overall were associated more strongly with the "male" category, while White faces were in the middle.

Goff, Thomas and Jackson (2008) demonstrated differences in perception of Black and White men and women. Participants (mostly White) were shown Black and White male and female faces and either asked to indicate the race of the face and then to rate how stereotypic each face was for its race, asked to judge whether each face was male or female and then to rate the masculinity and femininity of it, or asked to judge the attractiveness and desirability of the faces.

They found that not only were male faces rated as more masculine than female faces, but Black faces were rated more masculine than White faces (Goff et al., 2008). Furthermore, male faces were rated more racially stereotypical than were female faces, and Black faces were rated more stereotypically Black than White faces were rated stereotypically White. Participants were more accurate in classifying male faces as male than female faces as female, and in classifying White faces by gender than in classifying Black faces by gender. In fact, participants were less accurate in classifying Black female faces as female than in classifying White female faces as female or Black male faces as male. When rating attractiveness, White women were rated more attractive than White men, while Black women were rated less attractive than Black men. White women were rated more attractive than Black women, while White men were rated marginally, but not statistically significantly, less attractive than Black men. The authors use these findings to support the idea that race/gender intersections, rather than race or gender separately, are "basic" human categories with emergent properties.

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Need for Further Research

It is clear that further research is needed to explore the complexities of commonly held stereotypes in the context of intersectionality. A more comprehensive understanding of such groups that does not focus merely on one aspect of a person's identity at a time is more likely to yield useful insights into real-world instances of stereotyping, prejudice, and discrimination. Furthermore, few studies have focused on more than one or two racial/ethnic groups at a time while exploring intersectionality issues, and even fewer have done so using measures of implicit bias. The literature would benefit from more studies that include multiple comparisons of automatic responses between races and genders. Finally, even when studies have covered multiple racial groups in assessing perceived masculinity and femininity (e.g., Wilkins et al., 2011; Goff et al., 2008; Johnson et al., 2012), they assume that masculinity and femininity are straight continua rather than complex sets of traits that can differ across contexts.

While studies such as Blair and Banaji's 1996 investigation of the automaticity of gender stereotypes provide important information about such stereotypes, the simple dichotomy of gender is insufficient to apply to diverse groups of people. Rather, psychologists must realize that all women may not be equally stereotyped as "sensitive," and not all men may be equally associated with "briefcase." Instead, Black women may be more associated with words like "aggressive," "arrogant," or "hostile" than "sensitive," even though that word is considered more masculine than feminine, because Black women are often stereotyped as being strong, emasculating, and even masculine (e.g., Thomas et al., 2011; Goff et al., 2008).

Asian women, on the other hand, may not be as strongly associated with the word "bossy," even though it is considered a feminine trait, because of the stereotype of submissive Asian women (Pyke & Johnson, 2003). However, because Asian American women tend to make more money than other working women in the US (U.S. Bureau of Labor Statistics, 2017a), and may be seen as part of the "model minority" (e.g., Chao, Chiu, Chan, Mendoza-Denton, & Kwok, 2013), they may be more strongly associated with words like "engineer" and "briefcase" than women in general, despite their otherwise feminine stereotypes.

Furthermore, Black men are less likely to be employed in the US than are other men, and frequently have lower-paying jobs than White and Asian men (U.S. Bureau of Labor Statistics, 2017a), although some research suggests that Black men are considered more masculine than White or Asian men (Wong, Horn, & Chen, 2013). Similarly, while Hispanic men are the most likely of all men to be employed, on average they have lower earnings than White or Asian men (U.S. Bureau of Labor Statistics, 2017a). Thus, while "engineer" or "briefcase" may be more associated with men than women, they may not apply to all men in the same way, even if those men are generally considered very masculine. These differences present a problem for general measures of masculine and feminine stereotypes. Research is needed to investigate the nuances of gender and racial groups in order to determine more useful perceptions of masculinity and femininity as they apply to diverse groups.

For these reasons, in the present study, it was suspected that agreement between pairs of stimuli would differ within genders according to race. For instance, since Black women have been considered less feminine than White women in previous studies (e.g.,

Goff et al., 2008), are almost as likely as their male counterparts to be employed (U.S. Bureau of Labor Statistics, 2017a), and may be likely to exhibit "tough" traits that contradict more traditional ideas of femininity (Thomas et al., 2011), and participants may be less likely to match some feminine words with a Black female face and more likely to match some masculine words with it. Additionally, "lingerie," a stereotypically feminine word that is also associated with sexuality, may be more strongly related to Black female faces than some other feminine words (e.g., "sensitive") because of the stereotype of the "Jezebel," or exaggeratedly sexual Black woman (Thomas et al., 2011). In contrast, Black men have been considered more masculine than White or Asian men (Wong et al., 2013; Goff et al., 2008; Johnson et al., 2012), and therefore an image of a Black male face may elicit more agreement when paired with certain masculine words than would a White or Asian male face. However, certain stereotypically masculine words, such as "briefcase," may be associated more with White and Asian male faces than with Black or Hispanic male faces because of differences in employment rates and income (U.S. Bureau of Labor Statistics, 2017a). Furthermore, different masculinity norms between White and Asian American men, as noted in Hsu and Iwamoto (2014), could affect responses.

Thus, to test the hypothesis that gender stereotypes differ across racial groups, the methodology must allow more nuanced stimuli and more flexibility in subject responses. Target categories in this study vary by gender and among four different racial/ethnic groups, and were paired with traditionally feminine-stereotyped, masculine-stereotyped, and gender-neutral words to establish specific stereotype profiles for each of the eight categories.

CHAPTER III

METHOD

Participants

Participants in this study were 169 undergraduate students enrolled in general psychology classes at West Texas A&M University during the Fall 2017 Semester and the Spring 2018 Semester. They were given partial class credit for participation in research. Of the 169 students who completed the study, 11 were excluded due to an early error in the practice trials; one was excluded for being a graduate student; three subjects' data were lost to faulty equipment; and one subject's incomplete data were excluded due to a program crash mid-study. The remaining 153 participants' data were used in analyses. Forty-six (30%) participants indicated that they were male; one participant declined to answer; one participant responded with "gender is a construct"; the remaining 105 (69%) indicated that they were female. Participant race/ethnicity is listed in Table 1. Participant ages ranged from 18 to 32 years of age ($M = 19.47$, $SD = 2.05$), while one participant declined to give an age; see Table 2. Seventy (46%) participants were freshmen, fifty-seven (37%) were sophomores, twenty-two (14%) were juniors, and four (3%) were seniors. Participant majors are listed in Table 3. Sixteen (10%) participants were left-handed, two declined to answer, and the rest (88%) were right-handed.

