



Does gender have a significant relationship with social courage? Test of dual sequentially mediated pathways

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ABSTRACT

No widespread theoretical framework exists to study courage, and researchers must turn to lay theory to identify relationships that can develop more sophisticated theoretical integrations. We test the lay theory that men are more courageous than women. Three studies show that gender does not have a significant direct effect with an important dimension of courage, social courage; however, gender has dual sequentially mediated indirect effects with social courage that jointly produce an overall null effect. One indirect effect is through femininity and prosocial tendencies, whereas the other is through masculinity and risk taking. These results support that (a) the lay theory that men are more courageous than women is false – at least regarding social courage, (b) gender does have indirect relationships with social courage, (c) and contexts relevant to two central features of courage, prosocial tendencies and risk taking, may alter the social courage behaviors of feminine or masculine individuals.

1. Introduction

Recent years have seen a growth of research on courage, which has produced several findings that enable the easier study of the construct. [Rate \(2010\)](#); [Rate, Clarke, Lindsay & Sternberg \(2007\)](#) empirically supported their conceptualization of courage through a multiple-study process, and this definition has been applied in many subsequent articles ([Ginevra et al., 2018](#); [Simola, 2015](#); [Worline, 2012](#)). This definition suggests that courage is, “(a) willful, intentional act, (b) executed after mindful deliberation, (c) involving objective substantial risk to the actor, (d) primarily motivated to bring about a noble good or worthy end” ([Rate et al., 2007](#), p. 95). Researchers have also identified a dimension of courage that is important to the modern world, social courage, which is defined as a courageous behavior “in which the risks involved could damage the actor's esteem in the eyes of others” ([Howard, Farr, Grandey & Gutworth, 2017](#), p. 675). Several authors have highlighted that modern occupations often rely on effective interpersonal interactions, and social courage may be necessary to address difficult social issues ([Detert et al., 2017](#); [Koerner, 2014](#); [Schilpzand, Hekman & Mitchell, 2014](#)). Lastly, multiple scales have been developed to operationalize courage and its dimensions ([Norton & Weiss, 2009](#); [Woodard & Pury, 2007](#)). Perhaps the most established scale is the Workplace Social Courage Scale (WSCS), with prior results supporting its internal consistency, psychometric properties, and validity ([Howard et al., 2017](#)). The WSCS was developed to specifically measure social courage in the workplace, and it is most commonly used to measure trait – rather than behavioral – social courage ([Howard, 2019](#); [Howard &](#)

[Holmes, 2020](#)). Not only is the study of courage easier from this cumulative research, but the construct of courage, particularly social courage, has been identified as a topic worthy of further study.

Due to the lack of widespread theoretical frameworks for the study of courage, however, it is common to turn to lay theory to identify relationships that can develop more sophisticated theoretical integrations. The focus of the current article is a common notion expressed by popular-press and other non-academic outlets: men are more courageous than women ([Goldstein, 2003](#); [Kryder-Reid, 1994](#); [May, 1994](#); [Schmid, 1992](#); [Sturken, 2002](#); [Vugt, Cremer & Janssen, 2007](#)).

For example, a roundtable discussion published in [The Good Men Project \(2015\)](#) discussed the attention – and notable backlash – Caitlyn Jenner garnered after receiving the Arthur Ashe Courage Award. Many of these criticisms pointed towards overtly masculine examples of people that were also deserving but not bestowed the award, with the most popular being Noah Galloway, a U.S. army veteran that lost an arm and a leg in Iraq but continues to compete in ultra-marathons. As the lead-in to the discussion states, “stories of men coming home from war are actually stereotypically male – there's winning and competition and strength and violence and aggression – whereas stories of a transgender person are decidedly not” (para. 7). The discussion subsequently argues that Jenner's story is indeed courageous, but this example nevertheless highlights that courage is commonly intertwined with masculinity – even to the extent that non-masculine examples of courage are disputed by the general public.

Any gender differences regarding courage are believed to be caused

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by differing socializations and expectations between the sexes, such that men are conditioned to be more courageous than women (May, 1994; Schmid, 1992; Sturken, 2002). For this reason, the current article explores whether a dimension of courage, social courage, has a relationship with gender and constructs associated with gender (e.g. femininity/masculinity, gender roles). The current article also tests for mediating effects between these variables and social courage to identify explanatory mechanisms. We propose that the relationship of gender and social courage is explained by gender's differing relationship to two core features of courage. Gender is proposed to have a sequential indirect effect via femininity and prosocial tendencies, but it is also proposed to have a sequential indirect effect via masculinity and risk taking. These dual sequentially mediated effects are proposed to offset the other to produce an overall null effect, suggesting that the relationship of gender and courage may be both surprising and more nuanced than expected.

The results of three studies can help infer whether the commonly-expressed sentiment that men are more courageous than women is indeed true or whether it is nothing more than urban legend – at least regarding social courage. Investigating these relationships can also advance theory and practice. Regarding theory, the current results can determine whether research on courage should be integrated with current perspectives on gender, such that the dynamics of courage should be interpreted through a feminine or masculine lens. The discovery of mediators can identify mechanisms that cause social courage to be associated with other individual differences as well as additional outcomes. Regarding practice, these results can support whether organizations should develop interventions to encourage women to be more courageous, as social courage has previously been shown to relate to job performance (Howard et al., 2017). The results can also identify whether feminine or masculine work contexts may promote social courage in masculine and feminine individuals – or perhaps even deter social courage behaviors. Not only could such interventions produce better employee performance, but they could benefit the career trajectories of women – if such gender differences exist.

It should also be emphasized that the study of our chosen courage dimension, social courage, is a noteworthy endeavor within itself. Researchers have linked social courage to important personal and organizational outcomes, which deepens theory surrounding these outcomes when identifying such connections. Regarding personal outcomes, Koerner (2014) qualitatively supported that social courage behaviors can serve as transformational experiences, and they are integral for identity formation and development. Likewise, Howard (2019) supported that social courage is negatively related to stress, depression, and anxiety, which identified a direct relationship between social courage and well-being. Regarding organizational outcomes, social courage has been associated with core performance, organizational citizenship, and voice behaviors (Howard & Holmes, 2019; Howard et al., 2017; Koerner, 2014). Some authors have even argued that social courage is essential for safety knowledge sharing and the development of high-functioning safety climates, representing a personal and organizational outcome (Geller, 2016; Geller, Bolduc, Foy & Dean, 2012). Discovering these relationships has broadened the nomological network of these outcomes, and it also identified social courage as an avenue to further understand their occurrence. Subsequent authors can then develop more comprehensive models, including linkages via social courage, and practitioners could apply these models to improve both personal and organizational outcomes. Therefore, the study of social courage is valuable for both research and practice, as the identification of antecedent effects – as studied in the current article – can provide a better understanding of its currently known outcomes.

