We Are All Green: Stereotypes For Female Soldiers And Veterans

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WE ARE ALL GREEN: STEREOTYPES FOR FEMALE SOLDIERS AND VETERANS

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WE ARE ALL GREEN: STEREOTYPES FOR FEMALE SOLDIERS AND VETERANS

by

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Abstract

As the number of females in the U.S. military continues to rise, the need for research concerning this cohort becomes increasingly important. In consideration of gender role theory, society may assume that soldiers and veterans are male, due to stereotypes. Thus, it was hypothesized that participants would be more likely to implicitly associate military (i.e. prior military or combat veteran) as male compared the neutral condition (i.e. prior Peace Corp volunteer). The current study ($N = 174$) used gender pronouns as implicit measures of gender assumptions. Participants were assigned to read six gender neutral scenarios; three focal scenarios (i.e. combat veteran, prior military, and former Peace Corp volunteer) and three filler scenarios (i.e. combined into an aggregate baseline score). After reading each scenario, participants then wrote about their opinion of the fictitious character’s personality. The writing samples were coded for gender pronouns. There were no differences when comparing the three focal scenarios. However, exploratory analyses revealed that participants were more likely to assume that the characters in the filler scenarios were female, whereas they were more likely to assume that the characters in the focal scenarios were male. Also, when comparing the filler scenarios to the manipulated scenarios, there was a significant difference in these gender assumptions in the same direction. These implicit assumptions, although not part of the original hypotheses, suggest that soldiers and veterans are assumed to be male. Future studies examining implicit stereotypes with improved materials are likely to support this conclusion. If so, this may lead to new lines of research investigating the effect that these assumptions have on stereotypes, prejudice, discrimination, and social support for female soldiers and veterans.
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Chapter 1: Introduction

Servicewomen are acutely aware of their visibility as a minority while in uniform and their invisibility as veterans. To be a woman in the military is to live with coexisting identities that are dissonant with conventional gender roles. It is to live with the greatest empowerment and also to feel isolated, invisible, and misunderstood both by the institution in which one serves and by the society whose Constitution one is sworn to protect. It is why, when many women leave the military, they choose not to self-identify as veterans (Goldstein, CNAS research, 2018).

This quote eloquently illustrates the complex and unique experiences for women in the armed forces and the challenges they face in society both during and after service. Fundamentally, societally conflicting identities based on gender roles may further provoke some of these challenges (Demers, 2013; Eichler, 2017; Street, Vogt & Dutra, 2009). The bases of these conflicting identities are rooted in societal gender stereotypes, which assign specific roles based on gender, as highlighted in gender role theory (Eagly, 1987). At times, these stereotypes can lead to prejudices and discrimination (Flore & Wicherts 2015; Nosek & Smyth 2011; Stefens, Jelenec, & Noack, 2010), which have a fundamentally a negative influence on female soldiers and veterans (Burkhart & Hogan, 2014; Demers, 2013; Eichler, 2017; Street, Vogt & Dutra, 2009). Thus, the focus of the following section will start with recent discoveries and issues concerning women in the military, followed by stereotypes, based on gender, for this unique cohort. Subsequently, the emphasis will transition to gender role theory as it applies to female soldiers and veterans.
WOMEN IN THE MILITARY

As the numbers of females in the armed forces continue to grow, so does the need to address their service related issues. As of recently, approximately 17% of the entire military force and a little over 16% of active duty military is female (Department of Defense, 2017), and these numbers are projected to continue growing. Currently, there are approximately 2 million female U.S. Veterans that represent about 10% of the total Veteran population (U.S. Department of Veteran Affairs, 2017). And while their presence in the military force is growing, so is their presence in other critical populations. For example, female veterans are the fastest growing subgroup of the homeless veteran population (U.S. Department of Veteran Affairs, 2018), which could be partly due to their higher rates of unemployment compared to male veterans (Kleykamp, 2013). Further, when compared to their civilian counterparts, female soldiers and veterans are at a significantly higher risk to suffer from economic disparities, homelessness, mental disorders, isolation, and suicide (U.S. Department of Veteran Affairs, 2019). Examining the possible correlates or causes to these and other issues are imperative, as is more research, concerning this unique cohort.

During service, female military members experience both equivalent and divergent stressors compared to their male comrades. However, the divergent stressors are primarily because of their gender. In terms of the former, comparable stressors are the common military experiences and their repercussions. For example, although previously prohibited from formally serving in combat roles, roughly 30% of female soldiers deployed after 9/11 have experienced combat while in theater (Heimlich, 2012) and suffer mental and physical ailments at the same rate as their male peers (Disabled American Veterans, 2014; Street et al., 2013). However, in the case of the latter, female soldiers may also be exposed to more types of trauma than their male
counterparts (Fontana, Rosenheck, & Desai, 2010), with some researchers indicating that at least 81% of female veterans have experienced a minimum of one form of trauma (Zinzow et al., 2007). For instance, approximately 54% of women in the military report facing harassment solely based on their gender (Street, Vogt & Dutra, 2009; Vogt et al., 2005). For some individuals, this gender-based harassment will provoke premature separation from the military (i.e. leaving before one plans) and greater dissatisfaction with their service (Dichter & True, 2015). Unfortunately, their gender-distinctive struggles do not end when leaving the military.

Transitioning from military service back to civilian life (i.e. from soldier to veteran) offers distinctive experiences and added stressors for females, solely because of their gender. Although many soldiers struggle transitioning back into civilian life (Patten & Parker, 2011), female veterans report more negative experiences with transitioning compared to their male peers (Beder, Coe, & Sommer, 2011). Whilst this could be due to numerous factors, some researchers consider civilians’ assumption that a female and a soldier are opposing identities as an important contribution (Demers, 2013; Street, Vogt & Dutra, 2009). Specifically, female veterans have reported that friends, family, and society often have difficulty accepting them as both a female and a veteran (Demers, 2013). Furthermore, society may struggle with perceiving females as ‘real’ veterans or assume that they were never in danger while deployed (Street, Vogt & Dutra, 2009). Often, this disregard for their service can then lead to personal struggles with identity, being overlooking for their service, and lower perceived social support from loved ones and the community (Demers, 2013; Street, Vogt & Dutra, 2009). In addition, some female veterans report experiencing difficulties with navigating military and civilian gender roles, with a common coping mechanism being seclusion or hiding their military identity (Burkhart & Hogan,
Notably, women veterans are considered ‘invisible’ and ‘forgotten’ in society as a whole (Cheney et al., 2014; Disabled American Veterans, 2014).

After military service, women frequently endure the additional burden of needing to validate their veteran status, exclusively because of their gender. For example, while seeking treatment or care at military facilities, female veterans are often mistaken as the wife or sister of a male veteran rather than the veteran themselves (Downs, 2018; Frayne et al. 2006). In addition, Klap and colleagues (2019), found that one in four female veterans seeking care at a VA hospital have reported being harassed or having their veteran status denigrated. It would be congruous that female, compared to male, service members and veterans report lower patient satisfaction when using VA health services (Owens, Herrera & Whitesell, 2009; Wright et al., 2006). This could be due to the gender power dynamics that shape the VA as an organization and influence daily social interactions (Cheney et al., 2014). These gender-based experiences often lead to a lower likelihood in seeking care for service related issues (Klap et al., 2019; Owens et al., 2009). In fact, the U.S. Department of Veteran Affairs (2017) has noticed that female veterans are less likely to use their VA benefits than their male peers and deems it necessary to resolve these discrepancies. Ultimately, these gender disparities are prejudices and discriminations stemming from gender stereotypes that require more research.

