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Gender Differences in Self-Compassion: Examining the Role of Gender Role Orientation

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Abstract

Meta-analytic research suggests that women have slightly lower levels of self-compassion than men, but the contribution of gender role orientation has not been carefully explored. The current study examines the joint associations of self-identified gender and gender role orientation with self-compassion in undergraduate ($N = 504$) and community adult ($N = 968$) samples, using two measures of gender role orientation. The Bem Sex Role Inventory (BSRI) and the Personal Attributes Questionnaire (PAQ) were used to classify each participant into a single gender role orientation category based on relative scores on the masculinity and femininity subscales, with respect to the sample, and average scores for each continuous subscale were also retained. The categorical gender role orientation classifications were used in mean comparisons of self-compassion across groups, and the average masculinity and femininity subscale scores were used in regression modeling. Results replicated the small effect size for gender differences in self-compassion for both samples, with self-identified men having significantly higher levels of self-compassion than self-identified women. Results also consistently showed that the impact of self-identified gender on self-compassion was smaller than the impact of masculine gender role orientation, suggesting that socialization plays a strong role, and that those high in both femininity and masculinity tended to have the highest levels of self-compassion. Effect sizes and specific findings differed by gender, sample, and gender role orientation measure. Therefore, a nuanced understanding of differences in self-compassion based on gender and gender role orientation is needed.

Keywords Self-compassion · Gender differences · Gender role orientation · Self-compassion training

Given the robust benefits of self-compassion suggested in the empirical literature, it is important to clarify findings from previous studies suggesting that men have higher levels of self-compassion than women in North America by considering the role that gender role orientation might play in these differences. Self-compassion refers to how we relate to ourselves in instances of perceived failure, inadequacy, or personal suffering. As defined by Neff (2003b), self-compassion entails three main elements, each of which has a positive and negative pole that represents compassionate versus uncompassionate behavior: self-kindness versus self-judgment, a sense of common humanity versus isolation, and mindfulness versus over-identification. Self-kindness entails being understanding, warm, and supportive toward oneself. Rather than harshly judging oneself for personal inadequacies, the self is offered kindness and unconditional acceptance. It also involves actively soothing and comforting oneself in times of suffering. Common humanity involves recognizing our shared human experience, acknowledging that all humans are imperfect and make mistakes, that all people face challenges in their lives. Rather than feeling isolated by one's imperfection—feeling as if "I" am the only one who is struggling—one takes a broader and more connected

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perspective. Mindfulness involves paying attention to one's present moment experience of suffering with clarity and balance, without being lost in an exaggerated storyline about negative aspects of oneself or one's life, a process called "over-identification." While these elements are separable and do not co-vary uniformly, they do mutually interact as a dynamic system to create a self-compassionate mindset.

It is important to note that self-compassion has both "yin" and "yang" qualities (Neff and Germer 2018). In traditional Chinese philosophy, yin and yang refer to the seemingly opposite but interdependent qualities of male–female, hard–soft, and active–passive. Self-compassion has not only yin qualities that stem from soothing, comforting, and validating suffering but also yang qualities that stem from protecting, providing, and motivating action to alleviate suffering. Many people think of self-compassion more in terms of yin, such as a mother soothing her crying child, or a father putting his arm around his upset son and saying, "It's going to be okay." However, yang is equally essential to self-compassion, with a prototypical image being a mother bear protecting her cubs from danger, or a father working two jobs to put food on the table for his children. Thus, self-compassion cannot be said to be essentially "masculine" or "feminine," but instead transcends this duality in its focus on the alleviation of suffering.

The construct of self-compassion has received considerable attention over the last several years. Research typically shows that self-compassion is positively associated with psychological wellbeing (Barnard and Curry 2012; Zessin et al. 2015). In fact, one meta-analysis found a large effect size when examining the negative association between self-compassion and depression, anxiety, and stress in 20 studies (MacBeth and Gumley 2012). Moreover, self-compassion is associated with psychological strengths such as happiness, optimism, and life satisfaction (Hollis-Walker and Colosimo 2011; Neff et al. 2007), as well as being linked to increased motivation, health behaviors, positive body image, and resilient coping (e.g., Albertson et al. 2015; Allen et al. 2012; Breines and Chen 2013; Sbarra et al. 2012). Although levels of self-compassion have been found to vary cross-culturally, self-compassion appears to be equally predictive of well-being across cultures (Neff et al. 2008).

Recent meta-analytic work indicates that men and women in North America (USA and Canada) tend to differ in self-compassion levels as measured by total scores on the SCS, with women reporting slightly less self-compassion than men (Yarnell et al. 2015). While the difference suggested was robust in that it was identified across 88 studies, it was small in absolute size (Cohen's $d = 0.18$). An effect of this size is meaningful

in the social sciences, however, as even a small effect is likely to result in differences in important life outcomes (Keith 2006). Additionally, the meta-analysis suggested that samples with a greater percentage of ethnic minority participants displayed larger gender differences in self-compassion, such that cultural norms for "masculinity" and "femininity" may be playing a role. To date, however, there has been little examination of role of gender role orientation in interpreting these apparent differences in men and women's levels of self-compassion.

The small effect size observed in the meta-analysis between men and women in their levels of self-compassion suggests that most variance in self-compassion is not between but *within* gender groups (Hyde 2005). One important source of individual variation may be orientation to "masculine" and "feminine" gender roles, which may relate in distinct ways with self-compassion. While there is debate in the field over the precise meanings of sex versus gender (Lips 2017), we use the term *sex* to refer to the anatomy of an individual's reproductive system and secondary sex characteristics, which can include male, female, and intersex persons (American Psychological Association [APA] and National Association of School Psychologists 2015; American United Nations Free and Equal 2016). We use the term *gender* to refer one's self-identity, which may or may not correspond to biological sex (Prince 2005). While this typically refers to "men" and "women" in the current Western societal context, it also includes a variety of nonbinary and pangender self-identifiers, such as "bigender," "nongendered," or being gender "X" (Richards et al. 2016). We use *gender role* to refer to a person's psychological identification with typical societal gender roles. However, adherence to a particular gender role can be placed along a continuum, with some persons more extremely or unvaryingly "sex-typed" than others (Bem and Lenney 1976). Placement along these continuums can be referred to as *gender role orientation*. Biological sex, gender, and gender role orientation are distinct constructs. For instance, two biological males who both self-identify as being a woman may have different degrees of identification with "masculine" and "feminine" gender roles.

The majority of research conducted in the USA on gender role orientation and its correlates has relied on the Bem Sex Role Inventory (BSRI; Bem 1974) and the Personal Attributes Questionnaire (PAQ; Spence and Helmreich 1978). These measure self-reported associations with items loosely reflecting agency/instrumentality, labeled "masculine" traits (e.g., analytical, independent, competitive), and communality/expressiveness, labeled "feminine" traits (e.g., affectionate, gentle, understanding). In scale construction, these items were chosen from

pools of characteristics that were piloted among US undergraduate samples, selected as being more valued for one gender group than the other ("masculine" for men, and "feminine" for women). While items are similar between the measures, the PAQ was explicitly designed to measure instrumentality and expressiveness, rather than "masculinity" and "femininity" per se, based on the position that these characteristics are essentially what the BSRI measures (Spence and Helmreich 1978; Hoffman and Borders 2001). In both measures, men and women can associate themselves with either ("masculine" or "feminine"), neither ("undifferentiated"), or both ("androgynous") sets of characteristics, and be categorized accordingly. While the scales are somewhat narrow in their shaping gender role orientation only in terms of agency/instrumentality and communality/expressiveness, the scales have also been interpreted in other ways (e.g., as reflecting "self-directedness" and "other-orientation," Ballard-Reisch and Elton 1992; or reflecting multiple underlying dimensions of instrumentality, Lippa 1985; Pedhazur and Tetenbaum 1979).

