

**Advancing Understanding of the Negative Outcomes of Traditional Gender Roles: The  
Importance of Examining Relevant Contexts and Individual Differences**

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## Abstract

The current research examines when and for whom the negative outcomes of traditional gender roles are most likely to emerge. Chapter One provides a theoretical and empirical account of the negative outcomes arising from traditional gender roles, emphasizing that the rigid and demanding social pressures and expectations associated with traditional gender roles can cause stress and strain. On the basis of this foundation, I propose that the negative outcomes of traditional gender roles should (1) emerge most strongly in contexts in which relevant gender role pressures are particularly salient and (2) be most pronounced for individuals who are more sensitive to gender role pressures. I test this proposition in nine studies that collectively illustrate that understanding of the impact of traditional gender roles is enhanced when studied within theoretically-relevant contexts and for individuals most likely to be vulnerable to these negative outcomes.

In Chapter Two, I investigate how examining relevant contexts and individual differences can advance understanding of the negative outcomes of men's masculinity threat. Four studies and a meta-analytic summary illustrated that men were most likely to enact aggression towards their intimate partner when they experienced masculinity threat in the form of low relationship power, but this association only emerged for men higher in masculine gender role stress who were particularly sensitive to this threat.

In Chapters Three and Four, I investigate how examining relevant contexts and individual differences advances understanding of the negative outcomes of women's femininity threat. In Chapter Three, I present two studies illustrating that on days (Study 1) or weeks (Study 2) women felt less feminine they experienced within-person decreases in self-esteem, but this association was strongest for women higher in feminine gender role stress who were particularly sensitive to this femininity threat. In Chapter Four, I present two studies showing that on days women experienced greater romantic rejection they reported

decreases in body dissatisfaction, but this association was strongest for women higher in attractiveness contingent self-esteem.

In Chapter Five, I provide an extension of previous work by exploring how men's and women's traditional beliefs about both their own and their partner's gender roles have important implications for their sexual assertiveness. Men's traditional beliefs about women's gender roles and women's traditional beliefs about men's gender roles predicted important variance in their sexual assertiveness, even when accounting for their beliefs about their own traditional gender roles. Taken together, the studies presented in this thesis advance understanding of the outcomes of traditional gender roles by demonstrating when and for whom these negative outcomes are likely to occur.

To my parents, for all your wisdom, love, and support.

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### Comment on Publications

This thesis is based on four papers. Two of these four papers are published (listed below) and are re-printed here with no additional editing. Additional analyses for each paper are noted in the Appendices. The papers making up this thesis are referred to as Chapters Two, Three, Four, and Five, respectively.

Harrington, A. G., & Overall, N. C. (2021). Women's attractiveness contingent self-esteem, romantic rejection, and body dissatisfaction. *Body Image, 39*, 77-89.

Harrington, A. G., Overall, N. C., & Cross, E. J. (2021). Masculine gender role stress, low relationship power, and aggression toward intimate partners. *Psychology of Men & Masculinities, 22*(1), 48.

Please note that I use the personal pronoun "I" in Chapters One and Six, and "we" in Chapters Two-Five, referring to my co-authors.

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## CHAPTER ONE: INTRODUCTION AND OVERVIEW OF STUDIES

Few social norms have a more impactful and pervasive influence on men's and women's thoughts, feelings, and behaviour than traditional gender roles. Gender roles function to guide and constrain what qualities and behaviours are considered feminine and masculine (Bem, 1974, 1981; Eagly & Wood, 1991). From early childhood, and then throughout adolescence and adult life, girls/women and boys/men are socialized to conform to feminine or masculine qualities and behaviours via social interactions that both reward gender role congruent behaviours and punish gender role incongruent behaviours (Bosson et al., 2009; Bussey & Bandura, 1992; Egan & Perry, 2001; Levant, 2011; Pleck, 1981, 1995; Raag & Rackliff, 1998; Rudman & Fairchild, 2004).

Although people are continuously socialized to conform to traditional gender roles, the pressures and expectations associated with traditional gender roles are demanding, and it is difficult for men and women to consistently conform to them (Bosson et al., 2009; Pleck, 1981, 1995; Rudman & Fairchild, 2004). For instance, traditional masculine gender roles pressure men to possess and demonstrate power and status, but men may be unable to conform to this ideal in their intimate relationships where dependence on their partner curtails their power. Similarly, traditional feminine gender roles pressure women to be attractive, but women may feel unable to embody this quality after experiencing romantic rejection. Consequently, the pressures that traditional gender roles place on men and women can cause stress and strain, motivating thoughts, feelings, and behaviours that are harmful to the self and others (Eisler & Skidmore, 1987; Gillespie & Eisler, 1992; Levant & Richmond, 2008, 2016; Pleck, 1981, 1995). For example, men's drive to possess greater power in their intimate relationships may motivate them to enact aggression towards their partners to assert their power and masculinity, while women's desire to embody attractiveness may promote greater feelings of body dissatisfaction.

The primary theoretical framework applied to understanding traditional gender roles—the Gender Role Strain Paradigm (GRSP)—emphasizes that social expectations and pressures are responsible for the negative outcomes of traditional gender roles. The wide body of literature examining the outcomes of traditional gender roles has provided key support for this central proposition of the GRSP in two important ways. First, research has established the costs of traditional gender roles (e.g., men’s aggression, women’s body dissatisfaction; Martz et al., 1995; Moore et al., 2008). Second, this research has demonstrated that people vary in their sensitivity to the pressures associated with traditional gender roles and thus vary in their risk of these negative outcomes (e.g., masculine and feminine gender role stress; Eisler & Skidmore, 1987; Gillespie & Eisler, 1992).

However, if the negative outcomes of traditional gender roles arise from social expectations and pressures, then these outcomes should emerge most strongly in contexts where expectations and pressures associated with traditional gender roles are particularly salient. For instance, these negative outcomes should emerge most strongly in contexts where people feel they are failing to live up to the qualities associated with traditional gender roles—that is, when they experience *gender role threat*. Men may experience gender role threat when they feel they are failing to possess and demonstrate power in their relationships, which may motivate aggression to restore their feelings of power and masculinity. Similarly, women may experience gender role threat when they feel they are failing to embody attractiveness, promoting greater body dissatisfaction. Despite that the outcomes of traditional gender roles should occur in specific contexts of gender role threat, the bulk of prior research has failed to examine how the outcomes of traditional gender roles emerge in gender role threatening contexts. This lack of contextual application is one of the primary issues facing the GRSP literature today (Deaux & Major, 1987; Eckes & Trautner, 2012; Levant & Powell, 2017; O’Neil, 2008; Smiler, 2004; Whorley & Addis, 2006).

Moreover, if negative outcomes associated with traditional gender roles occur most strongly within contexts that involve gender role threat, then men and women who are particularly sensitive to this threat should be more likely to experience or exhibit these negative outcomes. For instance, men more sensitive to masculine gender role pressures (e.g., men higher in masculine gender role stress [MGRS]) should be particularly likely to enact aggression when they experience low feelings of power, and women more sensitive to feminine gender role-related pressures (e.g., women higher in feminine gender role stress [FGRS]) should experience greater body dissatisfaction following romantic rejection. Despite the theoretical and practical importance of identifying who is most sensitive to gender role threat and negative outcomes that emerge within gender role threatening contexts, to my knowledge no prior research has examined how individual differences and contexts combine to determine the impact of traditional gender roles on men and women.

Thus, the central aim of my thesis is to illustrate that a more complete understanding of the negative outcomes of traditional gender roles is gained by examining *when* and *for whom* these negative outcomes are most likely to emerge. To test these predictions, I investigate how the negative outcomes of traditional gender roles emerge in contexts that are theorized to threaten adherence to traditional masculine gender roles (e.g., low relationship power) and traditional feminine gender roles (e.g., romantic rejection), as well as how individual sensitivity to pressures associated with traditional masculine (e.g., MGRS) and feminine (e.g., FGRS) gender roles exacerbate these associations. I also outline how these tests provide important theoretical, empirical, and practical implications for studying the outcomes of traditional gender roles and identifying who is most at risk for these outcomes.

In the following sections, I elaborate on the key aims of this thesis. First, I provide a general overview of theory and research related to the contents and antecedence of traditional gender roles. Next, I outline the costs of traditional gender roles and review common methods



used to assess these negative outcomes. Then, I draw on the GRSP to argue two propositions that are central to the empirical studies that follow: (1) the pressures associated with traditional gender roles should be most salient, and thus their outcomes most prominent, in gender role threatening contexts, and (2) these outcomes should emerge most strongly for men and women more sensitive to gender role threat. Next, I illustrate the importance of these propositions by describing the aims and predictions of a series of studies examining the harmful outcomes of traditional gender role pressures and expectations in context, including examining how low power prompts aggression for men higher in MGRS (Chapter Two), how feeling less feminine prompts decreases in self-esteem for women higher in FGRS (Chapter Three), and how feeling less attractive prompts greater body dissatisfaction for women higher in attractiveness contingent self-esteem (ACSE; Chapter Four). Finally, I outline Chapter Five, which illustrates how examinations of the influence of traditional gender roles within key contexts should not be limited only to people's traditional beliefs about their own gender roles but should also be extended to people's traditional beliefs about their partner's gender roles.

### **The Contents and Antecedence of Traditional Gender Roles**

The GRSP was formulated by Pleck (1981) in response to the essentialist perspective dominant in the gender role literature at the time which assumed that people have a powerful psychological need to form a gender role identity corresponding to their biological sex. The GRSP, which has since come to be regarded as the major theoretical foundation of the study of gender roles (Cochran, 2010; Levant & Powell, 2017; Wong et al., 2010), depicts gender roles as socially (rather than biologically) determined, motivating differences between men and women through performance of these traditional masculine and feminine roles that are independent of sex (Pleck, 1981, 1995). Traditional masculine roles comprise the possession and demonstration of qualities related to power and status, such as agency, assertiveness,

toughness, independence, and dominance (Bem, 1974, 1981; Eagly & Wood, 1991; Levant, 1996; Mahalik et al., 2003; Thompson et al., 1992). In contrast, traditional feminine roles involve the embodiment of qualities related to dependence and nurturance, such as passivity, communality, deference, and attractiveness (Bem, 1974, 1987; Eagly & Wood, 1991; Levant et al., 2007). By defining masculinity as power and status and femininity as dependence and nurturance, traditional gender roles arise from, and serve to maintain and protect, the patriarchal social and economic order (Levant & Powell, 2017; Pleck, 1981).

The GRSP conceptualizes gender roles as being shaped and informed by gender ideologies; culturally defined and socially constructed beliefs about what it means to be a man or a woman (Pleck, 1995; Thompson et al., 1992). There are many distinct gender ideologies in Western culture alone. For instance, people in military institutions may believe that manhood is the achievement of power and status through aggression and toughness, whereas people in conservative Christian groups may believe that manhood is the achievement of authority and respect through patriarchal care and hard work. Although these ideologies are very different, a particular constellation of beliefs exists which underlies and connects them, and this is traditional gender ideology that emphasizes masculinity as power (authority) and status (respect; Pleck, 1995).

Despite changes in societal attitudes since the conception of the GRSP (Brewster & Padavic, 2000; Dorius & Firebaugh, 2010; Knight & Brinton, 2017), traditional gender ideologies are still the dominant cultural script that shapes and informs the development and maintenance of gender roles (Brannon, 1976; Levant & Powell, 2017; Levant, 2011; Pleck, 1995). Consequently, traditional ideology continues to influence people to conform to both descriptive and prescriptive gender roles. The influence of traditional gender ideologies is achieved through social interactions that reward and reinforce qualities and behaviours consistent with traditional gender roles while punishing and forbidding qualities and

behaviours that are incongruent with these roles (Levant, 2011; Pleck, 1981, 1995). Indeed, from very early childhood, people are socialized to conform to gender roles (Bem, 1983; Bussey & Bandura, 1992; Egan & Perry, 2001; Raag & Rackliff, 1998). This socialization continues through adolescence and adult life, influencing how parents, teachers, and peers socialize children, creating a self-perpetuating cycle that shapes how people think, feel, and behave (Levant, 1996, 2011; Pleck, 1995; Pleck et al., 1994; Thompson & Pleck, 1995).

### **The Outcomes of Traditional Gender Roles**

Traditional gender roles can often lead to positive outcomes for men and women who adhere to them. For instance, men's belief in the importance of traditional masculine roles such as risk-taking, dominance, primacy of work, and pursuit of status, is associated with higher levels of personal courage, autonomy, endurance, and resilience (Gerdes & Levant, 2018; Hammer & Good, 2010). Similarly, women who more strongly endorse sexist views that frame women as incomplete without a romantic partner report higher life satisfaction when they are in committed relationships (Waddell et al., 2019). However, these traditional attitudes may represent a double-edged sword due to the social reprisal and backlash of failing to behave in ways consistent with the rigid requirements of traditional masculine and feminine roles (Bosson et al., 2009; Bussey & Bandura, 1992; Rudman, 1998; Rudman & Fairchild, 2004; Rudman & Glick, 2001; Vandello et al., 2008). Moreover, as traditional gender role expectations are demanding, and it is difficult for men and women to consistently conform to them (Bosson et al., 2009; Pleck, 1981, 1995; Rudman & Fairchild, 2004), the threat of these negative social consequences can create stress and strain, pressuring people to think, feel, and behave in ways that are harmful to themselves and others (Eisler & Skidmore, 1987; Gillespie & Eisler, 1992; Levant & Richmond, 2008, 2016; Pleck, 1981).

The costs of traditional gender roles are apparent in the gender-specific negative outcomes that men versus women experience. For instance, as traditional masculine roles

comprise qualities related to power and status, such as dominance, toughness, and independence (Levant, 1996; Mahalik et al., 2003; Thompson et al., 1992), men are more likely than women to endorse attitudes that justify group-based dominance and inequality (protecting their power and status; Pratto et al., 2006) and engage in risk-taking behaviour (demonstrating their toughness; Byrnes et al., 1999), but are less likely to seek emotional support (maintaining their independence; Ptacek et al., 1994). Likewise, as traditional feminine roles involve qualities such as attractiveness, passivity, and nurturance (Levant et al., 2007), women are more likely than men to experience body dissatisfaction (concern over their attractiveness; Pingitore et al., 1997), are less likely to assert themselves in workplace environments (maintaining their passivity; Amanatullah & Morris, 2010), and are more likely to give up their career to take responsibility for childcare (prioritizing nurturance and dependence; Maume, 2006).

Although focusing on gender differences in relevant outcomes provides support for the costs of traditional gender roles, these qualities and behaviours are a product of socialization and are not qualities inherent to men and women (Pleck, 1981, 1995). Thus, peoples' sensitivity to the expectations and pressures associated with traditional gender roles should predict the extent to which they experience the negative outcomes of traditional gender roles. Indeed, the GRSP proposes that greater sensitivity to traditional gender role pressures can cause people to experience negative outcomes in the form of *gender role strain*. In the next section, I will outline two prominent forms of gender role strain—discrepancy strain and dysfunction strain—and provide an overview of two measures commonly used to assess these.

**Discrepancy Strain.** Discrepancy strain occurs when a person fails to live up to the qualities and behaviours they perceive to be expected of them as a man or woman, which tend to be guided and constrained by traditional gender roles (Pleck, 1995). For instance,

masculinity-related discrepancy strain may occur when men feel they are failing to possess and demonstrate power, whereas femininity-related discrepancy strain may occur when women feel they are not embodying attractiveness. Previous research has attempted to capture discrepancy strain through a variety of measures (e.g., Reidy et al., 2015; Rummell & Levant, 2014), the majority of which have relied on assessments of discrepancy between people's endorsement of traditional gender role attitudes and their general self-perceived conformity to traditional gender roles (Levant & Powell, 2017). However, these methods have met with mixed success, likely because they operationalize discrepancy strain as a stable construct, whereas discrepancy strain should emerge most strongly in specific situations that threaten adherence to traditional gender roles. An alternative approach, which has met with more success, is to measure gender role stress, which indexes the extent to which people are likely to experience stress in situations that threaten their adherence to traditional gender roles (Eisler & Skidmore, 1987; Gillespie & Eisler, 1992; Levant & Powell, 2017). By assessing propensity for discrepancy strain, gender role stress directly captures the vulnerability experienced by people who are particularly sensitive to gender role threatening contexts, thereby providing a unique tool to assess how this vulnerability exacerbates the negative outcomes associated with these contexts.

Currently, two measures exist to assess gender role stress: The Masculine Gender Role Stress (MGRS) and Feminine Gender Role Stress (FGRS) scales. The MGRS scale assesses the extent to which people are likely to experience stress across a range of situations that threaten adherence to traditional masculine roles, including physical inadequacy (e.g., "Being perceived as having feminine traits"), emotional inexpressiveness (e.g., "Admitting that you are afraid of something"), subordination to women (e.g., "Letting a woman take control of the situation"), intellectual inferiority (e.g., "Working with people who are brighter than yourself"), and performance failure (e.g., "Being unable to perform sexually"). Greater

MGRS has been associated with a range of negative outcomes, including anger, aggression, anxiety, depression, health-risk behaviours, and avoidance of help-seeking (Eisler & Blalock, 1991; Eisler & Skidmore, 1987; Eisler et al., 1988; Fischer & Good, 1997; Lash et al., 1990; Moore et al., 2008; Thompson, 1991).

Likewise, the FGRS scale assesses the extent to which people are likely to experience stress across a range of situations that threaten adherence to traditional feminine roles, including (1) having unemotional relationships (e.g., “Having others believe that you are emotionally cold”), (2) being unattractive (e.g., “Being perceived by others as overweight”), (3) behaving assertively (e.g., “Having to "sell" yourself at a job interview”), (4) not being nurturant (e.g., “A very close friend stops speaking to you”), and (5) fear of victimization (e.g., “Feeling that you are being followed by someone”; Gillespie & Eisler, 1992). Greater FGRS predicts a range of negative outcomes, such as eating disorders and body image dissatisfaction (Martz et al., 1995; Mussap, 2007), depressed mood (Gillespie & Eisler, 1992), and shame and guilt (Efthim et al., 2001).

**Dysfunction Strain.** In contrast to discrepancy strain, dysfunction strain occurs when one *fulfils* the requirements of traditional gender roles because embodying these characteristics can have negative consequences. For instance, men who fulfil the masculine characteristic of independence may do so at the cost of seeking help and support when they are in distress (Berger et al., 2005; Levant & Richmond, 2008). Likewise, women who fulfil the feminine characteristic of attractiveness may do so at the cost of a healthy diet to maintain an unrealistic body shape (Green et al., 2008). One particularly direct way in which discrepancy strain has been assessed in previous research is through the endorsement of traditional gender ideology, which indexes the extent to which people place importance on traditional beliefs about what it means to be a man or a woman.

Two measures that are frequently used to assess endorsement of traditional gender ideology in adults are the Masculine Role Norms Inventory (MRNI) and the Femininity Ideology Scale (FIS). The MRNI assesses people's endorsement of beliefs about traditional masculinity through agreement with statements such as "Men should not be too quick to tell others that they care about them" (restricted emotionality), "Men should be able to fix most things around the house" (self-reliance), "Men should always like to have sex" (importance of sex), "A man should always be the boss" (dominance), and "I think a young man should try to be physically tough, even if he's not big" (toughness). Greater scores on the MRNI are associated with a range of negative outcomes, such as fear of intimacy, lower relationship satisfaction, attitudes conducive to sexual harassment, intimate partner violence, self-reports of sexual aggression, alexithymia and related constructs, and negative attitudes toward help-seeking (Levant & Richmond, 2008, 2016; O'Neil, 2012).

Likewise, the FIS assesses people's endorsement of beliefs about traditional femininity through agreement with statements such as "A woman should have a petite body" (stereotypic image and activities), "A woman should not be competitive" (deference and dependence), "A woman should not swear" (purity), "An appropriate female occupation is nursing" (caretaking), and "It is expected that a woman will be viewed as overly emotional" (greater emotionality). Although considerably fewer studies have assessed the outcomes of traditional femininity ideology using the FIS, greater scores on the FIS are related to lower sexual refusal assertiveness (Wigderson & Katz, 2015), lower body appreciation (Swami & Abbasnejad, 2010), and indirectly related to greater anxiety (Richmond et al., 2015).

### **Traditional Gender Roles in Context**

Taken together, prior research has illustrated that traditional gender roles have costs for men and women, but that people's sensitivity to social pressures associated with these roles can place them at particular risk for negative outcomes in the form of gender role strain.