Although research on this growing minority of military personnel has seen a recent upsurge, there is nevertheless much more to uncover. Largely, more research on female soldiers and veterans is required and it is imperative that future research concerning the military account for gender (Disabled American Veterans, 2014; Eichler, 2017). In addition, gender norms must be incorporated into research regarding military populations when considering the impact these gender norms have on military personnel (Eichler, 2017), and that female soldiers and veterans
are essentially challenging societally established gender roles (Eagly, 1987; Eichler, 2017). It could be that assumptions of gender norms (i.e. stereotypes) are maintaining societal indifference for female military personnel (Demers, 2013; Street, Vogt & Dutra, 2009). In particular, the societal disregard for female servicewoman could be due to the widely established, accepted, and perpetuated gender roles and stereotypes (Eagly, 1987). These stereotypes are the focus of the current investigation.

**Stereotypes**

Explicitly, stereotypes are assumptions that are applied to a specific group of people (Herek, 2016). Examining stereotypes are crucial given that they can lead to additional consequences for those that are being stereotyped. For example, studies have revealed that implicit stereotypes can predict attitudes and behaviors (e.g., Flore & Wicherts 2015; Nosek & Smyth 2011; Stefens, Jelenec, & Noack, 2010) alluding to possible ramifications for the group being stereotyped. This section will focus on stereotypes as cognitive processes, which explains why they are formed, and how they can apply to female soldiers and veterans.

Assumptions are a type of heuristic that considers base rates and can cultivate stereotypes if they pertain to a specific group of individuals. Specifically, heuristics depend on general rules (Gigerenzer & Gaissmaier, 2011) and are a product of our experiences and base rates (Kutzner & Fieldler, 2017). As it currently stands, approximately 16% of the Department of Defense Active Duty force is female (Department of Defense, 2017), while about 12% of soldiers deployed since 9/11 have been women (Disabled American Veterans, 2014). Although these numbers are projected to rise, women are still overshadowed in numbers by their male peers. Essentially, these base-rates create a strong male heuristic in societal assumptions based on a reality (i.e. approximately 84% of military service members are male). Although relying on heuristics eases
cognitive load, they also lead to numerous errors (Shah & Oppenheimer, 2008) and stereotypes (Kutzner & Fieldler, 2017).

The stereotype that the military is male is essentially an assumption that is false for female soldiers and veterans. The fact is that a majority of the military force is male, which creates a strong male heuristic based on reality. Although these assumptions rely on probability, they are also stereotypic. In particular, when individuals doubt or disregard the military status of female soldiers and veterans, solely because of their gender, it is a stereotype with potentially harmful effects. Ultimately, always assuming that soldiers and veterans are male is not only stereotyping but can also lead to negative attitudes and prejudices toward female soldiers and veterans. In regards to female soldiers and veterans, gender role theory could explain why they may be stereotyped and on the receiving end of these heuristic errors.

**Gender Role Theory**

According to gender role theory (Eagly, 1987; Eagly & Steffen, 1984; Eagly, Wood, & Diekman, 2000), gender stereotypes stem from social roles that have been historically divided by labor, status, and power. Although there is variation across cultures, these roles have been largely determined by gender (i.e. women’s childbearing and men’s larger size; Eagly & Wood, 1999). While females have typically tended to the home and family (i.e. homemaker role, communion), men were more likely to engage in activities that involve strength, speed, and traveling away from the home (i.e. breadwinner role, agency). Therefore, women are presumed to be caring and supportive, whereas men are viewed as independent and active. Ultimately, the societal gender roles assigned to women do not comport to the skills required for military success.

It would appear that social roles designated to females are not conducive for overall military success and perpetuate detrimental gender stereotypes. Although military qualifications
easily cross gender lines, many characteristics of the military are considered masculine or male-
typical traits (Eagly et al., 2000; Peters, Ryan, & Haslam, 2015). Specifically, individuals need to
hone numerous stereotypically masculine skills to not only to become a soldier, but also for
military advancement; these include bravery, fitness (i.e. strength and speed), willingness to
travel, the ability to follow and give instructions, and the capability to think and act under
pressure (Peters, Ryan, & Haslam, 2015; Wisecarver et al., 2011). According to gender role
theory, many of these traits are stereotypically masculine (Eagly et al., 2000). Thus, females who
join the military are essentially undertaking social roles in opposition of their gender role.

Ultimately, the military as an occupation is still considered a highly masculine and male
dominate culture (Cheney et al., 2014; Goldstein, 2001; Mathers, 2013; Peters, Ryan, & Haslam,
2015; Sjoberg, 2014), with gender disparities present in and around the entire military
community (Cheney et al., 2014). Moreover, researchers have discovered that even fictional
stories of war and the military primarily depict strong male narratives (Muhr & Sløk-Andersen,
2017). Further, these same researchers discovered that stories of war and combat are considered
more believable when comprised of male versus female characters (Muhr & Sløk-Andersen,
2017). In consideration of gender role theory, it would seem that individuals would be less likely
to assign females the role of soldier or veteran.

HYPOTHESIS

The current study examined the societal views of soldiers and veterans regarding their
assumed gender. This study tested the proposal that participants will implicitly assume that soldiers
and veterans are male. The primary dependent variable of interest is the implicit associations
participants make regarding fictional characters in manipulated scenarios. Descriptions of these
fictional characters, with gender-neutral names, included filler scenarios (i.e. baseline) and focal
scenarios (i.e. Peace Corp volunteer, prior military, and combat veteran). Participants’ use of gendered pronouns in describing these fictional characters will serve as the measure of implicit assumptions of gender. As such, the primary hypothesis is that participants will assume the fictional characters that have military or combat histories are male compared to female.

**H1:** Participants will use more male pronouns in the prior military and the combat veteran conditions and more female pronouns in the Peace Corp volunteer condition.

In addition, participants’ provided their attitudes regarding societal gender roles with the Gender Role Attitudes Scale (Garcia-Cueto et al., 2015). These scores were used to examine the possibility that gender role attitudes would affect participants’ implicit gender assumptions. Further, participants reported their gender identity and military status. Even so, there were no hypotheses regarding the influence of participant gender or military status. However, it is important to include these variables in the analyses to examine if participants would impose their own gender onto the hypothetical characters in the scenarios.
Chapter 2: Current Investigation

In this study, the primary focus was on the implicit assumptions of gender concerning military personnel. To gather implicit assumptions of gender, participants read six gender-neutral scenarios and wrote about the hypothetical characters’ personality for each scenario. The gender pronouns in participants’ writing samples served as the measure of implicit gender assumptions.

Notably, implicit measures have the advantage of measuring unconscious associations that are difficult to obtain in explicit measures (Gawronski, LeBel, & Peters, 2007). Specifically, implicit measures are often less susceptible to social desirability or cultural influences in studies that scrutinize assumptions (Fazio, et al., 1995; Jellison, McConnell, & Gabriel, 2004; Nier, 2005). Past research using gender pronouns as an independent variable has been successful in understanding automatic gender assumptions by measuring participants’ reaction (or reading) times in stereotypically congruent or incongruent scenarios (Banaji & Hardin, 1996; Lassonde & O’Brien, 2013). However, there is little-to-no research investigating gender pronouns as an outcome measure after a manipulated scenario. As such, I have adopted them here. This makes the current study the first to use this method as an implicit gender assumption measure.