Despite varying interpretations, a number of studies suggest that the scales remain useful and valid for classifying men and women in North America into the original gender orientation role categories (e.g., Ahmed et al. 2016; Holt and Ellis 1998; Oswald 2004), and they capture constellations of characteristics shown to predict attitudes, behaviors, and health (Davis 2009; Wood and Eagly 2009). For example, individuals categorized as "feminine" are more likely to show symptoms of internalizing disorders such as depression, and less likely to report symptoms of externalizing disorders such as alcohol abuse; while individuals categorized as "masculine" are more likely to show symptoms of externalizing disorders such as aggression (Price et al. 2018; Taylor 2015). There is some suggestion that both men and women who are classified as "androgynous" have better mental health outcomes, including decreased stress and anxiety (Lam and McBride-Chang 2007; Prakash et al. 2010). Men and women classified as "undifferentiated" appear to have worse mental health outcomes, including low self-esteem (Berthiaume et al. 1996). However, the literature appears mixed on whether "androgyny" or "masculinity" alone appears to be most strongly associated with psychological health for both genders, with some US studies suggesting that instrumental ("masculine") but not expressive ("feminine") traits are predictive of healthy adjustment for both men and women (e.g., Aube et al. 1995; Moscovitch et al. 2005; Whitley 1983).

Levels of self-compassion are likely to differ among men and women with various gender role orientations due to the characteristics thought to reflect "masculinity" and "femininity," and these associations may be unique for each

gender. For example, the qualities of nurturance and caring associated with feminine gender norms may facilitate self-compassion. On the other hand, feminine norms of self-sacrifice (Baker-Miller 1986; Raffaelli and Ontai 2004; Ruble and Martin 1998) may lead to lower levels of self-compassion among "feminine" women, as the needs of the self are not given attention or validity. Women who are "androgynous" may exhibit higher levels of self-compassion, as research has shown that androgynous girls tend to have higher levels of authenticity and are comfortable asserting their voice (Harter et al. 1998). "Androgynous" women who are higher in self-compassion may thus be more able to remain relationally connected while tending to the needs of the self, resulting in greater self-compassion. If so, it may be that observed gender differences in self-compassion between men and women do not hold true for "androgynous" women when compared to men in general.

Research has also shown that women who adopt traditional "feminine" gender roles tend to experience stressful events as more aversive and are less capable of bouncing back from failure experiences, compared to women who identify with more flexible gender roles (Nevid and Rathus 2016). This may be due to the tendency of "androgynous" individuals to more sensitively distinguish the situational effectiveness of various coping strategies, and deploy them accordingly, including changing the situation when it is perceived as controllable (e.g., direct action), and changing the self when it is not (e.g., acceptance; Cheng 2005). These abilities may be associated with greater self-compassion, enabling "androgynous" women to more effectively cope with stress and failure.

Similarly, it may be that "masculine" norms of being strong, unemotional, pragmatic, and independent (Deaux and Kite 1993; Levant 2011; Pederson and Vogel 2007) work against masculine men's ability to show tenderness to themselves in times of need, resulting in lower levels of self-compassion than among men with a more "androgynous" orientation. For example, studies have shown that men who adhere to traditional masculine gender norms tend to avoid or inhibit vulnerable feelings and intimacy with others (Levant and Pollack 1995; O'Neil 2008); experience limited access to authentic feelings; and show heightened psychological distress (Levant 2011; Pederson and Vogel 2007). In support of this proposition, one recent study of adult heterosexual men showed that conformity to "masculine" norms is associated with lower levels of self-compassion, although the degree to which men associated with "feminine" characteristics was not explored (Reilly et al. 2014).

Yet particularly for men, the social stigma tied to gender-nonconforming displays may also be associated with lower levels of self-compassion. Gender displays that are compatible with cultural expectations may be referred

to as gender-normative, while displays incompatible with these expectations constitute gender nonconformity (APA and NASP 2015). In recent times, women have been accepted, and even encouraged, to take on "masculine" traits and behaviors such as confidence in one's abilities, competitiveness, leadership roles, and participation in sports; yet in some contexts it is less acceptable for men to take on "feminine" traits such as gentleness and kindness, concern for relationships, and emotional expression (Priess et al. 2009). For example, numerous studies have found that parents and peers are more likely to disapprove of gender-role violations in boys than in girls (e.g., Kane 2006; Martin 1990; Sirin et al. 2004).

More systematic research is needed on the association between self-compassion and gender role orientation, to clarify the overly simplistic interpretation that men and women differ in self-compassion in a binary manner, and to consider how gender role orientation in conjunction with gender may shape levels of self-compassion and its associated health benefits. Given that self-compassion entails both yin and yang elements which operate in a dialectic, and that gender roles themselves operate in a dialectic, it is likely that simplistic dichotomies are insufficient to explain the association of self-compassion and gender. For example, Tatum (2013) examined the association of self-compassion with "masculinity" and "femininity" scores using the PAQ in a combined sample of US undergraduate and community participants, and showed positive associations for both scales with self-compassion; however, interactions between "masculinity" and "femininity" were not examined, and analyses were not conducted separately for each gender group. Also, Patzak et al. (2017) found among German undergraduates that "feminine" and "undifferentiated" men and women have lower self-compassion scores than "masculine" and "androgynous" men and women using the BSRI, with no apparent modifying effect of gender group. Of course, gender roles may differ between Germany and North America.

In order to elucidate these previous findings, the current study aimed to determine whether levels of self-compassion differ according to gender role orientation in combination with gender, by examining levels of self-compassion both within and between gender groups in a US sample. (Note that examining biological sex was outside the scope of this study.) Specifically, we were interested in whether the self-compassion levels of self-identified men and women would differ according to their gender role orientation. We also were interested in whether differences between men and women would still be apparent when taking gender orientation role into account. We approach this question using a multidimensional perspective, including two different samples (an undergraduate and a community sample), and employing two distinct measures of gender orientation role (the BSRI and PAQ). While these measures differ in their precise operationalization, they share the same basic conceptual understanding of gender role orientation. We hoped that this approach would help establish the robustness of findings and provide information as to how varying operationalization of gender role orientation may inform apparent findings of gender differences. Because we are not aware of prior research examining these questions in North American populations, we considered the examination of these associations to be exploratory.

Method

Participants

Undergraduate Sample This sample was recruited from a subject pool of undergraduate college students attending a public, southwestern US university. After removing two cases from the original sample due to not completing any of the questions on one of the three main questionnaires pertaining to gender orientation role or self-compassion, the final sample size was $N = 504$, including 266 self-identified women and 238 self-identified men. Range in age was 17 to 24 years ($M = 20.79$, $SD = 1.24$). The sample was 54% European American, 31% Asian/Asian American, 9% Latino/Hispanic, 4% Multiethnic, 2% African American, and 0.2% Native American.