Table 1

Participant Race/Ethnicity

Race/Ethnicity	# Participants	Percent
White/Caucasian	68	44.4%
Hispanic/Latina/Latino/Mexican/Mexican-American/Mixed Hispanic/Spanish	43	28.1%
White/Caucasian Hispanic	18	11.8%
Black/African American/African	6	3.9%
Asian	2	1.3%
Black and White	2	1.3%
Black Hispanic/Mexican-American	2	1.3%
White/Native American	2	1.3%
American Indian	1	0.7%
Middle Eastern	1	0.7%
Hawaiian, Filipino, Japanese, Portuguese	1	0.7%
Samoan, German, Tokelauean	1	0.7%
Human	1	0.7%
Declined to Answer	5	3.3%

Table 2

Participant Age

Age	# Participants	% Participants
18	45	29.4%
19	59	38.6%
20	27	17.6%
21	10	6.5%
22	2	1.3%
23	2	1.3%
24	1	0.7%
25	2	1.3%
26	2	1.3%
31	1	0.7%
32	1	0.7%
Declined to answer	1	0.7%

Table 3

Participant Majors

Major	# Participants	% Participants
Nursing	40	26.1%
Biology	17	11.1%
Sports and Exercise Science	16	10.5%
Criminal Justice	11	7.2%
Psychology	9	5.9%
Biochemistry	7	4.6%
Health Sciences	7	4.6%
Social Work	6	3.9%
Animal Science Pre-Veterinary	5	3.3%
Education	5	3.3%
Business	2	1.3%
Communication Disorders	2	1.3%
History	2	1.3%
Pre-Med	2	1.3%
Art	1	0.7%
Computer Information Systems	1	0.7%
Corporate Communications	1	0.7%
Electrical Engineering	1	0.7%
Equine Industry and Business	1	0.7%
Mathematics	1	0.7%
Mechanical Engineering	1	0.7%
Media Broadcast	1	0.7%

Major	# Participants	% Participants
Music Technology	1	0.7%
Music Therapy (Keyboard Emphasis)	1	0.7%
Pre-Optometry	1	0.7%
Speech Language Pathology	1	0.7%
Sports Psychology	1	0.7%
Undecided	7	4.6%
Declined to Answer	2	1.3%

Materials

The task involved showing participants two sets of stimuli. The first was a set of eight photos of faces, taken from the Chicago Face Database (Ma, Correll, & Wittenbrink, 2015). The faces were chosen for their database ratings of racial prototypicality and either masculinity or femininity, as well as the proportion of raters who identified their race and gender, so that each of the eight faces (Asian male, Asian female, Black male, Black female, Latino male, Latina female, White male, and White female) was considered a prototypical member of that gender × race category. See the top of Figure 1 for an example. Database raters' estimates of ages for these faces ranged from 24.1 years to 35.1 years, with an average of 28.7 years. One additional picture of a man rated highly on "multiracial" identity was used for practice trials only.

The second set of stimuli was a list of words compiled from a pilot study, in which a group of 23 undergraduate psychology students were given a list of 102 words based on Blair and Banaji's 1996 list (supplemented with a few words generated by the author) and asked to indicate whether each word was stereotypically feminine, stereotypically masculine, or neither. At the end of the pilot study, participants were asked to give their academic major, age, academic classification, gender, and race/ethnicity. Two participants' data were eliminated because they were graduate students, and one participant's data were eliminated because multiple answers were given for single words. The remaining 20 pilot participants' data were used to generate a list of 16 words from each of the three categories (feminine, masculine, or neutral), for a total of 48 words most commonly associated with femininity, masculinity, or neither.

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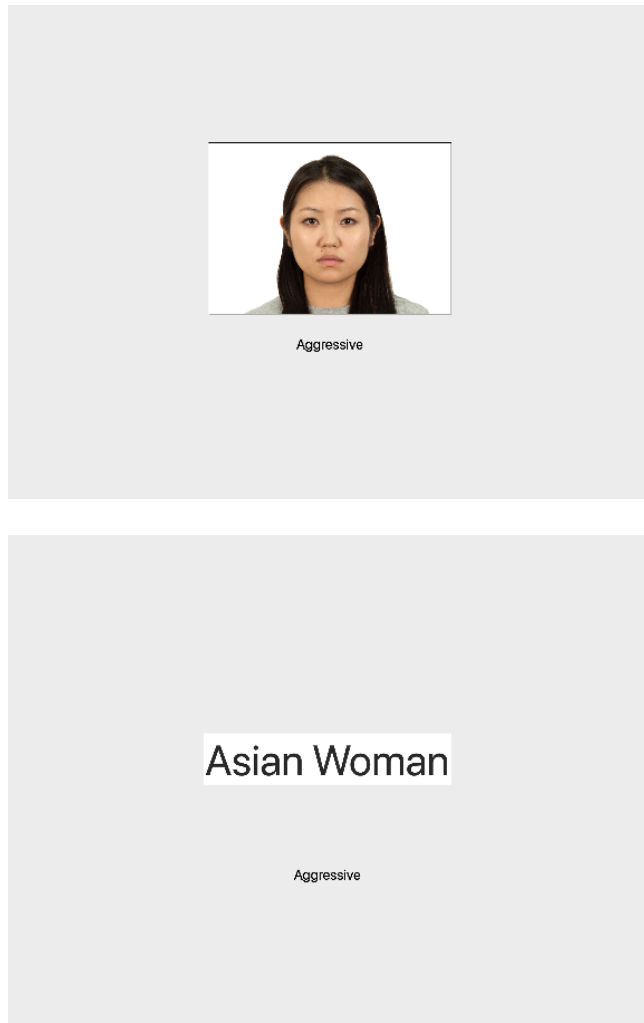
Figure 1. Two Trial-Type Conditions. The top example shows a photo of an Asian woman paired with the word "Aggressive," while the bottom shows the corresponding phrase paired with the same word.

Additionally, ten words that were least associated with a specific gender were used for practice trials only.

Procedure

Participants received instructions telling them that they were to complete a "word classification task" in which they were shown words on a computer screen and asked to categorize the words as quickly as they could by pressing appropriate keys on the keyboard.

Practice sets. Participants first completed two sets of practice trials in order to establish their understanding of the task. For all participants, the words "yes" and "no" would appear in random order for a total of ten trials, and participants were asked to press the "E" key with their left index finger for "yes" and the "I" key with their right index finger for "no," as quickly as possible, to familiarize participants with concepts associated with each key. If participants failed to hit the correct key for the stimulus, the word would turn red until the participant hit the correct key and the next word appeared. The second practice set depended on which of two conditions a participant would receive for the main task. Each participant completed ten trials with either a photo of a man, specific to the practice trials only, or the word "Man," mirroring the main task they would be asked to do. In these trials and the main task, participants were told there were no right or wrong answers, and were allowed to hit either the "E" or the "I" key for any word.

Main task. Each participant was assigned to one of two conditions, or trial types, based on a pseudorandom number generator seeded with the participant numbers. For half of the participants, a face would appear at the top of the computer screen, and each

of the 48 words would flash onto the lower part of the screen, one at a time (see the top of

Figure 1). Participants would press the "E" key with their left index finger to indicate

that a word "goes with" the face at the top of the screen, or the "I" key with their right

index finger to indicate that the word does NOT "go with" the face. Selected response

key and response time (RT) in nanoseconds were recorded for each trial. Once the

participant responded, the word would disappear from the screen, followed by an

orienting cross that faded for one second, 500 milliseconds of blank space, and then

another word. Once the participant had responded to each of the 48 words for one face,

the same task was repeated for each of the other seven faces. The order of the words and

the order of the faces were randomized for each participant.