Participants read and composed a written response to six custom designed gender-neutral scenarios. Three of these scenarios served as a baseline (i.e. filler scenarios) and were neutral to the characters’ military or volunteer history. These filler scenarios served two main purposes; to distract the participants from the purpose for the study and to gain a neutral baseline for gender pronoun use. The three remaining scenarios (i.e. focal scenarios) were of primary interest to the hypotheses and were described as either a combat veteran, prior military (i.e., with no mention of combat), or a prior Peace Corp volunteer. These three focal scenarios served as the three levels of the independent variable (i.e., “focal conditions”). To control for possible effects of the
gender-neutral names, which were linked to the content of the scenarios, the focal scenarios were counterbalanced so that each participant received each manipulation, but in a random combination of the focal condition and scenario/name. Further, to ensure there were no ordering effects, all of the six scenarios appeared in random order to each participant. In addition, they were purposely left open-ended (i.e. goes to the gym vs. weight lifting or aerobics classes) and without much elaboration to keep them as gender neutral as possible and to allow participants to add details.

In sum, the use of more male than female pronouns in the combat veteran and prior service military conditions when compared to the prior Peace Corp volunteer condition, should suggest that participants implicitly associated the military with the male gender. Overall, to support this hypothesis, participants need to use significantly more male pronouns (e.g. “he” or “his”) and significantly less female pronouns (e.g. “she” or “her”) in the two military conditions when compared to the Peace Corp volunteer condition.

**METHOD**

**Participants**

The goal was to obtain at least 157 participants for adequate power, based on the effect sizes from other implicit studies on using gender pronouns (Banaji & Hardin, 1996; Lassonde & O’Brien, 2013). In these studies, the effect sizes ranged from a small to large effects \((d = .11, d = .37, d = .47 & d = .71)\). Because of this variation, the power analysis was based on a medium effect size \((d = .5 or f = .25; DeCoster, 2012)\) with a power of .80 and indicated 157 participants were needed for sufficient power.

Therefore, a total of 208 participants were recruited from the psychology participant pool at the University of Texas at El Paso (UTEP) and completed a survey for SONA credit. The
oversampling was in anticipation of needing to remove some participants for failing manipulation checks, not finishing the study in its entirety, or not properly completing the writing prompts. For example, some participants copied and pasted the questions into the text box or used nonsensical words to achieve the minimal characters limit to continue throughout the study (i.e. a minimum of 300 characters were required in the writing prompts before participants could continue). Ultimately, 17 participants did not finish the study while 17 failed manipulation checks or for used nonsensical writing. This led to the removal of 34 participants.

It is important to note that 41 participants who failed the manipulation checks remained in the analyses, for a couple reasons. First, they failed a commonly missed manipulation check in one of the filler scenarios that, in hindsight, was a trick question. Specifically, this scenario concerned a first generation U.S. citizen than was trying to finish a bachelor’s degree. Of the six possible answers to measure the pseudo manipulation, two were commonly selected (i.e. “College graduate” & “First generation U.S. citizen”). Second, some participants selected the wrong military manipulation check question (i.e. “combat military veteran” or “military veteran”) for the focal scenarios. In these cases, however, the participants used the correct words (e.g., combat veteran in the military condition or vice versa) for the scenario in their writing prompt. In contrast, those removed selected the incorrect category altogether (i.e., Peace Corp volunteer for a military scenario). Therefore, 174 participants remained ($M_{age} = 21.01$, $SD_{age} = 4.12$; 140 female) for the analyses. Further, as there were only 8 participants that selected “yes” to the question asking about past or current military status, it was deemed unnecessary to include this variable in the analyses.
Procedure

Participants agreed to participate in a study titled, “Personality Predictions”, and read that the study included reading scenarios and completing writing tasks. All participants read an Informed Consent and agreed to participate before participating in the study. Subsequently, the participants read the instructions for the section containing the scenarios. The instructions stated that they should read the profiles carefully because they would need to describe the character’s personality and answer a question about the scenario. The instructions further stated that the scenarios would disappear once they moved on to the next page, emphasizing their need to read carefully.

After the participants read the instructions, the first scenario appeared. It could have been one of the six randomly selected scenarios (3 filler and 3 focal). The scenario remained on the screen for 45 seconds before the participant could continue. This was in an attempt to ensure that the participant read the entire scenario. The manipulation check question appeared immediately after reading the scenario to confirm their responses were in fact due to the manipulation. Next, the participant moved on to the writing condition, in which they were required to write at least 300 characters before continuing to the rest of the survey. All six scenarios appeared in this fashion before participants continued to the rest of the survey.

Thereafter, participants responded to a gender role attitudes measure and demographic questions. The demographic questions included age, gender identity, and military status. The survey was concluded with an end of survey message explaining the primary aim of the study.
Materials

Below are the six scenarios; the first three are the focal scenarios and the last three are the filler scenarios. Within the brackets are the three manipulations for the focal scenarios (see Appendix B).

**Manipulated Scenario 1.** Every Wednesday, Taylor goes to the gym at the community center with a group of friends. As a *[combat veteran, former military service member, former Peace Corp volunteer]*, Taylor served faithfully for numerous years. However, an injury obtained while *[in combat, in the military, volunteering]* has made working out and staying in shape very difficult at times. Although experiencing continual frustration, Taylor persists to push the limits without injury and with much support from friends.

**Manipulated Scenario 2.** As a new business owner, Pat has struggled getting established and finding reliable clientele in the El Paso area. However, as a *[combat veteran, former military service member, former Peace Corp volunteer]* Pat is familiar with overcoming obstacles and remains optimistic for this new business venture. In fact, experiences *[in combat, in the military, volunteering]* has helped Pat become accustomed to taking risks. It is mostly the fact that someone once told Pat that the business would fail that keeps the adventure interesting.

**Manipulated Scenario 3.** Retail sales is not an easy job for anyone. This was not a preferred career path for the *[combat veteran, former military service member, former Peace Corp volunteer]*. However, a few months ago, Lee’s father suffered a stroke and now requires daily assistance with basic tasks. As the only close family member, Lee had to move from Chicago back to El Paso and needed a job, any job, and as quickly as
possible. Last minute changes and unpredictability was a common experience [in combat, in the military, while volunteering] but this seemed different and more challenging.

**Filler Scenario 4.** As a first generation U.S. citizen, Dani feels caught between two cultures and identities. This can be seen as a gift and a curse. However, living on the border in El Paso seems to mostly bridge these identities and Dani does not feel out of place in this community. After many years of working hard in school, it seems that Dani will also be a first generation college graduate. Determined to accomplish this goal and get a bachelor’s degree, Dani makes every effort to make the family proud.

**Filler Scenario 5.** Growing up, Val was always popular. Doing well in school and sports, and being kind and outgoing, Val never seemed to have issues making and keeping friends. However, after moving to a small town in North Carolina, making new friends suddenly seemed really difficult, and at times, almost impossible. Val’s parents both got promoted and relocated to work in North Carolina. So, of course, the whole family moved. Moving and being the “new kid” at school is difficult as it is, but being the only one at school that spoke Spanish and English seemed to put a target on Val’s back. Luckily, Val can still lean on old friends for support and encouragement.