Community Sample This sample was recruited from a US adult population via Mechanical Turk, an online survey research recruitment method that samples from the general public. After removing 16 cases from the original sample due to not completing any questions on one of the three main questionnaires, the final sample size was $N = 968$, including 616 self-identified women and 352 self-identified men. Range in age was 18 to 76 years ($M = 38.22$, $SD = 12.90$), with no outliers (all $|z| < 2.93$). The sample was 74% European American, 8% Asian/Asian American, 6% Latino/Hispanic, 10% African American, 2% Native American, and < 1% Other. In terms of education, 37% reported having a 4-year college degree, 22% completed some college, 14% had a 2-year degree, 17% had pursued graduate school, and 9% had a high school degree or less.

Procedure

The undergraduate sample was invited to complete a survey questionnaire online, and participating students were given course credit upon completion. The community sample was drawn from Mechanical Turk, which has been found to be more nationally representative of the general population than college samples (Buhrmester et al. 2011). Participants were

paid $0.30 for completing the survey questionnaires (see Buhrmester et al. 2011 for evidence of validity at low payment levels). Data collection was approved by an Institutional Review Board and followed standard procedures ensuring consent and privacy.

Measures

Demographic Questionnaire A demographic questionnaire asked participants to indicate their gender, current age, and ethnic background.

Self-Compassion Scale Participants were administered the 26-item Self-Compassion Scale (SCS; Neff 2003a), which assesses the six components of self-compassion: Self-Kindness (e.g., "I try to be understanding and patient toward aspects of my personality I don't like"), Self-Judgment (e.g., "I'm disapproving and judgmental about my own flaws and inadequacies"), Common Humanity (e.g., "I try to see my failings as part of the human condition"), Isolation (e.g., "When I think about my inadequacies it tends to make me feel more separate and cut off from the rest of the world"), Mindfulness (e.g., "When something painful happens I try to take a balanced view of the situation"), and Over-identification (e.g., "When I'm feeling down I tend to obsess and fixate on everything that's wrong"). Responses are given on a 5-point scale ranging from 1 = "Almost Never" to 5 = "Almost Always." In order to calculate a total self-compassion score, a grand mean is taken of the six subscale means after items in the negative components are reverse coded. See Table 1 for internal consistency for the SCS and other measures.

Bem Sex Role Inventory Participants were administered the 60-item Bem Sex Role Inventory (BSRI; Bem 1974), which contains 20 items thought to reflect femininity (e.g., affectionate, gentle, understanding); 20 items thought to reflect masculinity (e.g., analytical, competitive, individualistic); and 20

filler items thought to be gender-neutral (e.g., happy, friendly, jealous). Participants respond according to the degree to which the item reflects himself or herself, on a scale from 1 = "never or almost never" to 7 = "always or almost always true." Scores for the Masculinity and Femininity subscales are calculated as the average of responses for items on each subscale. Participants are then classified into categories using a median split for each subscale, calculated separately for men and women, into one of four gender role orientation categories: Undifferentiated (below the median for both subscales), Feminine (at or above the median for femininity and below the median for masculinity), Masculine (below the median for femininity and at or above the median for masculinity), or Androgynous (at or above the median for both femininity and masculinity).

Personal Attributes Questionnaire Participants were given the Personal Attributes Questionnaire (PAQ; Spence et al. 1974), which contains eight items that reflect masculinity (instrumentality/agency), and eight items that reflect femininity (expressiveness/communality). Items are on bipolar scales anchored at the upper end by a characteristic seen as more stereotypically associated with and preferable for one gender than the other, though socially desirable for both gender groups. For example, upper anchors for the femininity subscale (e.g., very kind, very understanding of others) are thought to be desirable for both genders, but more strongly so for women, and more typically exhibited by women; while upper anchors for the masculinity subscale (e.g., independent, very self-confident) are thought to be desirable for both genders, but more strongly so for men, and more typically exhibited by men (Spence and Helmreich 1978). Participants respond on a scale of 1 to 5 based on where they think they fall on the scale. Scores for the Masculinity and Femininity subscales are calculated as the average of responses for the items on each subscale. Participants are classified into the same groups as for the BRSI, using a similar median split method, but with the

Table 1 Means, standard deviations (SDs) and internal reliability statistics for self-compassion and gender role orientation scales, by sample and gender group (between-gender comparisons)

| | Undergraduate sample | | | | | | Community sample | | | | | |
| | Women ($N = 266$) | | | Men ($N = 238$) | | | Women ($N = 616$) | | | Men ($N = 352$) | | |
	M	(SD)	α	M	(SD)	α	M	(SD)	α	M	(SD)	α
Self-Compassion	2.94a	(0.58)	0.91	3.10b	(0.58)	0.91	2.92a	(0.81)	0.95	3.16b	(0.78)	0.94
Femininity (BSRI)	5.10a	(0.57)	0.80	4.67b	(0.60)	0.81	4.77a	(0.79)	0.85	4.33b	(0.76)	0.85
Masculinity (BSRI)	4.64a	(0.71)	0.87	5.05b	(0.74)	0.89	4.22a	(0.88)	0.88	4.64b	(0.90)	0.89
Femininity (PAQ)	3.96a	(0.51)	0.79	3.76b	(0.58)	0.80	3.89a	(0.65)	0.82	3.64b	(0.66)	0.81
Masculinity (PAQ)	3.40a	(0.51)	0.69	3.73b	(0.61)	0.79	3.26a	(0.70)	0.78	3.52b	(0.70)	0.79

Means with different letters differ significantly across gender groups within each sample ($p < 0.05$ for undergraduate sample, $p < 0.01$ for community sample)

median calculated across men and women. However, when the gender groups differ in sample size, as here, the average of the medians for each gender group is used (Spence and Helmreich 1978).

Note that utilizing predefined or external norms for the medians is another option for classification for the PAQ; however, the more commonly used method of determining sample-specific cutoffs accommodates differences in the unique balance of masculinity and femininity that is meaningful within each sample. Note also that alternative scoring methods were examined for the PAQ in its initial construction, including use of continuous scores in regression modeling (Spence and Helmreich 1978). In the current study, we employed the traditional median split method, and also examined continuous scale scores in regression models, for both the BSRI and the PAQ. This enabled us to examine the potentially unique information that may be revealed using either of these methods.

Data Analyses

Analyses were conducted in Stata Version 13.1 and Mplus Version 7.4 and were identical for each sample. Nonresponse for entire scales was minimal, as reported above, and missingness of data at the item level was considered to be at random, and was treated by averaging scores for other items on the respective scale or subscale, within participant. This scale-wise treatment of missing data, which may be referred to as "ipsative mean imputation," essentially imputes the scale mean for each respondent's observed items into the missing value. This method avoids reduction in sample size that occurs with listwise deletion, and avoids reduction of variability in scores across participants that tends to occur in sample-based imputation (Schafer and Graham 2002). The majority of cases (99 to 100%) had at most 1–2 missing responses per scale or subscale in both samples, with the remaining cases having responses for at least half of the items in each scale or subscale.

Analyses consisted of two main parts, each utilized to examine within- and between-gender group differences in self-compassion: mean comparisons using analysis of variance methods, and regression modeling. Note that because we did not have a diverse enough sample to analyze results by ethnicity, we did not include ethnicity as a variable in this study.