For the other half of participants, the procedure was the same except that a phrase

(i.e., "Asian man," "Asian woman," "Black man," "Black woman," "Latino man,"

"Latina woman," "White man," "White woman") would appear in place of each face (see

the bottom of Figure 1). At the end of the task, participants were asked to give their

gender, race/ethnicity, age, academic major, academic classification, and the hand with

which they write. All answers were open response except for academic classification and

writing hand, which were multiple choice from drop-down menus. Participants also had

the option to skip any of these questions.

Design

Responses to each pair of stimuli were analyzed for agreement (i.e., what

proportion of participants answered "yes," the stimuli go together, instead of "no," they

do not) to determine whether differing patterns (stereotype profiles) emerged as a result

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of the people represented (e.g., White women, Black women, Asian men, Latino men, etc.).

Response times (RT) were first converted from nanoseconds to milliseconds, and individual trial response times were removed if a) they were less than 150 milliseconds; b) they were more than three standard deviations above each participant's mean; or c) they were above 4000 milliseconds. This was to eliminate trials in which participants were either distracted or responding without first reading the stimuli, as is common practice (e.g., Blair & Banaji, 1996; Greenwald et al., 1998).

Proportion of "yes" responses out of total trials (after removing outliers) for each word, and for each word type (masculine, feminine, and neutral) was analyzed using the binomial test of proportions in which confidence limits for a sample proportion were created using the Wilson score interval (Ausvet, 2018). Empirical proportions were examined to determine if they fell within or outside the confidence interval (CI) for .50, the expected value if responses were by chance. If there were not strong associations or dissociations, responses would not be expected to vary from chance responding. Since occasionally the number of valid trials varied slightly (missing or eliminated data), CIs were based on the smallest sample for each word or phrase to keep the tests as conservative as possible. For example, for the word "Aggressive" in the photo condition, the numbers of valid responses for each of the eight gender × race categories were as follows: 74, 72, 72, 74, 74, 75, 71, 73; therefore, the 95% CI was set around 71, the smallest sample.

CHAPTER IV

RESULTS

The primary research hypotheses were that participants' responses would not

follow a strict gender stereotypical pattern but would differ across race to reveal unique

stereotype profiles for each gender × race group. The 95% CI for agreement described in

the previous chapter indicates how commonly participants think a pair of stimuli (as

demonstrated in Figure 1) go together. Agreements above the 95% CI indicate that

participants were more likely than chance to think the stimuli go together; agreements

below the 95% CI indicate that participants were less likely than chance to think the

stimuli go together. Agreements within the 95% CI cannot be distinguished from chance

responding.

Asian Woman

As illustrated on the right side of Table 4, the Asian Woman category largely

went with feminine-stereotyped words, particularly in the phrase condition. However,

response agreement more often fell within the 95% CI, indicating neither clear

association nor dissociation, in the photo condition (left side of Table 4). No gender ×

race group went with the word "Nagging" in either condition. However, Asian Woman

Table 4

Participant Responses to Whether Feminine-Stereotyped Words Go with Female Stimuli

	Photo					Phrase			
	Asian Woman	Black Woman	Latina Woman	White Woman		Asian Woman	Black Woman	Latina Woman	White Woman
Bossy	-	-	Yes	Yes	Bossy	-	Yes	Yes	Yes
Gossipy	-	-	Yes	Yes	Gossipy	-	Yes	Yes	Yes
Nagging	No	No	No	No	Nagging	No	No	No	No
Sensitive	Yes	-	-	-	Sensitive	Yes	Yes	Yes	Yes
Cosmetics	-	Yes	-	-	Cosmetics	Yes	Yes	Yes	Yes
Earrings	-	-	No	-	Earrings	Yes	Yes	Yes	Yes
Pink	-	No	No	-	Pink	Yes	-	-	Yes
Ballet	-	No	No	No	Ballet	Yes	-	-	Yes
Housework	-	No	-	-	Housework	Yes	Yes	Yes	Yes
Laundry	-	No	-	-	Laundry	-	-	Yes	Yes
Nurse	Yes	Yes	-	Yes	Nurse	Yes	Yes	Yes	Yes
Secretary	Yes	-	-	-	Secretary	Yes	Yes	Yes	Yes
Flowers	-	-	No	-	Flowers	Yes	Yes	Yes	Yes
Lingerie	No	No	No	-	Lingerie	-	Yes	Yes	Yes
Doll	No	No	No	No	Doll	Yes	-	-	Yes
Skirt	-	-	-	-	Skirt	Yes	Yes	Yes	Yes

Note: "Yes" indicates that the proportion of participants who responded that the word goes with the person was above the 95% confidence interval (CI). "No" indicates that the proportion of participants who responded that the word goes with the person was below the 95% CI. Otherwise, responses were within the 95% CI.

Table 5
Participant Responses to Whether Masculine-Stereotyped Words Go with Female Stimuli

	Photo					Phrase			
	Asian Woman	Black Woman	Latina Woman	White Woman		Asian Woman	Black Woman	Latina Woman	White Woman
Aggressive	No	No	-	No	Aggressive	No	-	Yes	-
Arrogant	No	No	-	No	Arrogant	No	-	-	-
Hostile	No	No	-	No	Hostile	No	-	-	No
Reckless	No	No	No	No	Reckless	No	-	-	No
Bald	No	No	No	No	Bald	No	No	No	No
Hairy	No	No	No	No	Hairy	No	No	No	No
Tall	No	Yes	No	No	Tall	No	Yes	-	-
Athletic	No	Yes	No	-	Athletic	-	Yes	Yes	Yes
Hunting	No	No	No	No	Hunting	No	No	No	No
Wrestling	No	No	No	No	Wrestling	No	No	No	No
Engineer	No	No	No	No	Engineer	-	-	-	-
Mechanic	No	No	No	No	Mechanic	No	No	No	No
Veteran	No	No	No	No	Veteran	No	-	-	-
Briefcase	No	No	No	No	Briefcase	No	No	No	-
Cigars	No	No	No	No	Cigars	No	No	No	No
Trousers	No	No	No	No	Trousers	No	No	No	No

Note: "Yes" indicates that the proportion of participants who responded that the word goes with the person was above the 95% confidence interval (CI). "No" indicates that the proportion of participants who responded that the word goes with the person was below the 95% CI. Otherwise, responses were within the 95% CI.

also did not go with the words "Lingerie" or "Doll" in the photo group, although it did go with "Doll" in the phrase group. Asian Woman followed a very clear gender pattern in Table 5, where participants indicated that it did NOT go with any masculine-stereotyped words in the photo condition (left side of table), and merely fell within the 95% CI for the words "Athletic" and "Engineer" in the phrase condition (right side of table).

Black Woman

The Black Woman category diverged more from feminine-stereotyped words, particularly in the photo condition (left side of Table 4). Participants indicated that it did NOT go with the words "Pink," "Ballet," "Housework," "Laundry," "Lingerie," or "Doll" (in addition to the word "Nagging") in the photo condition. However, responses reversed for "Housework" and "Lingerie" in the phrase condition (right side of Table 4). Additionally, Black Woman was associated with the masculine-stereotyped words "Tall" and "Athletic" in both conditions, as shown in Table 5.