**Filler Scenario 6.** Riley has recently become a widow and is now raising three children as a single parent. The oldest child tries to help with the younger two, which is often incredibly helpful. The younger two children seem mostly confused and sometimes completely unaware of the recent loss. All of this is troubling and Riley decides the family should go seek counseling at a family therapy center dedicated to bereavement. At a parent teacher conference, Riley speaks with other parents and the teachers about the
family issues. Most are very supportive, but one parent says that therapy is a bad decision and will only stigmatize the family.

The filler scenarios were the same for all participants. The three focal scenarios were counter-balanced so that each independent variable (i.e. combat veteran, prior military, or former Peace Corp volunteer) was seen by each participant, but in three possible scenarios. This design was an attempt to account for potential effects of the chosen gender neutral names (i.e. Taylor, Pat, & Lee) and any possible effects of the scenarios on gender assumptions, when combined with the focal conditions. Further, participants saw all the scenarios (i.e. filler and focal scenarios) in a random order to account for ordering effects.

To select gender-neutral names, I consulted popular websites using the search term “gender-neutral names” in Google. The Google search results returned five websites (i.e. What to Expect, Verwell Family, Nameberry, Motherly, LGBTQ Nation). I then consulted the Social Security website to determine which of the names were most popular for each sex. The names “Taylor” (used in a focal scenario) and “Riley” (used in a filler scenario) were the most gender neutral, although they were slightly more popular among females.

All other names on the websites were too popular for one sex over the other. However, the names ‘Pat’ and ‘Lee’ had been discovered in prior research to be gender-neutral (Van Fleet & Atwater, 1997) and served as the remaining names in the focal scenarios. Given that the sample was predominately Latinx, the names “Dani” and “Val” served as the final two names in the filler scenarios after a Google search of “gender-neutral Spanish names” revealed them to be the most popular.

**Gender Role Attitudes Scale.** To test the relationship between gender assumptions and gender role attitudes, participants completed the Gender Role Attitudes Scale (GRAS; Garcia-
Cueto et al., 2015). This is a 20-item scale adapted from the social roles questionnaire (SRQ; Baber & Tucker, 2006). The scale was reduced to a 15-item scale because some of the items required accounting for participant gender (e.g. “I accept that in my circle of friends, my partner’s future job is considered more important than mine.”), which would add unnecessary complications to the analyses. Participants indicated their agreement on a 7-point Likert scale (1 = Strongly Disagree; 7 = Strongly Agree; M = 2.56, SD = 0.76, α = 0.76) to statements measuring their attitudes toward gender roles (e.g., “Some jobs are not appropriate for women”). This measure has been shown to predict attitudes and beliefs held regarding the appropriate behaviors and responsibilities for each gender, which suggests predictive validity (Garcia-Cueto et al., 2015). It has also shown high internal and test-retest reliability (Garcia-Cueto et al., 2015).

Please refer to Appendix D for the entire questionnaire.

**RESULTS**

First, I hand coded all the writing samples for male, female, or gender-neutral pronouns. When participants used pronouns such as, “he”, “him,” or “his”, the writing sample received a “-1” score. When participants used the pronouns, “she”, “her”, or “hers”, the writing sample received a “+1” score. Writing samples with gender-neutral pronouns (i.e. they, them, or Taylor) or slashed pronouns (i.e. she/he or him/her) received a “0” score. These codes (henceforth referred to as “Code” or “hand-coded”) served as the first dependent variable and represents a gender assumption by the participants.

In addition, the data was entered into the Linguistic Inquiry and Word Count (LIWC; Pennebaker, Francis, & Booth, 2007) to get overall percentages of gender words for each participant. Specifically, the LIWC analyzes text into various categories by percentages. These percentages are obtained by calculating the number of words that fit a specific category (e.g.
male) and divides that number by the total word count in the text. The result in this example would provide a percentage of words that are categorically male in the text being analyzed.

Further, the LIWC has shown high reliability and good external, construct and predictive validity (Pennebaker et al., 2007; Pennebaker, Francis, & Booth, 2001; Pennebaker & King, 1999). This technique served as the second dependent variable (henceforth referred to as “LIWC”) and was the result of subtracting the male percentages from the female percentages for each scenario, which resulted in higher scores meaning more female, and negative scores meaning more male.

Afterwards, results from both of the coding techniques were averaged across participants for an overall gender assumption score for each coding technique. To test for relations, the scores from both techniques were compared to participants’ gender identity and gender role attitude scores. The results showed that both the hand-coding and LIWC were strongly and positively correlated. Further, for both the LIWC and hand-coding techniques, participants’ gender identity was positively correlated. This means that participants who identify as females were more likely to use more female pronouns in their writing sample and were more likely to assume that the hypothetical character was the same gender as themselves. Because of these correlations, some of the analyses will include participants’ gender identity (see Table 1).

The primary hypothesis was that participants would use more male pronouns in the military conditions (i.e. prior military and combat veteran) than the Peace Corp volunteer condition. The hypothesis was tested using separate repeated measures analyses of variance (ANOVA) with the focal scenarios (combat veteran vs. prior military vs. Peace Corp volunteer) as the within-subject independent variable and the hand coded and LIWC scores as the dependent variables. Preliminary tests of assumptions suggest that Sphericity was met, $p_{LIWC} = .686$, $p_{Code} = .947$. The model showed no effect of focal scenario, $F_{LIWC}(2,171) = 0.50$, $p_{LIWC} = $
Further, planned comparisons using LSD post-hoc analyses revealed no significant differences between any of the focal scenarios (all \( ps > .179 \)). Means for each condition of the focal scenarios are in Figures 1 and 2.

To examine whether these effects were moderated by either gender role attitudes or participants’ gender identity, separate analyses of covariance (ANCOVA) that included standardized gender role attitudes as a covariate in the repeated measures ANOVAs described above were run. These same analyses were again run with participants’ gender identity. The main effects and interactions in both models and for both variables were not significant (all \( ps > .215 \)).

**EXPLORATORY ANALYSES**

The means of each of the focal condition scores appear to trend towards male, whereas, the filler scenario scores (i.e. baseline) appears to trend toward female (see Figures 1 and 2). If these trends are significant, this would provide partial support for the hypothesis that participants presume military is male. To test this possibility, I ran single sample t-tests for each condition of the focal scenario scores (i.e. combat veteran, prior military, and Peace Corp volunteer) and for the averaged filler scenarios score (i.e. baseline), to examine whether they were different than zero, in their respective directions (see Table 2 for inferential statistics). The results showed that the filler scores (i.e. baseline) for both the LIWC and hand-coding techniques were significantly higher than zero. This indicates that participants were more likely to assume the characters in the filler scenarios were female. The results also showed that scores in all three focal scenarios were significantly lower than zero. This suggests that participants were more likely to assume the
characters in the focal scenarios were male. As such, participants did assume that military and combat veterans were male, but they also assumed Peace Corp volunteers were male.