By highlighting the importance of individual sensitivity to social expectations and pressures for understanding the outcomes of traditional gender roles, these results support the central proposition of the GRSP that the negative outcomes of gender roles emerge from social expectations and pressures placed on men and women. However, if the negative outcomes of traditional gender roles arise from social expectations and pressures, then these outcomes should emerge most strongly in contexts where expectations and pressures associated with traditional gender roles are particularly salient. In particular, negative outcomes should emerge most strongly in contexts where people feel they are failing to live up to the qualities associated with traditional gender roles—that is, when they experience *gender role threat*. Despite the theoretical and practical importance of traditional gender roles shaping outcomes in relevant contexts, relatively few studies have examined when the negative outcomes of traditional gender roles are most likely to occur. This is a particularly surprising gap given that calls for investigation have identified the lack of this type of contextual application as one of the primary issues facing the study of traditional gender roles (Deaux & Major, 1987; Eckes & Trautner, 2012; Levant & Powell, 2017; O’Neil, 2008; Smiler, 2004; Whorley & Addis, 2006).

The lack of research examining the contexts in which the outcomes of traditional gender roles are most likely to occur represents a clear theoretical and empirical gap, but what contexts are likely to involve gender role threat and thus increase these negative outcomes? As the contents of traditional masculine and feminine gender roles differ, so too should the contexts that threaten adherence to these roles. For instance, traditional masculine roles emphasize the possession and demonstration of power, and thus men should be most likely to experience masculinity threat in situations where they experience low power, such as when they are dependent on their intimate partner to achieve a desired goal. In contrast, traditional feminine gender roles emphasize attractiveness, and thus women should be



particularly likely to experience feminine gender role threat in situations they feel unattractive, such as following romantic rejection. Importantly, the outcomes of these contextually relevant threats should also differ. For instance, the masculinity threat that men experience from low relationship power should promote efforts to restore power and masculinity, such as through demonstrations of aggression. In contrast, the femininity threat that women experience from romantic rejection should affect evaluations and behaviour related to judgments of attractiveness, such as greater body dissatisfaction or disordered eating.

Such a contextual perspective also connects with the recognition that certain people will more likely experience gender role threats than others. If the negative outcomes of traditional gender roles emerge more strongly in relevant contexts because these contexts invoke gender role threat, then men and women who are particularly sensitive to this threat should be more likely to experience or exhibit these negative outcomes. Thus, one important way in which to provide support for the proposition that gender role threat is responsible for the links between gender role discrepancies and specific outcomes is to examine whether the negative outcomes of gender role threatening situations emerge more strongly for men and women especially vulnerable to discrepancy strain, such as those higher in MGRS and FGRS. Although discrepancy strain itself has been linked to relevant outcomes (e.g., greater FGRS is associated with disordered eating), no studies have examined how these differences occur within, or are exacerbated by, gender role threatening contexts.

To address these important gaps in the literature and provide crucial support for the central propositions of my thesis, I investigate (1) how the negative outcomes of traditional gender roles are most likely to emerge within contexts that threaten adherence to qualities associated with traditional masculinity and femininity and (2) how people's sensitivity to gender role threat increases their vulnerability to these outcomes. Chapter Two focuses on

men by investigating a specific context that should threaten traditional masculinity (low power), a key outcome of masculinity threat (aggression), and the moderating role of MGRS. Chapter Three focuses on women by investigating how threats to femininity are associated with relevant outcomes (decreased self-esteem) and the moderating role of FGRS. Chapter Four focuses on a specific context that should threaten feelings of attractiveness (romantic rejection), a key outcome of low feelings of attractiveness (body dissatisfaction), and the moderating role of ACSE. In each of these three chapters, I illustrate how understanding the costs of traditional gender roles requires understanding both (1) the contexts in which these negative outcomes are most likely to emerge and (2) the individual differences that place people at particular risk for these outcomes. Below, I outline how each of these chapters advance the aims of my thesis. Given that the theoretical and empirical foundation for each of these tests is described in each chapter, I provide a brief summary.

### **Chapter Two: Men's Low Relationship Power, MGRS, and Aggression. A**

growing body of research suggests that men are more likely than women to enact intimate partner aggression when they experience lower power in their relationships (e.g., Overall et al., 2016). The primary reason proffered for men's aggressive responses to low power is that traditional masculinity involves the possession and demonstration of power, and thus low relationship power may threaten men's masculinity (Bosson & Vandello, 2011; Kimmel, 2008; Vescio et al., 2010). As aggression is an active way to assert and demonstrate power, men may use aggression to redress the masculinity threat low power entails (Bosson & Vandello, 2011; Vandello et al., 2008; Vescio et al., 2010). Although previous research has provided important preliminary support for men's aggressive responses to low power, if the links between low power and aggression are indeed driven by masculinity threat, then men who find threats to masculinity particularly stressful (men higher in MGRS) should be most likely to enact aggression when they experience lower power. Accordingly, I predict that

when men experience masculinity threat in the form of low relationship power, they will enact greater aggression to redress this threat, but I also expect that this low power—aggression association will primarily emerge for men higher in MGRS.

In Chapter Two, I will present four studies that test these predictions by examining if men's experiences of lower power in their intimate relationships predict greater self-reported aggression towards their intimate partner and if this association primarily emerges for men higher in MGRS. By examining both how men's aggression emerges within a masculinity threatening context (low power), and for men particularly sensitive to this threat (men higher in MGRS), Chapter Two will provide an essential theoretical and empirical advance by merging two distinct bodies of research. Indeed, prior research examining the associations between traditional masculine roles and aggression has demonstrated how constructs related to gender role strain predict aggression but without a specific focus on contexts in which these behaviours are likely to emerge (e.g., Levant & Richmond, 2016; Moore et al., 2008; O'Neil, 2012; Santana et al., 2006). Conversely, other research has demonstrated that men's aggression emerges most strongly in masculinity threatening contexts but has not examined how men's sensitivity to masculinity threat exacerbates these associations (e.g., Bosson & Vandello, 2011). By uniting these two bodies of work, the expected pattern of findings will provide both a test of the central propositions of my thesis and insight into the underlying processes that motivate men's aggression towards intimate partners. In particular, the results will illustrate that understanding the aggression arising from men's traditional gender roles requires understanding and identifying how aggression (and other masculinity related outcomes) will most likely occur (1) within masculinity threatening contexts (such as low power), and (2) for men particularly sensitive to this threat (such as men higher in MGRS).

### **Chapter Three: Women's Feelings of Femininity, FGRS, and Self-Esteem.**

Chapter Two reflects a principal focus in the gender role literature on the negative outcomes

of men's traditional masculine roles. Compared to the wide body of research examining men and masculinity, relatively little research has examined how traditional feminine roles impact women's personal and social outcomes. Yet, women also face expectations and pressures to adhere to traditional gender roles and face reprisals when these expectations are not met (Bussey & Bandura, 1992; Rudman, 1998). Thus, women too should experience the stress, strain, and negative outcomes of traditional feminine gender roles, particularly in contexts that threaten their adherence to qualities associated with these roles (Sanchez & Crocker, 2005; Witt & Wood, 2010). However, as women differ in their sensitivity to the expectations and pressures associated with traditional feminine roles (Gillespie & Eisler, 1992), the extent to which women experience these negative outcomes should also differ. Chapter Three will extend the focus of Chapter Two, as well as the focus of the literature more broadly, by examining (1) the costs of traditional feminine gender roles, (2) whether these costs occur when women experience threats to their feelings of femininity, and (3) whether women higher in gender role stress experience these negative outcomes to a greater extent.

In contrast to the focus on power and status central to traditional masculinity, traditional feminine roles involve qualities related to nurturance and dependence (Bem, 1974, 1987; Eagly & Wood, 1991; Levant et al., 2007). As social status is less central to traditional femininity, contexts that threaten women's adherence to traditional feminine roles are less likely to motivate direct assertions of femininity in the way that masculinity threat can motivate aggression. Instead, given the pressures women face to be nurturant, passive, communal, and dependent, women may exhibit more private or internalized self-relevant negative reactions, such as decreases in self-esteem, when they feel less feminine (Bussey & Bandura, 1992; Rudman, 1998). Many situations women experience in their day-to-day lives can decrease feelings of femininity, such as having a disagreement with a friend (failing to be nurturant), needing to act assertively (failing to be passive), being in a bad mood when

interacting with others (failing to be communal), and gaining weight (failing to embody conventional standards of attractiveness; Gillespie & Eisler, 1992). Consequently, women may often experience drops in their feelings of femininity and, in turn, negative self-relevant outcomes, such as decreases in self-esteem. Importantly, however, if these links are indeed driven by femininity threat, women who are more sensitive to femininity threats, such as women higher in FGRS, should experience greater decreases in self-esteem when they feel less feminine.

In Chapter Three, I will present two studies that test these predictions by examining if on days or weeks women report lower feelings of femininity they experience concomitant decreases in self-esteem, and if this association emerges particularly strongly for women higher in FGRS. The expected pattern of findings will provide further support for the central predictions of my thesis by illustrating that understanding the negative self-relevant outcomes of traditional feminine gender roles requires an understanding of (1) how these processes are more likely to emerge in femininity threatening contexts (such as when women feel less feminine) and (2) how women's sensitivity to femininity threat (FGRS) is likely to place them at particular risk of these outcomes. Moreover, by examining daily and weekly experiences, the results will highlight the negative outcomes of the potentially broad range of routine experiences which decrease women's feelings of femininity, emphasizing the importance of how social pressures and expectations associated with traditional femininity have consequences for women's wellbeing. Finally, by departing from prior methods, the results will provide novel methodological implications by illustrating the importance of assessing relevant outcomes (e.g., self-relevant evaluations vs overt demonstrations of femininity) within ecologically-valid contexts that have meaningful implications for women's lives.

**Chapter Four: Women's Attractiveness Contingent Self-Esteem, Romantic Rejection, and Body Dissatisfaction.** The studies presented in Chapter Three aim to examine femininity threat emerging from a diverse array of idiosyncratic events that may reduce felt-femininity, providing a broad assessment of experiences of femininity threat. In Chapter Four, I will provide a more specific and focused demonstration of these processes within a specific context that is likely to threaten feminine qualities related to attractiveness—romantic rejection—and illustrate once again that sensitivity to femininity threat increases women's vulnerability to these costs.

Attractiveness is central to traditional expectations of women, and thus women are particularly likely to be evaluated, and evaluate themselves, in terms of their physical attractiveness (Bale & Archer, 2013; Fredrickson & Roberts, 1997; Furnham et al., 2002; Moradi et al., 2005; Parker et al., 2017; Swim et al., 2001). The importance placed on women's attractiveness makes experiences of body dissatisfaction particularly relevant to women, highlighting the importance of understanding the contexts in which women are likely to be particularly at risk for this negative outcome. Although many situations can threaten women's feelings of attractiveness, romantic rejection signals that potential partners likely held unfavourable evaluations of one's facial and body attractiveness, and thus romantic rejection should provide especially salient and meaningful attractiveness-relevant feedback. Accordingly, I expected that experiences of romantic rejection should increase women's feelings of body dissatisfaction. However, just as women differ in their sensitivity to situations that threaten femininity, women should also differ in their sensitivity to attractiveness-threatening feedback. Consequently, I predicted that the links between experiences of romantic rejection and body dissatisfaction should be strongest for women whose attractiveness is particularly relevant to their self-worth, such as women higher in attractiveness contingent self-esteem (ACSE).

In Chapter Four, I test these predictions in two studies that examine whether women experience greater within-person increases in body dissatisfaction when they encounter naturally occurring romantic rejection and whether this association is particularly pronounced for women higher in ACSE. The expected findings will provide further support for the central predictions of my thesis by demonstrating that understanding the negative outcomes of traditional feminine gender roles requires an understanding of (1) how these processes are more likely to emerge in femininity threatening contexts (such as romantic rejection) and (2) how women's sensitivity to this threat (ACSE) is likely to place them at particular risk of these outcomes. The results will also highlight how common situations which women face within their daily lives can place them at risk for body dissatisfaction, particularly so for women whose self-esteem is more contingent on their attractiveness, further emphasizing the importance of future research on how social pressures and expectations associated with traditional femininity have consequences for women's wellbeing.

#### **Chapter Five: Men's and Women's Traditional Gender Ideology and Sexual Behaviour.**

Previous research examining the consequences of traditional gender roles has primarily focused on the outcomes of traditional masculine roles for men and the outcomes of traditional feminine roles for women. This is not surprising given that the pressures and expectations associated with traditional masculine and feminine gender roles are specific to each gender. However, people's actions should be shaped not only by the pressures placed on them but also by their perception of the pressures placed on others. In particular, traditional gender ideologies should shape and inform expectations about others' thoughts, feelings, and behaviour, and thus men's traditional beliefs about women's gender roles and women's traditional beliefs about men's gender roles are also likely to have important effects on their behaviour. For example, the dyadic nature of monogamous heterosexual sexual relationships means that people's sexual behaviour should be influenced both by how they believe they

should act as a man or woman and how they believe their partner should act as a man or woman. Indeed, the relational nature of sex between two people makes it imperative to examine not only how an individual's beliefs about their own gender roles impact their sexual behaviour but also how their beliefs about their partner's gender roles impact their behaviour. Yet, research to date has primarily focused on the consequences of beliefs about one's own traditional gender roles rather than beliefs about another's gender roles for their sexual behaviour.

In Chapter Five, I aimed to address this gap and provide an important extension of previous research by examining how gender role expectations of others influence responding in mixed-gender relationships. In few situations are the pressures and expectations of traditional gender roles more rigid or more salient than in situations involving sex. Traditional masculine roles dictate that men in sex-relevant situations should be assertive, dominant, and have a high sex drive—often initiating sex but never refusing it (Byers, 1996; Levant & Fischer, 1998). Whereas traditional feminine roles dictate that women should be passive, compliant, and have a low sex drive—never initiating sex but remaining receptive to their partner's advances (Byers, 1996; Levant et al., 2007). These rigid traditional gender roles should have negative consequences for men's and women's own behaviour. For instance, traditional masculine roles dictating a high sex drive should undermine men's comfort refusing sex, whereas traditional feminine roles dictating a low sex drive should undermine women's comfort initiating sex. Yet, men's traditional beliefs about women's roles, and women's traditional beliefs about men's roles, should also have important implications for their sexual behaviour because these beliefs inform expectations about their partner's thoughts, feelings, and behaviours. For instance, men who believe that women should be passive and compliant should expect their partner to accept their sexual advances more readily and thus feel more comfortable initiating sex. Conversely, women who believe



that men have very high sex drives should expect that failing to accommodate this sex drive may have negative relational consequences and thus should feel less comfortable refusing sex with their partner.

Given the likely impact of other-gender expectations on behaviour within mixed-gender settings, I argue that, in order to fully understand the impact of traditional gender roles on men's and women's sexual behaviour, it is important to examine both their beliefs about their own gender roles and their beliefs about their partner's gender roles. In Chapter Five, I investigate the importance of examining both sets of attitudes in this relevant context by examining (1) whether men's traditional beliefs about men's roles (men's traditional masculinity ideology) and traditional beliefs about women's roles (men's traditional femininity ideology) predict their comfort initiating and refusing sex with their partner, and (2) whether women's traditional beliefs about women's roles (women's traditional femininity ideology) and beliefs about women's roles (women's traditional masculinity ideology) predict their comfort initiating and refusing sex with their partner. The expected results will underscore that both women's and men's traditional beliefs about their own gender roles and about their partner's gender roles predict how they behave in ways that have important repercussions for mixed-gender relationships. Moreover, by demonstrating the importance of people's traditional beliefs about their own and the other set of traditional gender roles, the expected findings will challenge gender role theory and research to incorporate and examine women's and men's beliefs about both traditional femininity and masculinity to gain a more complete understanding of the impact of traditional gender role attitudes and expectations on social behaviour.

### **Research Summary**

The GRSP specifies that the negative outcomes of gender roles emerge from social expectations and pressures placed on men and women, and previous research has provided

robust support for this proposition by demonstrating that sensitivity to gender role pressures places men and women at particular risk for negative outcomes. However, if the negative outcomes of traditional gender roles result from social pressures, these outcomes should (1) emerge most strongly in contexts where gender role pressures are particularly salient and (2) particularly for people more sensitive to gender role threats. Despite the theoretical and practical importance of identifying the relevant contexts and individual differences that shape the outcomes of traditional gender roles, few studies have examined *when* and *for whom* the outcomes of traditional gender roles emerge, and this gap represents a central issue facing the GRSP literature (Levant & Powell, 2017). My thesis addresses these gaps by examining how the negative outcomes of traditional gender roles emerge within contexts that threaten adherence to these roles and how individual sensitivity to pressures associated with traditional gender roles exacerbate these associations (Chapters Two, Three, and Four). Further, I also extend the current body of work on traditional gender roles by providing the first investigation of the behavioural implications of men's and women's traditional beliefs about their own and their partner's gender roles in mixed-gender relationships (Chapter Five). In sum, across each empirical chapter (Chapters Two-Five), I will demonstrate that understanding of the negative outcomes of traditional gender roles is enhanced when these processes are studied within theoretically-relevant contexts and for individuals most likely to be vulnerable to contextually relevant gender role pressures.

## **CHAPTER TWO: MEN'S LOW RELATIONSHIP POWER, MGRS, AND AGGRESSION**

The primary aim of Chapter Two was to examine how masculinity threat, in the form of low relationship power, increases men's aggression towards their intimate partner, particularly for men higher in masculine gender role stress (MGRS) who are most sensitive to masculinity threats. Previous research has suggested that gender differences in aggressive responses to low relationship power may emerge because low power is a masculinity threatening context which prompts men's aggressive behaviour as a way of restoring masculinity. However, if men's aggressive responses to low relationship power emerge as a result of masculinity threat, then men more sensitive to masculinity threat should be more likely to be aggressive when they experience lower relationship power. I argue that men higher in MGRS should, when faced with masculinity threat in the form of low relationship power, be particularly likely to enact aggression as an active assertion and demonstration of power and thus masculinity. In Chapter Two, I tested this prediction across four studies and a meta-analytic summary which examined how men's MGRS moderated the association between their reported feelings of relationship power (Studies 1-3) and experiences of romantic rejection (a power threatening context; Study 4) and their self-reported aggression towards their intimate partner.

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### **Abstract**

Prior research suggests that men are most likely to respond to low power in intimate relationships with greater aggression toward their partners. The primary explanation offered for men's aggressive responses to low relationship power is that low power can threaten men's masculine identity and aggression helps to demonstrate power and reclaim a traditional masculine identity. Based on this perspective, four studies (total  $N = 842$ ) tested whether the association between men's relationship power and aggression was moderated by masculine gender role stress (MGRS). Participants completed scales assessing MGRS, relationship power, and physical and verbal aggression toward intimate partners across the past year (Studies 1-3) or following sexual rejection (Study 4). Across the four studies, men who perceived they had lower relationship power reported greater physical aggression, but only when they were relatively high in MGRS. This interaction pattern emerged for verbal aggression in two of the four studies. An internal meta-analysis revealed that the results for physical aggression were reliable and robust across studies and control analyses, whereas the significant meta-analytic interaction effect for verbal aggression was reduced when controlling for relationship satisfaction or hostile sexism. These results support the proposition that low relationship power can threaten men's masculine identity by revealing that men who find situations that can threaten traditional masculine identity stressful are more likely to respond to low relationship power with physical aggression. The results also reveal that men who do not find masculine identity threats stressful are unlikely to respond to low relationship power with aggression.

*Keywords:* masculine gender role stress, relationship power, aggression, intimate partner violence

**Masculine Gender Role Stress, Low Relationship Power,  
and Aggression toward Intimate Partners**

A growing body of research has demonstrated that low relational power in a variety of social contexts can promote aggression as an active assertion or demonstration of power (e.g., Bradley & Peters, 1991; Bugental & Lin, 2001; Fast & Chen, 2009; Overall, Hammond, McNulty, & Finkel, 2016). Recent evidence has also shown that the link between low relationship power and aggression in heterosexual intimate relationships is particularly pronounced for men (Overall et al., 2016). The primary reason proffered for why men may be more likely to respond to relationship power with aggression is that social expectations associated with traditional masculinity are tied to the possession and demonstration of power, and so low relationship power can threaten men's masculine identity (Bosson & Vandello, 2011; Kimmel, 2008; Vescio, Schlenker, & Lenos, 2010). Moreover, because aggression is an active way to assert and demonstrate power, men with lower relationship power may enact aggression to redress the masculine identity threat low power entails (Bosson & Vandello, 2011; Vandello, Bosson, Cohen, Burnaford, & Weaver, 2008; Vescio et al., 2010).

Yet, men differ in the level of stress they experience when faced with situations that can threaten expectations associated with a traditional masculine identity (Eisler & Skidmore, 1987), which indicates that men should differ in the degree to which they respond aggressively to low relationship power. The current studies test the proposed role of masculine identity threat in the links between men's low relationship power and aggression by examining whether low relationship power is associated with aggression primarily for men who experience masculine gender role stress (MGRS) and thus find situations that can threaten a traditional masculine identity particularly stressful (Eisler & Skidmore, 1987).