2. Background

As mentioned, Rate et al. (2007) define courage as a behavior that includes (a) intention, (b) deliberation, (c) risk, and (d) a noble good or worthy end. Most authors consider a “noble good or worthy end” to be

synonymous with prosocial outcomes, suggesting that courage is driven by prosocial tendencies (Detert et al., 2017; Howard, 2019; Koerner, 2014; Rate, 2010; Schilpzand et al., 2014). This perspective is likewise taken in the current article.

Although this definition describes a behavior, the term “courage” is typically used to describe a trait. To rectify this contradiction, Pury and Starkey (2010) distinguished definitions that treat courage as an accolade and as a process. Definitions that treat courage as an accolade are used to identify those “different from the rest” (Howard & Cogswell, 2018, p. 2). These definitions are widespread in popular-press and other non-academic outlets, but they pose notable concerns. Particularly, they do not provide clear boundaries to distinguish courageous and non-courageous individuals, and instead use vague terms to define courage (e.g. bravery, valor, nerve; Howard & Alipour, 2014; Pury & Starkey, 2010). On the other hand, definitions that treat courage as a process provide clearer guidelines to identify courageous and non-courageous behaviors, and those that repeatedly perform courageous behaviors are considered to possess the trait of courage (Pury & Starkey, 2010). For example, when applying Rate et al. (2007) definition, those that repeatedly perform intentional, deliberate, and risky behaviors that produce prosocial outcomes are considered courageous. In the current article, we place a greater focus on conceptualizing courage as a trait and distinguishing those with the trait of courage, with the recognition that these people are more likely to perform the behavior of courage.

Authors have also identified several dimensions of trait courage by applying process definitions, typically by differentiating the risks involved with courageous behaviors (Schilpzand, 2008; Sekerka & Bagozzi, 2007; Sekerka, Bagozzi & Charnigo, 2009). Three dimensions appear most often in these discussions: physical courage, moral courage, and social courage (Clancy, 2003; Howard et al., 2017; Olsthoorn, 2007; Woodard & Pury, 2007).

Physical courage is the tendency to perform prosocial behaviors that risk one's physical well-being (Clancy, 2003; Olsthoorn, 2007). While physical courage is important to certain people (e.g. police officer, firefighter) or situations (e.g. war, stopping a bully), some authors have argued that physical courage is no longer important to the day-to-day lives of most people because they are rarely faced with physical risks for the benefit of others (Clancy, 2003; Kidder & McLeod, 2005; Lachman, 2007). Howard and Reiley (2020) empirically supported this notion by showing that physical courage predicts performance outcomes in a sample of military cadets, but it did not predict performance outcomes in a general employee sample. We recognize the situational importance of physical courage, but we instead investigate a dimension of courage that is important across a wider array of contexts.

Moral courage, while its importance is often discussed, does not have a widely-supported definition (Brooks & Edwards, 2009; Halmburger, Baumert & Schmitt, 2015; Niesta, Greitemeyer, Fischer & Frey, 2010; Simola, 2015; Worline, 2012). As stated by Howard and Cogswell (2018), “some definitions do not clearly distinguish moral courage from general courage or other ethics-related individual differences ... other definitions define moral courage as overcoming risks to others, addressing norm violations, expressing authenticity, or even courage in extreme situations” (p. 3). Due to current construct confusion surrounding moral courage, it is also not studied in the current article. It is recognized, however, that moral courage will likely be an important dimension of courage to study once a definition has been clearly established for the construct.

Social courage is the tendency to perform prosocial behaviors that risks one's social well-being (Howard et al., 2017; May, 1994; Woodard & Pury, 2007), and many authors recognize the importance of social courage due to its relevance to the workplace (Howard, 2019; Koerner, 2014; Schilpzand, 2008). Employees are regularly faced with risking their social well-being to benefit their organization. For example, an employee may be expected to give a presentation although they fear embarrassment, or a supervisor may be expected to evaluate

the performance of a subordinate although it could damage their friendship. Empirical evidence has also supported that social courage relates to work outcomes, as social courage was shown to be related to organizational citizenship behaviors and job performance even when controlling for conscientiousness (Howard et al., 2017). Therefore, not only has the existence of social courage been widely supported, but it also has an important influence on people's daily interactions.

Social courage may also have an amplified association with gender compared to other dimensions of courage. As discussed below, feminine and masculine individuals are socialized differently, such that the former is conditioned to be more passive and relationship-oriented (across most cultures; Cooper, 2000; Negra, 2008). In addition to gender differences regarding other aspects of socialization that may influence courage (e.g. risk taking), gender differences regarding social relationships may cause social courage to have a heightened relationship with gender. Therefore, of all the dimensions of courage, social courage may be the most relevant to study alongside gender. While it is assumed that the results also relate to the broader construct of courage, any observations would be meaningful due to their association with social courage.

3. Social courage and gender

“Sex” refers to physiological characteristics, whereas “gender” is a culturally-defined construct of social and psychological factors with an association to sex (Haig, 2004; Lips, 2017). In general, this culturally-defined construct associates certain concepts and behaviors with being either feminine or masculine, which is associated with the female and male sexes. For instance, watching romance movies is commonly identified as a feminine behavior, whereas watching combat sports is identified as a masculine behavior (Cooper, 2000; Hirose & Pih, 2010; Negra, 2008). Some cultures stray from this binary conceptualization of gender, but the primary context of the current studies, western societies, tend to adhere to this perspective.

Ample empirical research has shown that people are socialized differently based on their gender, which is true across almost all cultures, and children are expected to learn the popular schema for femininity and masculinity to successfully function in society (Bem, 1974, 1981; Dietz, 1998; Eccles, Jacobs & Harold, 1990). In turn, people that identify themselves as more feminine, which are typically women, are expected to perform more feminine behaviors, whereas people that identify themselves as more masculine, which are typically men, are expected to perform more masculine behaviors. For example, individuals that identify themselves as more feminine would be expected to partake in behaviors such as caring for children and discussing social relationships. On the other hand, individuals that identify themselves as more masculine would be expected to partake in behaviors such as working physically-taxing jobs and watching sports.