Next, I examined if there were differences amongst the filler scenarios (i.e. baseline) and the focal scenarios. To test this, I ran separate repeated-measures ANOVAs with four within-subjects conditions (baseline vs. combat veteran vs. prior military vs. Peace Corp volunteer) as the independent variable and hand code and LIWC scores as the dependent variable. Both models showed significant differences on the dependent variables by condition, $F_{LIWC}(3,170) = 38.43, p_{LIWC} < .001, \eta^2_p = .404, 95\% \text{ CI}_{LIWC} [.286, .489]$, $F_{Code}(3,170) = 48.13, p_{Code} < .001, \eta^2_p = .459, \text{ CI}_{Code} [.348, .539]$. Post-hoc analyses using LSD correction revealed that participants were more likely to assume the characters were male in the Peace Corp volunteer condition than the filler scenario conditions, $F_{LIWC}(1,172) = 104.19, p_{LIWC} < .001, \eta^2_p = .377, 95\% \text{ CI}_{LIWC} [.267, .470]$, $F_{Code}(1,172) = 127.07, p_{Code} < .001, \eta^2_p = .425, \text{ CI}_{Code} [.316, .514]$. The military condition was also assumed to be more male than the filler scenario conditions, $F_{LIWC}(1,172) = 105.68, p_{LIWC} < .001, \eta^2_p = .381, 95\% \text{ CI}_{LIWC} [.270, .473]$, $F_{Code}(1,172) = 114.50, p_{Code} < .001, \eta^2_p = .400, \text{ CI}_{Code} [.290, .491]$. Finally, the combat condition was assumed to be more male than the filler scenario conditions, $F_{LIWC}(1,172) = 108.76, p_{LIWC} < .001, \eta^2_p = .387, 95\% \text{ CI}_{LIWC} [.277, .480]$, $F_{Code}(1,172) = 149.43, p_{Code} < .001, \eta^2_p = .465, \text{ CI}_{Code} [.359, .549]$. In other words, when compared to a neutral scenario, characters thought to be prior military, combat veterans, and Peace Corp volunteers were more likely to be male than female.

Afterwards, I once again, entered both the standardized gender role attitude scores and then participants’ gender identity as a covariates in separate repeated-measures ANCOVAs for each dependent variable type to test for potential moderation. The main effect of condition was once again significant, $F_{LIWC}(3,170) = 4.22, p_{LIWC} = .006, \eta^2_p = .069, 95\% \text{ CI}_{LIWC} [.006, .140]$,.
$F_{\text{Code}}(3, 170) = 4.89, p_{\text{Code}} = .002, \eta^2 = .079, 95\% \text{ CI}_{\text{Code}} [.011, .153]$. The main effects and the interactions were not significant for both the gender role model and the model including participants’ gender identity (all $ps > .271$).

Further, I was curious to see if participants’ gender identity was related to any of the manipulated name/scenarios. Pat was the only name/scenario that was significantly correlated with participant gender, $r_{\text{LIWC}} = .205, p_{\text{LIWC}} = .007, r_{\text{Code}} = .149, p_{\text{Code}} < .001$. For the other names, there were no significant relationships ($ps > .254$).

Finally, I ran separate repeated-measures ANOVAs to examine if the names/scenarios (Pat vs. Taylor vs. Lee) influenced participants’ use of gender pronouns with both the hand coded and the LIWC scores as dependent variables. Results showed a significant difference amongst groups, $F_{\text{LIWC}}(2, 171) = 65.20, p_{\text{LIWC}} < .001, \eta^2 = .433, 95\% \text{ CI}_{\text{LIWC}} [.320, .518], F_{\text{Code}}(2, 171) = 66.93, p_{\text{Code}} < .001, \eta^2 = .439, 95\% \text{ CI}_{\text{Code}} [.327, .524]$ (means are presented in Figures 3 and 4). LSD post-hoc analyses revealed that the Pat name/scenario ($M_{\text{LIWC}} = -1.16, SD_{\text{LIWC}} = 10.31; M_{\text{Code}} = -0.14, SD_{\text{Code}} = 0.93$) was seen as more male than the Taylor name/scenario ($M_{\text{LIWC}} = 1.67, SD_{\text{LIWC}} = 11.01; M_{\text{Code}} = 0.13, SD_{\text{Code}} = 0.92; F_{\text{LIWC}}(1, 172) = 7.87, p_{\text{LIWC}} = .006, \eta^2 = .044, 95\% \text{ CI}_{\text{LIWC}} [.004, .116]; F_{\text{Code}}(1, 172) = 9.29, p_{\text{Code}} = .003, \eta^2 = .051, 95\% \text{ CI}_{\text{Code}} [.006, .127]$). Further, the Pat name/scenario was seen as significantly less male than the Lee name/scenario ($M_{\text{LIWC}} = -8.96, SD_{\text{LIWC}} = 6.75; M_{\text{Code}} = -0.79, SD_{\text{Code}} = 0.56; F_{\text{LIWC}}(1, 172) = 134.84, p_{\text{LIWC}} < .001, \eta^2 = .439, 95\% \text{ CI}_{\text{LIWC}} [.331, .527]; F_{\text{Code}}(1, 172) = 149.19, p_{\text{Code}} < .001, \eta^2 = .464, 95\% \text{ CI}_{\text{Code}} [.358, .549]$). These results ultimately reveal a strong effect of the name/scenario on gender pronoun use.
DISCUSSION

The results suggest that there was no effect of the focal scenarios (i.e., combat veteran, prior military, or Peace Corp volunteer) on participants’ gender pronoun use. Neither gender role attitudes nor participants’ gender identity served as moderators. Thus, the hypothesis that participants would use more male pronouns in the prior military and combat veteran conditions compared to the Peace Corp volunteer condition was not supported. However, the exploratory analyses revealed that participants were more likely to assume the characters in the filler scenarios were female and male in the focal scenarios. Ultimately, it seems that participants were more likely to assume a female gender for the filler scenarios and a male gender for the scenarios that incorporated the Peace Corp volunteer, the prior military service member, and the combat veteran manipulations. Therefore, although the results do not support the current hypothesis, they allude to participants’ tendency to assume that military is male.

This study was successful in numerous aspects. In particular, although not supporting the current hypothesis, this study supported the overall concept that participants would assume that the military is male. Further, a vast majority of participants used gender pronouns. This was true even for those who appeared to attempt at avoiding gender assumptions as they lapsed at some point in the writing prompt. Few participants were successful at remaining completely gender neutral in their writing. In addition, many of the participants made other assumptions of the hypothetical characters in the writing prompts, some of which were drastic given the limited information presented. Ultimately, as this was the first study using this particular design, it was likely to experience some complications. However, for researchers interested in examining implicit gender assumptions, this method could be successful for future studies.
Chapter 3: General Discussion

The current study examined implicit gender associations between combat veteran, prior service military, and Peace Corp volunteer by measuring participant use of gender pronouns in writing prompts. The hypothesis that participants would implicitly associate military with the male gender by using more male pronouns in the prior military and combat veteran scenarios than the Peace Corp volunteer scenario was not supported. However, exploratory analyses eluded to possible existing gender assumptions. Specifically, participants were more likely to assume the characters in the filler scenarios were female, whereas in the focal scenarios incorporating the Peace Corp volunteer, prior military, and combat veteran, participants were more likely to assume the characters were male. The findings concerning the relative male assumptions for the prior military and combat veteran were as predicted, whereas the relative male assumptions for the Peace Corp volunteer scenario were contrary to predictions. This is striking considering that the base-rates for Peace Corp volunteers are approximately 65% female (Peace Corps, 2019).