### **Low Relationship Power and Aggression in Intimate Relationships**

People possess relational power when they are able to control others' desired outcomes and thereby can influence others in desired ways, whereas people lack relational power when they are dependent on the actions and preferences of others and thereby less able to influence others to produce desired outcomes (Keltner, Gruenfeld, & Anderson, 2003; Kelley & Thibaut, 1978). Relational power is particularly central to romantic relationships because people are heavily dependent on their intimate partners to achieve important needs and goals (Keltner et al., 2003; Kelley & Thibaut, 1978). Achieving desired outcomes in relationships requires the ability to influence partners' decisions and behaviors, particularly when couples' interests conflict (Rusbult & Van Lange, 2003). People with more power in their relationship (high relationship power) can more easily influence their partners' decisions and behaviors to achieve desired outcomes (Simpson, Farrell, Oriña, & Rothman, 2015). By contrast, people with less power in their relationship (low relationship power) have less control over their partners' decisions and behaviors and are thus less able to influence them in desired ways (Kelley & Thibaut, 1978; Simpson et al., 2015).

As individuals with lower relationship power are less able to influence their partner to achieve desired outcomes, they may resort to other means to achieve their goals and desires (Overall et al., 2016). One particularly harmful way people manage low relationship power is via aggression because aggression is theorized to be an active way to attempt to assert relationship power (Bosson & Vandello, 2011; Horwitz, 1958; Worchel, Arnold, & Harrison, 1978). Accordingly, research examining the link between relationship power and aggression in heterosexual relationships has demonstrated that lower perceived relationship power is associated with greater self-reported aggressive behavior (Babcock, Waltz, Jacobson, & Gottman, 1993; Bentley, Galliher, & Ferguson, 2007) and greater observer-rated aggression during couples' conflict discussions (Sagrestano, Heavey, & Christensen, 1999). Greater

economic power inequities, which also relate to lower perceived influence, are associated with higher rates of domestic violence (e.g., Coleman & Straus, 1986; Kaukinen, 2004).

Despite the breadth of evidence supporting a link between low relationship power and aggression, other findings have provided inconclusive or contradictory evidence (see Holtzworth-Munroe, Bates, Smutzler, & Sandin, 1997 for review; also Bornstein, 2006; Hotaling & Sugarman, 1986). For instance, although the studies mentioned above have shown that lower relationship power is associated with greater aggression, some studies also found evidence that greater relationship power (perceived influence) was associated with greater aggression (Bentley et al., 2007), or also reported null associations between relationship power (ability to make decisions in relationships) and aggression (Babcock et al., 1993; Bentley et al., 2007). Other studies also have found no links between perceived relationship power and aggression in intimate relationships (Rogers, Bidwell, & Wilson, 2005; Ronfeldt, Kimerling, & Arias, 1998).

A series of recent studies provided good evidence that these inconsistencies may often arise because of gender differences in the links between relationship power and aggression (Overall et al., 2016; also see Sagrestano et al., 1999). In five studies testing gender differences in the links between relationship power and aggressive communication behavior during heterosexual couples' lab-based or daily interactions, Overall et al. (2016) found that men were more likely to exhibit greater aggressive communication toward their partners when they experienced lower relationship power. These results suggest that low relationship power can motivate aggression as an active assertion or demonstration of power, but this association is more likely to be pronounced for men.

### **Traditional Masculine Identity, Relationship Power, and Aggression**

Low relationship power may be more likely to be associated with aggression for men because the social expectations associated with traditional masculine gender roles and



identities are characterized by the possession and demonstration of power (Bosson & Vandello, 2011; Kimmel, 2008; Vescio et al., 2010). For example, assessments of the social expectations associated with traditional masculinity involve many power-relevant traits, including that men should be independent, assertive, and physically, mentally, and emotionally tough, as well as having authority and power within work and family roles (e.g., Bem, 1974, 1981; Gebhard, Cattaneo, Tangney, Hargrove, & Shor, 2019; Levant & Fischer, 1998; Mahalik et al., 2003; Thompson & Pleck, 1986; Thompson, Pleck, & Ferrera, 1992; Vescio et al., 2010). Importantly, these central expectations associated with a traditional masculine identity—being powerful, influential, independent, and tough—can only be achieved if they are acknowledged by others (Bosson & Vandello, 2011; Vescio et al., 2010). Thus, as Bosson and Vandello (2011) outline, men's masculine identity is precarious because it must be actively demonstrated to, and recognized by, others. In situations when men are failing to demonstrate these expectations—such as when they lack relationship power—men may experience threats to their masculine identity and, in turn, enact aggression as an active demonstration of the expectations associated with a traditional masculine identity.

Providing support for this perspective, experimental studies indicate that men will often act aggressively in situations that can threaten men's traditional masculine identity (see Bosson & Vandello, 2011). Experimental paradigms designed to create situations that could threaten men's traditional masculine identity (e.g., men completing feminine tasks, being outperformed by women, or receiving feedback that they are more like women) show that men are more likely to exhibit aggressive responses, such as choosing to complete an aggressive punching bag task over a neutral rope braiding task, enacting sexual harassment of female interaction partners, and exhibiting aggressive cognition, anger, and endorsement of ideological dominance (Bosson, Vandello, Burnaford, Weaver, & Wasti, 2009; Dahl, Vescio, & Weaver, 2015; Maass, Cadinu, Guarnieri, & Grasselli, 2003; Vandello et al., 2008; Weaver

& Vescio, 2015). These studies provide evidence that active demonstrations of relational power within situations that are likely to threaten men's traditional masculine identity may be a central way men try to demonstrate or reclaim their masculine identity (also see Bosson & Vandello, 2011).

Yet, not all men experience stress within situations that can threaten men's traditional masculine identity (Eisler & Skidmore, 1987), which indicates that—if masculine identity threat plays an explanatory role in the links between men's low relationship power and aggression—not all men will respond aggressively to low relationship power. Masculine gender role stress (MGRS) assesses the stress men may experience within situations that threaten expectations associated with a traditional masculine identity, including (1) physical inadequacy, (2) emotional expressiveness, (3) subordination to women, (4) intellectual inferiority, and (5) performance failure (Eisler & Skidmore, 1987). Illustrating the connections between expectations of traditional masculinity and the possession and demonstration of relational power, these situations involve low relational power, such as (1) not being able to secure a desired sexual partner (physical inadequacy), (2) admitting fear (emotional inexpressiveness), (3) letting a woman take control of the situation (subordination to women), (4) asking for directions when lost (intellectual inferiority), and (5) lacking the occupational skills to succeed (performance failure; Eisler & Skidmore, 1987).

Prior research has shown that men's MGRS is positively associated with self-reported physical and verbal aggression towards partners within intimate relationships (Eisler, Franchina, Moore, Honeycutt, & Rhatigan, 2000; Franchina, Eisler, & Moore, 2001; Moore et al., 2008). For example, in a sample of violent men, Moore et al. (2008) found that greater MGRS was associated with greater self-reported physical and verbal aggression towards intimate partners. However, prior research has not examined whether the links between MGRS and aggression in intimate relationships arise from threat to men's traditional

masculine identity that is proposed to arise when men have low relationship power. Such an examination offers a way of testing the proposition that some men respond aggressively to low relationship power because low relationship power can threaten their masculine identity. If low power threatens men's traditional masculine identity, and such threat motivates aggression to demonstrate and assert relationship power, then men higher in MGRS should be most likely to report greater aggression when they possess lower relationship power. By contrast, men lower in MGRS, who do not experience stress within situations that can threaten men's traditional masculine identity, should be less likely to report aggression toward their partners when they experience lower relationship power.

### **Current Research**

The present studies tested the theoretical proposition that threats to traditional masculine identity help explain the association between low relationship power and aggression by examining whether men who experience stress within situations that can threaten men's traditional masculine identity (operationalized as higher MGRS) are most likely to respond to low relationship power with aggression. We conducted four studies to test whether the association between men's relationship power and aggression toward intimate partners was moderated by MGRS. In each study, men completed scales assessing MGRS and the power they believed they possessed in their relationship and reported on the degree to which they were aggressive toward their partner over the past year (Studies 1-3) or in response to experiences of sexual rejection (Study 4). Studies 1 and 2 were designed and collected in parallel in order to replicate the predicted effects in independent samples. Study 3 involved an additional sample using the same procedures and measures to replicate the expected pattern and show that the effects arose from men's MGRS rather than hostile sexism. Study 4 then tested the predicted pattern within a specific power-relevant context in which aggression may often arise in relationships—sexual rejection.

Across studies, our initial aim and analysis focused on the degree to which MGRS moderated the links between low relationship power and physical aggression. Prior theorists have recognized that physical aggression is particularly relevant to demonstrating or claiming a masculine identity because displaying power-relevant traits, such as physical strength, dominance, and risk-taking, is central a component of the expectations associated with traditional masculine roles and identities (Bosson et al., 2009; Bosson & Vandello, 2011; Vescio et al., 2010). Accordingly, previous experimental research indicates that men use physically aggressive displays (i.e., hitting a punching bag) when their masculine identity is threatened, and experience reductions in anxiety following such displays (Bosson et al., 2009). By contrast, verbal aggression can be more relational in nature, is less physical and risky, and may be a less effective means of demonstrating power and claiming a traditional masculine identity (Bosson et al., 2009; Bosson & Vandello, 2011). On the other hand, given relational motives and sanctions may inhibit physical aggression in intimate relationships, verbal aggression may also be used as a less risky display and assertion of relationship power to redress masculine identity threat. Moreover, physical aggression may often escalate from verbal aggression (Murphy & O'Leary, 1989; Stets, 1990). Thus, we tested whether MGRS moderates the associations between men's low relationship power and physical aggression as well as men's low relationship power and verbal aggression toward intimate partners.

### **Studies 1 and 2**

Studies 1 and 2 involved two non-overlapping samples of men who completed the same self-reported assessments of MGRS, relationship power, and aggression. We collected two studies using the same measures and procedures in order to provide (1) an initial test of whether MGRS moderated the links between relationship power and aggression toward intimate partners (Study 1) and then (2) a direct replication of this hypothesized effect (Study

2). Given they involved the same procedures and measures, we present Studies 1 and 2 jointly for concision.

### Method

**Participants.** Men<sup>1</sup> in exclusive heterosexual relationships were recruited via Amazon's Mechanical Turk and received \$1.00 USD for participation. We aimed to have complete data from 200 men to ensure adequate statistical power to detect a reasonably small effect size ( $f^2 = .06$ ) with .80 power (Faul, Erdfelder, Buchner, & Lang, 2009). Data collection was stopped at the end of the day the target sample size was met to increase the chance that we reached our target sample size after removing participant data due to non-completion or failing attention checks ( $n = 14$  in Study 1,  $n = 21$  in Study 2) and removing Study 2 respondents who had completed Study 1 ( $n = 56$ ). Exclusions occurred before measure construction and data analysis. Study 1 comprised 223 men, who ranged from 19 to 70 ( $M = 33.59$ ,  $SD = 9.48$ ) years of age, and were involved in serious relationships (59% married/cohabiting) for an average length of 6.35 years ( $SD = 6.87$ ). Study 2 was similar: 191 men, ranging in age from 19 to 68 ( $M = 35.30$ ,  $SD = 10.65$ ) years, and involved in serious relationships (65% married/cohabiting) for an average length of 7.53 years ( $SD = 8.58$ ).

**Procedure and measures.** Approval was obtained from the authors' university ethics committee. After reporting demographic information, participants completed measures in the following order: relationship satisfaction and relationship power, MGRS, and aggressive responses during conflict with their partner across the past year.

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<sup>1</sup> We also collected data from female participants as has been done in some other studies assessing MGRS (Eisler, Skidmore, & Ward, 1988; McCreary et al., 1996; McDermott, Naylor, McKelvey, & Kantra, 2017). In the original submission of Studies 1 and 2 we reported analyses for both men and women, which demonstrated that the predicted effects only occurred for men and not women (see <https://osf.io/4k3vn> for details). However, we agreed with reviewers that the MGRS construct and scale may not have equivalent meaning for women. For example, many MGRS items represent different contexts across men and women (e.g., "Having a female boss", "Being outperformed at work by a woman", "Talking with a woman who is crying", "Being perceived as having feminine traits"). Further, the original development and validation of the MGRS scale focused on men (Eisler & Skidmore, 1987), and therefore has not been validated for use in samples of women. For these reasons, across studies we present and analyze data for men only.

**Relationship power.** Participants completed the Sense of Power Scale with reference to their relationship (Anderson, John, & Keltner, 2012). This 8-item scale assesses individuals' ability to make decisions (e.g., "If I want to, I get to make the decisions"; 1 = *strongly disagree*, 7 = *strongly agree*), influence their partner's behavior or opinions (e.g., "Even if I voice them, my views have little sway", reverse-coded), and satisfy their own goals and desires (e.g., "Even when I try, I am not able to get my way", reverse-coded). Items were averaged to provide an overall index of how much power each participant felt they had in the relationship (see Table 2.1).

**Masculine Gender Role Stress (MGRS).** The MGRS scale was developed by Eisler and Skidmore (1987) to assess how stressful men find situations that can threaten traditional masculine identity across five situations: physical inadequacy (e.g., "Being perceived as having feminine traits"), emotional inexpressiveness (e.g., "Admitting that you are afraid of something"), subordination to women (e.g., "Letting a woman take control of the situation"), intellectual inferiority (e.g., "Working with people who are brighter than yourself"), and performance failure (e.g., "Being unable to perform sexually"). Participants rated each item according to how stressful they would find each situation to be if they were in that situation (1 = *not at all stressful*, 7 = *extremely stressful*). The original 40-item MGRS scale has established internal consistency ( $\alpha = .88$  to  $.94$ ; Jakupcak, Lisak, & Roemer, 2002; Mahalik, et al., 2003; McCreary et al., 1996), and test-retest reliability ( $r = .93$ ; Eisler, Skidmore, & Ward, 1988). A shorter 15-item MGRS scale has also been developed with supporting evidence of reliability and validity (Swartout, Parrott, Cohn, Hagman, & Gallagher, 2015; McDermott, Naylor, McKelvey, & Kantra, 2017). To maximize attentive responding given the data collection paradigm, while also retaining a more detailed assessment than the short MGRS scale, we assessed 30 of the original 40 items. Our primary approach was to remove 2 items from each of the 5 factors. Items removed were those that (1) were very similar to other

higher-loading items from the original scale development (Eisler & Skidmore, 1987), (2) referred to children and thus implied parental status, which may not be relevant to some or many of our participants, or (3) we judged were likely to be very stressful for everyone and thus may not as sensitively assess level of threat to men's masculine identity (e.g., getting fired). The Appendix (Appendix 1) details the 30 items retained and the 10 items removed for these studies.

***Physical and verbal aggression.*** We drew upon aggression items assessed in the Conflict Tactics Scale (Straus, 1979) with a focus on those included in self-report scales assessing aggressive communication during conflict in non-violent/non-clinical populations (see Canary, Cunningham, & Cody, 1988; Christensen & Sullaway, 1984; Kerig, 1996). This measurement approach aligns with prior studies assessing the links between relationship power (and related constructs) and aggression<sup>2</sup> (Babcock et al., 1993; Bentley et al., 2007; Cross, Overall, Low, & McNulty, 2019; Coleman & Straus, 1986; Finkel et al., 2012; Overall et al., 2016). Following the descriptive context and response set used by those scales assessing communication patterns in close relationships, participants read the following: *“No matter how well a couple gets along, there are times when they disagree or get annoyed about something the other person does. Please rate each item below regarding how you have responded when experiencing conflict, problems or disagreements in your relationship in the past year.”* Participants then indicated their level of responding (1 = *not at all*, 7 = *very much*) to the following items: “insulted or swore at your partner”, “did or said something to spite your partner”, “stomped out of the room or house”, “pushed, grabbed, or shoved your

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<sup>2</sup> Consistent with prior studies, participants tended to report low levels of physical aggression, resulting in a right-skewed distribution in the measure of physical aggression across all four studies. To directly connect with the use of these scales in prior research, we present analyses without any skew adjustments. However, in the interest of transparency, we also re-ran our analyses with physical aggression log transformed to reduce skewness. A meta-analysis of these effects across all four studies (presented in Appendix 1) demonstrated that the predicted pattern of low relationship power on greater aggression for men higher in MGRS emerged when skewness of the physical aggression measure is reduced.

partner,” “hit or tried to hit your partner with something,” “threw, smashed, hit, or kicked something,” “threatened to hit or throw something,” “slapped your partner,” and “kicked, bit, or hit your partner.” As in the prior communication scales we followed, very serious forms of violence assessed in the CTS (e.g., used a knife or fired a gun, beat him/her up) were removed to reduce participant reactance and because these items show very low endorsement in studies with student, community, and non-clinical populations (Johnson, 2016; also see Cross et al., 2019; Coleman & Straus, 1986; Finkel et al., 2012 for similar assessments). Factor analyses in both Study 1 and Study 2 revealed two factors (see Appendix 1 for details). The first factor included the last 6 items, all involving physical aggression toward the partner (e.g., “Pushed, grabbed, or shoved your partner”) or physically aggressive displays (e.g., “Threw, smashed, hit, or kicked something”). The second factor included the first 3 items, which captured verbal aggression (e.g., “Insulted or swore at your partner”). Items were averaged to construct separate measures of physical and verbal aggression (see Table 2.1).

***Relationship satisfaction.*** To show that the associations were specific to feelings of low relationship power rather than global negative relationship sentiments, participants completed an established measure of relationship satisfaction including 5 items (e.g., “I feel satisfied with our relationship”; 1 = *strongly disagree*, 7 = *strongly agree*; Rusbult, Martz, & Agnew, 1998).

## Results

Table 2.1 displays the descriptive statistics, reliabilities, and correlations across all measures. As expected, in both studies lower relationship power and greater MGRS were associated with greater aggression. Our prediction, however, required testing the moderating effect of MGRS on the association between relationship power and aggression.



**Table 2.1. Descriptive Statistics and Correlations for Measures across all Studies**

Variables	Descriptive Statistics			Correlations				
	<i>Mean</i>	<i>SD</i>	<i>α</i>	1.	2.	3.	4.	5.
<b>Study 1</b>								
1. Relationship Power	5.323	1.066	.88	-				
2. MGRS	3.565	1.020	.93	-.165*	-			
3. Physical Aggression	1.441	1.056	.96	-.298**	.386**	-		
4. Verbal Aggression	2.448	1.462	.85	-.252**	.316**	.518**	-	
5. Satisfaction	5.723	1.230	.93	.545**	-.085	-.263**	-.144*	-
<b>Study 2</b>								
1. Relationship Power	5.338	.982	.89	-				
2. MGRS	3.394	.979	.93	-.151*	-			
3. Physical Aggression	1.240	.675	.92	-.212**	.171*	-		
4. Verbal Aggression	2.212	1.301	.80	-.122	.268**	.528**	-	
5. Satisfaction	5.640	1.201	.94	.590**	-.090	-.310**	-.376	-
<b>Study 3</b>								
1. Relationship Power	5.075	1.084	.87	-				
2. MGRS	3.567	.931	.89	-.342**	-			
3. Physical Aggression	1.411	.916	.94	-.298**	.323**	-		
4. Verbal Aggression	2.372	1.398	.82	-.230**	.324**	.476**	-	
5. Satisfaction	5.586	1.276	.94	.649**	-.382**	-.273**	-.218**	-
6. Hostile Sexism	3.522	1.322	.92	-.285**	.431**	.245**	.236**	-.282**

**Study 4**

1. Relationship Power	5.445	1.086	.91	-					
2. MGRS	3.723	.944	.89	-.201**	-				
3. Physical Aggression	1.258	.895	.92	-.215**	.154*	-			
4. Verbal Aggression	1.581	1.094	.91	-.369**	.326**	.674**	-		
5. Satisfaction	5.725	1.178	.92	.591**	-.216**	-.152*	-.010	-	
6. Hostile Sexism	3.501	1.488	.94	-.078	.309**	.200**	.201*		-.133*

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*Note.* \* $p < .05$ . \*\* $p < .01$ .

**Physical aggression.** First, for each study, we conducted a multiple linear regression analysis regressing physical aggression on relationship power (mean-centered), MGRS (mean-centered), and the interaction between relationship power and MGRS. As shown in the left side of Table 2.2, a significant interaction between MGRS and relationship power emerged for both Study 1 and Study 2. These interactions are shown in Figure 2.1 which plots high and low levels at 1 SD above or below the mean. For Study 1 (see Figure 2.1, upper left), lower relationship power was associated with greater reported physical aggression toward partners when men were relatively high in MGRS ( $b = -.496, t = -6.634, 95\% CI [-.644, -.348], p < .001$  for Study 1), but relationship power was not associated with physical aggression when men were relatively low in MGRS ( $b = .119, t = 1.516, 95\% CI [-.037, .275], p = .131$ ). Study 2 directly replicated this moderating effect (see Figure 2.1, upper right): lower relationship power was associated with greater physical aggression toward partners when men were relatively high in MGRS ( $b = -.310, t = -4.807, 95\% CI [-.438, -.182], p < .001$ ), but relationship power was not associated with physical aggression when men were relatively low in MGRS ( $b = .072, t = 1.046, 95\% CI [-.066, .216], p = .297$ ).