Feminine and masculine individuals are also expected to partake in certain social roles and demonstrate certain social characteristics. Feminine individuals are socialized to be gentle, affectionate, sympathetic, and sensitive to other's needs. Alternatively, masculine individuals are socialized to be more aggressive, dominant, impulsive, and commanding (Bem, 1974, 1981; Carver, Vafaei, Guerra, Freire & Phillips, 2013; Santana, Raj, Decker, La Marche & Silverman, 2006). These differences in socialization are believed to cause most social and psychological differences between the sexes. For instance, the socialization of feminine individuals to be more passive and masculine individuals to be more assertive has been identified as a cause of sex disparities in top management positions (Eagly & Johnson, 1990; Kent & Moss, 1994). Similarly, a sex disparity may also exist regarding social courage.

A primary element of courage is risk taking (Rate, 2010; Rate et al., 2007), and people must endure substantial risks to perform these behaviors for the greater good. Feminine individuals are conditioned to be safer, whereas masculine individuals are conditioned to be riskier

(Bem, 1981; Carver et al., 2013; Eccles, 1987; Santana et al., 2006). An attributed source of this socialization difference is the expectation that women should preserve their well-being to care for children while men should risk their well-being to obtain resources necessary for survival (e.g. food, shelter; Block, Block & Morrison, 1981; Lin & Fu, 1990). Because masculine individuals, who are predominantly men, tend to make riskier decisions, it is believed that these individuals may be more courageous compared to feminine individuals, who are predominantly women.

Also, regarding social courage, feminine individuals are socialized to be passive and relationship-oriented, whereas masculine individuals are socialized to be confrontational and socially aggressive. This is highlighted by the social characteristics that feminine (e.g. warm, gentle, affectionate) and masculine (e.g. aggressive, dominant, strong) people are expected to adopt. Feminine individuals may be less likely to risk their social well-being, particularly their relationships, due to systematic socialization patterns that cause them to value on their social well-being, and thereby feminine individuals may be less socially courageous. Likewise, masculine individuals may be more likely to disregard their social well-being, and thereby may be more socially courageous. Therefore, men and masculine individuals are predicted to report higher levels of social courage than women and feminine individuals, which is the predominant sentiment expressed in prior courage research (Goldstein, 2003; Kryder-Reid, 1994; May 1994; Schmid, 1992; Sturken, 2002; Vugt et al., 2007).

Hypothesis 1: People who identify as male report higher levels of social courage than those who identify as female.

Hypothesis 2: People who identify as masculine report higher levels of social courage than those who identify as feminine.

4. Study 1

Study 1 is a cross-sectional study that provides an initial test of Hypotheses 1 and 2.

4.1. Method

4.1.1. Participants

Participants ($N = 428$, $M_{age} = 36.32$, $SD_{age} = 11.54$, 46% female, 90% American) were recruited from MTurk and provided \$0.25 of monetary compensation. Most participants were employed (85%) in a wide range of industries (19% Business & Information, 11% Education, 10% Health Services, 60% Other) and relatively well-tenured in their job ($M_{tenure} = 5.59$, $SD_{tenure} = 5.63$). MTurk is a website that connects individuals willing to perform tasks on a computer, such as taking a survey, with those needing the tasks completed. Several prior studies have shown that results obtained from MTurk samples are reliable and valid, even when studying special populations (Necka, Cacioppo, Norman & Cacioppo, 2016; Paolacci & Chandler, 2014; Shapiro, Chandler & Mueller, 2013; Smith, Roster, Golden & Albaum, 2016). Participants were removed if they either failed an attention check (“Please mark strongly disagree to show that you are paying attention”) or indicated that they did not answer in an effortful or truthful manner (“Based on the effort and truthfulness that you put into this survey, should your answers be used for research purposes?”). All statistics, including the reported sample size above, reflect the sample after removing these participants.

4.1.2. Procedure

Participants signed-up for Study 1 via MTurk. They provided their informed consent and completed the survey online. Once completed, participants were debriefed about the study.

4.1.3. Measures

Workplace Social Courage. Workplace social courage was measured via Howard et al. (2017) 11-item Workplace Social Courage Scale

(WSCS). Example items are, “I would not tolerate when a coworker is rude to someone, even if I make him/her upset” and “Although it makes me look incompetent, I would tell my coworkers when I’ve made a mistake.” The scale’s Cronbach’s alpha was 0.83 in the current study.

Femininity-Masculinity. Femininity-Masculinity was measured with the six-item scale of Kachel, Steffens and Niedlich (2016). Participants responded on a 1 (Totally Masculine) to 7 (Totally Feminine) scale, and example items are, “I consider myself as...” and “Traditionally, my attitudes and beliefs would be considered as...” Higher scores indicate a more feminine self-perception, whereas lower scores indicate a more masculine self-perception. The scale’s Cronbach’s alpha was 0.97 in the current study.

Gender. Gender was assessed with an item that read, “What is your gender?” Participants could respond “Female,” “Male,” or “Other.” If the participant responded other, they could type their gender identity. No participants marked other in Study 1, and analyses could not be performed using the other category. Gender was coded as 1 (Female) and 0 (Male).

4.1.4. Results/Discussion

Correlations and Cronbach’s alphas of Study 1 variables are included in Table 1. The WSCS did not have a significant relationship with gender ($r = -0.08, p > .05$) or femininity-masculinity ($r = -0.07, p > .05$). Women and men had almost equal WSCS scores ($M_{female} = 5.07, SD_{female} = 0.87; M_{male} = 5.22, SD_{male} = 0.83$) and this difference was not statistically significant ($t = -1.736, df = 425, p > .05$). These results suggest that social courage, at least in the context of the workplace, does not have a significant relationship with gender or femininity-masculinity. Hypotheses 1 and 2 were not supported.

5. Study 2

Gender does not appear to have a significant relationship with social courage. Study 2 probes this finding further, and we improve upon the design of Study 1 in three manners. First, we measure gender as a continuous variable. A limitation of Study 1 was the consideration of gender as a dichotomy, as ample research has supported that gender is better conceptualized as a spectrum (Haig, 2004; Kachel et al., 2016; Lips, 2017; Spence & Helmreich, 1979). By measuring gender in this manner, we can obtain a more accurate perspective on the relationship between gender and social courage. Second, we treat femininity and masculinity as separate spectrums. Another limitation of Study 1 was the consideration of femininity and masculinity as opposite ends of a single spectrum. Research has supported that femininity and masculinity should be measured independently, and the relationship between the two is often small to moderate (Bem, 1981; Hirose & Pih, 2010; Parent & Moradi, 2009, 2011). This finding indicates that they are indeed unique constructs, and more accurate understandings of gender can be obtained by measuring femininity and masculinity separately. Third, we incorporate a wider array of gender-related variables. The last noted limitation of Study 1 was only measuring two variables. While femininity and masculinity are among the most essential constructs to understand gender dynamics, they are not comprehensive representations of these dynamics (Haig, 2004; Hirose & Pih, 2010;

Table 1
Correlations and Cronbach’s Alphas of study 1 variables.