Overall, the findings in the current study are the first step in discovering the implicit association between the military and gender. Implications for the current studies and important steps for future research concerning societal stereotypes, along with possible consequences of these stereotypes for female soldiers and veterans follow.

Implications

The current study may be able to circumvent some limitations seen in other implicit measures used to understand gender associations. Plainly speaking, implicit measures are techniques used to understand unconscious associations (Gawronski, LeBel, & Peters, 2007). Past studies using gender pronouns have measured reaction times in stereotypically congruent or incongruent scenarios, revealing implicit gender biases (Banaji & Hardin, 1996; Lassonde &
O’Brien, 2013). A similar, and most commonly used, implicit measure is the Implicit Association Test (IAT, Greenwald, McGhee & Schwartz, 1998; Handelsman & Sakraney, 2015). Although successful, both techniques are subject to limitations. Specifically, participants that become cognizant of the purpose of these studies could control their reaction times as a result, whereas the current study may not have this issue. This could be because language is considered an extension of our thoughts (Pennebaker, Mehl, & Niederoffer, 2003), with pronouns being words that go unnoticed (Pennebaker, 2011; Pennebaker, Mehl, & Niederoffer, 2003). This was evident in the current investigation, as a few participants noted the lack of gender cues in their writing prompt, yet still failed to remain gender neutral. This shows that even when consciously aware, we may not be able to stop using certain words such as pronouns. This eludes to the success of the current method to understand implicit gender associations in writing prompts after manipulated scenarios, a technique which could be utilized to examine other implicit gender stereotypes.

There are a couple notable ways in which the current study contributes to scientific knowledge. First, female military personnel have a negligible presence in psychology research (Goldweig et al., 2006), and the current study is the first to examine a gender stereotype for military personnel in a non-military community. Second, as the exploratory analyses revealed an implicit association that the military is male, these implicit stereotypes could lead to other gender disparities for this occupation. Importantly, stereotypes applied to a specific group of people are often related to the negative attitudes one holds for those people (i.e. prejudices; Eagly & Mladinic, 1989; Esses et al., 2001; Pratto, 1999). Thus, the current finding, that the ‘military is male’, could lead to negative attitudes toward those that do not fit this mold (i.e. female military personnel). Furthermore, attitudes often influence, or moderate, social behavior (Armitage &
Christian, 2003). Therefore, the stereotype that the ‘military is male’ may influence negative attitudes and behavioral choices toward female military personnel. Thus, the current study is the first of many needed to understand possible disparities for female military personnel, especially considering that stereotypes could be a catalyst for prejudice and discrimination.

**ADDITIONAL CONSIDERATIONS AND FUTURE DIRECTIONS**

As the current project was the first to measure gender pronouns as the outcome variable for implicit gender assumptions, and one of only a small handful that have examined gender stereotypes for female military personnel, there were bound to be limitations. Specifically, in this case, there were methodological issues in regards to the names and scenarios, the length of the study, and the current study may have benefitted from incorporating additional questions. Interpretations of the results should attend to these, and possibly other, considerations.

A possible limitation of the current study could be the gender neutrality of the names or scenarios. In the analyses, there were no differences between the focal scenarios in regards to the manipulations (i.e. Peace Corp volunteer vs. prior military vs. combat veteran), whereas, there were significant differences between the names/scenarios (i.e. Pat vs. Taylor vs. Lee). Ultimately, the goal of the current study was to examine the effects of the manipulation, however the names/scenarios showed more variation than the focal manipulations. To address this limitation, future studies using this design could completely omit any and all names from the scenarios, as there may be no truly gender neutral name. For example, future studies could use letters or numbers in the place of names.

Another limitation concerns the number of scenarios and writing prompts, suggesting that the study should be shortened and simplified. Specifically, 17 participants did not finish the study. This is likely because the average time spent taking the study was over two hours.
These long times are likely due to participants stopping and returning, given the amount of time and effort it took them to read and write a 300 character response to six scenarios. Also, some participants were removed for writing nonsensically, which only happened after finishing a few successful writing prompts, eluding that the study was too long to retain participants’ attention and efforts. Finally, the large amount of scenarios seemed to lead some participants to discover the underlying purpose of the study. This was evidenced by a few participants who explicitly mentioned the lack of gender cues in their prompts. Overall, there should be no more than four total scenarios in future studies using this design.

Additional checks and questions should be adopted in future studies. Specifically, a couple attention checks would be helpful. This would not only be beneficial in making sure participants are reading the questions and paying attention, but also to add to the cognitive load, which may be beneficial for studies that measure implicit assumptions (Kutzner & Fieldler, 2017; Shah & Oppenheimer, 2008). In addition to attention checks, it would be advantageous to include a question either before or after the study that probes participants for whether they have discerned the purpose of the study.

In addition to improving upon and replicating the current study, future studies should examine stereotypes, prejudice, and discrimination for female soldiers and veterans not only as separate phenomena, but also as concatenated occurrences, given their interconnected nature (Esses et al., 2001; Flore & Wicherts 2015; Nosek & Smyth 2011; Pratto, 1999; Stefens, Jelenec, & Noack, 2010). To do so, scenarios involving common experiences interacting with or confronting military service members in the community would be useful. Such scenarios could provide a backdrop for participants to answer questions about their thoughts, feelings, and likely behavioral reactions to the hypothetical characters in the scenarios. Studies like these would be
important in not only understanding the stereotype that the military is male, but also the possible repercussions of this stereotype can have for female soldiers and veterans.

Considering the importance that social support has for the military community (Brewin, Andrews, & Valentine, 2000; DeViva et al., 2016; Frayne et al. 2006; King et al., 2006) and for overall health and wellness (Holt-Lunstad et al., 2010; Uchino et al., 2018; Wang et al., 2018), future studies should examine potential discrepancies in social support for female soldiers, compared to their male counterparts. Social support has also been shown to help women in male-dominated professions (i.e. females in the military) to buffer against social identity threat (Richman, vanDellen & Wood, 2011). Past research has been successful at discovering perceptions of lower social support amongst female military personnel when compared to their male peers (Fontana, Rosenheck, & Desai, 2010), which may be due to stereotypes and prejudices (Davidson, Fielden, & Omar, 2010; Demers, 2013). The current study found that there is a ‘military is male’ stereotype. However, future studies should also examine support for female military personnel. Importantly, researchers and government organizations have championed for increased social support as a central theme for female military personnel (Cotton et al., 2000; Demers, 2013; Disabled American Veterans, 2014).

To examine possible discrepancies of social support for female compared to male military personnel, future research could use scenarios depicting opportunities to give support to veterans. For example, participants could read various scenarios in which social support could be given or not based on the manipulated gender (e.g. willingness to donate to an organization or volunteer). Such findings would be likely to support the idea that female military personnel receive less support when compared to their male counterparts.
Future studies not only need to examine the possible gender stereotypes and prejudices female military personnel may face, but also the probability of receiving lower social support than their male peers. This should be done by improving upon and replicating the current study to examine implicit gender stereotypes of military personnel. Further, more studies need to be designed to incorporate prejudice and discrimination toward female soldiers and veterans. As previously discussed, a possible discrimination of importance is less social support for this cohort when compared to their male counterparts. Primarily, examining the possible discrepancies of social support is imperative given the impact it has on all individuals and the likely additional benefits to those challenging societal gender norms (Richman, vanDellen & Wood, 2011), such as female military personnel.