Latina Woman

The Latina Woman category also diverged from feminine-stereotyped words in the photo condition (Table 4 left side), in which participants indicated that it did NOT go with the words "Earrings," "Pink," "Ballet," "Flowers," "Lingerie," or "Doll." However, responses were reversed in the phrase condition for the words "Earrings," "Flowers," and "Lingerie." Latina Woman largely followed gender expectations for masculine-stereotyped words, but participants indicated that it went with the words "Aggressive" and "Athletic" in the phrase condition (Table 5 right side).

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White Woman

The White Woman category largely followed gender expectations. Although it did NOT go with "Ballet" or "Doll" in the photo condition (Table 4 left side), it went with every feminine-stereotyped word (except "Nagging") in the phrase condition (Table 4 right side). White Woman also followed a clear gender pattern for masculine-stereotyped words, particularly in the photo condition (Table 5 left side), although it DID go with the word "Athletic" in the phrase condition (Table 5 right side).

Asian Man

The Asian Man category showed a clear dissociation from feminine-stereotyped words in both conditions, as shown in Table 6. However, participants also did not associate it with any masculine-stereotyped words except for "Engineer," as shown in Table 7. In fact, they said it did NOT go with the words "Hostile," "Hairy," "Hunting," or "Cigars" in either condition.

Black Man

The Black Man category also showed a clear gender pattern in NOT going with feminine-stereotyped words, as shown in Table 6. However, it showed more mixed results for masculine-stereotyped words. In the photo condition, it did NOT go with the words "Arrogant," "Hostile," "Bald," "Hairy," "Hunting," "Briefcase," "Cigars," or "Trousers" (Table 7 left side). Responses to the word "Trousers" was reversed in the phrase condition (right side). In both conditions, it was associated with the word "Athletic."

Table 6

Participant Responses to Whether Feminine-Stereotyped Words Go with Male Stimuli

	Photo					Phrase			
	Asian Man	Black Man	Latino Man	White Man		Asian Man	Black Man	Latino Man	White Man
Bossy	No	No	-	-	Bossy	No	No	No	Yes
Gossipy	No	No	No	No	Gossipy	No	No	No	No
Nagging	No	No	No	No	Nagging	No	No	No	No
Sensitive	No	-	No	No	Sensitive	-	-	-	-
Cosmetics	No	No	No	No	Cosmetics	No	No	No	No
Earrings	No	No	No	No	Earrings	No	No	No	No
Pink	No	No	No	No	Pink	No	No	No	No
Ballet	No	No	No	No	Ballet	No	No	No	No
Housework	No	No	No	No	Housework	No	No	No	No
Laundry	No	No	No	No	Laundry	No	No	No	No
Nurse	No	No	No	No	Nurse	No	-	No	-
Secretary	No	No	No	No	Secretary	No	No	No	No
Flowers	No	No	No	No	Flowers	No	No	No	No
Lingerie	No	No	No	No	Lingerie	No	No	No	No
Doll	No	No	No	No	Doll	No	No	No	No
Skirt	No	No	No	No	Skirt	No	No	No	No

Note: "Yes" indicates that the proportion of participants who responded that the word goes with the person was above the 95% confidence interval (CI). "No" indicates that the proportion of participants who responded that the word goes with the person was below the 95% CI. Otherwise, responses were within the 95% CI.

Table 7
Participant Responses to Whether Masculine-Stereotyped Words Go with Male Stimuli

	Photo					Phrase			
	Asian Man	Black Man	Latino Man	White Man		Asian Man	Black Man	Latino Man	White Man
Aggressive	No	-	Yes	-	Aggressive	-	Yes	Yes	Yes
Arrogant	No	No	-	-	Arrogant	-	-	-	Yes
Hostile	No	No	-	-	Hostile	No	-	-	-
Reckless	No	-	-	-	Reckless	No	-	-	Yes
Bald	No	No	No	No	Bald	-	-	-	Yes
Hairy	No	No	No	-	Hairy	No	-	Yes	Yes
Tall	-	-	No	Yes	Tall	No	Yes	-	Yes
Athletic	-	Yes	Yes	-	Athletic	-	Yes	Yes	Yes
Hunting	No	No	-	-	Hunting	No	-	-	Yes
Wrestling	No	-	-	-	Wrestling	No	Yes	Yes	Yes
Engineer	Yes	-	-	Yes	Engineer	Yes	Yes	Yes	Yes
Mechanic	-	-	Yes	Yes	Mechanic	-	Yes	Yes	Yes
Veteran	No	-	-	-	Veteran	-	Yes	Yes	Yes
Briefcase	-	No	No	-	Briefcase	-	-	-	Yes
Cigars	No	No	No	-	Cigars	No	-	-	Yes
Trousers	-	No	-	-	Trousers	-	Yes	-	Yes

Note: "Yes" indicates that the proportion of participants who responded that the word goes with the person was above the 95% confidence interval (CI). "No" indicates that the proportion of participants who responded that the word goes with the person was below the 95% CI. Otherwise, responses were within the 95% CI.

Latino Man

The Latino Man category was clearly dissociated from feminine-stereotyped words, as shown in Table 6. For masculine-stereotyped words, participants indicated that it went with the words "Aggressive," "Athletic," and "Mechanic" in both conditions (Table 7). However, it did NOT go with the words "Bald," "Hairy," "Tall," "Briefcase," or "Cigars" in the photo condition. Results were reversed for the word "Hairy" in the phrase condition.

White Man

Similar to results for White Woman, the White Man category closely fit gender expectations. However, in the phrase condition, participants indicated that it went with the feminine-stereotyped word "Bossy" (Table 6 right side). In the photo condition, White Man did NOT go with the masculine-stereotyped word "Bald" (Table 7 left side). However, in the phrase condition, it went with every masculine-stereotyped word except for "Hostile," for which it fell inside the 95% CI (right side).

Overall Word Types

Feminine-stereotyped words. For all feminine words combined in the photo condition, the 95% CI for response agreement was .4719 to .5290 for 1173 trials. Agreement was below the 95% CI for all four male photos and the Latina Woman photo, indicating a majority of participant responses were that these words did NOT "go with" the people in these photos.

For all feminine words combined in the phrase condition, the 95% CI for proportion of "yes" responses was .4717 to .5283 for 1192 trials. Agreement was above the 95% CI for all four female phrases, and below the 95% CI for all four male phrases.

Masculine-stereotyped words. For all masculine words combined in the photo condition, the 95% CI for proportion of "yes" responses was .4713 to .5287 for 1162 trials. Agreement was below the 95% CI for all photos except the White Man photo, which was within the 95% CI.

For all masculine words combined in the phrase condition, the 95% CI for proportion of "yes" responses was .4717 to .5283 for 1192 trials. Agreement was above the 95% CI for the Black Man, Latino Man, and White Man phrases, and below the 95% CI for Asian Man and all four female phrases.