	1	2	3
1.) Workplace Social Courage	.83		
2.) Femininity-Masculinity	-.07	.97	
3.) Gender	-.08	.80**	N/A

$n = 426$.

* $p < .05$.

** $p < .01$.

Kachel et al., 2016; Lips, 2017; Schmid, 1992; Sturken, 2002). Instead, it is necessary to measure multiple variables to obtain more complete and multifaceted perspectives of gender as well as our relationships of interest.

Given these considerations, we measure the following variables in Study 2: dichotomous gender, continuous gender, femininity, masculinity, feminine gender roles, masculine gender roles, conforming to feminine norms, and conforming to masculine norms. Each of these variables were chosen due to their association with gender and socialization processes (Bem, 1974, 1981; Parent & Moradi, 2009, 2011; Spence & Helmreich, 1979). Separate hypotheses for each of these relationships are presented below, and each are tested in the time-separated Study 2 that partially addresses common method biases (Conway & Lance, 2010; Podsakoff, MacKenzie, Lee & Podsakoff, 2003).

Hypothesis 3: Femininity has a negative relationship with social courage.

Hypothesis 4: Masculinity has a positive relationship with social courage.

Hypothesis 5: Partaking in feminine gender roles has a negative relationship with social courage.

Hypothesis 6: Partaking in masculine gender roles has a positive relationship with social courage.

Hypothesis 7: Conforming to feminine norms has a negative relationship with social courage.

Hypothesis 8: Conforming to masculine norms has a positive relationship with social courage.

5.1. Method

5.1.1. Participants

Participants ($N = 244, M_{age} = 36.65, SD_{age} = 11.38, 45\%$ female, 91% American) were recruited from MTurk and provided \$1.55 of monetary compensation. Most participants were employed (81%) and relatively well-tenured ($M_{tenure} = 5.44, SD_{tenure} = 4.53$) in a wide range of industries (14% Business & Information, 9% Education, 8% Food & Hospitality, 69% Other). Because the surveys for Study 2 were longer, a greater number of attention checks were used (5). We removed participants that failed more than 20% of the attention checks or indicated that they did not answer in an effortful or truthful manner. We also removed participants with the same IP address as those in Study 1 to ensure that participants did not participate in both studies, which is a common practice in prior research (Howard et al., 2017; Kuyumcu & Dahling, 2014). All statistics, including the reported sample size, reflect the sample after removing these participants.

5.1.2. Procedure

Participants signed-up for Study 2 via MTurk. They provided their digital informed consent and completed the first survey online (Time 1, 244 participants). The first survey included demographic information and the WSCS. One day later, they were sent a link to the second survey, which included all other study variables (Time 2, 153 participants). Once completed, participants were debriefed about the purpose of the study and thanked for their time.

5.1.3. Measures

Workplace Social Courage. The WSCS was again administered in Study 2 ($\alpha = 0.82$).

Femininity and Masculinity. Femininity and masculinity was measured with the Personal Attributes Questionnaire (Spence & Helmreich, 1979). This measure asks participants to rate themselves regarding a series of characteristic pairs, such as “Not at all emotional / Very emotional” (feminine) and “Not at all independent / Very independent” (masculine). The scale’s Cronbach’s alpha was 0.83 (femininity) and 0.83 (masculinity) in the current study.

Gender Roles. A twenty-item version of the Bem Sex Role Inventory (BSRI) was applied (Bem, 1981). The BSRI-20 contains 10 items to gauge

femininity and 10 items to gauge masculinity, and example items are “tender” (femininity) and “assertive” (masculinity). Prior studies have supported the psychometric properties of the BSRI-20, and it shows a satisfactory correlation with the full BSRI (Campbell, Gillaspay & Thompson, 1997; Hoffman & Borders, 2001; Peng, 2006). The scale's Cronbach's alpha was 0.94 (femininity) and 0.88 (masculinity).

Conformity to Feminine Norms. The Conformity to Feminine Norms Inventory-45 (Parent & Moradi, 2011) assessed participants' adherence to typical female stereotypes. Example items are, “I would be happier if I was thinner” and “It is important to keep your living space clean.” Because Study 2 included a sample of female and male participants, items referring to makeup were reworded. For example, the item, “I spend more than 30 min a day doing my hair and makeup,” was reworded to, “I spend more than 30 min a day on my appearance (i.e. doing my hair).” This rewording still gauges the intended dimension (Investment in Appearance) and allows male participants to better respond regarding their attitudes, behaviors, and beliefs. The scale's Cronbach's alpha was 0.79.

Conformity to Masculine Norms. The Conformity to Masculine Norms Inventory-46 (Parent & Moradi, 2009) assessed participants' adherence to typical male stereotypes. Example items are, “I would do anything to win” and “I hate asking for help.” The scale's Cronbach's alpha was 0.89.

Gender. Gender was assessed via two different methods in Study 2. The same method from Study 1 was again applied. Only one participant responded as “Other,” and analyses thereby only included the categories of Female (1) and Male (0). Gender was also assessed via a continuous measure that included the response options of: Female, Mostly Female, Somewhat Female, Intersex, Somewhat Male, Mostly Male, Male, and Other. While numerical values were not provided alongside the response opinions to participants, this measure was coded from 7 (Female) to 1 (Male) for all analyses. No participants reported “Other” for this variable.

5.1.4. Results/Discussion

Correlations and Cronbach's alphas of Study 2 variables are included in Table 2. The WSCS did not have a significant relationship with gender, whether assessed dichotomously ($r = 0.04, p > .05$) or continuously ($r = 0.04, p > .05$). Women and men had almost entirely equal average WSCS scores ($M_{\text{female}} = 5.12, SD_{\text{female}} = 0.83; M_{\text{male}} = 5.04, SD_{\text{male}} = 0.81$), and this difference was not statistically significant ($t = 0.685, df = 241, p > .05$). These results replicate the findings of Study 1. Hypothesis 1 and 2 was again not supported.

The WSCS also did not have a significant relationship with either conformity to feminine norms ($r = 0.05, p > .05$) or conformity to masculine norms ($r = -0.14, p > .05$); however, the WSCS had a significant relationship to feminine gender roles ($r = 0.29, p < .01$), masculine gender roles ($r = 0.28, p < .01$), femininity ($r = 0.22, p <$

Table 2
Correlations and Cronbach's Alphas of study 2 variables.