**Conclusion**

The current project is the first step in examining implicit gender-based stereotypes concerning soldiers and veterans. The stereotype in question is that the military is male. Although there was no support for the main hypothesis, exploratory analyses indicated at least partial support for the presumption that someone with a military background is male. Ultimately, it is imperative to continue to examine possible disparities in assumptions (i.e. stereotypes) as well as any likely consequences of these assumptions, including prejudice and discrimination toward female soldiers and veterans. As the VA’s Women Veterans’ Task Force noted, ‘[o]ur nation does not yet adequately recognize and celebrate the contributions of women in military service, treat them with dignity and respect, or promote their successful transition to civilian life. This is a foundational issue and will be one of the most critical but difficult to address’ (Disabled American Veterans, 2014, p. 2).
References


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Van Fleet, D. D. & Atwater, L. (1997) Gender neutral names: Don’t be so sure! *Sex Roles, 37*(1), 111-123.


Table 1: Correlations with Averaged LIWC and Hand-Coded Variables (N = 174)

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIWC</td>
<td>.927***</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hand-Coded</td>
<td>-</td>
<td>.056</td>
<td>-.049</td>
<td>-</td>
</tr>
<tr>
<td>GRAS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>.180*</td>
<td>.216**</td>
<td>-.181*</td>
<td>-</td>
</tr>
</tbody>
</table>

*Note 1:* \( *p < .05, **p < .01, ***p < .001 \)

*Note 2:* “GRAS” = Participants’ gender role attitudes with higher scores meaning subscribing more to divergent gender roles. “Gender” = Participants’ gender identity with higher scores being female.
Table 2: Single Sample T-Tests ($N = 174$)

<table>
<thead>
<tr>
<th>LIWC</th>
<th>$M(SD)$</th>
<th>$t(173)$</th>
<th>Cohen’s $d$</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline</td>
<td>5.87(5.37)</td>
<td>14.42***</td>
<td>1.093</td>
<td>[0.904, 1.280]</td>
</tr>
<tr>
<td>Peace Corp</td>
<td>-2.71(10.57)</td>
<td>-3.38***</td>
<td>-0.256</td>
<td>[-0.407, -0.105]</td>
</tr>
<tr>
<td>Military</td>
<td>-2.32(10.19)</td>
<td>-3.01**</td>
<td>-0.228</td>
<td>[-0.378, -0.077]</td>
</tr>
<tr>
<td>Combat</td>
<td>-3.43(10.86)</td>
<td>-4.16***</td>
<td>-0.316</td>
<td>[-0.467, -0.163]</td>
</tr>
</tbody>
</table>

**Hand-Coded**

<table>
<thead>
<tr>
<th>LIWC</th>
<th>$M(SD)$</th>
<th>$t(173)$</th>
<th>Cohen’s $d$</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline</td>
<td>0.56(0.47)</td>
<td>15.69***</td>
<td>1.189</td>
<td>[0.994, 1.382]</td>
</tr>
<tr>
<td>Peace Corp</td>
<td>-0.24(0.91)</td>
<td>-3.49***</td>
<td>-0.265</td>
<td>[-0.416, -0.113]</td>
</tr>
<tr>
<td>Military</td>
<td>-0.21(0.92)</td>
<td>-3.06**</td>
<td>-0.232</td>
<td>[-0.382, -0.081]</td>
</tr>
<tr>
<td>Combat</td>
<td>-0.34(0.89)</td>
<td>-5.03***</td>
<td>-0.381</td>
<td>[-0.534, -0.227]</td>
</tr>
</tbody>
</table>

*Note: **$p < .01$, ***$p < .001*
Figure 1: LIWC Means for Each Condition and Baseline ($N = 174$)

Note: Error bars represent standard error.
Figure 2: Hand-Coded Means for Each Condition and Baseline ($N = 174$)

*Note:* Error bars represent standard error.
**Figure 3:** LIWC Means for Each Scenario and Condition ($N = 174$)

*Note:* Error bars represent standard error.
Figure 4: Hand-Coded Means for Each Scenario and Condition (N = 174)

Note: Error bars represent standard error.
Appendix A: Instructions for Scenarios

Please read the following 6 profiles carefully. We’ll be asking you to elaborate on each individual in each profile and describe the type of person you think they are (i.e. their personality). There is no right or wrong answers.

You will also be asked a question to test your memory for each story.

You will have 45 seconds to read EACH profile before you can continue. However, once you continue the profile will disappear, so read carefully.
Appendix B: Scenarios and Questions

Scenario 1: Experimentally manipulated

**Combat Veteran Condition.** Every Wednesday, Taylor goes to the gym at the community center with a group of friends. As a combat veteran, Taylor served faithfully for numerous years. However, an injury obtained in combat has made working out and staying in shape very difficult at times. Although experiencing continual frustration, Taylor persists to push the limits without injury and with much support from friends.

**Prior Military Condition.** Every Wednesday, Taylor goes to the gym at the community center with a group of friends. As a former military service member, Taylor served faithfully for numerous years. However, an injury obtained while in the military has made working out and staying in shape very difficult at times. Although experiencing continual frustration, Taylor persists to push the limits without injury and with much support from friends.

**Control Condition.** Every Wednesday, Taylor goes to the gym at the community center with a group of friends. As a former Peace Corp volunteer, Taylor served faithfully for numerous years. However, an injury obtained while volunteering has made working out and staying in shape very difficult at times. Although experiencing continual frustration, Taylor persists to push the limits without injury and with much support from friends.

**Manipulation check.** Please select the correct answer. Taylor was injured because of . . .

- [ ] Military Combat
- [ ] Sky Diving
- [ ] Military Service
- [ ] The Peace Corp
- [ ] Car accident
☐ Vacation trip

**Writing task.** Please tell us about Taylor’s personality in as much detail as possible. Remember, there are no right or wrong answers. You will need to write 50 or more words before you can move on.

---

**Scenario 2: Experimentally manipulated**

**Combat Veteran Condition.** As a new business owner, Pat has struggled getting established and finding reliable clientele in the El Paso area. However, as a *combat veteran*, Pat is familiar with overcoming obstacles and remains optimistic for this new business venture. In fact, experiences in combat has helped Pat become accustomed to taking risks. It is mostly the fact that someone once told Pat that the business would fail that keeps the adventure interesting.

**Prior Military Condition.** As a new business owner, Pat has struggled getting established and finding reliable clientele in the El Paso area. However, as a *former military service member*, Pat is familiar with overcoming obstacles and remains optimistic for this new business venture. In fact, experiences in the military has helped Pat become accustomed to taking risks. It is mostly the fact that someone once told Pat that the business would fail that keeps the adventure interesting.

**Control Condition.** As a new business owner, Pat has struggled getting established and finding reliable clientele in the El Paso area. However, as a *former Peace Corp volunteer*, Pat is familiar with overcoming obstacles and remains optimistic for this new business venture. In fact, experiences while volunteering has helped Pat become accustomed to taking risks. It is mostly the fact that someone once told Pat that the business would fail that keeps the adventure interesting.
Manipulation check. Please select the correct answer. Pat is familiar with overcoming obstacles because of experiences . . .