Gender and Gender Orientation Role Mean Comparisons To compare mean self-compassion scores, we relied on analysis of variance methods using Stata. For comparisons between gender groups, we utilized t-tests (analogous to a two-group ANOVA). For comparisons within gender groups (across gender role orientation), we used ANOVAs followed by Tukey tests (Stevens 1999). Bartlett's tests of the homogeneity of variance assumption were examined for all ANOVAs, and

Welch test statistics are provided for cases not meeting this assumption. For all results, we utilized a p value of $\alpha = 0.05$, two-tailed, for the undergraduate sample, given the exploratory nature of this work; and $\alpha = 0.01$, two-tailed, for the community sample given its larger size and increased possibility of type I error. We report effect sizes to inform on practical magnitude of effects. We used Cohen's (1988) rules of thumb for effect size of t tests d: 0.20 = small, 0.50 = medium, and 0.80 = large. We used Keith's (2006) rules of thumb for effect size of ANOVA η^2 (equivalent to R^2): 0.01 = small, 0.10 = medium, and 0.25 = large.

Regression Modeling In addition to examining mean differences in self-compassion based on gender role orientation category membership, we also considered the association of self-compassion scores with *continuous* measures of femininity and masculinity. While the BSRI and PAQ typically categorize participants into groups based on the median split method (Spence and Helmreich 1978; Hoffman and Borders 2001), the continuous variables allowed the full range of scores to be utilized in considering covariation with self-compassion. This also addressed the concern that some participants with average scores close to median cutoffs may be arbitrarily classified using the median split method, and allowed us to consider the unique contribution of masculinity, femininity, and their interaction to variation in self-compassion (holding the other characteristics constant) by entering each as a separate predictor in regression models. Additionally, these models allowed for within-group and between-group analyses of these associations.

We assessed unstandardized path coefficients of predictors for statistical significance and assessed effect size using standardized regression coefficients. We also examined R^2 values for each model, as a measure of the amount of variance explained by the predictors, for each measure and sample, using Keith's (2006) rules of thumb: 0.01 = small, 0.10 = medium, 0.25 = large. Cohen's (1988) rules of thumb for determining the effect size of standardized regression coefficients are as follows: 0.10 = small, 0.30 = medium, 0.50 = large.

To determine main and potential interaction effects, we ran simultaneous regression analyses using Mplus, first within, then across gender groups, for each gender orientation role measure. The first step of each regression model examined main effects of masculinity, femininity, and in the cross-gender model only, the variable of gender, on self-compassion. A second step added an interaction term between masculinity and femininity. The within-gender models centered the masculinity and femininity terms using gender group-mean centering, while the cross-gender models centered masculinity and femininity terms based on the whole sample. The within-gender models allow masculinity and femininity scores to vary and covary as they uniquely do within each gender group, and the mean used for centering to be defined

accordingly, while the between-gender models consider the variances, covariances, and grand means to all be defined without regard to gender group. ΔR^2 between the step 1 and step 2 models was used as a measure of effect size for the interaction term using Keith's (2006) rules of thumb for ΔR^2: 0.02 = small, 0.13 = medium, 0.26 = large. To probe significant interactions, we plotted the association (slope) between one of the gender role orientation subscale scores (femininity) and self-compassion for lower and higher levels of the other subscale (masculinity), defined by cutpoints of -1 SD and $+1$ SD above or below the mean.

We utilized these models to examine whether gender role orientation contributes to individual differences in self-compassion, accounting for gender, and conversely, whether between-gender differences in self-compassion persist, accounting for gender role orientation. We chose simultaneous regression in lieu of alternative models that posit stronger theory as to causality or that give precedence to any one of the examined variables.

Results

Comparison of Self-Compassion by Gender and Gender Role Orientation Group

For between-gender comparison of self-compassion scores, with all gender role orientation groups combined, Table 1 shows mean self-compassion scores by gender for the undergraduate and community samples. As in the

prior meta-analysis (Yarnell et al. 2015), college men displayed higher self-compassion than college women, with a small effect size observed, $t(502) = 3.09$, $p = 0.002$, $d = 0.28$. (Barlett's tests indicated that the homogeneity assumption was met for all gender group comparisons.) In the community sample, men also displayed higher self-compassion compared to women, with a small effect size observed, $t(966) = 4.44$, $p < 0.001$, $d = 0.30$. Note that self-compassion levels did not significantly differ between undergraduate and community women ($p = 0.72$), or between undergraduate and community men ($p = 0.31$). Table 1 also shows that men and women in each sample differed significantly in levels of masculinity and femininity for both measures, in the expected direction ($p < 0.001$).

Correlations between scores on the BSRI and PAQ in the college sample were $r = 0.70$ for femininity and $r = 0.78$ for masculinity, and $r = 0.70$ for femininity and $r = 0.73$ for masculinity in the community sample. These relatively high correlations support the concurrent validity of the measures in the each sample (Bohrnstedt 2010), while also reflecting the uniqueness of each measure (i.e., strong but not perfect correlations were found).

Next, for within-gender comparison of self-compassion scores, between gender role orientation groups, Table 2 shows the percentage of men and women in each sample categorized into each gender role orientation group and their mean self-compassion score. As noted, the BSRI uses median split scores within gender to classify gender role orientation groups. Median values for femininity and masculinity

Table 2 Percentage of participants in each gender role orientation category and mean self-compassion score, by gender and measure, in undergraduate and community samples

	BSRI				PAQ			
	Undiff	Fem	Masc	Andro	Undiff	Fem	Masc	Andro
	Undergraduate women ($N = 266$)							
Gender role classification (percent)	26	24	25	24	27	37	14	23
Self-compassion mean	2.89a	2.77a	2.87a	3.22b	2.85a	2.74a	3.14b	3.23b
	Undergraduate men ($N = 238$)							
Gender role classification (percent)	24	26	23	27	24	13	32	32
Self-compassion mean	2.97	3.04	3.18	3.20	2.84a	2.81a	3.15b	3.35b
	Community women ($N = 616$)							
Gender role classification (percent)	23	25	25	26	25	25	18	31
Self-compassion mean	2.69a	2.76a	2.89a	3.30b	2.69a	2.50a	3.13b	3.33b
	Community men ($N = 352$)							
Gender role classification (percent)	30	22	20	27	25	12	34	29
Self-compassion mean	2.87a	3.16ab	3.22ab	3.42b	2.74a	2.92ab	3.28bc	3.46c

Means not sharing same letter differ significantly across gender role classification groups, within each sample and measure ($p < 0.05$ for undergraduate sample, $p < 0.01$ for community sample). Percentages may not sum to 100 due to rounding. SD available from first author (omitted for parsimony)

Undiff undifferentiated, *Fem* feminine, *Masc* masculine, *Andro* androgynous

(respectively) were as follows: college women (5.10 and 4.60), college men (4.65 and 5.15), community women (4.90 and 4.25), and community men (4.35 and 4.70). The PAQ classifies into gender role orientation groups based on the average of subgroup medians that are found for each gender. Median values on the PAQ for femininity and masculinity (respectively) were as follows: undergraduates (3.88 and 3.57) and community adults (3.81 and 3.38).

Note that the medians used for classification are slightly lower for all subscales and both genders in the community sample, relative to the college sample; and squares of SD shown in Table 1 indicate that scores were consistently more variable for all subscales and both genders in the community sample, as well. Note additionally that the BSRI tended to classify participants more evenly across the gender role orientation groups than the PAQ, in terms of percentages. These statistics demonstrate that the distributions of femininity and masculinity scores are unique for each sample, and highlight the importance of interpreting gender role orientation as defined in each sample, accordingly.