	1	2	3	4	5	6	7	8	9
1.) Workplace Social Courage	.82								
2.) Feminine Gender Roles	.29**	.94							
3.) Masculine Gender Roles	.28**	.06	.88						
4.) Femininity	.22**	.76**	-0.08	.83					
5.) Masculinity	.25**	.07	.75**	.08	.83				
6.) Conformity to Feminine Norms	.05	.62**	-0.14	.61**	-0.08	.79			
7.) Conformity to Masculine Norms	-0.14	-0.37**	.38**	-0.42**	.31**	-0.30**	.89		
8.) Gender (Dichotomous)	.04	.21**	-0.17*	.31**	-0.16*	.34**	-0.46**	N/A	
9.) Gender (Continuous)	.04	.28**	-0.15	.35**	-0.13	.38**	-0.45**	.92**	N/A

Notes: Feminine and masculine gender roles were measured with the Bem Sex Role Inventory. Femininity and masculinity were measured with the Personal Attribute Questionnaire. Conformity to feminine and masculine norms was measured with the scales of Parent and Moradi (2009, 2011).

n = 153.

* $p < .05$.

** $p < .01$.

Table 3
Regression results predicting workplace social courage in study 2.

	B	S.E.	t	p	95% C.I.
Constant	3.015	.402	7.508	<0.001	2.221, 3.809
1. Feminine Gender Roles	.221	.061	3.626	<0.001	.100, 0.341
2. Masculine Gender Roles	.200	.060	3.332	.001	.082, 0.320
3. Gender (Continuous)	-0.009	.023	-0.375	.708	-0.054, 0.037
Constant	3.210	.462	6.952	<0.001	2.297, 4.122
1. Femininity	.281	.109	2.582	.011	.066, 0.496
2. Masculinity	.240	.085	2.804	.006	.071, 0.408
3. Gender (Continuous)	-0.010	.024	-0.422	.674	-0.058, 0.038

Note: Bolded p-values indicate a statistically significant result at $p < .05$.

.01), and masculinity ($r = 0.25, p < .01$). These results failed to support Hypotheses 7 or 8, but they supported Hypotheses 3, 4, 5, and 6.

To probe these findings, we performed two separate dual mediation analyses using Hayes's PROCESS macro, which produces bootstrapped estimates of indirect effects. In the first, we tested whether feminine gender roles and masculine gender roles simultaneously mediated the relationship between gender and social courage (Table 3). The results supported both indirect effects, such that gender had a significant indirect effect on social courage through both feminine gender roles ($ab = 0.023, S.E. = 0.010, 95\% \text{ C.I. } [.007, 0.048]$) and masculine gender roles ($ab = -0.011, S.E. = 0.007, 95\% \text{ C.I. } [-0.029, -0.0001]$). It should be emphasized that the former indirect effect is positive, whereas the latter is negative. The direct effect was still not statistically significant ($\beta = -0.009, S.E. = 0.023, 95\% \text{ C.I. } [-0.084, 0.037]$). In the second, we tested whether masculinity and femininity simultaneously mediated the relationship between gender and social courage. The results supported a significant indirect effect on social courage through femininity ($ab = 0.023, S.E. = 0.011, 95\% \text{ C.I. } [.005, 0.048]$), whereas the indirect effect through masculinity very closely approached statistical significance and was marginally supported ($ab = -0.009, S.E. = 0.006, 95\% \text{ C.I. } [-0.025, 0.0004]$). Again, the former indirect is positive, and the latter is negative. The direct effect was again not statistically significant ($\beta = -0.010, S.E. = 0.024, 95\% \text{ C.I. } [-0.058, 0.038]$). Thus, while gender does not have a significant direct effect on social courage, it appears to have dual indirect effects that counteract each other.

6. Study 3

Study 2 supported that gender has a significant relationship with social courage via dual mediated effects, one through femininity and one through masculinity, that cancel each other out and produce an

overall null effect. This finding indicates that, although gender does not have a significant direct effect, it nevertheless has significant indirect effects on social courage. While rare, it is possible to discover significant indirect effects despite the presence of a direct effect, such as the current case observed for gender and social courage – when dual mediating pathways cancel the other out (MacKinnon, Fairchild & Fritz, 2007). In Study 3, we probe this finding to determine the relevant explanatory mechanisms. Specifically, we identify the mediating effects that help explain the relationships of both masculinity and femininity with social courage.

Courage has two key aspects: prosocial intent and personal risk (Rate, 2010; Rate et al., 2007). We suggest that the aspect of prosocial intent ties into feminine individuals' proclivity to be caring and nurturing. The personal attributes questionnaire uses the descriptors, "able to devote self completely to others", "helpful to others", and "very kind" to identify feminine individuals. We expect prosocial tendencies to mediate the relationship of femininity and social courage. In doing so, a sequentially mediated effect will be formed, such that gender predicts femininity, which predicts prosocial tendencies, which predicts social courage.

Hypothesis 9: Prosocial tendencies mediates the relationship between femininity and social courage.

Hypothesis 10: The relationship of gender and social courage is sequentially mediated, such that gender predicts femininity, which predicts prosocial tendencies, which predicts social courage.

We also suggest that the aspect of personal risk ties into masculine individuals' proclivity for impulsive and dangerous activities. For instance, the personal attributes questionnaire uses the descriptors "aggressive", "excitable in a major crisis", and "very little need for security" to identify masculine individuals. We expect risk taking to mediate the relationship of masculinity and social courage; a sequentially mediated effect will be formed, such that gender predicts masculinity, which predicts risk taking, which predicts social courage.

Hypothesis 11: Risk taking mediates the relationship between masculinity and social courage.

Hypothesis 12: The relationship of gender and social courage is sequentially mediated, such that gender predicts masculinity, which predicts risk taking, which predicts social courage.

6.1. Method

6.1.1. Participants

Participants ($N = 487$, $M_{age} = 35.84$, $SD_{age} = 10.67$, 55% female, 74% American) were recruited from MTurk and provided \$1.60 of monetary compensation. Most participants were employed (89%) and relatively well-tenured ($M_{tenure} = 5.93$, $SD_{tenure} = 5.78$) in a wide range of industries (19% Business & Information, 11% Health Services, 10% Education, 60% Other). Study 3 included four attention checks. Participants were removed if they either failed more than 25% of attention checks or had the same IP address as a participant in Studies 1 or 2. All statistics, including the reported sample size, reflect the sample after removing these participants.

Table 4
Correlations and Cronbach's Alphas of study 3 variables.