- In the Peace Corp
- In Military Combat
- In College
- Sky diving
- In the Military Service
- As a first generation U.S. citizen

Writing task. Please tell us about Pat’s personality in as much detail as possible.

Remember, there are no right or wrong answers. You will need to write 50 or more words before you can move on.

Scenario 3: Experimentally manipulated

Combat Veteran Condition. Retail sales is not an easy job for anyone. This was not a preferred career path for the combat veteran. However, a few months ago, Lee’s father suffered a stroke and now requires daily assistance with basic tasks. As the only close family member, Lee had to move from Chicago back to El Paso and needed a job, any job, and as quickly as possible. Last minute changes and unpredictability was a common experience in combat but this seemed different and more challenging.

Prior Military Condition. Retail sales is not an easy job for anyone. This was not a preferred career path for the former military service member. However, a few months ago, Lee’s father suffered a stroke and now requires daily assistance with basic tasks. As the only close family member, Lee had to move from Chicago back to El Paso and needed a job, any job,
and as quickly as possible. Last minute changes and unpredictability was a common experience in the military, but this seemed different and more challenging.

**Control Condition.** Retail sales is not an easy job for anyone. This was not a preferred career path for the former Peace Corp volunteer. However, a few months ago, Lee’s father suffered a stroke and now requires daily assistance with basic tasks. As the only close family member, Lee had to move from Chicago back to El Paso and needed a job, any job, and as quickly as possible. Last minute changes and unpredictability was a common experience while volunteering, but this seemed different and more challenging.

**Manipulation check.** Please select the correct answer. Lee is familiar with unpredictability because of experiences . . .

- □ In College
- □ In the Military Service
- □ Sky Diving
- □ In the Peace Corp
- □ As a First Generation U.S. Citizen
- □ In Military Combat

**Writing task.** Please tell us about Lee’s personality in as much detail as possible. Remember, there are no right or wrong answers. You will need to write 50 or more words before you can move on.

---

**Scenario 4: Filler**

**No conditions.** As a first generation U.S. citizen, Dani feels caught between two cultures and identities. This can be seen as a gift and a curse. However, living on the border in El Paso
seems to mostly bridge these identities and Dani does not feel out of place in this community. After many years of working hard in school, it seems that Dani will also be a first generation collage graduate. Determined to accomplish this goal and get a bachelor’s degree, Dani makes every effort to make the family proud.

No manipulation. Please select the correct answer. Dani is a . . .

- College graduate
- Sky diver
- Military veteran
- First generation U.S. citizen
- Peace Corp volunteer
- Combat veteran

Writing task. Please tell us about Dani’s personality in as much detail as possible.

Remember, there are no right or wrong answers. You will need to write 50 or more words before you can move on.

Scenario 5: Filler

No conditions. Growing up, Val was always popular. Doing well in school and sports, and being kind and outgoing, Val never seemed to have issues making and keeping friends. However, after moving to a small town in North Carolina, making new friends suddenly seemed really difficult, and at times, almost impossible. Val’s parents both got promoted and relocated to work in North Carolina. So, of course, the whole family moved. Moving and being the “new kid” at school is difficult as it is, but being the only one at school that spoke Spanish and English
seemed to put a target on Val’s back. Luckily, Val can still lean on old friends for support and encouragement.

No manipulation. Please select the correct answer. Val is struggling with being . . .

☐ A widow
☐ A military veteran
☐ A first generation U.S. citizen
☐ A combat veteran
☐ A Peace Corp volunteer
☐ The “new kid”

Writing task. Please tell us about Val’s personality in as much detail as possible.

Remember, there are no right or wrong answers. You will need to write 50 or more words before you can move on.

Scenario 6: Filler

No conditions. Riley has recently become a widow and is now raising three children as a single parent. The oldest child tries to help with the younger two, which is often incredibly helpful. The younger two children seem mostly confused and sometimes completely unaware of the recent loss. All of this is troubling and Riley decides the family should go seek counseling at a family therapy center dedicated to bereavement. At a parent teacher conference, Riley speaks with other parents and the teachers about the family issues. Most are very supportive, but one parent says that therapy is a bad decision and will only stigmatize the family.

No manipulation. Please select the correct answer. Riley is a . . .

☐ Widow
☐ Sky diver
☐ Military veteran
☐ Peace Corp volunteer
☐ Combat veteran
☐ First generation U.S. citizen

Writing task. Please tell us about Riley’s personality in as much detail as possible.

Remember, there are no right or wrong answers. You will need to write 50 or more words before you can move on.

[ ]
Appendix C: Demographic Questions

What is your age?

What is your gender?
- Male
- Female

Is English your preferred language?
- Yes
- No
  - List preferred language

Are you currently, or have you ever, served in the Military?
- Yes
- No

Are you currently, or have you ever, served in the Peace Corp?
- Yes
- No

What is your political ideology?

Very Liberal

Very Conservative

What are your attitudes about women serving in the military?

Negative: Women should NOT be in the military

Positive: Women should be in the military
What are your attitudes about women serving in combat jobs (e.g. infantry)?

Negative: Women should NOT be in combat jobs

Positive: Women should be in combat jobs
Appendix D: Gender Role Attitudes Scale

Please indicate your level of agreement with the following statements:

☐ 1 – Strongly Disagree
☐ 2
☐ 3
☐ 4
☐ 5
☐ 6
☐ 7 – Strongly Agree

1. People can be aggressive and/or understanding, regardless of their sex (SFT)*

2. People should be treated equally, regardless of their sex (SFT)*

3. Children should be given freedom depending on their age and how mature they are, not depending on their sex (SFT)*

4. Household chores should not be allocated by sex (FFT)*

5. We should stop thinking about whether people are men or women and focus on other characteristics (SFT)*

6. The husband is responsible for the family so the wife must obey him (FSS)

7. I think it is worse to see a man cry than a woman (SFS)

8. Girls should be more clean and tidy than boys (SFS)

9. Men should occupy posts of responsibility (EFS)

10. I think boys should be brought up differently than girls (FFS)

11. A father’s main responsibility is to help his children financially (EFS)

12. Some jobs are not appropriate for women (EFS)
13. Mothers should make most of the decisions on how to bring up their children (FFS)

14. Only some kinds of jobs are equally appropriate for men and women (EFS)

15. In many important jobs, it is better to contract men than women (EFS)

Note: FFT = Family Function Transcendent; SFT = Social Function Transcendent; FFS = Family Function Sexism; SFS = Social Function Sexism; EFS = Employment Function Sexism; * = Reverse-Scored Item
Vita

Katherine French earned her Bachelor of Science (summa cum laude) in psychology from Texas Christian University in 2017. During this time, she worked closely with Cathy R. Cox, Ph.D. conducting various research in personality and social psychology. Notably, she received two research grants, the Texas Christian University Science and Engineering Research Center grant and the Psi Chi Undergraduate Research grant. Furthermore, she presented eight different studies at various research conferences, one of which she won a judges award.

Katherine is currently in the Master’s program for experimental psychology at the University of Texas at El Paso. Her interests encompass numerous aspects of personality and social psychology. While mentored by Adam K. Fetterman, Ph.D. she examined metaphor use in several studies and how they can be used to aid in understanding various aspects of emotions of the self and others. In addition, she has investigated changes in attitudes and perceptions depending on social situations. Presently, she is advised by Osvaldo F. Morera, Ph.D. while examining stereotypes, prejudices, and discrimination.

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