Gender-neutral words. As a methodological check for response variability, gender-neutral words were examined and placed in Tables 8 and 9. For most words, response agreement was below the 95% CI, indicating that they did not go with the faces or phrases. The rest of the responses were typically within the 95% CI, indicating no clear association or dissociation. The major exceptions were responses to the word "Enjoyment," which participants said DID go with all four female stimuli in the phrase condition, as shown on the right side of Table 8.

For all gender-neutral words combined in the photo condition, the 95% CI for proportion of "yes" responses was .4715 to .5285 for 1178 trials. Agreement was below the 95% CI for all eight photos.

For all gender-neutral words combined in the phrase condition, the 95% CI was .4716 to .5284 for 1190 trials. Agreement was below the 95% CI for all eight phrases.

Response Time Differences and Other Considerations

Additional analyses were run on response times (RT) to determine whether certain variables could have influenced results. After removing outliers, as described in

Table 8
Participant Responses to Whether Gender-Neutral Words Go with Female Stimuli

	Photo					Phrase			
	Asian Woman	Black Woman	Latina Woman	White Woman		Asian Woman	Black Woman	Latina Woman	White Woman
Blind	No	No	No	No	Blind	No	No	No	No
Enjoyment	-	-	No	-	Enjoyment	Yes	Yes	Yes	Yes
Lice	No	No	No	No	Lice	No	No	No	No
Birthday	No	No	No	No	Birthday	-	-	-	-
Custom	No	No	No	No	Custom	No	No	No	No
Sleep	No	No	No	No	Sleep	No	-	-	-
Nightmare	No	No	No	No	Nightmare	No	No	No	No
Ambulance	No	No	No	No	Ambulance	No	No	No	No
Cyclone	No	No	No	No	Cyclone	No	No	No	No
Pencil	No	No	No	No	Pencil	No	No	No	No
Waste	No	No	No	No	Waste	No	No	No	No
Window	No	No	No	No	Window	No	No	No	No
Mildew	No	No	No	No	Mildew	No	No	No	No
Nectar	No	No	No	No	Nectar	No	No	No	No
Thorn	No	No	No	No	Thorn	No	No	No	No
Tree	No	No	No	No	Tree	No	No	No	No

Note: "Yes" indicates that the proportion of participants who responded that the word goes with the person was above the 95% confidence interval (CI). "No" indicates that the proportion of participants who responded that the word goes with the person was below the 95% CI. Otherwise, responses were within the 95% CI.

Table 9

Participant Responses to Whether Gender-Neutral Words Go with Male Stimuli

	Photo					Phrase			
	Asian Man	Black Man	Latino Man	White Man		Asian Man	Black Man	Latino Man	White Man
Blind	No	No	No	No	Blind	No	No	No	No
Enjoyment	No	No	No	No	Enjoyment	-	-	-	-
Lice	No	No	No	No	Lice	No	No	No	No
Birthday	No	No	No	No	Birthday	No	-	-	-
Custom	No	No	No	No	Custom	No	No	No	No
Sleep	No	No	-	No	Sleep	No	-	-	-
Nightmare	No	No	No	No	Nightmare	No	No	No	No
Ambulance	No	No	No	No	Ambulance	No	No	No	-
Cyclone	No	No	No	No	Cyclone	No	No	No	No
Pencil	No	No	No	No	Pencil	No	No	No	No
Waste	No	No	No	No	Waste	No	No	No	No
Window	No	No	No	No	Window	No	No	No	No
Mildew	No	No	No	No	Mildew	No	No	No	No
Nectar	No	No	No	No	Nectar	No	No	No	No
Thorn	No	No	No	No	Thorn	No	No	No	No
Tree	No	No	No	No	Tree	No	No	No	No

Note: "Yes" indicates that the proportion of participants who responded that the word goes with the person was above the 95% confidence interval (CI). "No" indicates that the proportion of participants who responded that the word goes with the person was below the 95% CI. Otherwise, responses were within the 95% CI.

the Method section, response times were log transformed to normalize the data, as is common (e.g., Blair & Banaji, 1996; Greenwald et al., 1998).

Condition type effects. A between-subjects ANOVA for all data showed a significant difference in RT by condition type, such that responses to photos ($M = 6.645$) were faster than responses to phrases ($M = 6.672$), $p < .001$, partial eta squared = .003.

Participant handedness. Two within-subjects ANOVAs were run, one on left-handed participants ($n = 16$), and the other on right-handed participants ($n = 135$), to determine whether RT differed by which response key participants pressed. On average, both left-handed and right-handed participants were faster to respond "no" (with their right index finger) than "yes" (with their left index finger) for all trials. For left-handed participants, "yes" $M = 6.833$, "no" $M = 6.663$, Wilks' Lambda = .484, $F(1, 15) = 15.973$, $p = .001$, partial eta squared = .516. For right-handed participants, "yes" $M = 6.747$, "no" $M = 6.617$, Wilks' Lambda = .617, $F(1, 134) = 83.348$, $p < .001$, partial eta squared = .383.

Participant gender. Participant gender was not a primary interest of the study; however, for completeness, agreement results were separated out by participant gender, collapsed across conditions, to highlight any differences that may exist. Results were largely similar, but with fewer proportions outside the 95% CIs for the smaller male group. See the Appendix for details.

CHAPTER V

DISCUSSION

This study used traditionally-feminine and traditionally-masculine words, in combination with a set of eight gender × race categories—either photos or descriptive phrases—to determine which pairs of stimuli participants said go together. Participants were asked to respond to each pair as quickly as possible with either a "yes" (agreement) or "no" answer. High proportions of agreement indicated that a word "goes with" a photo or phrase, while low proportions of agreement indicated that they do not.

The present study differed from previous research on stereotypes in a number of ways. Several previous studies assessed intersectional stereotypes through untimed interviews (e.g., Bowleg et al, 2011; Pyke & Johnson, 2003; Thomas et al., 2011) or questionnaires (e.g., Ghavami & Peplau, 2013). In contrast, participants in this study were asked to respond to stimulus pairs as quickly as possible, measuring automatic responses instead of allowing for slower, more deliberate determinations. Using automatic responses reduces the chances of participants either intentionally (e.g., Akrami & Ekehammar, 2005; Condor et al., 2005; Sigall & Page, 1971) or unintentionally (e.g., Greenwald & Banaji, 1995) hiding their implicit biases in their responses.

However, this methodology also differed from other studies of automatic responses or implicit bias (e.g., Blair & Banaji, 1996; Greenwald et al., 1998; Johnson et al., 2012), in that it allowed participants to determine which stimuli were compatible in a

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more nuanced way. Rather than assuming the feminine-stereotypical and masculine-stereotypical words are strict measures of two distinct and unbreakable categories, from which deviation is considered a mistake (as in hitting the "wrong" button to classify a word in the IAT), the current methodology allowed participants to determine which individual words should and should not go with which faces and categories, regardless of how previous research had classified them.