	1	2	3	4	5	6	7
1. Workplace Social Courage	.87						
2. Feminine Gender Roles	.30**	.94					
3. Masculine Gender Roles	.41**	.12*	.90				
4. Prosocial Tendencies	.17*	.45**	.15*	.84			
5. Risk Taking	.40**	.06	.39**	-0.07	.67		
6. Gender (Dichotomous)	-0.13	.14*	-0.16**	.06	.02	N/A	
7. Gender (Continuous)	-0.12	.16**	-0.16**	.07	.00	.98**	N/A

$n = 204$.
* $p < .05$.
** $p < .01$.

6.1.2. Procedure

Participants signed-up for Study 3 via MTurk. They provided their digital informed consent and completed the first survey online (Time 1, 487 participants), which included demographic information alone. Each week for the following three weeks, the participants completed Time 2 (273 participants), Time 3 (239 participants), and Time 4 (204 participants) surveys. The Time 2 survey included the Personal Attributes Questionnaire and the Bem Sex Role Inventory. The Time 3 survey included the risk taking and prosocial tendencies measures described below. The Time 4 survey included the WSCS alone. Once completed, participants were debriefed about the purpose of the study and thanked for their time.

6.1.3. Measures

Readers should refer to the Study 2 reporting for information regarding the Personal Attributes Questionnaire, the Bem Sex Role Inventory, the WSCS, and the gender measures.

Risk Taking. Risk taking was measured with Weber, Blais and Betz (2002) social risk taking dimension of their multidimensional risk taking scale. An example item is, "Arguing with a friend who has a very different opinion on an issue." The scale's Cronbach's alpha was 0.67.

Prosocial Tendencies. To assess prosocial tendencies, we administered a four-item measure that gauges the motivation of participants to perform prosocial behaviors in the workplace (O'Reilly & Chatman, 1986). An example item is, "I volunteer for tasks that are not required." The scale's Cronbach's alpha was 0.84.

6.1.4. Results/Discussion

Correlations and Cronbach's alphas of Study 3 variables are included in Table 4. The WSCS did not have a significant relationship with gender, whether assessed dichotomously ($r = -0.13$, $p > .05$) or continuously ($r = -0.12$, $p > .05$). Women and men had almost equal WSCS scores ($M_{female} = 5.07$, $SD_{female} = 0.86$; $M_{male} = 5.30$, $SD_{male} = 0.85$), which was not statistically significant ($t = -1.892$, $df = 202$, $p > .05$). These results replicate the findings of Studies 1 and 2. Hypotheses 1 and 2 were again not supported.

The WSCS also had a significant relationship to feminine gender roles ($r = 0.30$, $p < .01$), masculine gender roles ($r = 0.41$, $p < .01$), femininity ($r = 0.25$, $p < .01$), and masculinity ($r = 0.42$, $p < .01$). These results replicate the findings of Study 2 and support Hypotheses 3, 4, 5, and 6.

To test Hypotheses 9 through 12, we investigate whether both feminine gender roles and masculine gender roles simultaneously mediate the relationship between gender and social courage (Table 5). We also conducted the same analyses with femininity and masculinity in place of feminine gender roles and masculine gender roles. These alternative analyses (femininity/masculinity) replicated the results of the primary analyses (feminine/masculine gender roles), and they are therefore included in Supplemental Material A due to space concerns.

The results supported both initial indirect effects, such that gender had a significant indirect effect on social courage via both feminine

Table 5
Regression Results Predicting workplace social courage in study 3.

	B	S.E.	T	p	95% C.I.
Constant	1.960	.379	5.165	.000	1.212, 2.708
1. Gender (Continuous)	−0.033	.018	−1.824	.070	−0.070, 0.003
2. Feminine Gender Roles	.155	.052	3.013	.003	.054, 0.257
3. Masculine Gender Roles	.147	.056	2.648	.009	.038, 0.257
4. Prosocial Tendencies	.113	.043	2.628	.009	.028, 0.198
5. Risk Taking	.414	.097	4.251	.000	.222, 0.606

Note: Bolded p-values indicate a statistically significant result at $p < .05$.

gender roles ($ab = 0.012$, $S.E. = 0.007$, 95% C.I. [.001, 0.027]) and masculine gender roles ($ab = -0.015$, $S.E. = 0.008$, 95% C.I. [-0.035, -0.000]). The direct effect was still not statistically significant ($\beta = -0.035$, $S.E. = 0.019$, 95% C.I. [-0.073, 0.003]). These results again replicated the observed results of Study 2, such that gender had dual indirect effects on social courage via feminine and masculine gender roles despite no direct effect.

We tested whether prosocial tendencies mediates the relationship between feminine gender roles and social courage while accounting for gender, masculine gender roles, and risk taking. The indirect effect was significant ($ab = 0.056$, $S.E. = 0.024$, 95% C.I. [.018, 0.112]) as was the direct effect ($\beta = 0.155$, $S.E. = 0.052$, 95% C.I. [.054, 0.257]). These results support Hypothesis 9. We also tested whether risk taking mediates the relationship between masculine gender roles and social courage while accounting for gender, feminine gender roles, and prosocial tendencies. The indirect effect was significant ($ab = 0.101$, $S.E. = 0.031$, 95% C.I. [.047, 0.172]) as was the direct effect ($\beta = 0.147$, $S.E. = 0.056$, 95% C.I. [.038, 0.257]). This result supports Hypothesis 11.

Lastly, we tested for the presence of dual sequentially mediated pathways to explain the relationship of gender and social courage – one pathway through masculinity and risk taking and the other through femininity and prosocial tendencies. Using PROCESS, each sequential indirect effect was tested while controlling for the other two variables to provide a more complete test of the model. The results supported the presence of a sequentially mediated indirect effect of gender on social courage through feminine gender roles and prosocial tendencies ($abc = 0.004$, $S.E. = 0.002$, 95% C.I. [.001, 0.010]), whereas the sequentially mediated indirect effect through masculine gender roles and risk taking very closely approached statistical significance ($abc = -0.004$, $S.E. = 0.003$, 95% C.I. [-0.011, 0.001]). The direct effect was not significant, but the indirect effects of gender on social courage through feminine gender roles ($ab = 0.010$, $S.E. = 0.006$, 95% C.I. [.001, 0.024]) and masculine gender roles ($ab = -0.005$, $S.E. = -0.005$, 95% C.I. [-0.019, 0.001]) was significant and closely approached significance, respectively. These results fully support Hypothesis 10 and partially support Hypothesis 12.