As a test of whether differences in self-compassion scores were significant, across gender orientation role groups, within each gender, among college women, a one-way (BSRI gender role orientation) ANOVA found significant gender role orientation group differences in self-compassion, $F(3, 262) = 7.87$, $p < 0.001$ (small to medium ES, $R^2 = 0.08$). Post hoc Tukey tests showed that androgynous women had higher self-compassion than women in each of the other gender role orientation groups, who did not differ from each other. Results based on the PAQ also indicated significant gender role orientation group differences in self-compassion, $F(3, 262) = 12.22$, $p < 0.001$ (medium ES, $R^2 = 0.12$). Post hoc Tukey tests showed that androgynous and masculine women (who did not differ from each other) had higher self-compassion than undifferentiated and feminine women (who did not differ from each other). (The robust test result for gender role orientation group differences based on the BSRI among college women was as follows: Welch statistic (4, 172.32) = 9.00, $p < 0.001$, which suggests an identical conclusion.)

Among college men, a one-way (BSRI gender role orientation) ANOVA found no significant gender role orientation group differences in self-compassion, $F(3, 234) = 2.17$, $p = 0.08$ ($R^2 = 0.03$). Results for college men based on the PAQ differed from those based on the BSRI, with significant gender role orientation group differences in self-compassion, $F(3, 234) = 12.41$, $p < 0.001$ (medium ES, $R^2 = 0.14$). Androgynous and masculine men (who did not differ) had higher self-compassion levels than undifferentiated and feminine men (who did not differ). (The robust test result for gender role orientation group

differences based on the PAQ among college men was: Welch statistic (4, 123.70) = 10.91, $p < 0.001$, which suggests an identical conclusion.)

Among community women, a one-way (BSRI gender role orientation) ANOVA showed significant gender role orientation group differences in self-compassion, $F(3, 612) = 19.62$, $p < 0.001$ (small to medium ES, $R^2 = 0.09$). Similar to the undergraduate sample, post hoc Tukey tests showed that androgynous women had higher self-compassion than women in each of the other gender role orientation groups, who did not differ from each other. Results for community women based on the PAQ were also similar to college women, with significant gender orientation role group differences in self-compassion indicated, $F(3, 612) = 45.83$, $p < 0.001$ (medium ES, $R^2 = 0.12$). Post hoc Tukey tests showed that androgynous and masculine women (who did not differ) had higher self-compassion than undifferentiated and feminine women (who did not differ). (The robust test result for gender role orientation group differences based on the BSRI among community women was: Welch statistic (4, 408.36) = 20.91, $p < 0.001$. Robust test result for gender role orientation group differences based on the PAQ among community women was as follows: Welch statistic (4, 391.99) = 42.92, $p < 0.001$. These tests suggest identical conclusions.)

Among community men, a one-way (BSRI gender role orientation) ANOVA showed significant gender role orientation group differences in self-compassion, $F(3, 348) = 9.27$, $p < 0.001$ (small ES, $R^2 = 0.07$). Post hoc Tukeys found that androgynous men had more self-compassion than undifferentiated men, but no other group differences were found. For the PAQ, significant group differences in self-compassion were also found, $F(3, 348) = 18.40$, $p < 0.001$ (medium ES, $R^2 = 0.14$), with Tukey contrasts showing that androgynous men had higher self-compassion than feminine and undifferentiated men. Masculine men also had more self-compassion than undifferentiated men, but did not differ from androgynous or feminine men. (The robust test result for gender role orientation group differences based on the BSRI among community men was as follows: Welch statistic (4, 176.96) = 19.24, $p < 0.001$, which suggests an identical conclusion.)

Within-Gender Associations of Self-Compassion with Continuous Gender Role Orientation Variables

To examine the associations of continuous measures of masculinity, femininity, and their interaction within each gender group, Table 3 shows results of the regression models run within gender group, by sample. These models permit the gender role orientation variables to

vary and covary uniquely in each gender group, and they employ what is essentially group-mean centering. Main effects remained similar in size and significance between the step 1 (main effects) and step 2 (main plus interaction effects) models, so results are shown for step 2 models only for parsimony.

Undergraduate Sample Among undergraduate women, the BSRI model showed that both femininity and masculinity scores were significantly and positively associated with self-compassion, with a small ES for femininity, and a medium ES for masculinity (see standardized regression coefficients in Table 3). The interaction term was also significant, with a small-to-medium ES. For the PAQ, the association of femininity with self-compassion scores was nonsignificant, while masculinity scores were significantly associated, with a medium effect size. The interaction term was not significant ($p = 0.29$). Among undergraduate men, BSRI masculinity scores were significantly and positively associated with self-compassion, with a medium ES, while femininity and the interaction term were not significant ($p = 0.08$ and $p = 0.07$, respectively). With the PAQ, however, both femininity and masculinity were significant, positive predictors, with a small ES for femininity and a medium ES for masculinity. The interaction term was also significant, with a small ES.

Figure S1 of our online Supplementary Materials depicts the association of femininity and self-compassion for undergraduates low versus high in masculinity for the significant interactions found (BSRI for women, and PAQ for men). Those high in both femininity and masculinity had the highest levels of self-compassion.

Community Sample Among community women, results were similar to those found in the undergraduate sample based on the BSRI, with both femininity and masculinity showing significant, positive associations with self-compassion, with a small ES for femininity and a medium ES for masculinity (see standardized regression coefficients in Table 3). Also, the interaction term was significantly associated with self-compassion beyond these main effects, with a small ES. The PAQ model showed that masculinity had a significant, positive association with self-compassion, with a large ES indicated, but femininity did not make a significant contribution. Unlike for undergraduate women, a significant interaction between femininity and masculinity scores was also found for community women, with a small ES indicated. As shown in Fig. S2, those high in both femininity and masculinity using each measure of gender orientation role had the highest levels of self-compassion.

Finally, among community men, results with the BRSI model indicated significant, positive associations of both masculinity and femininity with self-compassion, with a small-to-medium ES observed for femininity and a medium ES for masculinity, but no significant interaction. Results were similar among community men based on the PAQ, again with both

Table 3 Unstandardized (SE) and standardized regression coefficients and variance explained for regression models predicting self-compassion from femininity and masculinity scores and their interaction (by gender, sample, and gender role orientation measure)

	BSRI		PAQ		BSRI		PAQ	
	b (SE)	β	b (SE)	β	b (SE)	β	b (SE)	β
	Undergraduate women ($N = 266$)				Community women ($N = 616$)			
Intercept	2.94 (0.03)	–	2.93 (0.03)	–	2.92 (0.03)	–	2.91 (0.03)	–
Femininity	0.13* (0.06)	0.13	0.00 (0.06)	0.00	0.14*** (0.04)	0.13	0.05 (0.04)	0.04
Masculinity	0.22*** (0.05)	0.27	0.46*** (0.06)	0.41	0.27*** (0.04)	0.29	0.60*** (0.04)	0.52
Interaction	0.26** (0.08)	0.18	0.13 (0.12)	0.06	0.15*** (0.04)	0.16	0.16*** (0.05)	0.10
R^2	0.12		0.17		0.11		0.29	
ΔR^2	0.03		0.00		0.02		0.01	
	Undergraduate men ($N = 238$)				Community men ($N = 352$)			
Intercept	3.09 (0.04)	–	3.08 (0.04)	–	3.15 (0.04)	–	3.15 (0.04)	–
Femininity	0.11 (0.06)	0.11	0.14* (0.06)	0.14	0.19*** (0.05)	0.18	0.17** (0.06)	0.15
Masculinity	0.20*** (0.05)	0.25	0.36*** (0.06)	0.37	0.22*** (0.05)	0.25	0.51*** (0.05)	0.46
Interaction	0.13 (0.07)	0.12	0.19* (0.07)	0.15	0.02 (0.05)	0.02	0.03 (0.07)	0.02
R^2	0.08		0.18		0.12		0.27	
ΔR^2	0.01		0.03		0.00		0.00	