In addition, this study presented participants with all possible stimulus pairs, rather than relying on their spontaneous generation of different sets of stereotypes in each category, to determine not just which stereotyped words are affirmatively associated with a person or group, but which words are definitely NOT associated with them. In this way, more informative patterns emerge. Not only does "Asian Man" go with "Engineer," but it does NOT go with "Hostile." Not only does "Black Woman" go with "Athletic," but a photo of a Black woman does NOT go with "Ballet."

Stereotype Profiles

The results supported the hypothesis that different stereotype profiles emerged for each gender × race group. In fact, most of the gender × race categories did not closely fit their respective gender-stereotypical word lists. Some even crossed boundaries to be associated with words stereotypical of the other gender. For example, Black Woman was associated with the masculine-stereotyped words "Athletic" and "Tall" in both the photo and phrase conditions, while White Man was associated with the feminine-stereotyped word "Bossy" in the phrase condition.

Looking more closely at individual stereotype profiles, the Asian Woman category fit most of the feminine gender stereotypes in the phrase condition, and was

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clearly dissociated from most masculine-stereotyped words in both the photo and phrase conditions. In fact, Asian Woman was the only female category not to be associated with any of the masculine-stereotyped words in either condition. This is consistent with studies linking Asians and Asian women with high femininity (e.g., Johnson et al., 2012; Wilkins et al., 2011). However, there were fewer agreements, and even some feminine words it did NOT go with, in the photo condition. While this was a trend for other female categories as well, Asian Woman had slightly fewer clear associations with feminine words across conditions than did White Woman. Thus, while Asian women may be considered highly feminine, it is possible that they are only stereotyped with a subset of feminine traits or ideas that excludes assertive words like "Bossy," "Gossipy," or even "Lingerie."

Of the female categories, Black Woman was the most likely to be associated with masculine-stereotyped words, and tied with Latina Woman for being clearly dissociated from the most feminine-stereotyped words. This is not surprising given the wealth of research associating Black women with higher perceived masculinity (e.g., Ghavami & Peplau, 2013; Johnson et al., 2012; Thomas et al., 2011; Wilkins et al., 2011). However, it is important to note that Black Woman was still associated with certain feminine-stereotyped words, including "Nurse" and "Cosmetics" in both conditions, and several others in the phrase condition. Based on these findings, stereotypes of Black women are neither fully feminine nor fully masculine.

As noted above, Latina Woman was dissociated from several of the feminine-stereotyped words in the photo condition. These results were less predictable than the results for Black Woman, given the relative dearth of research on gendered stereotypes of

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Latina women compared to Black women. Although all of the categories in both conditions were dissociated from the word "Nagging," it is perhaps most surprising for the Latina Woman category because of previous associations with Latinas as "feisty" (Ghavami & Peplau, 2013). Nonetheless, both conditions did associate Latina Woman with "Bossy" and "Gossipy." Given Ghavami and Peplau's findings that Latinas were also stereotyped as "sexy" and "maids," it makes sense that in the phrase condition, Latina Woman was also associated with the words "Lingerie," "Housework," and "Laundry." However, these were not the case in the photo condition, and the Latina Woman photo was even clearly dissociated from the word "Lingerie." This may be partially explained by Marín's (2003) findings that women in Hispanic communities are not expected to know as much about sex as men, although her own paper also discusses the expectation that women will or should give in to men's sexual advances. Clearly, there is still much room for research on Latina stereotypes.

The two categories that best fit their respective gender-stereotyped word lists were White Man and White Woman. This is consistent with previous literature suggesting that White women are exemplars of their gender in U.S. culture (e.g., Crenshaw, 1989; Ghavami & Peplau, 2013; Goff et al., 2008), and even supported Ghavami and Peplau's less-studied finding that White men are exemplars of maleness in U.S. culture. This latter finding is important when considering the large body of research tying Black men to higher levels of perceived masculinity than White men (e.g., Goff et al., 2008; Johnson et al., 2012; Wilkins et al., 2011). If a range of specific masculine stereotypes most closely fits White men, not Black men, masculinity scales might only be measuring a subset of masculine stereotypes.

"Asian Man" was not associated with any of the words, masculine-stereotyped, feminine-stereotyped, or gender-neutral, except for the word "Engineer." The lack of masculine-stereotyped associations reflects previous research in which participants perceived Asian men as low on masculinity relative to other men (e.g., Johnson et al., 2012; Wilkins et al., 2011). However, it is important to recall higher self-reported ratings on certain masculinity subscales (i.e., Heterosexual Presentation, Power over Women, and Primacy of Work) for Asian American men than White American men (Hsu & Iwamoto, 2014); it is possible that American gender stereotypes do not emphasize the aspects of masculinity that are more common to Asian men than White men.

The association with "Engineer" is consistent with Ghavami and Peplau's (2013) findings that Asian Americans are stereotyped as "intelligent" and "good at math"; however, the Asian Woman category was not associated with "Engineer," indicating that this stereotype cannot be explained by race alone. Furthermore, Black Man and Latino Man were neither associated nor dissociated from "Engineer" in the photo condition, weakening the case for it as a stereotype of men in general. Though all male categories were associated with "Engineer" in the phrase condition, the clearer patterns for White and Asian men across both photos and phrases provide some possible support for it as an emergent stereotype at the intersection of gender and race, not a broad male, Asian, or White stereotype.

The Black Man category was pretty clearly dissociated from feminine-stereotyped words, which supports previous research linking Black men to high perceived masculinity (e.g., Goff et al., 2008; Johnson et al., 2012; Wilkins et al., 2011). Further, it was associated with "Athletic" in both conditions, consistent with general Black

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stereotypes (Ghavami & Peplau, 2013). However, as previously noted, Black Man was not the best fit for masculine-stereotyped words, and even had the second-lowest number of clear agreements with masculine-stereotyped words out of the male categories. In the photo condition, Black Man was clearly dissociated from several masculine-stereotyped words, including "Arrogant" and "Hostile," despite previous research linking Black men with stereotypes such as "quick to anger," "violent," "dangerous," and "gangsters" (Ghavami & Peplau, 2013). Even if the dissociations from "Arrogant" and "Hostile" do not hold up in further research, the fact that it was dissociated from half of the masculine-stereotyped words in the photo condition, and was associated with fewer words than White Man even in the phrase condition, suggests that stereotypes of Black men may be more complicated than some previous studies indicate. Again, if general measures of perceived masculinity do not line up with lists of specific masculine stereotypes, those scales may only be measuring a subset of masculine stereotypes. Alternatively, it may be the case that the list of words in this study does not adequately capture all aspects of masculinity that a participant might use to rate a target on a single scale, or weight them in the same way. Further investigation is necessary to evaluate a broader range of gender stereotypes as applied to Black men. Nevertheless, the strength of this study is moving from abstract concepts of masculinity and femininity to more specific stereotypes.

Finally, Latino Man had the second-highest number of clear agreements with masculine-stereotyped words, after White Man. In both the photo and phrase conditions, it was associated with "Aggressive," in line with Ghavami and Peplau (2013). Still, there were several masculine words with which Latino Man was clearly dissociated in the photo condition, including "Tall" and "Briefcase." Although the category was associated

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with the words "Engineer," "Mechanic," and "Veteran" in the phrase condition, possibly as a result of the "hard working" stereotype in the above study, the dissociation from "Briefcase" suggests that some professional accoutrements are inappropriate to Latino men. As with Latina women, there is still room for more research on Latino stereotypes.