7. General discussion

The goal of the current article was to investigate the relationship of gender and social courage. The results of both cross-sectional (Study 1) and time-separated (Studies 2 and 3) studies showed that a significant direct relation did not exist between the two constructs. These results were probed by assessing other variables associated with gender (Studies 2 and 3), and social courage had significant relations with femininity, masculinity, feminine gender roles, and masculine gender roles. We then tested dual indirect effects between gender and social courage via these mediators (Studies 2 and 3). Gender had significant dual indirect effects via feminine and masculine gender roles, and these dual indirect effects offset the other to produce an overall null effect. We performed a final investigation to determine the mediators of these effects (Study 3), supporting dual sequentially mediated pathways. Gender predicted both feminine and masculine gender roles, feminine gender roles predicted prosocial tendencies, masculine gender roles predicted risk taking, and both prosocial tendencies and risk taking predicted social courage (Fig. 1). These dual pathways counteracted the other to produce an overall null effect, and all effects were replicated when femininity and masculinity were studied in place of feminine and masculine gender roles, supporting the robustness of the results. These findings suggest that gender indeed has a significant influence on social courage, but its influence is two separate indirect effects that cancel each other out. Therefore, the current observations reflect the rare instance when an antecedent can influence an outcome without the presence of a direct effect – when it indirectly influences the outcome via two separate and counteracting indirect effects (MacKinnon et al., 2007). Several implications of these results should be considered.

7.1. Theoretical implications and future directions for research

The study of gender is rich and complex whereas social courage remains in its early stages. Future directions of incorporating a rich research area, gender, with a less understood construct, social courage, will be essential to the growth and better understanding of social courage – and it could also benefit future studies of gender. The current findings suggest that women and men as well as feminine and masculine individuals perform similar amounts of social courage behaviors, overall, but it also suggests that a gender difference may emerge in certain contexts. Some environments may amplify prosocial benefits of actions, which may cause women and feminine individuals to even more so value and perform greater numbers of social courage behaviors. For instance, social courage behaviors at a nonprofit organization may not only help the organization itself but also the people that the organization benefits, which may appeal to women and feminine individuals. Likewise, some environments may amplify the risks involved in actions, but men and masculine individuals may persist in performing social courage behaviors. For instance, an abusive supervisor

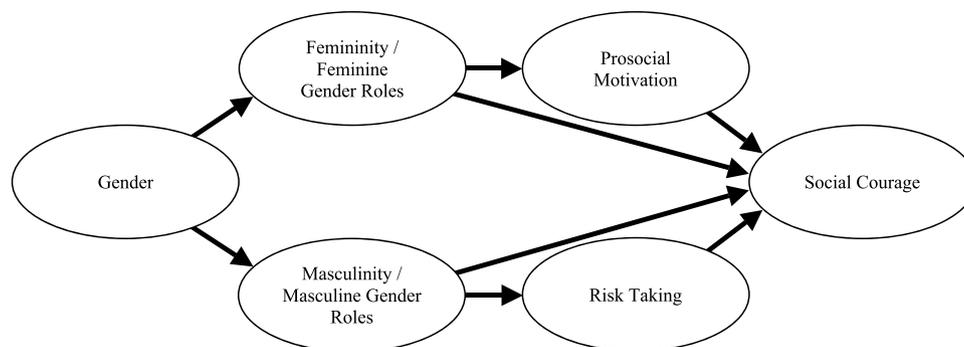


Fig. 1. Model supported in study 3.

may punish those that perform social courage behaviors, but men and masculine individuals may be resilient to the abusive supervisor's threats. Future research is needed to probe these suggestions.

Similarly, research has supported that gender effects differ when a person is a noticeable gender minority in their workplace (Berdahl, 2007; Eriksen & Einarsen, 2004; Salin & Hoel, 2013). When a person works with very few individuals of the same gender, they may feel that their behaviors are being closely observed through a magnified gendered-lens. The pathways observed in the current studies may no longer exist in these environments. Women and feminine individuals may be averse to playing into certain stereotypes, such as the "nurturing coworker", and they may likewise be more reluctant to perform social courage behaviors. Men and masculine individuals may feel that their risky behaviors would be more strongly scrutinized, and thereby they may be more reluctant to perform social courage behaviors. Future research should determine whether being a gender minority influences the occurrence and relationships of courage, which could have large practical implications for gender representation at work.

Additional mediating effects could also be included in the pathways observed in the current article. Notably, prosocial knowledge refers to "cognitions about how to behave in interpersonal encounters" (Martin-Raugh, Kell & Motowidlo, 2016, p. 42), and it has recently been shown to be a powerful and immediate antecedent to prosocial tendencies and behaviors. Femininity may relate to prosocial tendencies because feminine individuals may have greater prosocial knowledge, and this knowledge could be leveraged across contexts to perform prosocial behaviors. If true, then subsequent research could investigate whether interventions to develop the prosocial knowledge have differing effects across genders, such that women or men may perform more prosocial and social courage behaviors after undergoing such interventions.

Relatedly, the current results can produce broader research models, such that social courage itself can serve as a link between its antecedents (e.g. gender, femininity, masculinity, prosocial tendencies, risk-taking) and outcomes supported in prior studies (e.g. well-being, performance; Howard & Holmes, 2019; Howard et al., 2017; Koerner, 2014). For instance, prior authors have supported that prosocial tendencies can lead to better performance (Grant, 2008; O'Reilly & Chatman, 1986). While some mediating effects have been proposed, it is possible that the greater levels of social courage associated with prosocial tendencies is the cause of greater subsequent performance, causing social courage to be a mediator of this relationship. Social courage as a mediator has yet to be shown in any empirical research, causing this future direction to potentially provide valuable insights into the nature of social courage – a construct that may serve as an antecedent, outcome, or even mediator.

The current results may also explain gendered instances of social courage outside of the workplace. For instance, a vast number of women and feminine individuals spoke out about their experienced sexual harassment and assault during the #MeToo movement, drawing attention to the widespread abuse that women receive every day. These women demonstrated social courage, as they could have faced notable social ramifications for speaking out about their experiences. This movement focused on the social improvements from sharing these stories. The results of the current article suggest that the #MeToo movement may have been so effective because it focused on the prosocial outcomes of these social courage behaviors, which may have been an effective approach to encourage women and feminine individuals to participate.

Future research should also investigate whether these results are consistent across other dimensions of courage, particularly moral and physical courage. Moral courage does not have a history of being associated with gender, and thereby is assumed to demonstrate similar results as social courage. On the other hand, physical courage has long been associated with masculinity (Meier-Pesti & Penz, 2008; Olsthoorn, 2007). It is possible that a gender difference exists regarding physical courage, which could influence the behaviors of women and

men in certain specialized occupations (e.g. police officer, soldier). Future research can utilize the newly created scale of Howard and Reiley (2020) to investigate this research question.