**Verbal aggression.** Second, we ran the same set of analyses predicting verbal aggression. As shown in the right side of Table 2.2, the results differed across studies. In Study 1, lower relationship power and greater MGRS predicted greater verbal aggression, but the interaction between relationship power and MGRS was not significant. In Study 2, however, relationship power and MGRS did significantly interact to predict verbal aggression. For completeness, Figure 2.2 plots the predicted values of verbal aggression at high and low levels of relationship power and MGRS (1 SD above or below the mean) for both Study 1 and Study 2. Study 2 illustrated the predicted pattern: lower relationship power was associated with greater reported verbal aggression toward partners when men were relatively high in MGRS ( $b = -.376, t = -3.002, 95\% CI [-.623, -.130], p < .001$ ), but was not

associated with greater verbal aggression when men were relatively low in MGRS ( $b = .196$ ,  $t = 1.536$ , 95%  $CI [-.057, .449]$ ,  $p = .148$ ).

**Relationship satisfaction.** Our final analyses tested whether these effects were specific to relationship power, as we hypothesized, rather than global relationship sentiments. We reran the primary analyses presented in Table 2.2 adding satisfaction as a simultaneous predictor along with the satisfaction x MGRS interaction. Full results are shown in the Appendix (see Table SM 2.1). Lower relationship satisfaction was associated with greater physical aggression (Study 2 only) and verbal aggression (Studies 1 and 2), but MGRS did not moderate these effects. Moreover, the significant interaction effects between relationship power and MGRS shown in Table 2.2 remained significant. As in prior research (e.g., Overall et al., 2016), these control analyses support that relationship power may be uniquely associated with aggression and that lower relationship power, rather than negative relationship evaluations in general, is related to threats to masculine identity and aggression.

### Study 3

Studies 1 and 2 provided initial and direct replication evidence that the link between low relationship power and physical aggression primarily occurs for men who experience greater stress within situations that can threaten men's traditional masculine identity (as indicated by relatively high MGRS). In both studies, men who scored relatively high, but not low, in MGRS reported greater physical aggression toward their partner when they perceived they had lower relationship power. This pattern was more consistent for physical than verbal aggression, with the interaction between relationship power and MGRS on verbal aggression only emerging in Study 2.

The purpose of Study 3 was to provide an additional direct replication of the moderating effect of MGRS on the association between men's lower relationship power and aggression toward intimate partners. In addition, Study 3 examined whether MGRS was

distinct from another theoretically-relevant construct related to men's aggression toward female intimate partners—hostile sexism toward women. Study 3 used the same methods and measures as Studies 1 and 2, and we predicted that we would again find that the associations between men's power and physical aggression toward intimate partners during conflict over the past year would be moderated by MGRS. We also expected this association would be independent of men's relationship satisfaction and degree of hostile sexist beliefs.

### Method

This sample was collected for two purposes, including (1) replicating the moderating effects of MGRS for the current research program, and (2) examining the links between hostile sexism, perceived power, and aggression. The latter associations have already been published (Cross et al., 2019), but our control analyses below show that the hypothesized moderating effects of MGRS are unique and independent of hostile sexism.

**Participants.** As in Studies 1 and 2, men in exclusive heterosexual relationships were recruited via Amazon's Mechanical Turk and received \$1.00 USD for participation. Participants were screened for study eligibility through an initial demographic survey identifying relationship status. Respondents identifying as single were directed to a separate study on "partner preferences and ideals." As in Studies 1 and 2, we again aimed to have complete data from 200 men to ensure adequate statistical power to detect a reasonably small effect size ( $f^2 = .06$ ) with .80 power (Faul et al., 2009). Data collection was stopped at the end of the day target sample size was met. Before variable construction and data analyses, 8 responses were removed because respondents completed the survey in less than the pre-specified time believed necessary to accurately discriminate across variables (5 min). We also excluded 23 male participants who were involved in same-sex relationships because the sexist attitudes measured specifically relate to heterosexual gender roles (see Glick & Fiske, 1996). The final sample included 207 men who ranged from 20 to 75 ( $M = 39.73$ ,  $SD =$

11.34) years of age and were involved in serious relationships (81% married/cohabiting) for an average length of 9.60 years ( $SD = 9.23$ ).

**Procedure and measures.** Approval was obtained from the authors' university ethics committee. The study was described as answering questions on "relationship experiences and beliefs, including how people think, feel, and behave in their intimate relationships." After reporting demographic information, participants completed measures in the following order: hostile sexism, MGRS, relationship satisfaction and relationship power, and aggressive responses during conflict with their partner across the past year.

**Relationship power, MGRS, physical and verbal aggression, and relationship satisfaction.** Measures were identical to Studies 1 and 2. As in Studies 1 and 2, factor analyses on the aggression items used in Study 3 revealed two factors representing physical and verbal aggression (see Appendix) and thus we again averaged items to construct separate measures of physical aggression and verbal aggression (see Table 2.1).

**Hostile sexism.** Eleven items from the Ambivalent Sexism Inventory (Glick & Fiske, 1996) were used to measure participants' hostile sexism (e.g., "Women seek to gain power by getting control over men," "Once a woman gets a man to commit to her she usually tries to put him on a tight leash"; -3 = *strongly disagree*, 3 = *strongly agree*).

## Results

Table 2.1 displays the descriptive statistics, reliabilities, and correlations.

**Physical aggression.** First, to replicate the results of Studies 1 and 2, we conducted a multiple linear regression analysis regressing physical aggression on relationship power (mean-centered), MGRS (mean-centered), and the interaction between relationship power and MGRS. Consistent with the results of Studies 1 and 2, a significant interaction between relationship power and MGRS emerged (Table 2.2, left side). As shown in the bottom left of Figure 2.1, lower relationship power was associated with greater reported physical aggression

**Table 2.2. Men's Relationship Power and MGRS on Aggression across all Studies**

Variables	Physical Aggression				Verbal Aggression			
	$\beta$	$t$	$p$	95% CI	$\beta$	$t$	$p$	95% CI
<b>Study 1</b>								
Relationship Power	-.190	-3.321	.001	-.300, -.077	-.202	-3.144	.002	-.450, -.103
MGRS	.339	5.980	<.001	.235, .467	.282	4.440	<.001	.225, .584
Relationship Power x MGRS	<b>-.337</b>	<b>-5.953</b>	<b>&lt;.001</b>	<b>-.402, -.202</b>	-.025	-.392	.696	-.186, .124
<b>Study 2</b>								
Relationship Power	-.171	-2.483	.014	-.214, -.024	-.067	-.969	.334	-.274, .094
MGRS	.200	2.850	.005	.042, .233	.303	4.281	<.001	.216, .586
Relationship Power x MGRS	<b>-.286</b>	<b>-4.122</b>	<b>&lt;.001</b>	<b>-.288, -.102</b>	<b>-.234</b>	<b>-3.348</b>	<b>.001</b>	<b>-.488, -.126</b>
<b>Study 3</b>								
Relationship Power	-.176	-2.525	.012	-.266, -.033	-.136	-1.897	.059	-.358, .007
MGRS	.250	3.665	<.001	.114, .378	.278	3.975	<.001	.210, .625
Relationship Power x MGRS	<b>-.152</b>	<b>2.305</b>	<b>.022</b>	<b>-.265, -.021</b>	.004	.061	.951	-.185, .197
<b>Study 4</b>								
Relationship Power	-.188	-2.826	.005	-.263, -.047	-.311	-5.185	<.001	-.435, -.194
MGRS	.133	1.981	.049	.001, .252	.293	4.851	<.001	.202, .477
Relationship Power x MGRS	<b>-.132</b>	<b>-2.005</b>	<b>.046</b>	<b>-.229, -.002</b>	<b>-.228</b>	<b>-3.854</b>	<b>&lt;.001</b>	<b>-.369, -.119</b>

Note. CI = Confidence Interval. The significant 2-way interactions are presented in bold.

toward partners when men were relatively high in MGRS ( $b = -.282, t = -3.487, 95\% CI [-.442, -.122], p < .001$ ), but lower relationship power was not associated with greater physical aggression when men were relatively low in MGRS ( $b = -.016, t = -.192, 95\% CI [-.182, .150], p = .848$ ).

**Verbal aggression.** Second, we ran the same set of analyses predicting verbal aggression. As shown in the right side of Table 2.2, these results were somewhat consistent with the results of Study 1. Higher MGRS predicted greater verbal aggression, but lower relationship power and the interaction between relationship power and MGRS did not. For completeness and comparison across studies and measures of aggression, Figure 2.2 plots the predicted values of verbal aggression at relatively high and low levels (1 SD above and below the mean) of relationship power and MGRS.

**Relationship satisfaction.** Third, we once again tested whether these effects were specific to relationship power, as we hypothesized, rather than negative relationship sentiments. We reran the primary analyses presented in Table 2.2 adding satisfaction as a simultaneous predictor along with the satisfaction x MGRS interaction. Full results are shown in the Appendix (see Table SM 2.1). Lower relationship satisfaction was not associated with greater physical or verbal aggression in Study 3 and there was no significant interaction with MGRS. However, unlike Studies 1 and 2, inclusion of satisfaction in the model reduced the relationship power x MGRS interaction on physical aggression. We consider the overall influence of relationship satisfaction, and the reliability of effects when controlling for relationship satisfaction, in an internal meta-analysis of the results across studies (reported below).

**Hostile sexism.** Our final analyses tested whether the moderating effects of MGRS on the association between relationship power and aggression are unique and independent of hostile sexism. We reran the primary analyses adding hostile sexism as a simultaneous



moderator along with the relationship power x hostile sexism interaction. Full results are shown in the Appendix (see Table SM 2.3). A significant interaction between relationship power and hostile sexism emerged predicting verbal, but not physical, aggression. Moreover, the interaction effect between relationship power x MGRS predicting physical aggression shown in the left side of Table 2.2 remained significant, which supports that the greater physical aggression associated with lower relationship power for men relatively high in MGRS was not due to more hostile sexist beliefs toward women.

#### **Study 4**

Replicating the effects of Studies 1 and 2, Study 3 provided additional evidence that men's lower relationship power is associated with greater physical aggression when men report being relatively high in MGRS and also demonstrated this pattern was independent of hostile sexism. Study 4 aimed to replicate and extend the findings of Studies 1, 2, and 3 by examining the associations between men's feelings of relationship power, MGRS, and aggression within another power-relevant context in intimate relationships. Rather than examining general reports of aggression during conflict in the past year, in Study 4 we assessed relationship power and aggression within a particularly threatening situation: sexual rejection. Participants were asked to identify and write about their sexual rejection experiences and then indicate the extent to which they tended to respond in aggressive ways following these experiences. We predicted, consistent with the findings of Studies 1-3, that men with lower power in their relationships would report greater aggression towards their romantic partner following sexual rejection when they were relatively high in MGRS.

#### **Method**

**Participants.** As in Studies 1-3, men in exclusive heterosexual relationships were recruited via Amazon's Mechanical Turk and received \$2.00 USD for participation. Participants were screened for study eligibility through an initial demographic survey

identifying relationship status. Respondents identifying as single were directed to a separate study on “dating experiences.” Consistent with Studies 1-3, we aimed to have complete data from 200 men to ensure adequate statistical power to detect a reasonably small effect size ( $f^2 = .06$ ) with .80 power (Faul et al., 2009). Data collection was stopped at the end of the day target sample size was met to increase the chance that we reached our target sample size after removing participant data due to failing attention checks ( $n = 2$ ), showing anomalous patterns that indicated potentially low-effort responding (e.g., selecting the same response for every question, selecting only extreme responses, or selecting responses in a stairwise manner, Hauser, Paolacci, & Chandler, 2018;  $n = 3$ ), or completing the survey in less than the pre-specified time believed necessary to accurately discriminate across variables (9 min,  $n = 10$ ). These exclusions resulted in a total sample size of 221 men who ranged from 20 to 71 ( $M = 37.40$ ,  $SD = 10.20$ ) years of age and were involved in serious relationships (70% married/cohabiting) for an average length of 9.4 years ( $SD = 9.12$ ).

**Procedure and measures.** Approval was obtained from the authors' university ethics committee. The study was described as answering questions on “how you think, feel, and behave in relationship situations.” After reporting demographic information, participants completed measures in the following order: relationship satisfaction, relationship power, MGRS, and hostile sexism. Following these scales, participants identified situations they had previously experienced from 12 common situations involving sexual rejection from a romantic partner, and then wrote about an instance in which they had felt sexually rejected by their partner. Participants then indicated the extent to which they had responded aggressively following these instances of sexual rejection.

***Relationship power and hostile sexism.*** Measures were identical to Studies 1-3.

**Relationship satisfaction.** The relationship satisfaction measure included 4 items from Rusbult et al.'s (1998) relationship satisfaction scale used in Studies 1-3 (e.g., "Our relationship is close to ideal"; 1 = *strongly disagree*, 7 = *strongly agree*).

**MGRS.** In Study 4, we wanted to reduce participant burden and maximize attentive responding given the more extensive data collection paradigm involving asking participants to identify and write about their sexual rejection experiences. We still aimed to retain a more detailed assessment of MGRS than the previously used short scale of 15 items (Swartout et al., 2015), so we utilized a larger set of 21 MGRS items that included at least four items from each of the five subscales. As in Studies 1-3, we excluded items that were particularly low loading or were very similar to other higher-loading items from the original scale development (Eisler & Skidmore, 1987), as well as items that were not as relevant to highly committed couples (e.g., Telling your spouse that you love her/him). The Appendix details the 21 items included in Study 4. The presentation of items was consistent with studies 1-3.

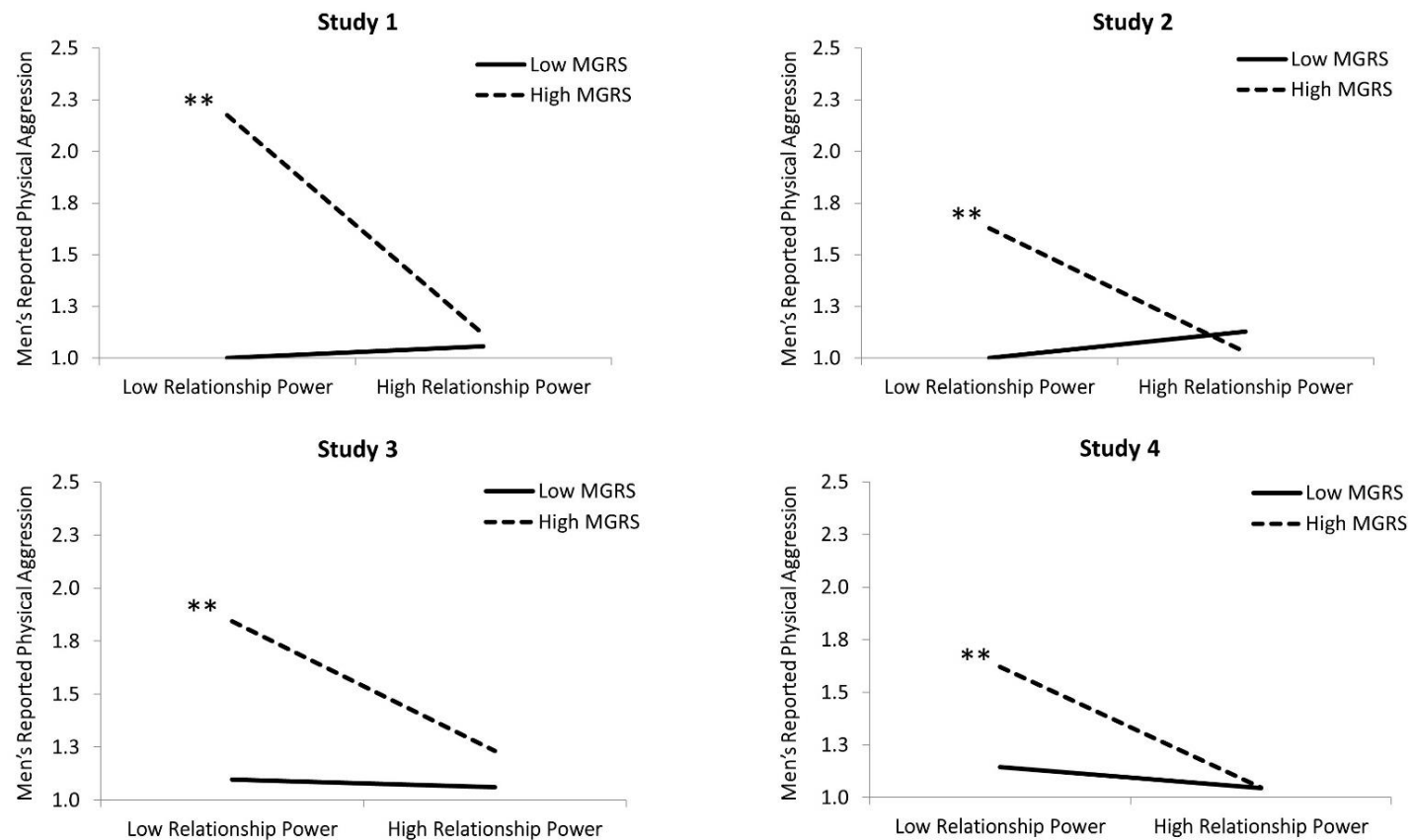
**Physical and verbal aggression.** To assess aggression in Study 4, participants were asked to identify situations they had previously experienced from 12 common situations involving sexual rejection from a romantic partner (e.g., you try to initiate sex with your partner but they aren't interested; see Appendix). Participants were then asked to write about an instance in which they had felt sexually rejected by their partner, such as an instance "you wanted to be intimate with your partner but they were not interested". The situations participants indicated they had experienced and the situation they wrote about were then piped into the following page which asked participants to indicate the extent to which they had responded aggressively following these instances (1 = *not at all*, 7 = *very much*). To capture relevant forms of aggression, while also reducing participant burden and maximizing attentive responding given the more extensive data collection paradigm, we included 6 items adapted from relevant measures of aggression (as outlined in Studies 1 and 2). Two items

assessed physical aggression (“Do something that physically hurts my partner”; “Slap, hit or grab my partner”) and 4 items assessed verbal aggression (“Criticize or put my partner down”; “Do or say something to make my partner feel bad”; “Insult or swear at my partner”; “Shout at my partner”). Consistent with Studies 1-3, items were averaged to construct separate measures of physical and verbal aggression (see Table 2.1).

## Results

**Physical aggression.** Table 2.1 displays the descriptive statistics, reliabilities, and correlations. Analyses were identical to Studies 1-3. First, we conducted a multiple linear regression analysis regressing physical aggression on relationship power (mean-centered) MGRS (mean-centered), and the interaction between relationship power and MGRS. Consistent with the results of our previous studies, a significant interaction between MGRS and relationship power emerged (Table 2.2, left side). As shown in the bottom right of Figure 2.1, lower relationship power was associated with greater reported physical aggression toward partners when men were relatively high in MGRS ( $b = -.264, t = -3.501, 95\% CI [-.412, -.116], p = .001$ ) but relationship power did not predict greater physical aggression when men were relatively low in MGRS ( $b = -.046, t = -.584, 95\% CI [-.202, .110], p = .560$ ).

**Verbal aggression.** Second, we ran the same set of analyses predicting verbal aggression. As shown in the right side of Table 2.2, a significant interaction between MGRS and relationship power emerged predicting verbal aggression. As shown in the bottom right of Figure 2.2, lower relationship power was associated with greater reported verbal aggression toward partners when men were relatively high in MGRS ( $b = -.543, t = -6.522, 95\% CI [-.707, -.380], p < .001$ ), but relationship power did not predict greater verbal aggression when men were relatively low in MGRS ( $b = -.083, t = -.955, 95\% CI [-.253, .087], p = .340$ ).



*Figure 2.1:* The moderating effect of MGRS on the association between men's relationship power and physical aggression across Studies 1-4. *Note.* The interaction between MGRS and power was significant in all four studies (see Table 2.2). High and low values represent 1 SD above and below the mean. \*\*slopes are significant at  $p < .01$ . All other slopes are not significant ( $p > .05$ ).