Besides differences in stereotyping across races, this study found obvious differences in responses between the photo condition and the phrase condition. In particular, phrases were more likely to be associated with gender-stereotypical words than photos were. In fact, when collapsing word types (i.e., combined feminine-stereotyped, masculine-stereotyped, or gender-neutral words), response agreements were almost all below the 95% CI, indicating that the word types did NOT go with the photos. Meanwhile, the collapsed word type agreements in the phrase condition almost perfectly matched gender expectations, with female phrases associated with feminine words, male phrases associated with masculine words, and all phrases dissociated from neutral words. The exception was "Asian Man," which was dissociated from all collapsed word types, including masculine. It is possible that participants were more likely to stereotype phrases because they are depersonalized, while photos of actual people are necessarily seen as unique individuals. Some previous research has shown a reduction in gender stereotyping when specific information is available for an individual (e.g., Locksley, Borgida, Brekke, & Hepburn, 1980). It may be the case that faces are adequate sources of information about an individual to disrupt stereotyping in a similar way.

Finally, there were gender differences in number of stimulus agreements above the 95% CI. The male stimuli had fewer clear "yes" responses to masculine words than the female stimuli had to feminine words. It is possible that the difference in feminine

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and masculine stereotyping can be partially explained by the majority-female participants; previous research has indicated that women show stronger implicit gender self-stereotyping (Cadinu & Galdi, 2012).

Limitations and Further Research

Given the differences in responses between the photo and phrase conditions, it is possible that something about the specific photos used affected the results. For instance, it is possible that the relatively young perceived age range of the faces in the photos ($M =$ 28.7 years, $SD = 3.4$) limited stereotypes that might have been applied to other age groups in the same gender × race categories, while the phrases allowed for a broader range of inclusion. Because photos necessarily convey extra information like age that a simple phrase (i.e., "Asian Woman") does not, similar studies should be conducted with older (or even younger) faces to determine how the added intersection of age may play a role in gender stereotyping. Considering the practical applications of current implicit bias research in predicting real-world behaviors (such as police use of lethal force; Hehman, Flake, & Calanchini, 2018), further research will also be necessary to determine whether and under what circumstances each of these conditions may predict participants' behaviors.

As with the photo stimuli, the participants in this study were relatively young adults ($M = 19.47$ years of age, $SD = 2.05$), which may mean they have had exposure to different gender and racial stereotypes, or different degrees of stereotyping, than people of other age groups. Likewise, the participants were largely (44.4%) White, which may affect the stereotypes demonstrated. This warrants replication studies in other participant populations.

Furthermore, as noted at the end of the results section, participants were faster to respond "no" than "yes" to a pair of stimuli. The reasons need to be explored. Faster "no" responses could be explained by the relative likelihood of any word matching a given photo or phrase; if participants had responded exactly along gender lines as predicted by the pilot study, there would be twice as many words that were either neutral or related to the opposite gender as words that related to the same gender. It is possible that this ratio prepared participants to hit "no" more quickly, and perhaps even more often than they otherwise would have. Further studies could alter the ratio of gender-stereotyped words to determine whether this changes the outcomes.

While the study was ambitious in its scope, it still focused on only a portion of racial groups, and necessarily glossed over ethnic variations within those groups. Further research is needed to determine how stereotypes differ for, say, Middle Eastern men and women, Indigenous peoples, South Asian versus East Asian people and further national distinctions among Asians, and so on.

Nonetheless, this study was an important first step in combining an intersectional approach to gender and race with automatic response methodology to identify where generic concepts of implicit gender stereotyping break down. From here, psychologists should move beyond simplistic studies on social perception. Particularly at a time when researchers are making connections between implicit bias and behavioral outcomes, it is important not to overlook nuances. If psychological research on social stereotyping retains its limited focus, it is unlikely to progress much beyond the dilemma of Black women in employment disputes noted by Crenshaw (1989) thirty years ago.

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Appendix

Table A1

Participant Responses to Whether Feminine-Stereotyped Words Go with Female Stimuli by Participant Gender

	Female Participants					Male Participants			
	Asian Woman	Black Woman	Latina Woman	White Woman		Asian Woman	Black Woman	Latina Woman	White Woman
Bossy	Yes	Yes	Yes	Yes	Bossy	-	Yes	Yes	Yes
Gossipy	-	Yes	Yes	Yes	Gossipy	Yes	Yes	Yes	Yes
Nagging	-	No	-	-	Nagging	-	-	Yes	-
Sensitive	Yes	Yes	Yes	Yes	Sensitive	Yes	-	Yes	Yes
Cosmetics	Yes	Yes	Yes	Yes	Cosmetics	Yes	Yes	-	Yes
Earrings	Yes	Yes	Yes	Yes	Earrings	-	-	-	-
Pink	-	-	-	Yes	Pink	-	-	-	-
Ballet	Yes	-	-	Yes	Ballet	-	No	No	-
Housework	Yes	-	Yes	Yes	Housework	-	-	Yes	Yes
Laundry	-	-	Yes	Yes	Laundry	-	-	-	-
Nurse	Yes	Yes	Yes	Yes	Nurse	Yes	Yes	-	Yes
Secretary	Yes	Yes	Yes	Yes	Secretary	Yes	Yes	-	Yes
Flowers	-	-	-	Yes	Flowers	-	-	-	Yes
Lingerie	-	-	-	-	Lingerie	-	-	-	Yes
Doll	-	No	No	-	Doll	-	-	-	-
Skirt	Yes	Yes	-	Yes	Skirt	-	-	-	-

Note: Responses are collapsed across both the photo and phrase condition. "Yes" indicates that the proportion of participants who responded that the word goes with the person was above the 95% confidence interval (CI). "No" indicates that the proportion of participants who responded that the word goes with the person was below the 95% CI. Otherwise, "-" responses were within the 95% CI.

Table A2

Participant Responses to Whether Feminine-Stereotyped Words Go with Male Stimuli by Participant Gender

	Female Participants					Male Participants			
	Asian Man	Black Man	Latino Man	White Man		Asian Man	Black Man	Latino Man	White Man
Bossy	No	-	-	-	Bossy	-	-	-	-
Gossipy	No	No	No	No	Gossipy	No	No	No	No
Nagging	No	No	No	No	Nagging	No	No	No	No
Sensitive	-	-	No	No	Sensitive	No	No	No	-
Cosmetics	No	No	No	No	Cosmetics	No	No	No	No
Earrings	No	No	No	No	Earrings	No	No	No	No
Pink	No	No	No	No	Pink	No	No	No	No
Ballet	No	No	No	No	Ballet	No	No	No	No
Housework	No	No	No	No	Housework	No	No	-	No
Laundry	No	No	No	No	Laundry	No	No	No	No
Nurse	No	-	No	-	Nurse	No	No	No	No
Secretary	No	No	No	No	Secretary	No	No	No	No
Flowers	No	No	No	No	Flowers	No	No	No	No
Lingerie	No	No	No	No	Lingerie	No	No	No	No
Doll	No	No	No	No	Doll	No	No	No	No
Skirt	No	No	No	No	Skirt	No	No	No	No

Note: Responses are collapsed across both the photo and phrase condition. "Yes" indicates that the proportion of participants who responded that the word goes with the person was above the 95% confidence interval (CI). "No" indicates that the proportion of participants who responded that the word goes with the person was below the 95% CI. Otherwise, "-" responses were within the 95% CI.