Femininity and Masculinity subscale scores centered for each measure, within each gender group and sample, prior to cross-multiplication. Results are for step 2 (main and interaction effect) models, with ΔR^2 indicated relative to step 1 (main effects only) models. Significance and standardized coefficient omitted for intercepts

$*p < 0.05$; $**p < 0.01$; $***p < 0.001$

femininity and masculinity scores showing significant, positive associations with self-compassion, with a small ES observed for femininity and a large ES for masculinity, but no significant interaction.

Across-Gender Associations of Self-Compassion with Continuous Gender Role Orientation Variables

Finally, to examine the associations of continuous measures of masculinity, femininity, and their interaction across gender groups, Table 4 shows results of the regression models run for men and women combined, by sample. These models directly address the question of whether gender group differences in self-compassion persist, when taking gender role orientation into account. By definition, the gender role orientation variables vary and covary in these models as they do in each sample as a whole, and for consistency, grand sample-mean centering was applied. As main effects remained similar in size and significance between the step 1 (main effects) and step 2 (main plus interaction effects) models, results are again shown for step 2 models only for parsimony.

Undergraduate Sample For undergraduates, results based on the BSRI showed small, statistically significant, positive associations of gender (coded "0" for women and "1" for men) and femininity scores with self-compassion; and a medium-sized, statistically significant, positive association of masculinity with self-compassion (see standardized regression coefficients in Table 4). Additionally, the interaction term showed a significant and small effect, above and beyond these main effects. These predictors explained 11% of variance in self-compassion (a medium-sized amount of variance in the

social sciences), though a statistically significant amount of variance remained unaccounted for ($p < 0.001$), as indicated by the residual variance parameter (as found for all models presented here). This suggests that both gender and gender role orientation (as measured by the BSRI) contribute meaningfully to individual differences in self-compassion, accounting for each other—that is, gender differences in self-compassion persist even accounting for gender role orientation, and vice versa. However, the significant residual variance indicates that other sources of individual differences exist.

In contrast, results based on the PAQ showed that masculinity scores were positively and significantly associated with self-compassion, with a medium effect size, accounting for the other predictors, while gender and femininity scores were not ($p = 0.61$ and $p = 0.17$, respectively). This suggests that after accounting for gender role orientation, gender differences between men and women in self-compassion are no longer significant. Additionally, a statistically significant, small-sized interaction was indicated. The predictors in this model explained about 19% of variance in self-compassion.

Notably, in both the BSRI and PAQ models, gender and femininity had roughly equivalent association with self-compassion, accounting for other predictors in the model, while the association for masculinity was stronger, and the interaction between masculinity and femininity was meaningful. The association for gender depended on the gender role orientation measure. Figure S3 depicts the association of femininity and self-compassion for undergraduates low versus high in masculinity for the significant interactions found for each measure. Those high in both femininity and masculinity had the highest levels of self-compassion.

Table 4 Unstandardized (SE) and standardized regression coefficients and variance explained for regression models predicting self-compassion from gender, femininity, masculinity, and femininity by masculinity interaction terms (by sample and gender role orientation measure)

| | Undergraduate sample ($N = 504$) | | | | Community sample ($N = 968$) | | | |
| | BSRI | | PAQ | | BSRI | | PAQ | |
	b (SE)	β	b (SE)	β	b (SE)	β	b (SE)	β
Intercept	2.96 (0.04)	–	2.99 (0.04)	–	2.93 (0.03)	–	2.96 (0.03)	–
Gender	0.12* (0.06)	0.10	0.03 (0.06)	0.02	0.19*** (0.05)	0.11	0.11 (0.05)	0.06
Femininity	0.12** (0.05)	0.13	0.07 (0.05)	0.06	0.15*** (0.03)	0.15	0.09 (0.04)	0.08
Masculinity	0.21*** (0.04)	0.27	0.41*** (0.04)	0.41	0.25*** (0.03)	0.29	0.58*** (0.03)	0.51
Interaction	0.15*** (0.04)	0.14	0.19** (0.07)	0.13	0.10*** (0.03)	0.11	0.12** (0.05)	0.08
R^2	0.11		0.19		0.13		0.29	
ΔR^2	0.01		0.02		0.01		0.00	

Gender groups coded as 0 = women, 1 = men. Femininity and Masculinity subscale scores centered for each measure, based on the whole sample, prior to cross-multiplication. Results are for step 2 (main and interaction effect) models, with ΔR^2 indicated relative to step 1 (main effects only) models. Significance and standardized coefficient omitted for intercepts

*$p < 0.05$; **$p < 0.01$; ***$p < 0.001$

Community Sample In the community sample, results similarly showed that the strongest predictor of self-compassion was masculinity (see Table 4). Specifically, similar to results for the college sample, the BSRI model showed statistically significant, positive associations of all main effect predictors with self-compassion: small effects for gender and femininity, and a medium effect for masculinity. Additionally, a statistically significant, small-sized interaction was indicated. Similar to the college sample, these predictors explained about 13% of variance in self-compassion scores.

Results for the communuity PAQ model were also similar to those for the PAQ in the college sample. Specifically, statistical significance ($p < 0.01$) was not reached for gender or femininity, but a large, statistically significant, positive effect was observed for masculinity. Additionally, a statistically significant, small-sized interaction was indicated. These variables accounted for 29% of variance in self-compassion, considered a large amount of variance explained according to rules of thumb, though as for all other models, a significant amount of variance in scores remained unexplained ($p < 0.001$).

As in the college sample, overall, the models showed a relatively stronger association of masculinity with self-compassion scores than other predictors, and suggested that the interaction between masculinity and femininity is meaningful. Similarly, the association between gender and self-compassion, accounting for other variables, depended on the gender role orientation measure. Figure S4 depicts the association of femininity and self-compassion for community sample members low versus high in masculinity for the significant interactions found for each measure. Those high in both femininity and masculinity had the highest levels of self-compassion.

Discussion

Findings from this study provide greater nuance to prior meta-analytic findings of lower levels of self-compassion among women relative to men in North America (Yarnell et al. 2015). While replicating this finding, current results also consistently showed that the impact of self-identified gender on self-compassion appears to be smaller than the impact of having a masculine gender role orientation, suggesting that socialization plays a strong role in the tendency to be compassionate to oneself. Also, those high in both communal and expressive traits (associated with "femininity") and agentic and instrumental traits (associated with "masculinity") appear to have the highest levels of self-compassion. Additionally, a key finding was that masculinity's association with self-compassion was stronger than the association for femininity, yet interactions between levels of levels of masculinity and femininity

may also be important, especially for those who identify as women.