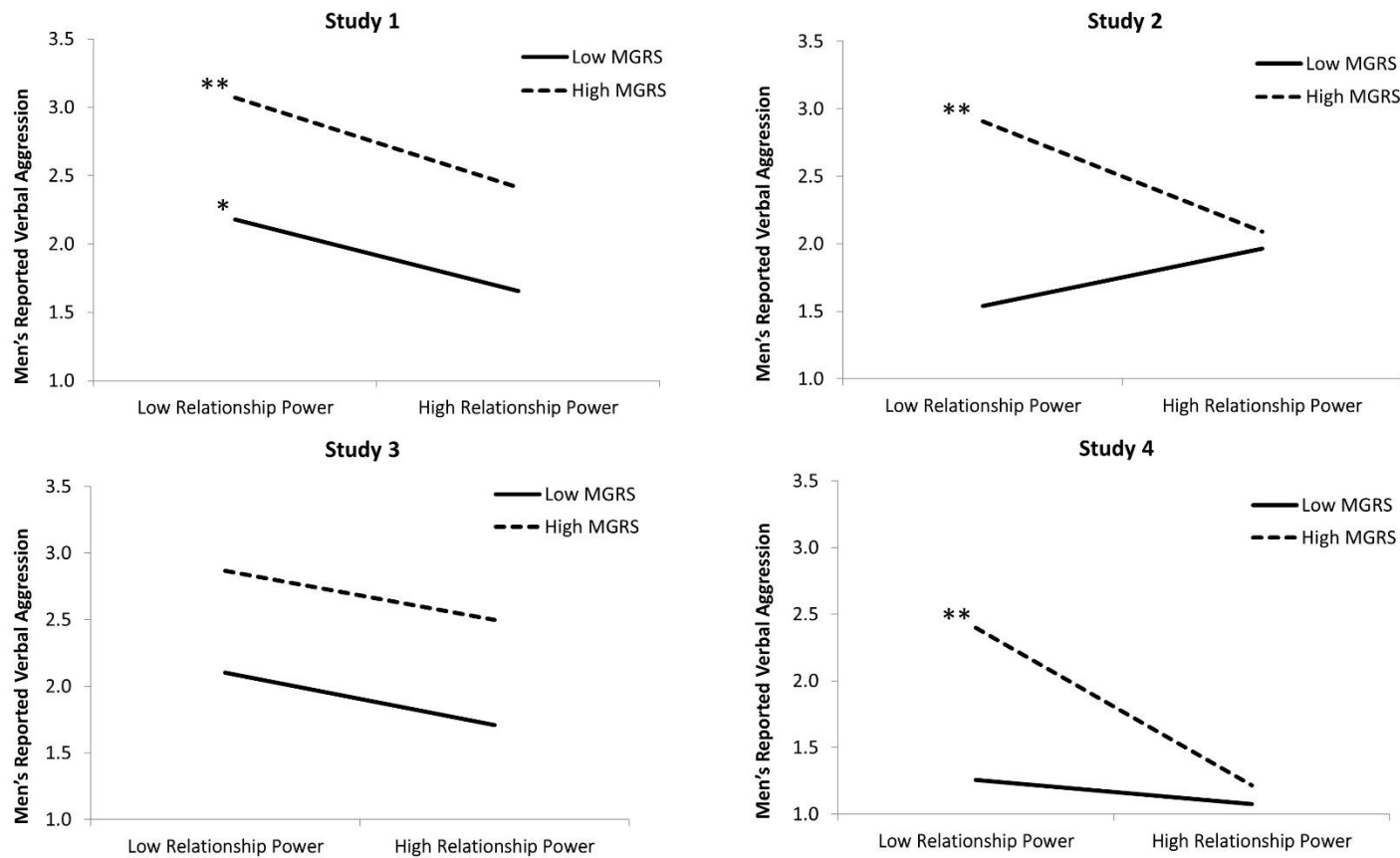


Figure 2.2: The moderating effect of MGRS on the association between men's relationship power and verbal aggression across Studies 1-4. Note. The interaction between MGRS and power was only significant in Study 2 and Study 4 (see Table 2.2). High and low values represent 1 SD above and below the mean. \*slopes are significant at  $p < .05$ . \*\*slopes are significant at  $p < .01$ . All other slopes are not significant ( $p > .05$ ).

**Relationship satisfaction.** Third, we reran the primary analyses presented in Table 2.2 adding satisfaction as a simultaneous predictor along with the satisfaction x MGRS interaction. Full results are shown in the Appendix (see Table SM 2.1). Lower relationship satisfaction was associated with greater physical aggression and a significant interaction emerged with MGRS. Nonetheless, the interaction effect between relationship power x MGRS predicting physical aggression and verbal aggression shown in Table 2.2 remained significant, which supports that the aggressive displays associated with lower relationship power for men relatively high in MGRS are likely not due to more general negative relationship sentiments.

**Hostile sexism.** Our final analyses tested whether the moderating effects of MGRS on the association between relationship power and aggression are unique and independent of hostile sexism. We reran the primary analyses adding hostile sexism as a simultaneous moderator along with the relationship power x hostile sexism interaction. Full results are shown in the Appendix (see Table SM 2.3). Greater hostile sexism did not significantly moderate the links between relationship power and physical or verbal aggression, which further supports that the aggression associated with lower relationship power for men relatively high in MGRS is likely not due to greater hostile sexist beliefs.

#### **Meta-Analysis of Studies 1-4**

The predicted interaction effect between relationship power and MGRS was significant and remarkably consistent across the four studies when predicting physical aggression (see Table 2.2 and Figure 2.1) but was only significant in two of the four studies when predicting verbal aggression (see Table 2.2 and Figure 2.2). To determine whether the inconsistencies across physical versus verbal aggression were meaningful or reflect sampling error or limitations, we conducted a series of meta-analyses to estimate the size and

**Table 2.3. Meta-Analyses of the Effects of Men's Relationship Power and MGRS on Aggression across all Studies**

Variables	Physical Aggression				Verbal Aggression			
	<i>Mean r</i>	<i>z</i>	<i>p</i>	<i>95% CI</i>	<i>Mean r</i>	<i>z</i>	<i>p</i>	<i>95% CI</i>
Relationship Power	-.182	-5.292	<.001	-.247, -.115	-.184	-4.047	<.001	-.269, -.095
MGRS	.233	6.260	<.001	.162, .302	.289	8.555	<.001	.225, .350
Relationship Power x MGRS	<b>-.228</b>	<b>-5.058</b>	<b>&lt;.001</b>	<b>-.312, -.141</b>	<b>-.123</b>	<b>-2.171</b>	<b>.030</b>	<b>-.231, -.012</b>

*Note.* *CI* = Confidence Interval. The significant 2-way interactions between relationship power and MGRS are presented in bold revealing that the links between lower relationship power and aggression were moderated by MGRS for both physical and verbal aggression.



significance of each effect, including (1) relationship power, (2) MGRS, and the (3) relationship power x MGRS interaction on both physical and verbal aggression.

We followed the meta-analytic procedures for estimated weighted  $r$  values assuming random-effects models as outlined by Lipsey and Wilson (2001). The results reported in Table 2.3 indicate that, when evaluated across the four studies, the association between lower relationship power and both physical and verbal aggression was moderated by MGRS. Thus, although the moderating effect of MGRS on the links between lower relationship power and greater aggression was stronger when assessing physical aggression, MGRS also appears to reliably moderate the links between lower relationship power and greater verbal aggression.

To assess the overall reliability of the effects when controlling for relationship satisfaction and hostile sexism, we conducted two meta-analyses estimating the size and significance of each effect from the analyses that modeled the control variables (provided in the Appendix). When evaluated across the four studies, the association between lower relationship power and physical aggression as moderated by MGRS remained significant when controlling for relationship satisfaction (see Table SM 2.2) and Hostile Sexism (see Table SM 2.3). However, the interaction between relationship power and MGRS on verbal aggression that emerged as significant in the meta-analysis was no longer significant across studies when controlling for satisfaction (see Table SM 2.2) or Hostile Sexism (see Table SM 2.3). Although relationship satisfaction and hostile sexism did not show corresponding significant interactions, these results indicate that the results for verbal aggression were weaker and less robust to controls.

Finally, given we had limited statistical power within each study to reliably assess whether age, relationship length, and relationship status further moderated the relationship power x MGRS effects, we conducted internal meta-analyses to examine whether there were any robust main or interaction effects of these demographic variables across studies. The

results are presented in the Appendix (see Table SM 2.5-2.7). Controlling for the possible main and interaction effects of age, relationship length, or marital status did not reduce the significant interaction of relationship power x MGRS predicting men's physical aggression. Moreover, there were no main or interaction effects of age or relationship length. However, a 3-way interaction emerged between relationship power, MGRS, and relationship status indicating that the moderating effect of MGRS on the significant association between low relationship power and aggression was more pronounced for men who were not married compared to men who were married to their partner.

### **Discussion**

The present research aimed to test the theoretical proposition that men may respond aggressively to low relationship power because lower power can threaten men's traditional masculine identity. The results of four studies examining the links between relationship power, MGRS, and physical and verbal aggression toward intimate partners supported this proposition. Men who perceived they had lower relationship power reported greater physical aggression toward their partner during conflict across the past year (Studies 1-3) and following sexual rejection (Study 4), but only when they experience stress within situations that can threaten men's traditional masculine identity (i.e., were higher in MGRS). In Studies 2 and 4, MGRS was also a significant moderator of the links between relationship power and verbal aggression, and the results of an internal meta-analysis indicated that this moderating pattern was significant when aggregated across all studies. Finally, additional analyses of two alternative explanations indicated that the predicted pattern was not due to relationship satisfaction rather than relationship power, or hostile sexism rather than MGRS. Next, we discuss the importance of MGRS in moderating the link between men's perceived lower relationship power and aggressive behavior in intimate relationships.

### **The Key Role of MGRS in the Link between Low Relationship Power and Aggression**

Prior research has theorized that men may be more likely to act aggressively when they have lower relationship power because (1) low relationship power can threaten men's traditional masculine identity, which entails possessing and demonstrating relational power, including men showing that they are independent, assertive, and tough, and (2) aggression is an active assertion of relationship power and thus may help demonstrate or claim a traditional masculine identity (Bosson & Vandello, 2011; Overall et al., 2016). The current studies provide evidence supporting this intersection between power, masculine identity, and aggression in intimate relationships by demonstrating that men who are higher in MGRS, and thus experience greater stress in situations that threaten men's masculine identity, are those who are most likely to respond to low relationship power with aggression toward their romantic partner. Of importance, however, the results also indicate that the potential masculine identity threat associated with low relationship power will not be experienced as stressful by all men (i.e., men lower in MGRS) and therefore may not always elicit aggression. These results help clarify a key reason why the links between low relationship power and aggression are often mixed and contradictory (Holtzworth-Munroe et al., 1997). Although recent findings reveal these inconsistencies may arise because of gender differences (see Overall et al., 2016), the current studies further qualify that the links between low relationship power and men's aggression toward intimate partners will likely depend on men's relative levels of MGRS.

We examined the moderating role of MGRS on the links between low relationship power and aggression by assessing aggression within power-relevant contexts, such as self-reported aggression when encountering conflict or difficulties in relationships (Studies 1-3) and following sexual rejection (Study 4). Other examinations of relationship power and aggression have similarly focused on power-relevant situations involving conflict (e.g., Sagrestano et al., 1999; Overall et al., 2016), in which perceiving lower power to influence

partners may often produce aggression. The examination in Study 4 of instances of sexual rejection extends the contexts in which the links between power and aggression are examined, and may be a particularly relevant context in which the threat of low relationship power and associated aggressive responses emerge for men higher in MGRS. Indeed, the MGRS scale highlights how being unable to achieve desired sexual interactions (e.g., "Not being able to find a sexual partner") and being unable to possess and demonstrate relational power over women (e.g., "Letting a woman take control of the situation") are considered situations that threaten men's traditional masculine identity. These connections, and the results of Study 4, indicate that examining the role relational power and MGRS play in prompting sexual aggression may advance understanding of the factors that may both promote and mitigate aggression following sexual rejection in and outside relationships.

### **MGRS, Low Relationship Power, and Physical versus Verbal Aggression**

The moderating role of MGRS on the links between low relationship power and aggression was replicated across studies when predicting physical aggression, and the meta-analyses demonstrated that this pattern was robust when controlling for relationship satisfaction and hostile sexism. The predicted pattern was less consistent across studies when predicting verbal aggression. Although the internal meta-analysis supported that MGRS was a significant moderator of the link between relationship power and verbal aggression, this pattern was not as robust to controls. The stronger effects for physical aggression are consistent with prior theorizing that displaying physical strength, dominance, and risk-taking are central components of claiming a traditional masculine identity (Bosson et al., 2009; Bosson & Vandello, 2011; Vescio et al., 2010). However, although the relational and non-physical nature of verbal aggression may make verbal aggression less suited to demonstrating power and a traditional masculine identity (Bosson et al., 2009; Bosson & Vandello, 2011), relational motives and sanctions against physical aggression in intimate relationships may

mean that verbal aggression could be used more frequently to redress low relationship power. According to these perspectives, the results suggest that men who experience greater stress within situations that can threaten men's traditional masculine identity will be more likely to respond to lower relationship power with greater physical aggression as a particularly effective means of demonstrating power and reclaiming a masculine identity but may also resort to verbal aggression when relational motives inhibit physical aggression.

An additional explanation for the potentially different patterns across physical and verbal aggression is that men higher in MGRS may generally exhibit greater verbal aggression and then escalate to physical aggression when experiencing particularly acute masculine identity threat due to low relationship power. This explanation is consistent with previous research suggesting that physical aggression often escalates from verbal aggression (Murphy & O'Leary, 1989; Stets, 1990) and is supported by differences in the main effects between MGRS and verbal and physical aggression (see Tables 2.2 and 2.3). Across three of the four studies, greater MGRS significantly predicted verbal aggression independent of relationship power, whereas greater MGRS only predicted physical aggression when men had lower relationship power (see Figure 2.1). Such greater levels of verbal aggression in general may mean the exacerbation of these effects when experiencing lower relationship power is less pronounced and the smaller size of the interaction effect harder to detect.

### **Implications of the MGRS, Low Relationship Power, and Aggression Pattern**

The current research has important implications for the relationship power, gender role stress, and intimate relationship aggression literatures as it synthesizes and extends previous work by demonstrating how MGRS is one key factor in men's aggressive responses to low relationship power. In one study, Overall et al. (2016; Study 5) provided some evidence that men respond with aggression when facing lower relationship power because low power poses a masculine identity threat: men felt less manly on days they experienced

lower relationship power, which in turn was associated with greater aggression (Study 5). By providing evidence of the moderating role of MGRS on the links between relationship power and aggression, the current studies offer an important extension to this prior work. Not only do the results provide new evidence that threats to traditional masculine identity help explain the links between low relationship power and men's aggression, the moderating pattern also illustrates that not all men will respond to low relationship power aggressively because not all men experience stress within situations that can threaten traditional masculine identities.

These results also have implications for understanding the type of situations that may motivate men's aggression toward intimate partners, in addition to facing conflict or sexual rejection. For example, power-relevant relationship roles, such as being the primary provider, may represent a key source of relationship power and men's traditional masculine identity. Indeed, the MGRS scale specifies that situations that threaten this status (e.g., job loss or female partners' success) can threaten men's masculine identity, and previous research has linked financial/work strains with aggression by men (e.g., Barnett & Fagan, 1993; Cano & Vivian, 2003; Cascardi & Vivian, 1995). Various other situations in relationships related to low relationship power and men's traditional masculine identity should have similar effects, such as depending on partners for support or expressing negative emotions (e.g., Overall et al., 2016). A valuable direction for future investigations is to examine whether these range of situations that promote relationship aggression share a central ingredient: threats to relationship power and thus men's traditional masculine identity.

Identifying low power as a central ingredient in situations that promote aggression by men who find masculine identity threats more stressful also has implications for understanding men's aggression outside intimate relationships. The inability to find a sexual partner threatens men's traditional masculine identity (see MGRS scale), likely because sexual rejection undermines relational power and the ability to fulfill core relational needs.

Accordingly, prior research indicates that sexual aggression toward women may arise as a means to gain control and power (Malamuth, Linz, Heavey, Barnes, & Acker, 1995; Abbey, Parkhill, BeShears, Clinton-Sherrod, & Zawacki, 2006), and our results suggest this will be more likely for men who experience stress in situations that can threaten men's traditional masculine identity.

Given that subordination to women also threatens men's traditional masculine identity (see MGRS scale), it is likely that similar dynamics will occur within the workplace. Female superiors are frequently targets of sexual harassment (Chamberlain, Crowley, Tope, & Hodson, 2008; McLaughlin, Uggen, & Blackstone, 2012), which is theorized to represent attempts to redress relational power threats rather than sexual desire (McLaughlin et al., 2012). However, once again, such harassment may be more likely to arise when men experience stress within situations that threaten men's traditional masculine identity. Future investigations may benefit from conceptualizing relationship power and masculine identity threat as key features across situations that can promote aggression toward women. Doing so should also help identify possible risk factors, as well as targets for interventions, across diverse relational contexts.

### **Strengths, Limitations, and Future Directions**

The associations between relationship power, MGRS, and aggression were notably consistent across four independent samples and replicated across measures of self-reported aggression across the past year when couples experienced conflict or disagreement (Studies 1-3) or when men experienced sexual rejection from their partners (Study 4). The samples also included adult men (average age = 36.7, range = 19-79) in established relationships (average length = 9 years, 48% married). Moreover, the internal meta-analyses demonstrated that, across studies, the effects of relationship power and MGRS on physical aggression were robust when controlling for relationship satisfaction or hostile sexism, and that the links

between relationship power, MGRS, and verbal aggression were not better explained by these controls. The primary results were also not altered controlling for age, relationship length, and relationship status, although the moderating role of MGRS on the links between lower power and aggression was more pronounced for men not married to their partner compared to those who were married. Future investigations assessing potential reasons for this unexpected finding (e.g., dependence, security, investment) may identify additional risk factors for men's aggressive responses to lower relationship power.

Despite these strengths, we also acknowledge the limitations of the current studies. The correlational, cross-sectional nature of our data leaves open the possibility that the reverse causal direction occurs. Perhaps partners of men who are more generally aggressive respond with greater withdrawal and defensive resistance, decreasing men's power and influence in the relationship. In support of this idea, men's aggressive communication arising from hostile attitudes toward women is associated with greater defensiveness and resistance from their female partners (Overall, Sibley, & Tan, 2011). However, a range of experimental evidence supports that masculine identity threats and low relational power increase the use of aggression to restore power (Bosson & Vandello, 2011; Bradley & Peters, 1991; Fast & Chen, 2009), especially for people who are threatened by the loss of power (e.g., Case & Maner, 2014; Maner & Mead, 2010). Nonetheless, it is possible that reciprocal links between relational power and aggression occur which are magnified by men's MGRS, such that low relationship power threatens men's traditional masculine identity and promotes aggression to demonstrate power and reclaim a masculine identity, which then undermines relationship power, threatening men's traditional masculine identity within relationships, and then promoting continued and potentially escalating aggression toward partners.

The measures of aggression in the current studies were consistent with those used to examine aggressive communication behavior in relationships (e.g., Canary et al., 1988;



Christensen & Sullaway, 1984; Kerig, 1996) and align with the measures that have been used in studies assessing the links between relationship power (and related constructs) and aggression in student, community, and non-clinical populations (Babcock et al., 1993; Bentley et al., 2007; Cross et al., 2019; Coleman & Straus, 1986; Finkel et al., 2012; Overall et al., 2016). Thus, the current investigation directly connects to that body of work to show that the prior links between relationship power and aggression in close relationships are modified by how stressful men find situations that can threaten men's traditional masculine identity. As in those prior studies, participants tended to report low levels of aggression, but these reports nonetheless reveal effects that align with those when observing aggressive responding in couples' actual interactions (e.g., Cross et al., 2019; Overall et al., 2016). This provides evidence that the aggression assessed by these self-report measures captures important behaviors that emerge in relatively satisfied relationships, highlighting the relevance of the current effects to understanding general aggressive responding in relationships. Our measures did not assess very serious forms of violence and cannot be directly compared to the large literature using CTS assessments of aggression that assess the frequency of a range of aggressive acts. The replicated results we have illustrated here indicate that assessing relationship power and the role of MGRS would be valuable additions to investigations examining the emergence, enactment, and mitigation of more serious forms of violence.

In the current studies, we utilized a shorter version of the original 40-item MGRS scale with the aim of maximizing attentive responding given the data collection paradigms. Our shorter assessment was supported by previous research showing reliability and evidence of a 15-item abbreviated MGRS scale (Swartout et al., 2015; McDermott et al., 2017), but unlike that scale we wanted to ensure that we evenly captured all of the five dimensions, which was achieved by including the highest loading items and items that did not overlap

within each dimension. The resulting assessments were internally consistent across studies, demonstrating means and standard deviations consistent with previous MGRS assessments (McCreary, Newcomb, & Sadava, 1998, 1999; McDermott et al., 2017), and supported the predicted effects across four studies. These results give us confidence that our assessment of MGRS captured the central ingredients of masculine identity threat theorized to arise from low relationship power and would replicate with the longer or shorter MGRS scales.