The current article suggests that any gender differences regarding social courage is due to differing socialization of the sexes. We likewise suggest that differences in prosocial tendencies and risk taking are also due to differing socialization. For this reason, future research should replicate these results to determine whether societal changes in socialization practices reduce or eliminate these gender differences. Likewise, future research should replicate these results across different contexts. Cultures have differing norms regarding the differing socialization of women and men (Cooper, 2000; Negra, 2008). The results observed in the current study may be stronger in cultures with a greater socialization disparity regarding gender, whereas the results may be weaker in cultures with equivalent socialization practices.

The current results also produced impactful findings regarding the multiple gender-related variables (femininity, masculinity, gender roles, gender norms), which also uncover novel directions for future research. Notably, we generally assumed that implications regarding gender would also apply to the gender-related variables, but such an assumption may not be true. It is possible that certain dynamics may apply to women but not feminine individuals as well as men but not masculine individuals – and vice versa. The above considerations for future research should be tested separately for gender and multiple gender-related variables – greatly increasing the number of future directions. Also, these variables emerge differently in women and men, and they also influence outcomes very differently for men and women. Femininity in women, for example, can result in interpersonal approval, whereas femininity in men can result in negative social ramifications (Bem, 1974, 1981; Dietz, 1998; Eccles et al., 1990). For this reason, future research should investigate moderating effects between gender and gender-related variables in predicting prosocial tendencies, risk-taking, and social courage. While these moderating effects were beyond the scope of the current article, they could identify insightful boundary conditions and deepen the theory surrounding both gender and social courage. Lastly, we also performed additional analyses to assess mean differences in each variable for men and women (Supplemental Material B). The results demonstrated an expected pattern of results: significant differences for the gender-related variables but not prosocial tendencies, risk-taking, or social courage. These results also indicated, however, that the gender-related variables are not entirely dependent on gender. These variables operate differently, and they merit future investigations. In performing these studies, authors should apply modern theory on gender (Messerschmidt, Messner, Connell, & Martin, 2018; Risman, Froyum & Scarborough, 2018), which could provide the much-needed theoretical lens to discontinue the present reliance on lay-theory when studying courage.

7.2. Practical implications

As mentioned, if a gender difference was observed, then it could be recommended that organizations should consider providing training programs and/or ensuring conditions are suitable for women to feel encouraged to perform courageous behaviors. Because no gender difference was observed, other practical implications should be discussed in light of these results.

Because several characteristics associated with leadership abilities (e.g. aggressive, dominant, strong, commanding) are considered masculine, men are often assumed to be better leaders than women (Dana & Bourisaw, 2006; Thompson, 2000). While research has repeatedly shown that this notion is false, the myth persists in industry (Girod et al., 2016; Valantine & Sandborg, 2013). The current results highlight that a certain trait typically associated with leadership, social courage, does not significantly differ between the genders or gender-related variables, suggesting that gendered characteristics related to leadership (e.g. aggressive, dominant, strong, commanding) may be

offset by characteristics that are consistent across the genders in predicting leadership effectiveness. The current results can be used as evidence that gender should not be a contributing factor to management staffing decisions, in addition to the many other concerns for considering gender for this purpose, and practitioners should point towards these results as justification for considering women in top management positions.

The current study also supported that prosocial tendencies and risk taking are key predictors of social courage. While the current article investigated the trait of social courage, it is reasonable to believe that these two individual differences are also key predictors of behavioral social courage. Organizations should thereby implement policies that amplify the prosocial outcomes of employees' actions as well as reduce the risks involved in their behaviors. For example, some organizations reward employees who correct coworkers on unsafe work behaviors and, in doing so, reinforce that correcting coworkers on safety behaviors could save their lives (Geller, 2016; Geller et al., 2012). Organizations should also implement policies to ensure that employees who speak out against organizational practices should not be punished. For instance, many organizations have whistleblowing policies to ensure that whistleblowers are not punished for reporting the unethical actions of coworkers (Mesmer-Magnus & Viswesvaran, 2005; Near & Miceli, 1995). Similar procedures should be considered for all organizations.

7.3. Limitations

In all studies, social courage was gauged via self-report. It is possible that women or men tend to systematically over or underreport their social courage, which could negate any actual gender differences (e.g. women possess more social courage but underreport on surveys). An alternative option was to obtain assessments of social courage as reported by others, such as a friend or coworker; however, other-reports would also pose a concern with the current studies. Because courage is often associated with masculinity, as exemplified in the roundtable discussion in *The Good Men Project* (2015), other-reported assessments of social courage would almost assuredly under-estimate women's social courage. For this reason, we assert that obtaining self-reports for all study variables was preferable to many alternative methods, but future research should consider replicating the current results using alternative methods.

It should also be highlighted that certain aspects of the current study alleviate typical concerns regarding the self-report method. Studies 2 and 3 were time-separated studies, which partially addresses biases that are commonly associated with self-reports (Conway & Lance, 2010; Podsakoff et al., 2003). Future research should replicate these results using other designs.

The current article studied social courage in the context of the workplace. This context was chosen due to its clear importance to the day-to-day lives of most people, but also because the applied measurement tool, the WSCS, has ample prior support for its psychometric and validity evidence (Howard & Cogswell, 2018; Howard et al., 2017). It should be recognized, however, that the dynamics of courage in the workplace may differ from courage in other contexts. Organizational policies and norms may regulate people's behaviors in the workplace, such that people have fewer opportunities to be courageous compared to settings outside the workplace. Future research should develop new scales that can measure courage and social courage outside of the workplace, and these scales should be used to replicate the current results.

It should also be noted that the WSCS includes behavior-based items despite measuring trait social courage (Howard et al., 2017). Howard et al. (2017) likely assumed, in agreement with process definitions of courage (Pury & Starkey, 2010), that those who repeatedly perform the courageous behaviors are more likely to possess the trait of courage. These authors may have also modeled their scale after other

popular measures of traits, such as the HEXACO-100, which also include behavior-based items to measure traits (Lee & Ashton, 2018; Romero, Villar & López-Romero, 2015). Nevertheless, some readers may have concerns with the WSCS, and future research should replicate the current results using alternative measures

8. Conclusion

In the current article, we tested the lay theory that men are more courageous than women. The results showed that this notion is not true in a general employee sample, but gender does have a relationship with social courage. This relationship is two separate indirect effects that cancel each other out. One indirect effect is through femininity and prosocial tendencies, whereas the other is through masculinity and risk taking. These results suggest that gender may have a relationship with social courage in certain contexts, which opens several avenues for future research among other considerations.

Supplementary materials

Supplementary material associated with this article can be found, in the online version, at doi:10.1016/j.paid.2020.109904.

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