Contributions of Gender and Gender Role Orientation

This study replicated past meta-analytic findings that self-identified men tend to have slightly higher levels of self-compassion than self-identified women (Yarnell et al. 2015), to the magnitude of a small effect size. This difference was found for both college and community samples. Gender differences in self-compassion are consistent with research indicating that women tend to be more self-critical (Cheng and Furnham 2004), and to brood and ruminate (Johnson and Whisman 2013; Nolen-Hoeksema et al. 1999), and have lower levels of mindfulness than men on average (Bergomi et al. 2012; Feldman et al. 2007; Lilja et al. 2011; Dundas et al. 2013; Gilbert and Waltz 2010). This finding may appear surprising in light of literature indicating that women tend to display more empathic concern and compassion for others than men do (Mestre et al. 2009; Sprecher and Fehr 2005; Van der Graaff et al. 2014). It appears that this tendency does not generalize to how women treat themselves, however. This also implies that there is a greater discrepancy between the degree of compassion women show to themselves versus others, compared to men.

When analyzing the contribution of gender role orientation, however, results were more complex. Our findings suggest that gender role orientation plays an important role in individual self-compassion levels. In general, androgynous and masculine men and women tended to have the highest levels of self-compassion. First, among both undergraduate and community women, comparisons using gender orientation role categories based on the BSRI showed that androgynous women had more self-compassion than women in each of the other gender orientation role groups (who did not differ from each other). Using the PAQ, undergraduate and community women who were classified as androgynous and masculine (who did not differ from each other) had more self-compassion than undifferentiated and feminine women (who did not differ from each other).

Among undergraduate men, there were no differences in self-compassion according to gender orientation role category based on the BSRI. Using the PAQ, androgynous and masculine men (who did not differ from each other) had higher self-compassion levels than undifferentiated and feminine men (who did not differ from each other), as was found for undergraduate and community women. When examining the self-compassion levels of community men, androgynous men had more self-compassion than undifferentiated men using the BSRI, but no other group differences were found. Using the PAQ, androgynous men had more self-compassion than feminine and undifferentiated men. Masculine men also had more

self-compassion than undifferentiated men, but did not differ from androgynous or feminine men.

Results from our regression models examining gender role orientation as continuous predictors of self-compassion within each gender and sample yielded similar results. Overall, masculinity was the most consistent positive predictor of self-compassion, for both men and women and with both gender role orientation measures, with a medium effect size typically observed. Femininity was a significant positive predictor using the BSRI for undergraduate and community women, as well as community men; and was a positive significant predictor using the PAQ for undergraduate and community men (but not women), with a small effect size. Moreover, the interaction of masculinity and femininity was a significant predictor in three of the four models examined among women (except for the PAQ model for undergraduate women), with a small effect size. In contrast, the interaction was only significant in one of the four models examined among men (the PAQ model for undergraduate men).

The finding that masculinity was the strongest and most consistent predictor of self-compassion may be surprising given that masculine gender norms demand display of "hard" rather than "soft" emotions in the face of adversity (Mahalik et al. 2003). Yet, self-compassion has both "yin" and "yang" aspects, and can take the form of protecting, providing, and motivating the self, qualities that are part of more masculine gender role norms (Neff and Germer 2018). A common misperception about self-compassion that stands in the way of people adopting the stance is that it is "weak" (Robinson et al. 2016). However, self-compassion is a strength in times of struggle, helping people cope in a more powerful manner with stress (Allen and Leary 2010), chronic illness (Sirois et al. 2015), divorce (Sbarra et al. 2012), and even combat trauma (Hiraoka et al. 2015). Also, masculine gender role norms value self-assertion and independence, which may translate into a greater willingness to take one's own need seriously and give oneself compassion in times of distress.

It should be noted that femininity also significantly predicted self-compassion in the positive direction, even though findings were less consistent and effect sizes were typically small. Thus, our results suggest that higher levels of the traits associated with femininity are not a liability in terms of self-compassion and help buttress levels of the construct, just not as strongly as the traits associated with masculinity. Feminine traits such as being affectionate, gentle, understanding toward others correspond to the "yin" self-compassion qualities of soothing, comforting, and validating, and appear to generalize at least somewhat toward the self. However, feminine norms of self-sacrifice (which are themselves influenced by power inequality; Neff and Harter 2002) may somewhat attenuate the strength of this association. The common misperception that self-compassion is "selfish" (Robinson et al. 2016) may also be standing in the way of people with a feminine gender role

orientation giving themselves permission to be kind to themselves. Masculine traits emphasizing autonomy and self-assertion, on the other hand, may facilitate caring for the self without being in conflict with norms of self-sacrifice.

The interaction between masculinity and femininity also significantly predicted self-compassion, especially for those identifying as women. Note that three of the four within-gender regression models found that the interaction between masculinity and femininity significantly predicted self-compassion for women, but only one was found for men. This may suggest that women experience more robust benefits in self-compassion when they embrace *both* masculine and feminine qualities. This is in accord with research suggesting that androgynous women experience more authentic assertion of their needs, perceive higher levels of support, and evaluate themselves more positively (Harter et al. 1998). It is also consistent with research showing that androgynous women have greater perceived self-efficacy and mental health (Rath and Mishra 2013; Thornton and Leo 1992) and are better able to deal with stress and bounce back from failure (Nevid and Rathus 2016). If "masculine" norms tend to emphasize autonomy and independence and "feminine" norms caring and nurturing, then it may be that having both helps women to fully apply self-compassion to themselves. Still, it is likely that balancing yin and yang qualities is most conductive to the development of self-compassion for persons of all genders. Further research should explore this issue further.

An important question concerns the degree to which gender differences in self-compassion are due to self-identified gender versus gender role orientation. First of all, note that self-identified men and self-identified women differed in terms of their levels of masculinity and femininity for both samples, and according to both gender role orientation measures—suggesting that gender differences in self-compassion may be due in part to gender differences in gender role orientation. When entering gender and gender role orientation as simultaneous predictors of self-compassion, results differed by measure. Results of the cross-gender regression models based on the BSRI suggested that differences in self-compassion between men and women remain even accounting for gender role orientation; while results based on the PAQ indicated that the association of gender with self-compassion was no longer significant, after masculinity, femininity, and their interaction were accounted for. The results also suggested that gender role orientation predicts meaningful differences in self-compassion, accounting for gender. Additionally, all four cross-gender models suggested that levels of masculinity have the greatest impact on self-compassion among the three examined variables, and that the interaction between masculinity and femininity contributes additionally to these levels. Last, results consistently showed that the impact of gender on self-

compassion was smaller than the impact of masculine gender role orientation, suggesting that socialization plays a strong role.

Multiplistic Approach to Gender, Gender Role Orientation, and Self-Compassion

As emphasized in this discussion, our findings were shaped by the gender role orientation measure used, as well as the sample being investigated. The BSRI and PAQ take the same general approach to measuring gender role orientation (direct assessment of self-identification with two independent trait qualities, with item pools based on original US undergraduate student samples). Yet item pools and scales for the BSRI and PAQ differ (e.g., the latter employs bipolar endorsement subscales, and focusing more directly on instrumentality and expressiveness). Our two samples were also distinct in terms of important social characteristics including age and level of education. Accordingly, both main and interaction effects differed to some degree depending on the model at hand.