### **Conclusion**

The current studies provide important support for prior theorizing regarding the intersection of power, traditional masculine identity, and aggression by showing that the links between men's low relationship power and aggression depend on how stressful men find situations that can threaten their masculine identity. Across four studies, men who perceived they had lower relationship power reported greater physical aggression towards their partner, but only when they were relatively high in MGRS and thus typically experience stress in situations that threaten masculine identity. These results provide new evidence that the link between low relationship power and aggression for men may stem from masculine identity threat and suggest that men who do not experience stress in situations that threaten traditional masculine identity may not be more aggressive when experiencing lower relationship power. This pattern between men's low relationship power and aggression, and the role of masculine identity threat in explaining the relational power-aggression link, is likely to arise across contexts related to relational power both within and outside of close relationships.

### **CHAPTER THREE: WOMEN'S FEELINGS OF FEMININITY, FGRS, AND SELF-ESTEEM**

Chapter Two provided a novel demonstration of the role that men's sensitivity to masculinity threat plays in men's aggressive responses to low relationship power. Across four studies, men's experience of masculinity threat in the form of low relationship power was associated with greater aggression towards their intimate partner, but this association only emerged for men higher in MGRS who are particularly sensitive to masculinity threats. These findings support that men's aggressive responses to low relationship power likely emerge as an assertion and demonstration of power and thus masculinity. Moreover, the pattern of results highlights the importance of understanding the contexts that create gender role threat (such as low power) as well as identifying the individual differences that predispose people to the negative outcomes associated with these threats (such as greater sensitivity to masculinity threat).

In Chapter Three, I extend this research, as well as the traditional gender role literature more broadly, by moving beyond a focus on men and masculinity to examine when and for whom the negative outcomes of traditional femininity emerge. In contrast to the focus on power and status central to traditional masculinity, social status is less central to traditional feminine gender roles, and thus women's experiences of femininity threat should be less likely than men's experiences of masculinity threat to motivate active assertions of feminine identity. In Chapter Three, I argue that, given the pressures women face to be nurturant, passive, communal, and dependent, women may exhibit more private or internalized self-relevant negative reactions, such as decreases in self-esteem, when they feel less feminine. Accordingly, I predicted that when women encountered experiences in their day-to-day lives which decreased their feelings of femininity, they would experience concomitant decreases in self-esteem, but that these associations would emerge most strongly

for women higher in feminine gender role stress (FGRS) who are more sensitive to femininity threat. In Chapter Three, I test these predictions in two studies by assessing whether women's daily (Study 1) and weekly (Study 2) feelings of femininity predicted their self-esteem and whether FGRS moderated these links. Thus, these analyses tested whether negative self-relevant outcomes emerge from femininity threat, as well as if individual differences in sensitivity to femininity threats predispose women to negative wellbeing outcomes in their day-to-day lives.

### Abstract

The pressures women face to adhere to traditional feminine roles may create negative self-relevant outcomes when women feel less feminine. The potential for these self-esteem costs, however, should be greater for women more sensitive to threats to their femininity, such as women higher in feminine gender role stress (FGRS). Yet, compared to an array of research examining the costs of masculinity threat for men, relatively few studies have examined the outcomes associated with decreases in women's feelings of femininity or which women are most vulnerable to these effects. The current studies address this imbalance by testing whether decreases in felt-femininity during daily (Study 1) or weekly (Study 2) life predict decreases in self-esteem, particularly for women higher in FGRS. In Study 1, we assessed the within-person associations between women's ( $N = 207$ ) felt-femininity and self-esteem across daily life ( $N = 1,881$  daily records). On days women felt less feminine they experienced greater decreases in self-esteem, and this association was particularly pronounced for women higher in FGRS. In Study 2, we assessed the within-person associations between women's ( $N = 165$ ) felt-femininity and self-esteem across weekly life ( $N = 1,127$  weekly records). On weeks women felt less feminine they experienced greater decreases in self-esteem, and this association was particularly pronounced for women higher in FGRS. These results illustrate the importance of examining self-relevant outcomes of lower feelings of femininity and highlight the relevance of individual difference factors, such as FGRS, that increase women's sensitivity to femininity threat.

*Keywords:* Feelings of femininity, feminine gender role stress, self-esteem

**Feeling Less Feminine During Daily and Weekly Life: Implications for Low Self-Esteem**

Gender roles guide and constrain what qualities and behaviors are considered feminine and masculine (Bem, 1974, 1981; Eagly & Wood, 1991). From very early childhood, people are socialized to display qualities and behaviors consistent with gender roles (Bem, 1983; Bussey & Bandura, 1992; Egan & Perry, 2001; Raag & Rackliff, 1998). Not only are women and men taught what is expected of them based on their gender, they also are taught the social consequences of not adhering to these roles (Bosson et al., 2009; Bussey & Bandura, 1992; Rudman, 1998; Rudman & Fairchild, 2004; Rudman & Glick, 2001; Vandello et al., 2008). For many, these expectations, and the consequences of failing to conform to traditional general roles, become stressful, thereby creating a host of negative outcomes. For example, several studies have provided evidence that men will often respond with aggression in situations that threaten their adherence to masculine gender roles in an attempt to actively demonstrate and restore masculinity (Bosson et al., 2009; Vandello et al., 2008). Importantly, however, these destructive responses to masculinity threats are more pronounced for men high in masculine gender role stress (MGRS; Eisler & Skidmore, 1987), which indexes how stressful men experience situations that involve masculinity threats (Harrington et al., 2021).

Previous research examining the outcomes of situations that threaten adherence to gender roles has predominantly focused on men's experiences of threats to traditional masculine identity. Much less research has examined how women's experiences of threats to traditional feminine identity impact their thoughts, feelings, and behavior. Yet, women also face pressures to adhere to traditional gender roles and face reprisals when these expectations are not met (Bussey & Bandura, 1992; Rudman, 1998). Thus, women too may experience stress and self-relevant negative outcomes when they fail to experience or embody traditional femininity identity (Sanchez & Crocker, 2005; Witt & Wood, 2010). Moreover, just as men

differ in MGRS, women should differ in the stress they experience within situations that threaten adherence to a traditional feminine identity (i.e., feminine gender role stress [FGRS]; Gillespie & Eisler, 1992).

Despite that threats to femininity may risk potential negative outcomes for women, a comparison of the relative citations of the construct and measure of MGRS (803 citations as of June, 2021) versus FGRS (217 citations as of June, 2021) powerfully illustrates the relative imbalance in consideration of the implications of gender role stress for men and women. The current studies address this imbalance by testing whether decreases in felt-femininity during daily (Study 1) or weekly life (Study 2) predict decreases in self-esteem, particularly for women higher in FGRS. In the following sections, we use the more extensive body of research on masculinity threats and MGRS to illustrate the foundation and importance of assessing the links between felt-femininity and self-esteem, and the moderating role of FGRS. We compare and contrast the outcomes associated with threats to masculinity vs. femininity and outline why FGRS should moderate the links between declines in felt-femininity and self-esteem. We then present two studies designed to test whether threats to femininity lead to negative self-relevant outcomes for women during daily and weekly life and provide a novel test of the FGRS construct by examining whether the negative effects of drops in felt-femininity on self-esteem are more pronounced for women who are more sensitive to gender role stress (i.e., higher in FGRS).

### **The Outcomes of Threats to Masculinity and Femininity**

Traditional masculine gender roles comprise the possession and demonstration of qualities related to power and status, such as agency, assertiveness, toughness, independence, and dominance (Bem, 1974, 1981; Eagly & Wood, 1991; Mahalik, et al., 2003; Thompson, et al., 1992). However, many common situations that men experience in their daily lives can threaten traditional masculinity, including admitting feelings (failing to be tough), letting

someone else take control (failing to be assertive and dominant), and having to ask for help (failing to be agentic and independent; Eisler & Skidmore, 1987). Moreover, because characteristics associated with power and status (tough, assertive, agentic, dominant) that are fundamental to traditional masculine identities can only be achieved if acknowledged by others, situations of masculinity threat can produce overt (and often negative) demonstrations and assertions of masculinity (Bosson & Vandello, 2011; Vandello et al., 2008). In particular, men often respond to masculinity threat with aggression, which is an active assertion and demonstration of power (Bosson & Vandello, 2011; Worchel et al., 1978). For example, men exhibit more hostile cognitions and aggressive behavior when masculinity is experimentally threatened by having men complete feminine tasks, telling men they have been outperformed by women, or giving men feedback they are more similar to women (Bosson et al., 2009, 2012; Cohn, et al., 2009; Vandello et al., 2008).

In contrast, traditional femininity involves qualities associated with nurturance; passivity, communality, dependence, and attractiveness (Bem, 1974, 1987; Eagly & Wood, 1991; Levant et al., 2007). Women are socialized to adhere to traditional feminine roles and thus face cultural expectations to possess feminine qualities and reprisals when these expectations are not met (Bem, 1983; Bussey & Bandura, 1992; Egan & Perry, 2001; Raag & Rackliff, 1998; Rudman, 1998; Rudman & Glick, 2001). However, many situations women experience in their day-to-day lives could threaten women's feelings of femininity, such as having a disagreement with a friend (failing to be nurturant), needing to act assertively (failing to be passive), being in a bad mood when interacting with others (failing to be communal), and gaining weight (failing to be attractive; Gillespie & Eisler, 1992). As a result, women may often experience drops in their feelings of femininity and, in turn, negative self-relevant outcomes, such as self-esteem.



Despite the likelihood that femininity threatening situations are a common part of women's lives, few studies have examined the outcomes that occur when women feel they are failing to embody traditional feminine qualities. To our knowledge, the only research to directly examine the outcomes of threats to femininity are experimental studies testing whether femininity threats promote active assertions of femininity in the way that masculinity threat promotes assertions of masculinity. These studies have produced inconsistent results. When women are provided feedback that they are more masculine or more like men, women eat less in a social context, thereby presenting a desired feminine ideal (Mori et al., 1987), and they express more support for victims of sexual assault, thereby identifying more with feminine social identities (Munsch & Willer, 2012). However, these effects are weaker than the opposing effects observed for men's masculinity threat (Munsch & Willer, 2012), and women do not endorse stereotypical gender roles more strongly as men do when presented with gender role incongruent feedback (Kosakowska-Berezecka et al., 2016).

One reason for the inconsistent effects of femininity threats on active assertions of femininity may be because the qualities associated with femininity—nurturance, passivity, communality, dependence—do not involve the active and public reassertion of social status that masculine identities require (Bosson & Vandello, 2011). Instead, given the pressures women face to be nurturant, passive, communal, and dependent, women may exhibit more private or internalized self-relevant negative reactions (Bussey & Bandura, 1992; Rudman, 1998). Prior research provides some support for the hypothesis that threats to feelings of femininity may undermine women's self-esteem. For example, women who view themselves as more communal (an important facet of traditional femininity) experience lower daily self-esteem when they fail to behave communally (i.e., are less attentive to their partner's mood changes; Witt & Wood, 2010). Moreover, women who place greater importance on embodying society's definition of an ideal woman report that their self-esteem is more

contingent on meeting this ideal, which in turn leads to lower overall levels of self-esteem (Sanchez & Crocker, 2005). By illustrating that women who behave in ways inconsistent with desired gender role typed behavior may often experience lower self-esteem, these studies provide support for our proposition that threats to felt-femininity are likely to lead to women experiencing drops in self-esteem.

### **The Moderating Role of Gender Role Stress**

Women should also differ in their sensitivity to situations that threaten traditional gender roles and thus the extent to which they experience negative outcomes when their feelings of femininity are threatened. As above, given it has generated more attention and empirical support, we first describe the construct and outcomes of masculine gender role stress (MGRS) as a basis to contrast the outcomes of feminine gender role stress (FGRS). Masculine gender role stress (MGRS) assesses the stress experienced within situations that threaten adherence to masculine identity, including (1) physical inadequacy, (2) emotional expressiveness, (3) subordination to women, (4) intellectual inferiority, and (5) performance failure (Eisler & Skidmore, 1987). Greater MGRS predicts a range of negative outcomes, such as anger, health-risk behaviors, and aggression toward intimate partners (Eisler et al., 1988, 2000; Franchina et al., 2001; Moore et al., 2008). Moreover, a central prediction of MGRS theory is that men higher in MGRS should be most likely to exhibit these negative outcomes in response to situations that threaten adherence to qualities associated with masculine identity. Consistent with this perspective, Harrington et al., (2021) demonstrated that men higher, but not lower, in MGRS reported greater aggression toward their intimate partner when they experienced low relationship power, and thus were not embodying a core component of masculine identities. These results validated that MGRS captures variation in the sensitivity to situations that threaten masculinity, and thus whether masculinity threats will prompt expression of such threat, such as aggressive behavior.

By contrast, feminine gender role stress (FGRS) captures the stress some women experience within situations that threaten adherence to traditional feminine qualities including (1) having unemotional relationships (e.g., “Having others believe that you are emotionally cold”), (2) being unattractive (e.g., “Being perceived by others as overweight”), (3) behaving assertively (e.g., “Having to "sell" yourself at a job interview”), (4) not being nurturant (e.g., “A very close friend stops speaking to you”), and (5) fear of victimization (e.g., “Feeling that you are being followed by someone”; Gillespie & Eisler, 1992). Greater FGRS predicts a range of negative outcomes, such as eating disorders and body image issues (Martz et al., 1995; Mussap, 2007), depressed mood (Gillespie & Eisler, 1992), and shame and guilt (Efthim, et al., 2001). Notably, these outcomes involve internalized feelings of low self-worth, emphasizing the theoretical ties between threats to felt-femininity and self-esteem.

As FGRS captures the extent to which women find situations that threaten femininity stressful, women higher in FGRS should be particularly at risk for negative outcomes when they experience declines in felt-femininity. Yet, no research to our knowledge has examined if FGRS moderates the associations between experiences of femininity threat and related outcomes. This represents an important gap in the literature. Women may commonly face situations that threaten their feelings of femininity, and thus it is important to understand the individual differences which may place women at particular risk of experiencing negative self-evaluations when they feel less feminine. Moreover, illustrating that FGRS predisposes women to more negative self-evaluations in the context of threats to felt-femininity would provide novel validation of the FGRS construct by directly showing that FGRS captures sensitivity to experiences of femininity threat as it is theorized to do so.

### **Current Research: Femininity, Self-Esteem, and FGRS**

Compared to the breadth of research examining men's responses to threats to masculinity and men's gender role stress, there is a relative dearth of research examining

women's responses to threats to felt-femininity and women's gender role stress. The current studies address this imbalance by providing the first tests of the links between threats to felt-femininity and women's self-esteem, and the moderating role of FGRS. We also advance prior studies examining threats to traditional gender identities by examining the links between felt-femininity, self-esteem, and FGRS during daily and weekly life. Prior examinations of responses to femininity threats have involved experimental manipulations (e.g., presenting gender role incongruent feedback; Kosakowska-Berezecka et al., 2016; Mori et al., 1987; Munsch & Willer, 2012). Rather than focusing on a single, narrow experience in the lab, we examined the degree to which women experienced drops in feelings of femininity within the ecologically valid context of women's daily and weekly lives. Decreases in feelings of femininity measured in this context are likely to stem from a range of real-life experiences that threaten women's felt-femininity. Moreover, given that women likely differ in their investment in different facets of femininity (Witt & Wood, 2010; Wood & Eagly, 2009, 2010), the experiences that most threaten femininity may vary across different women. For instance, some women may experience stronger declines in felt-femininity when they feel unattractive, whereas other women may experience stronger declines when they are unsupportive or neglectful of close relationships and thus fail to be nurturant. Thus, directly assessing women's own feelings of femininity captures any daily or weekly experiences and events that resulted in threats to women's felt-femininity.

Study 1 aimed to test the impact of decreased felt-femininity on self-esteem in women's daily life. Women enrolled in a third-year undergraduate course completed a measure of FGRS and then reported their feelings of femininity and self-esteem each day for 10 days. Study 2 aimed to replicate and extend Study 1 by examining the links between feelings of femininity and self-esteem over the course of a semester. Women enrolled in a second-year undergraduate course completed a measure of FGRS and then reported their felt-

femininity and self-esteem each week for 7 weeks. Gathering repeated assessments of felt-femininity and self-esteem provides the means to test whether within-person decreases in felt-femininity on a given day (Study 1) or week (Study 2) predicted concomitant drops in self-esteem that day or week and whether this within-person association was moderated by FGRS. We expected that during days or weeks women experienced within-person decreases in feelings of femininity they would report similar decreases in self-esteem, but that this association would be more pronounced for women higher (vs. lower) in FGRS.

In both studies, we also conducted additional analyses to illustrate that the expected effects reflected distinct processes related to femininity. Our primary aim was to demonstrate that the moderating role of FGRS on the within-person links between decreases in felt-femininity and self-esteem arose because women high in FGRS find experiences that threaten adherence to feminine gender roles stressful, rather than simply find a range of challenging situations stressful. To do this, we examined MGRS as an alternative moderator. Although the MGRS scale has not been validated for use in samples of women (Eisler & Skidmore, 1987), and may not have equivalent meaning for women, the MGRS nonetheless involves common situations which many people (men and women) could find stressful to varying degrees (e.g., "Working with people who are brighter than yourself", "Getting passed over for a promotion", "Having your lover say that she/he is not satisfied"). Showing that the effects of FGRS are independent of MGRS illustrates that the effects are specific to FGRS and thus stress specific to situations related to femininity threat rather than emerging from a general tendency to find challenging situations of all types stressful.

### **Study 1**

Study 1 focused on the daily within-person associations between women's feelings of femininity and self-esteem. Participants completed a questionnaire assessing FGRS and MGRS, then reported on their feelings of femininity and self-esteem at the end of each day

for 10 days. We expected that days involving within-person decreases in felt-femininity would be associated with similar drops in self-esteem, but this association would be greater for women higher in FGRS (i.e., would be moderated by FGRS).

### Method

**Participants.** Two-hundred and seven women enrolled in a third-year undergraduate psychology course at a large city-based university participated for fulfillment of a research requirement. Participants ranged from 17 to 48 years of age ( $M = 22.34$ ,  $SD = 4.66$ ). The self-reported ethnicity of our participants was as follows: New Zealand (NZ) European 38.0%, NZ Māori 3.9%, Asian 31.6%, Indian 8.9%, Pacific Nations 3.9%, non-NZ European 5.9%, Middle Eastern 2.6 %, and 'Other' 5.3%. Approximately half of the participants were single (51.5%), the remainder were in romantic relationships either dating (32.9%), cohabiting (11.0%), or married (4.6%). We aimed to recruit a large sample of women who completed the daily sampling procedure adequately by running the study for two consecutive academic years, including 2019 and early 2020. Responses collected in early 2020 occurred immediately prior to the emergence of COVID-19 in the community, and before the country went into a nation-wide lockdown. Estimates of sensitivity using intensive longitudinal methods (Bolger & Laurenceau, 2013) indicate that the final sample of 207 participants assessed at 10 time points provides adequate statistical power to detect small effects ( $r = .10$ ).

**Procedure and Measures.** Approval was obtained from [blind for review] ethics committee. In an initial in-person session, participants were provided detailed information about the study, gave informed consent, completed scales assessing FGRS and MGRS, and were given detailed instructions for completing a web-based daily sampling procedure for the following 10 days.

***Feminine Gender Role Stress (FGRS).*** The FGRS scale was developed by Gillespie and Eisler (1992) to assess how stressful people find situations that can threaten traditional

feminine identity across five situations: having unemotional relationships (e.g., “Being considered promiscuous”), physical unattractiveness (e.g., “Finding out that you have gained 10 pounds”), behaving assertively (e.g., “Supervising older and more experienced employees at work”), failing to be nurturant (e.g., “Returning to work soon after your child is born”), and fear of victimization (e.g., “Hearing a strange noise while you are home alone”).

Participants rated each item according to how stressful they would find each situation to be if they were in that situation (1 = *not at all stressful*, 7 = *extremely stressful*). The original 39-item FGRS scale has established internal consistency ( $\alpha$ s = .73 to .83) and test-retest reliability ( $r = .82$ ; Gillespie & Eisler, 1992). We assessed 24 of the original 39 items to maximize attentive responding given the data collection paradigm and align with abbreviated measures now used to assess MGRS (see description below). Our primary approach was to select 5 items from each of the 5 subscales. Items removed were those that (1) were very similar to other high-loading items from the original scale development (Gillespie & Eisler, 1992), (2) involved situations that are not widely generalizable (e.g., “Being unusually tall”), or (3) we judged were likely to be very stressful for everyone and thus may not as sensitively assess level of threat to women's feminine identity (e.g., “Hearing that a dangerous criminal has escaped nearby”). The Appendix (Appendix 2) details the 24 items retained, and the 15 items removed, for these studies.