Table A3
Participant Responses to Whether Masculine-Stereotyped Words Go with Female Stimuli by Participant Gender

	Female Participants					Male Participants			
	Asian Woman	Black Woman	Latina Woman	White Woman		Asian Woman	Black Woman	Latina Woman	White Woman
Aggressive	No	-	-	No	Aggressive	No	-	Yes	-
Arrogant	No	No	-	No	Arrogant	No	-	-	-
Hostile	No	No	-	No	Hostile	No	No	-	No
Reckless	No	No	No	No	Reckless	No	No	-	No
Bald	No	No	No	No	Bald	No	No	No	No
Hairy	No	No	No	No	Hairy	No	No	No	No
Tall	No	Yes	No	-	Tall	No	-	No	-
Athletic	-	Yes	-	Yes	Athletic	No	Yes	-	-
Hunting	No	No	No	No	Hunting	No	No	No	No
Wrestling	No	No	No	No	Wrestling	No	No	No	No
Engineer	-	No	No	-	Engineer	-	No	No	No
Mechanic	No	No	No	No	Mechanic	No	No	No	No
Veteran	No	-	No	-	Veteran	No	No	No	No
Briefcase	No	No	No	No	Briefcase	No	No	No	No
Cigars	No	No	No	No	Cigars	No	No	No	No
Trousers	No	No	No	No	Trousers	No	No	No	No

Note: Responses are collapsed across both the photo and phrase condition. "Yes" indicates that the proportion of participants who responded that the word goes with the person was above the 95% confidence interval (CI). "No" indicates that the proportion of participants who responded that the word goes with the person was below the 95% CI. Otherwise, "-" responses were within the 95% CI.

Table A4
Participant Responses to Whether Masculine-Stereotyped Words Go with Male Stimuli by Participant Gender

	Female Participants					Male Participants			
	Asian Man	Black Man	Latino Man	White Man		Asian Man	Black Man	Latino Man	White Man
Aggressive	No	-	Yes	Yes	Aggressive	No	-	Yes	-
Arrogant	No	-	-	Yes	Arrogant	-	-	-	-
Hostile	No	No	-	-	Hostile	No	-	-	-
Reckless	No	-	No	-	Reckless	No	-	-	-
Bald	No	-	No	No	Bald	No	No	No	-
Hairy	No	-	-	Yes	Hairy	No	No	-	-
Tall	No	Yes	-	Yes	Tall	No	Yes	No	Yes
Athletic	-	Yes	Yes	Yes	Athletic	No	Yes	Yes	Yes
Hunting	No	-	-	Yes	Hunting	No	No	-	Yes
Wrestling	No	Yes	Yes	Yes	Wrestling	No	-	-	-
Engineer	Yes	Yes	Yes	Yes	Engineer	Yes	-	-	Yes
Mechanic	-	Yes	Yes	Yes	Mechanic	-	-	Yes	Yes
Veteran	-	-	-	Yes	Veteran	-	-	-	Yes
Briefcase	-	No	No	Yes	Briefcase	-	-	No	-
Cigars	No	No	-	Yes	Cigars	No	-	-	-
Trousers	-	-	-	Yes	Trousers	No	No	-	-

Note: Responses are collapsed across both the photo and phrase condition. "Yes" indicates that the proportion of participants who responded that the word goes with the person was above the 95% confidence interval (CI). "No" indicates that the proportion of participants who responded that the word goes with the person was below the 95% CI. Otherwise, "-"responses were within the 95% CI.

Table A5
Participant Responses to Whether Neutral Words Go with Female Stimuli by Participant Gender

	Female Participants					Male Participants			
	Asian Woman	Black Woman	Latina Woman	White Woman		Asian Woman	Black Woman	Latina Woman	White Woman
Blind	No	No	No	No	Blind	No	No	No	No
Enjoyment	Yes	Yes	-	Yes	Enjoyment	-	-	-	-
Lice	No	No	No	No	Lice	No	No	No	No
Birthday	No	No	No	-	Birthday	No	-	No	-
Custom	No	No	No	No	Custom	No	No	No	No
Sleep	No	-	No	-	Sleep	No	-	-	-
Nightmare	No	No	No	No	Nightmare	No	No	No	No
Ambulance	No	No	No	No	Ambulance	No	-	No	-
Cyclone	No	No	No	No	Cyclone	No	No	No	No
Pencil	No	No	No	No	Pencil	No	No	No	No
Waste	No	No	No	No	Waste	No	No	No	No
Window	No	No	No	No	Window	No	No	No	No
Mildew	No	No	No	No	Mildew	No	No	No	No
Nectar	No	No	No	No	Nectar	No	No	No	No
Thorn	No	No	No	No	Thorn	No	No	No	No
Tree	No	No	No	No	Tree	No	No	No	No

Note: Responses are collapsed across both the photo and phrase condition. "Yes" indicates that the proportion of participants who responded that the word goes with the person was above the 95% confidence interval (CI). "No" indicates that the proportion of participants who responded that the word goes with the person was below the 95% CI. Otherwise, "-" responses were within the 95% CI.

Table A6
Participant Responses to Whether Neutral Words Go with Male Stimuli by Participant Gender

	Female Participants					Male Participants			
	Asian Man	Black Man	Latino Man	White Man		Asian Man	Black Man	Latino Man	White Man
Blind	No	No	No	No	Blind	No	No	No	No
Enjoyment	No	-	No	No	Enjoyment	-	-	-	No
Lice	No	No	No	No	Lice	No	No	No	No
Birthday	No	No	No	No	Birthday	No	No	No	No
Custom	No	No	No	No	Custom	No	No	No	No
Sleep	No	No	-	-	Sleep	-	-	-	No
Nightmare	No	No	No	No	Nightmare	No	No	No	No
Ambulance	No	No	No	No	Ambulance	No	No	No	-
Cyclone	No	No	No	No	Cyclone	No	No	No	No
Pencil	No	No	No	No	Pencil	-	No	No	No
Waste	No	No	No	No	Waste	No	No	No	No
Window	No	No	No	No	Window	No	No	No	No
Mildew	-	No	No	No	Mildew	No	No	No	No
Nectar	No	No	No	No	Nectar	No	No	No	No
Thorn	No	No	No	No	Thorn	No	No	No	No
Tree	No	No	No	No	Tree	No	No	No	No

Note: Responses are collapsed across both the photo and phrase condition. "Yes" indicates that the proportion of participants who responded that the word goes with the person was above the 95% confidence interval (CI). "No" indicates that the proportion of participants who responded that the word goes with the person was below the 95% CI. Otherwise, "-" responses were within the 95% CI.