The fact that the PAQ models consistently explained more variance in self-compassion scores than the BSRI models may suggest that instrumentality and expressiveness (as directly measured in the PAQ) have stronger associations with self-compassion than "masculinity" and "femininity" as represented by BSRI. While the BSRI has been suggested to largely measure instrumentality and expressiveness as well (Spence and Helmreich 1978), it has also been argued that these are only aspects of what the BSRI measures (Bem 1981; also see Spence and Buckner 2000). For example, the BSRI contains some items not reflective of instrumentality and expressiveness per se, instead more directly reflecting qualities that have traditionally been more desirable for one gender group (e.g., "athletic" among the masculinity items, and "shy" and "soft-spoken" among the femininity items). The BSRI scores showed strong internal consistency for both samples and both genders in our study. Nonetheless, reliability does not imply validity, i.e., that a construct has been properly named. However, correlations between the measures within each sample and gender indicated a great deal of overlap, as reported, supporting the construct validity of the measures (i.e., the BSRI and PAQ measure largely the same construct). More research should be done on the precise characteristics involved in the associations uncovered here, and other methods of measuring gender role orientation should be explored (e.g., priming tasks).

While these nuances add richness to our findings, the same overarching findings were obtained: self-identified gender and gender role orientation each contribute meaningfully to individual and group differences in self-compassion (with all effects consistently in a positive direction); both masculinity and femininity are positively associated with self-compassion (though masculinity to a greater degree); and the interaction

between masculinity and femininity contributes meaningfully to individual differences in self-compassion to some extent. The fact that these patterns were obtained across analytic approaches, measures, and samples adds support to our findings.

Limitations and Future Research Directions

While providing insight on the role of gender role orientation in interpreting gender differences in self-compassion, this investigation had several limitations. First, sizable variation in self-compassion remained unaccounted for, above and beyond the gender and gender role orientation variables. This highlights that there are a host of additional sources of variation in self-compassion besides gender and gender role orientation that were not examined. Variables such as attachment style (Pepping et al. 2015; Wei et al. 2011), parental criticism (Neff and McGehee 2010), and trauma history (Tanaka et al. 2011) have all been shown to have a strong influence on self-compassion, and it is likely that individual life history plays an even more important role than gender or gender role orientation in influencing self-compassion. It may also be that sexual orientation interacts with gender and gender role orientation in terms of predicting self-compassion, and this possibility should be explored in future research.

Importantly, the roles of social stigma and hegemony in these processes should be examined. Research has suggested that cross-gender role orientation may be accompanied by perceived stigma, perhaps particularly so among those who identify as men (Kane 2006; Martin 1990; Sirin et al. 2004), suggesting a system in which traditional gender roles are reinforced. The fact that the "masculine" items in the BSRI and PAQ were thought in original samples to be more desirable for men than for women highlights systems of power in which it is more desirable for men than for women to be instrumental or agentic. Subsequent research has suggested that many items in the BRSI scales can be viewed as equally desirable among women and men, as gender-neutral, or as being mixed in interpretation (Ballard-Reisch and Elton 1992; Hoffman and Borders 2001). This suggests that the scales, while reliable, may be assessing somewhat different constructs than intended in original design. Therefore, interpretations of our findings should be made cautiously, and further consideration of the constructs underlying the associations uncovered here is warranted. Another major limitation is that we examined US samples only and were not able to examine findings separately by ethnic group. Gender role orientation has been found to differ in meaning across U.S. ethnic groups (Abrams et al. 2016), so it will be important to explore these findings in other populations to examine the robustness of effects across ethnic and cultural groups.
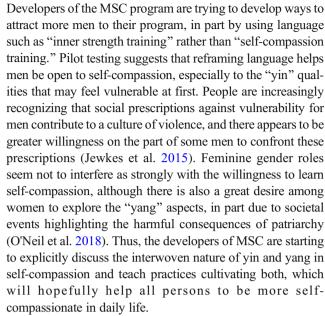
Also, our findings were limited to understanding gender role orientation as measured by the BSRI and PAQ. As emphasized, both of these measures have received some criticism

(see Hoffman and Borders 2001), so future research might fruitfully employ other ways to measure gender orientation role such as priming tasks (e.g., van Well et al. 2007), Implicit Association Tasks (e.g., Greenwald and Banaji 1995), or gender diagnosticity measures (e.g., Lippa 1991). However, the BRSI and the PAQ offer a "standard" definition of what has been thought to constitute "masculinity" and "femininity" in North America via their set item pools; yet the traditional scoring methods for these measures define the *relative* balance of "masculine" and "feminine" characteristics used for gender role classification to be derived internally, based on the sample at hand, in acknowledging the "fluid" definition of gender roles with respect to sample characteristics. Nonetheless, future research should corroborate findings with observer reports, in light of the bias potentially introduced by these self-report measures. Future research might also fruitfully employ qualitative methods to better understand why self-compassion was higher among androgynous and masculine persons, and the ways in which distinct groups manifest these characteristics.

The cross-sectional nature of this research means that the directionality of effects cannot be established. It is possible that having a particular gender role orientation impacts level of self-compassion, but it is equally possible that having a certain level of self-compassion influences the embrace of characteristics in the gender role orientation measures—for example, being willing to take (healthy) risks (an indicator of "masculinity"); or being sensitive to the needs of others (an indicator of "femininity"). Future research may employ longitudinal designs to try to better understand these associations, and path modeling can be used to explore how variation in gender orientation role and self-compassion explain gender differences for specific outcomes.

Although our research found that women tend to have slightly lower levels of self-compassion than men, self-compassion is a skill that can be learned by all people. The Mindful Self-Compassion program (Neff and Germer 2013), for instance, and its adaptation for adolescents called Making Friends with Yourself (Bluth et al. 2016), have both been shown to be effective in raising participants' self-compassion levels, in addition to improving other aspects of wellbeing such as lowering depression and increasing life satisfaction. Interestingly, based on the personal observations of the second author, programs such as MSC tend to disproportionately attract women (about 85% of the audience). Even though men tend to be slightly more self-compassionate than women, they may have stronger misgivings about self-compassion (Robinson et al. 2016), though this has yet to be researched. The fear that self-compassion is a weakness might mean that men are less likely to sign up for a self-compassion course. There are many men who lack self-compassion who could greatly benefit from developing this skill, but ironically, masculine gender role norms may prevent them from doing so.

Developers of the MSC program are trying to develop ways to attract more men to their program, in part by using language such as "inner strength training" rather than "self-compassion training." Pilot testing suggests that reframing language helps men be open to self-compassion, especially to the "yin" qualities that may feel vulnerable at first. People are increasingly recognizing that social prescriptions against vulnerability for men contribute to a culture of violence, and there appears to be greater willingness on the part of some men to confront these prescriptions (Jewkes et al. 2015). Feminine gender roles seem not to interfere as strongly with the willingness to learn self-compassion, although there is also a great desire among women to explore the "yang" aspects, in part due to societal events highlighting the harmful consequences of patriarchy (O'Neil et al. 2018). Thus, the developers of MSC are starting to explicitly discuss the interwoven nature of yin and yang in self-compassion and teach practices cultivating both, which will hopefully help all persons to be more self-compassionate in daily life.

Given the robust benefits of self-compassion, it will be important to address how gender socialization norms may be putting some persons at a disadvantage in terms of adopting this adaptive way of coping with difficult emotions and life events. One strategy may be for initiatives to focus on encouraging the development of self-compassion among all people, regardless of identity affirmed or direction of predominant gender role orientation.

Compliance with Ethical Standards

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