***Masculine Gender Role Stress (MGRS)***. We assessed MGRS to distinguish the effects of FGRS from a general tendency to find challenging situations (not directly related to femininity) stressful. Participants completed the Abbreviated Masculine Gender Role Stress Scale (Swartout et al., 2015), which includes 15 items assessing how stressful people find situations that can threaten traditional masculine identity across five situations: physical inadequacy (e.g., “Not being able to find a sexual partner”), emotional inexpressiveness (e.g., “Admitting that you are afraid of something”), subordination to women (e.g., “Being

outperformed at work by a woman”), intellectual inferiority (e.g., “Working with people who are brighter than yourself”), and performance failure (e.g., “Finding you lack the occupational skills to succeed”). The abbreviated MGRS scale is commonly used and has established reliability and validity (Swartout et al., 2015; McDermott et al., 2017).

### ***Daily Measures***

Participants were instructed to complete an online questionnaire at the end of each day for 10 days. Participants first reported the date of each entry, which was checked against the software-logged date and time to assess compliance. Before variable construction and data analyses, individual daily records were excluded if they had been completed too early to reflect experiences across the entire day (before 4 pm) or were completed in less than the pre-specified time necessary to accurately discriminate across variables (under 3 minutes). To be included in the sample, participants had to have completed 5 or more usable daily records. The 207 women who met these criteria completed on average 9.09 daily records, resulting in 1,881 daily records for analyses. The multi-level analysis used to assess daily associations between felt-femininity and self-esteem accounts for the small differences in numbers of entries across participants by weighting the final sample estimates based on the reliability of each participant's data (i.e., participants with more daily records contribute more to the final estimates; Bolger & Laurenceau, 2013). Each daily record assessed participants' feelings of femininity and self-esteem that day.

***Daily Feelings of Femininity.*** To assess daily feelings of femininity, each day participants rated the extent to which they agreed with the statement “I felt feminine” (1 = *not at all*, 4 = *somewhat*, 7 = *very much*). As outlined in the Introduction, we directly assessed women's feelings of femininity in order to assess threats to femininity during daily life that could arise from a range of experiences and events that leave women feeling they are failing to be feminine. This face-valid assessment of felt-femininity is similar to prior assessments of



masculinity threat during daily life, which revealed the same links with aggressive behavior as those shown from experimental threats to masculinity (Overall et al., 2016).

**Daily Self-Esteem.** Three items adapted from the Rosenberg (1965) Self-Esteem Scale, and similar to prior daily assessments (e.g., Murray et al., 2003), measured daily levels of self-esteem. Participants rated the extent to which they agreed with the following statements that day (1 = *not at all*, 7 = *very much*): “I felt worthless” (reverse coded), “I felt like I was a failure” (reverse coded), “I felt worthwhile”. Items were averaged such that higher scores indicate greater self-esteem. The three items were internally consistent across people (see Table 3.1) and showed good reliability to assess change across days ( $R_c = .774$ ).

### Results

To test the within-person associations between felt-femininity and self-esteem, and the moderating role of FGRS, we conducted multilevel analyses. We followed the procedures and syntax outlined by Bolger and Laurenceau (2013) to account for the dependence arising from participants providing repeated measurements across the 10 days. As detailed by the annotated syntax in the Appendix, these models treat each daily assessment as repeated measures within each participant and specify an autoregressive error structure (AR1) to account for the within-person associations across each daily report of the dependent variable (see Bolger & Laurenceau, 2013 for further details). Using the MIXED procedure in SPSS 26, we modeled the degree to which participants' daily levels of self-esteem varied as a function of (a) feelings of femininity that day (person-centered), (b) FGRS (grand-mean centered), and (c) the interaction between daily felt-femininity and FGRS. The repeated assessments of felt-femininity were person-centered by subtracting each participant's mean level of felt-femininity across days from each daily report of femininity. By person-centering, the effect of felt-femininity represents daily variations in feelings of femininity from each

**Table 3.1***Descriptive Statistics, Reliabilities, and Correlations Across Measures: Studies 1 and 2*

Variables	Descriptive Statistics			Correlations		
	Mean	SD	$\alpha$	1.	2.	3.
<b>Study 1</b>						
1. Daily Feelings of Femininity	4.348	1.003	—	-		
2. Daily Self-Esteem	5.012	.927	.879	.269***	-	
3. Feminine Gender Role Stress	5.138	.845	.810	.105**	-.164***	-
4. Masculine Gender Role Stress	2.992	.848	.814	-.147***	-.176***	.476***
<b>Study 2</b>						
1. Weekly Feelings of Femininity	5.086	1.167	—	-		
2. Weekly Self-Esteem	5.061	1.264	.909	.299***	-	
3. Feminine Gender Role Stress	5.302	.686	.810	-.012	-.316***	-
4. Masculine Gender Role Stress	4.019	.665	.814	-.013	-.396***	.608***

*Note.* Descriptive statistics for daily and weekly feelings of femininity and self-esteem are based on averages of within-person aggregates across the sampling period, and thus associated correlations represent associations with participants' average across-day or across-week levels of felt-femininity and self-esteem. Alpha values for daily and weekly feelings of self-esteem are based on averages of within-person aggregates across the sampling period (see text for within-person reliability). \*\*Correlations are significant at  $p < .01$ . \*\*\*Correlations are significant at  $p < .001$ .

**Table 3.2***Feelings of Femininity and Feminine Gender Role Stress Predicting Self-Esteem: Studies 1 and 2*

Variables	<i>B</i>	95% <i>CI</i>		<i>t</i>	<i>p</i>	<i>r</i>
		Lower	Upper			
<b>Study 1</b>						
Daily Feelings of Femininity	.207	.166	.249	9.828	< .001	.240
Feminine Gender Role Stress	-.177	-.326	-.027	-2.333	.021	.161
Daily Feelings of Femininity X Feminine Gender Role Stress	.061	.012	.110	2.445	.015	.062
<b>Study 2</b>						
Weekly Feelings of Femininity	.210	.152	.268	7.103	< .001	.230
Feminine Gender Role Stress	-.578	-.848	-.309	-4.239	< .001	.315
Weekly Feelings of Femininity X Feminine Gender Role Stress	.114	.024	.204	2.480	.013	.082

*Note.* *CI* = Confidence Interval. Effect sizes (*r*) were computed using Rosnow and Rosenthal's (2008) formula:  $r = \sqrt{t^2 / t^2 + df}$ . In these multilevel models, the Satterthwaite approximation is applied to provide specific degrees of freedom for each effect representing the weighted average of the between and within-person degrees of freedom, which were used to calculate the effect sizes. The significant 2-way interactions between daily and weekly feelings of femininity and feminine gender role stress are shown in Figure 3.1.

person's typical levels, and thus tests whether within-person changes in daily felt-femininity predict within-person changes in self-esteem. We expected that within-person decreases in daily femininity would be associated with decreases in self-esteem, but that this within-person association would be particularly pronounced for women higher in FGRS, as tested by the interaction between daily femininity and FGRS.

As shown in Table 3.2, within-person decreases in daily feelings of femininity were associated with women reporting lower self-esteem. Women higher in FGRS also reported lower self-esteem across days. Moreover, the significant daily felt-femininity X FGRS interaction illustrated that the within-person links between felt-femininity and self-esteem were greater for women higher in FGRS. Figure 3.1 (left side) displays the predicted values of self-esteem on days of low and high felt-femininity at low (-1 SD) versus high (+1 SD) FGRS. On days women felt lower femininity they experienced lower self-esteem, but this association was strongest for women higher in FGRS (dashed line:  $B = .279$ ,  $t = 8.745$ , 95%  $CI [.216, .342]$ ,  $p < .001$ ) compared to women lower in FGRS (solid line:  $B = .176$ ,  $t = 6.731$ , 95%  $CI [.125, .227]$ ,  $p < .001$ ). Focusing on the contrasts, this effect means that women high in FGRS only experienced lower self-esteem on days they felt low femininity (left side of figure:  $B = -.282$ ,  $t = -3.617$ , 95%  $CI [-.436, -.128]$ ,  $p < .001$ ), but not on days they felt high femininity (right side of figure:  $B = -.123$ ,  $t = -1.579$ , 95%  $CI [-.277, .031]$ ,  $p = .116$ ).

**MGRS.** Our second analysis tested whether the moderating effects of FGRS on the association between daily feelings of femininity and self-esteem was unique and independent of MGRS. Rerunning the primary analyses adding MGRS as a simultaneous moderator (see Table 3.3) revealed that MGRS did not moderate the within-person links between femininity and self-esteem as FGRS did (i.e., the daily feelings of femininity X MGRS interaction was not significant). Moreover, the interaction effect between daily feelings of femininity and FGRS predicting self-esteem shown in the left side of Figure 3.1 remained significant.

**Table 3.3**

*Feelings of Femininity and Feminine Gender Role Stress Predicting Self-Esteem Controlling for Masculine Gender Role Stress: Studies 1 and 2*

Variables	<i>B</i>	95% <i>CI</i>		<i>t</i>	<i>p</i>	<i>r</i>
		Lower	Upper			
<b>Study 1</b>						
Daily Feelings of Femininity	.207	.165	.249	9.725	< .001	.238
Feminine Gender Role Stress	-.112	-.281	.057	-1.308	.192	.091
Masculine Gender Role Stress	-.135	-.303	.033	-1.586	.114	.110
Daily Feelings of Femininity X Feminine Gender Role Stress	.058	.003	.113	2.070	.039	.052
Daily Feelings of Femininity X Masculine Gender Role Stress	.007	-.050	.063	.234	.815	.006
<b>Study 2</b>						
Weekly Feelings of Femininity	.210	.152	.268	7.101	< .001	.230
Feminine Gender Role Stress	-.220	-.548	.108	-1.327	.186	.104
Masculine Gender Role Stress	-.608	-.945	-.270	-3.551	.001	.269
Weekly Feelings of Femininity X Feminine Gender Role Stress	.128	.020	.236	2.328	.020	.077
Weekly Feelings of Femininity X Masculine Gender Role Stress	-.026	-.134	.083	-.468	.640	.016

*Note.* *CI* = Confidence Interval. Effect sizes (*r*) were computed using Rosnow and Rosenthal's (2008) formula:  $r = \sqrt{(t^2 / t^2 + df)}$ . In these multilevel models, the Satterthwaite approximation is applied to provide specific degrees of freedom for each effect representing the weighted average of the between and within-person degrees of freedom, which were used to calculate the effect sizes.

These results illustrate that the effects shown in Figure 3.1 did not arise because women higher in FGRS found any challenging situation stressful, but rather because they found specific situations that threaten adherence to feminine gender roles stressful.

### Study 2

Study 2 was designed to replicate Study 1 but, rather than employing daily assessments, we examined whether drops in felt-femininity across the week were associated with weekly decreases in self-esteem, particularly for women higher in FGRS. Participants completed an initial questionnaire assessing FGRS and MGRS then reported on their feelings of femininity and self-esteem at the end of each week for 7 weeks. We expected that within-person decreases in feelings of femininity would predict decreases in self-esteem that week, and that this association would be greater for women higher in FGRS.

### Method

**Participants.** One-hundred sixty-five women enrolled in a second-year undergraduate psychology course at a large city-based university participated for fulfillment of a research requirement. Participants ranged from 17 to 45 years of age ( $M = 20.81$ ,  $SD = 3.95$ ). Approximately half of the participants were single (44.4 %), with the remainder involved in romantic relationships either dating (45.5 %), cohabiting (6.6 %), or married (3.5 %). We aimed to recruit as large a sample as possible to match the sample size of Study 1 by running the current study for three academic semesters. Two semesters occurred in 2019 prior to the emergence of the COVID-19 pandemic, and the third occurred after COVID-19 had initially been eliminated in the community in 2020. However, 80 participants sampled in 2020 experienced a short lockdown (18 days) during the data collection period. We included all data for transparency and to maximize statistical power, and because we did not have firm a priori expectations that the post-COVID semester would have weaker (minimize femininity threat) or stronger (amplify threat) effects. The main and interaction effects of felt-femininity

and FGRS did not significantly differ across data collected in 2019 versus 2020 (see Appendix). Estimates of sensitivity using intensive longitudinal methods (Bolger & Laurenceau, 2013) suggest that 165 participants assessed at 7 time points provides adequate statistical power to detect small effects ( $r = .10$ ).

**Procedure and Measures.** Approval was obtained from [blind for review] ethics committee. The study was advertised to students enrolled in two large second-year undergraduate courses, which involved the possibility of participating for course credit. Students were presented with a range of studies to complete each semester, and thus this study was one of many that students could select. After signing up, participants were provided detailed information about the study and gave informed consent. Participants then completed scales assessing FGRS and MGRS and were given instructions for completing a web-based weekly sampling procedure for the following 7 weeks.

**FGRS.** The same scale used in Study 1 assessed FGRS and produced comparable descriptive statistics and reliabilities (see Table 3.1).

**MGRS.** In Study 2, participants completed a more detailed assessment of MGRS than the abbreviated MGRS scale which consisted of 30 of the original 40 items (Eisler & Skidmore, 1987). This 30-item assessment has been employed in previous research where it demonstrated means and standard deviations consistent with previous MGRS assessments as well as internal consistency across 4 studies (Harrington et al., 2021). The Appendix provides more detail on the foundation for this assessment.

### ***Weekly Measures***

At the end of each week for 7 weeks, participants received an e-mail with a link to a questionnaire they were asked to complete as soon as possible (and preferably within 1–2 days). To remove any variation in assessment arising from participants reporting at different points during the week, the first weekly questionnaire was sent on the Friday of the week

participants signed up for the study, which was, on average, 4 days ( $SD$  2.50) after completing the initial questionnaires (FGRS and MGRS). We selected Friday because it tends to represent the end of the week for most and, thus, a time that people would be able to easily reflect across their experiences that week (see Chang et al., 2018 for similar procedures).

Participants first reported the date of each entry, which was checked against the software-logged date and time to assess compliance. Before variable construction and data analyses, individual weekly entries were excluded if they were completed in less than the pre-specified time necessary to accurately discriminate across variables (under 3 minutes). To be included in the sample, participants had to have completed at least 5 usable weekly entries. To ensure that duplicate responses within a single week were not included, the days between each response were calculated and responses that occurred 3 or fewer days apart (and thus occurred during the same week) were deleted. For consistency, when duplicate responses were identified, the second response was deleted, and the first response was retained. These criteria and exclusions resulted in a sample of 165 women who completed on average 6.83 weekly entries, providing 1,127 weekly records for analyses. In the final sample, 122 (74.4%) completed all seven weekly questionnaires, 35 (21.3%) completed six weekly questionnaires, and 7 (4.3%) completed five weekly questionnaires. The average days between questionnaires was 7.11 days ( $SD$  1.80). Controlling for days between weekly reports did not alter any of the results.

***Weekly Feelings of Femininity and Self-Esteem.*** Identical measures used to assess feelings of femininity and self-esteem in Study 1 were used in Study 2 to assess feelings of femininity and self-esteem across the past week. These measures produced comparable descriptive statistics and reliabilities as the daily assessments in Study 1 (see Table 3.1).



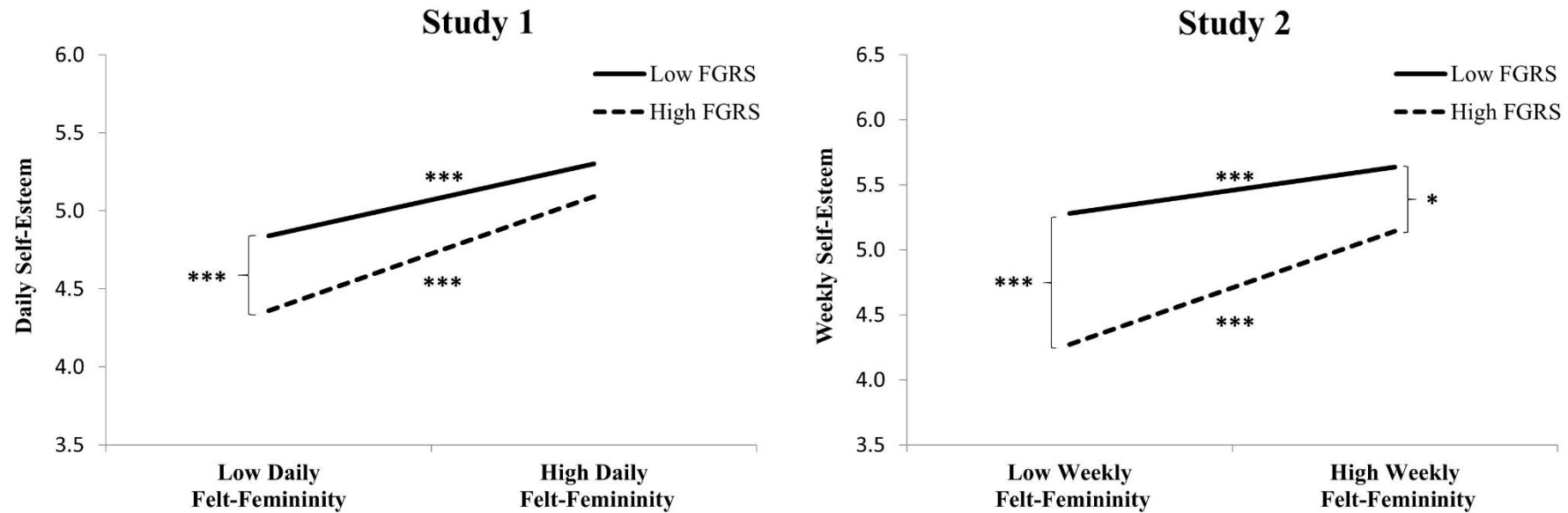
## Results

The analytical procedure of Study 2 was identical to that of Study 1. Using the MIXED procedure in SPSS 26, we modeled the degree to which participants' state self-esteem was a function of (a) feelings of femininity that week (person-centered), (b) FGRS (grand-mean centered), and (c) the interaction between felt-femininity and FGRS. Our key question is tested by the interaction between weekly feelings of femininity and FGRS, which tests whether the within-person associations between declines in felt-femininity and lower self-esteem were particularly pronounced for women higher in FGRS.

As shown in Table 3.2, within-person decreases in weekly feelings of femininity were associated with women reporting lower self-esteem. Women higher in FGRS also reported lower self-esteem across weeks. Moreover, the significant weekly feelings of femininity X FGRS interaction illustrated that the within-person links between felt-femininity and self-esteem were greater for women higher in FGRS. Figure 3.1 (right side) displays the predicted values of self-esteem on weeks of low and high felt-femininity for participants with low (-1 SD) versus high (+1 SD) FGRS. On weeks women felt lower femininity they experienced lower self-esteem, but this association was strongest for women higher in FGRS (dashed line:  $B = .301, t = 6.071, 95\% CI [.202, .400], p < .001$ ) compared to women lower in FGRS (solid line:  $B = .123, t = 3.734, 95\% CI [.058, .188], p < .001$ ). Focusing on the contrasts, this effect means that women high in FGRS experienced lower self-esteem on weeks they felt low femininity (left side of figure:  $B = -.735, t = -4.946, 95\% CI [-1.029, -.441], p < .001$ ), compared to weeks they felt high femininity (right side of figure:  $B = -.359, t = -2.436, 95\% CI [-.649, -.069], p = .016$ ).

**Figure 3.1**

*The Moderating Effect of FGRS on the Association between Women's Daily (Study 1) and Weekly (Study 2) Feelings of Femininity and Self-Esteem.*



*Note.* FGRS = Feminine Gender Role Stress. High and low values represent 1 SD above and below the mean. \*\*\*slopes and simple effects significant at  $p < .001$ . \*simple effects significant at  $p < .05$ .

**MGRS.** Rerunning the primary analyses adding MGRS as a simultaneous moderator (see Table 3.3) revealed that MGRS did not moderate the within-person links between femininity and self-esteem as FGRS did (i.e., the femininity X MGRS interaction was not significant). Moreover, the interaction effect between felt-femininity and FGRS predicting self-esteem shown in the right side of Figure 3.1 remained significant. As in Study 1, these results illustrate that the effects shown in Figure 3.1 did not arise because women higher in FGRS found any challenging situation stressful, but rather because they found specific situations that threaten adherence to feminine gender roles stressful.

### **General Discussion**

The social pressures women face to adhere to traditional feminine gender roles likely place them at risk for negative self-relevant outcomes, such as decreases in self-esteem, when they feel less feminine in routine life. However, there is a relative dearth of research examining the outcomes that occur when women feel less feminine, and no prior research has explored how decreases in women's felt-femininity impact their self-esteem. This represents an important gap in the literature, particularly in light of the breadth of research examining the outcomes of men's masculinity threat. Contrasting the established effects emerging from masculinity threat and MGRS, we proposed that decreases in women's feelings of femininity should result in concomitant decreases in self-esteem, particularly for women who are higher in FGRS and thus more sensitive to femininity threats. Study 1 provided support for our predictions in the context of women's daily lives: within-person decreases in daily felt-femininity were associated with decreases in self-esteem, and this association was particularly pronounced for women higher in FGRS. Study 2 replicated and extended Study 1 by demonstrating that within-person decreases in weekly felt-femininity were associated with decreases in self-esteem, and this association was again more pronounced for women higher

in FGRS. In the following sections, we discuss how the current research tests key theoretical principles and advances prior research.

### **Feelings of Femininity, Women's Self-Esteem, and FGRS**

Many situations that women encounter in their daily or weekly lives may threaten or challenge women's feelings of femininity, such as feeling unattractive, being assertive, or failing to be nurturant and communal (Gillespie & Eisler, 1992). Accordingly, decreases in feelings of femininity are likely a common part of women's lives. Moreover, the social pressures women face to adhere to traditional feminine roles and embody feminine qualities should promote negative self-relevant outcomes when women feel less feminine. Despite the theoretical and practical importance of threats to felt-femininity, relatively few studies have examined the outcomes associated with women's lower felt-femininity, and none have done so within the context of women's own experiences. The current studies provide new and important information about the negative outcomes that emerge when women experience drops in felt-femininity as well as women who are more susceptible to these potentially harmful effects. By illustrating that daily and weekly decreases in women's felt-femininity are associated with drops in self-esteem, especially for women higher in FGRS, the current findings (1) identify self-esteem as a negative self-relevant outcome which emerges when women experience decreases in feelings of femininity and (2) illustrate that FGRS is a key individual difference factor that predicts increases in women's sensitivity to femininity threat.

The impact of decreases in felt-femininity on women's self-esteem highlights the importance of understanding the individual differences which may place women at particular risk of experiencing negative self-evaluations when they feel less feminine. As FGRS captures the extent to which women find situations that threaten femininity stressful (Gillespie & Eisler, 1992), women higher in FGRS should be particularly at risk for negative outcomes when they experience declines in felt-femininity. While previous research has

demonstrated that men higher in MGRS react more negatively to contexts that threaten masculine identities (Harrington et al., 2021), no research has explored if FGRS moderates the associations between experiences of femininity threat and related outcomes. The current research addressed this gap by demonstrating that women higher in FGRS experience lower self-esteem, especially on days and weeks they experience decreases in felt-femininity.

The moderating effect of FGRS on the within-person links between women's felt-femininity and self-esteem provides additional evidence that self-esteem is likely a key outcome of femininity threat, especially given MGRS (as an indicator of stressful reactions to challenging situations not directly related to femininity) did not play the same role. The results also provide novel validation for the FGRS construct. Previous research examining FGRS has primarily focused on main effects of FGRS on outcomes relevant to self-esteem, such as depressed mood, shame, guilt, and body dissatisfaction (Efthim, et al., 2001; Gillespie & Eisler, 1992; Martz et al., 1995; Mussap, 2007). However, if FGRS captures the extent to which women find situations that threaten femininity stressful, as it is theorized to do, women higher in FGRS should be particularly at risk for negative outcomes when they experience declines in felt-femininity. Despite the theoretical importance of this central tenet, the current studies are the first to provide direct tests which highlight that women higher in FGRS are more likely to experience poor self-relevant outcomes when they specifically encounter experiences that challenge their feelings of femininity.

### **Theoretical, Methodological, and Practical Implications**

The results of the current studies highlight the value of examining theoretically-relevant outcomes of women's femininity threat in ecologically valid contexts that are likely to have meaningful implications for women's lives. Prior examinations of the outcomes of femininity threat have involved experimental manipulations within lab contexts which have provided inconsistent results (Kosakowska-Berezecka et al., 2016; Mori et al., 1987; Munsch

& Willer, 2012). Rather than focusing on a single experience in the lab, we examined the degree to which naturally occurring variation in women's feelings of femininity across their daily and weekly lives predicted decreases in their self-esteem. Variation in such feelings of femininity is likely to stem from a diverse range of real-life experiences that challenge women's feelings of femininity in ways that will be particularly stressful for women higher in FGRS. Our approach provided the first demonstration that decreases in women's feelings of femininity across daily and weekly life have negative self-relevant implications, such as concomitant drops in self-esteem. By gathering repeated assessments, and thus covering a diverse array of idiosyncratic events that may reduce felt-femininity, this approach may have greater power to detect effects than single, specific, and experimentally-constructed femininity threats in the laboratory. Future research may similarly benefit from capturing variation in felt-femininity across routine life to examine additional outcomes that have been the target of prior experimental studies (e.g., eating, endorsing gender role attitudes and stereotypes) as well as other theoretically-relevant outcomes that are likely to have an important impact on women's health and well-being (e.g., shame, guilt, anxiety, stress).

Indeed, the current findings highlight the importance of examining outcomes that are theoretically consistent with the nature of traditional femininity. Some prior studies examining the outcomes of femininity threat have focused on whether femininity threats promote active assertions of femininity in the way that masculinity threat promotes assertions of masculinity, yielding mixed results (Kosakowska-Berezecka et al., 2016; Mori et al., 1987; Munsch & Willer, 2012). Extending this prior research, we theorized that traditional feminine characteristics do not involve the active and public demonstrations of social status that masculinity requires, and thus women may be less likely than men to publicly reassert their femininity. Instead, we predicted that social pressures women face to embody feminine qualities should promote private or internalized self-relevant negative reactions, such as

decreases in self-esteem. The results support this hypothesis and provide a foundation for documenting more clearly the specific types of outcomes associated with reductions in felt-femininity, especially for women higher in FGRS. Gathering specific and discriminatory evidence of the key outcomes of felt-femininity is an important direction for future research.

The strong links between reductions in felt-femininity and drops in self-esteem during routine life highlight the importance of identifying the range of situations and experiences that challenge or decrease feelings of femininity. Indeed, a large number of routine situations across women's personal and occupational lives are likely to make salient the degree to which women are embodying feminine qualities of nurturance, communality, attractiveness, passivity, and dependence. Identifying the specific domains that lead to decreases in felt-femininity may facilitate understanding of the outcomes of femininity threat. For instance, the failure to embody feminine characteristics related to attractiveness may increase women's experiences of body dissatisfaction (Harrington & Overall, 2021) and increase their risk of eating disorders (Martz et al., 1995; Mussap, 2007), whereas a failure to behave in nurturing ways towards close others may promote feelings of shame and guilt (Efthim, et al., 2001). Similarly, the moderating role of FGRS illustrates that the relative impact of these situations on felt-femininity and associated outcomes will likely vary according to women's sensitivity to situations that threaten femininity. Thus, it is also necessary to account for individual differences in the degree to which low felt-femininity will lead to particular outcomes; failure to do so will likely underestimate the potential impact of felt-femininity on important outcomes. We demonstrated this point by assessing general stress experienced in a range of relevant situations that threaten femininity (as captured by FGRS). However, it also might be the case that the links between drops in felt-femininity and outcomes occur more strongly in specific domains for women who differ in sensitivity to those domains due to differential investment in attractiveness, communality, or other aspects of femininity (Witt & Wood,

2010; Wood & Eagly 2010). The current studies provide a foundation for future investigations to identify the range of femininity threats that women regularly encounter and the differential risk of the negative outcomes that could ensue.

Identifying the risk decreases in felt-femininity pose to women, particularly those higher in FGRS, may offer directions for interventions targeting women's wellbeing. Initiatives could include raising awareness of the prevalence of expectations associated with traditional feminine identity, challenging and reducing harmful proliferation of these expectations, and highlighting examples of these expectations to exemplify the common and implicit presence of the social pressures and norms women face. However, these initiatives should also account for women's investment in traditional feminine roles, as the current results highlight that the impact of feeling less feminine will be particularly challenging for women who are more sensitive to situations that threaten adherence to feminine gender roles. The results indicate that identifying women who are particularly at risk for the negative self-relevant outcomes of feeling less feminine may be most effective at protecting women's wellbeing in the face of challenges to felt-femininity during routine life.

### **Strengths, Caveats, and Future Directions**

By examining variation in felt-femininity across women's daily and weekly lives, the current studies offered an ecologically valid examination of how women's self-esteem is likely to change depending on whether women feel more or less feminine. In particular, the within-subjects effects tested across two large samples represented daily variations in felt-femininity from each participant's typical levels, and thus tested whether within-person changes in felt-femininity are associated with within-person changes in self-esteem.

Nonetheless, examining experiences as they change across real life inevitably comes along with the limitations of correlational data, preventing strong causal conclusions and leaving open the possibility of alternative explanations. Perhaps, for example, the reverse



association occurs: lower self-esteem could undermine women's self-evaluations in domains central to traditional feminine identity, such as attractiveness or nurturance, and thus decrease women's feelings of femininity. Women more sensitive to situations that threaten femininity (i.e., higher in FGRS) should also find negative self-evaluations in relevant domains more challenging, and thus feel less feminine. We don't see this reverse association as mutually exclusive to the direction we tested. Instead, it is likely that reciprocal associations occur. Within-person reductions in felt-femininity undermine self-esteem, as we outlined, which is supported by other research showing that failure to enact desired feminine behavior is associated with decreases in self-esteem (Sanchez & Crocker, 2005; Witt & Wood, 2010). However, negative self-evaluations, especially in domains relevant to femininity, also should feedback to challenge feelings of femininity. Examining both potential causal pathways is a good direction for future research and will provide further support for the importance of the within-person associations between feelings of femininity and self-esteem (and other self-relevant outcomes).

Future research manipulating the experience of femininity threat in ways that provide meaningful feedback may provide the strongest causal evidence. The primary approach of previous studies examining the outcomes of femininity threat has been to experimentally manipulate threat by providing women with feedback that they are 'less feminine' (Kosakowska-Berezecka et al., 2016; Mori et al., 1987; Munsch & Willer, 2012). However, the inconsistent effects in prior studies suggest this experimental approach may not be as effective in isolating the effects of femininity threat as examining organic decreases in women's felt-femininity, which likely stem from meaningful experiences in their lives. We suggest that future experimental designs may offer stronger tests if they administer meaningful feedback relevant to specific domains central to femininity and of consequence to women's lives. For instance, women could be told that they have scored low on a test of

child-care skills (threatening nurturance), are less attractive than the average woman (threatening attractiveness), or are perceived as unfriendly or cold by a group of people (threatening communality). Alternatively, women could be placed in situations in which they are required to contravene feminine norms, such as a situation where they must behave assertively, take control, or argue a point. Moreover, as shown by the moderating role of FGRS in the current studies, future studies focusing on specific femininity threats should also account for individual differences in how stressful women find gender role threats as well as differences in women's investment in the specific aspect of femininity targeted (Witt & Wood, 2010; Wood & Eagly 2010).

Regardless of method, isolating the particular aspects and situations that lead to femininity threats will also advance understanding of the potential harmful outcomes women may experience when they feel less feminine. The current studies relied on a single face-valid item assessing women's felt-femininity. This approach was comparative to prior daily assessments of masculinity (Overall et al., 2016) and helped minimize participant burden across repeated assessments. The item itself was internally consistent across studies, showed variability across participants (see Table 3.2), and variability across daily and weekly life, as evident in the significant within-person effect of decreases in felt-femininity on self-esteem. These results give us confidence that our assessment of felt-femininity captured important, varying, and likely idiosyncratic experiences in women's lives that result in lower feelings of femininity. Nonetheless, developing assessment tools to examine the array of routine situations that could potentially threaten femininity would advance understanding regarding how femininity is shaped in women's lives, and whether the relative impact and specific outcomes of these situations vary based on differences in women's investment in specific facets of femininity (Witt & Wood, 2010; Wood & Eagly 2010).

Finally, the current samples involved undergraduate students. Undergraduate women represent a particularly relevant population in which to assess the links between felt-femininity and self-esteem as this developmental period is central to the development of self-esteem, particularly for women (Orth & Robins, 2014; Robins & Trzesniewski 2005). Nonetheless, demonstrating the observed associations between women's decreases in felt-femininity and self-esteem in younger and older populations could also provide important extensions to the current findings. For instance, replicating the results found in the current studies in samples of younger adolescents (12-18) could shed light on how decreases in felt-femininity undermine women's self-esteem from a young age and how these outcomes affect the development of gender identities. Moreover, examining these links in older populations could identify if femininity threat becomes a more or less acute predictor of decreases in self-esteem as women age, and how changes in social expectations of women, such as more emphasis on nurturance and less on attractiveness, affect these links.

### **Conclusion**

Given the pressures women face to adhere to traditional feminine gender roles, women should be at risk for negative self-relevant outcomes when they feel less feminine, and these effects are likely to be stronger for women more sensitive to situations that threaten femininity. Applying this theorizing, the current research provided a novel illustration of the importance of self-esteem as a negative self-relevant outcome that emerges when women experience drops in felt-femininity and identified FGRS as a risk factor for these negative outcomes. Across two studies, daily (Study 1) and weekly (Study 2) decreases in women's feelings of femininity were associated with decreases in women's self-esteem, and these effects were more pronounced for women higher in FGRS. These findings illustrate the importance of identifying and counteracting the events that create drops in felt-femininity during routine life, as well as the value of interventions targeting women who are particularly

at risk for the negative self-relevant outcomes arising from these experiences. Future research will benefit from combining the assessment of naturally occurring decreases in feelings of femininity applied in the current studies with experimental designs to determine how situations that threaten adherence to traditional feminine identity predict negative self-relevant outcomes.

**CHAPTER FOUR: WOMEN'S ATTRACTIVENESS CONTINGENT SELF-ESTEEM, ROMANTIC REJECTION, AND BODY DISSATISFACTION**

The two studies presented in Chapter Three highlight the importance of understanding how daily contexts may threaten femininity, as well as individual sensitivity to femininity threats, can shape the outcomes that can arise from traditional gender roles for women. Across two studies, on days or weeks women reported lower feelings of femininity they experienced concomitant decreases in self-esteem, but these effects were strongest for women higher in FGRS. Thus, these results highlight that experiences in women's routine lives can increase their risk of experiencing the negative outcomes of traditional feminine roles, but the negative outcomes associated with femininity threats are more impactful for women more sensitive to these experiences.

In Chapter Four, I extend this focus by illustrating the importance of examining key contexts and individual vulnerabilities to understanding outcomes in domains relevant to traditional gender roles. Although a wide body of previous research has demonstrated that body dissatisfaction is particularly relevant to women, relatively little is known about the contexts in which body dissatisfaction is likely to emerge and which women are most vulnerable to it. One context which is particularly likely to increase body dissatisfaction is romantic rejection. Romantic rejection signals unfavorable evaluations of attractiveness by potential partners and thus provides particularly salient and meaningful attractiveness-relevant feedback. However, the negative impact of romantic rejection should be felt most strongly by women whose self-esteem is more contingent on their attractiveness. Accordingly, in Chapter Four, I test these predictions in two studies that examine whether women experience greater within-person increases in body dissatisfaction when they encounter naturally occurring romantic rejection and whether this association is particularly pronounced for women higher in attractiveness contingent self-esteem (ACSE) who are likely more sensitive to negative attractiveness-relevant feedback, such as romantic rejection.

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### Abstract

The centrality of attractiveness to social evaluations of women puts women at particular risk of body dissatisfaction. However, it is less clear who these social standards most affect and the situations in which they are most salient. Women whose self-esteem is more contingent on standards of attractiveness (ACSE) should be particularly vulnerable to body dissatisfaction, particularly in contexts that provide negative attractiveness-relevant feedback such as romantic rejection. The current research tested whether women higher in ACSE experienced greater body dissatisfaction in the context of naturally-occurring experiences of romantic rejection. In Study 1, women ( $N = 168$ ) identified and recalled a range of prior rejection experiences and reported their body dissatisfaction. Women higher in ACSE recalled greater body dissatisfaction in the context of romantic rejection. In Study 2, women ( $N = 101$ ) recorded daily experiences of romantic rejection and body dissatisfaction ( $N = 885$  daily records). Women higher in ACSE experienced greater within-person increases in body dissatisfaction on days they reported romantic rejection. The results emphasize the relevance of romantic rejection for understanding women's body dissatisfaction and help explain inconsistencies in the literature by illustrating that higher ACSE is associated with greater body dissatisfaction in contexts that provide negative attractiveness-related feedback.

*Keywords:* Body dissatisfaction, contingent self-esteem, attractiveness, romantic rejection

### **Women's Attractiveness Contingent Self-Esteem, Romantic Rejection, and Body Dissatisfaction**

Body dissatisfaction comprises negative thoughts and feelings about the appearance of one's body, including body size, weight, shape, and attractiveness (Cash & Szymanski, 1995), and is a principal component of body attitudes (Cash, 2012). Body dissatisfaction is particularly relevant to women. In Western cultures, women are frequently viewed and evaluated in terms of their physical attractiveness (Fredrickson & Roberts, 1997; Parker et al., 2017; Swim et al., 2001), and women commonly evaluate themselves in terms of their own attractiveness (Fredrickson & Roberts, 1997; Moradi et al., 2005). Compared to men, women experience greater decreases in self-esteem following attractiveness-threatening feedback (Pass et al., 2010), and women's self-esteem is more strongly predicted by their own perceived facial attractiveness (Bale & Archer, 2013; Furnham et al., 2002). Moreover, women's body dissatisfaction is associated with a range of negative outcomes including lower quality of life (Mond et al., 2013), greater depression (Brechan & Kvalem, 2015; Wiederman & Pryor, 2000), greater anxiety (Cash, Jakatdar, et al., 2004), and greater risk of eating disorders (Cooley & Toray, 2001; Johnson & Wardle, 2005; Stice & Shaw, 2002). The negative outcomes of body dissatisfaction are pervasive, affecting women across the lifespan (Karazsia et al., 2017; Tiggemann, 2004), even for women with healthy body weight (Weinberger et al., 2016).

The detrimental effects of women's body dissatisfaction on wellbeing highlight the importance of understanding who is at most risk of body dissatisfaction and when body dissatisfaction is likely to occur. Prior research has predominantly focused on the outcomes, rather than the antecedents, of body dissatisfaction (Bailey & Ricciardelli, 2010; Brechan & Kvalem, 2015; Gavin et al., 2010; Mond et al., 2013; Stice & Shaw, 2002; Weinberger et al., 2016). Studies that have examined the predictors of body dissatisfaction have tended to focus



on broad social processes, such as the internalization and experience of social pressures and norms (see Stice & Shaw, 2002 for review). We extend this focus in the current research by drawing upon contingent self-esteem theory (Crocker & Wolfe, 2001; Deci & Ryan, 1995) to identify who is most affected by perceived social pressures and standards of attractiveness in everyday contexts. Contingent self-esteem theory (Crocker & Wolfe, 2001; Deci & Ryan, 1995) specifies that (1) people vary in how much their self-evaluations are contingent on internalized standards and expectations, and (2) higher contingent self-esteem leaves people susceptible to negative self-evaluations when they fail to meet relevant standards. Applying these theoretical principles to body dissatisfaction, we theorized that (1) women whose self-esteem is more contingent on standards of attractiveness will experience greater body dissatisfaction (2) particularly when they receive threatening attractiveness-relevant feedback in the form of romantic rejection. In the following sections, we outline the theoretical foundation for our predictions and describe two studies designed to assess whether women higher in attractiveness contingent self-esteem (ACSE) experience greater body dissatisfaction when they experience romantic rejection.

### **Attractiveness Contingent Self-Esteem and Body Dissatisfaction**

Contingent self-esteem captures the degree to which people's self-worth is dependent or 'contingent' on the achievement and fulfilment of internalized standards and expectations (Crocker & Wolfe, 2001; Deci & Ryan, 1995). People with high levels of non-contingent self-esteem experience stable, secure, and robust feelings of self-worth that do not require continued validation (Deci & Ryan, 1995). By contrast, people with high levels of contingent self-esteem are preoccupied with the degree to which they achieve, or are appraised favorably on, important standards and experience a range of negative self-relevant outcomes when failing to meet these standards (Crocker & Wolfe, 2001; Deci & Ryan, 1995). For example, people whose self-esteem is more contingent on other's approval report using alcohol more

frequently to gain social approval (Neighbors et al., 2004) and people whose self-esteem is more contingent on meeting high standards of achievement and competence report greater maladaptive perfectionism (Szpitalak et al., 2018). Importantly, these links between contingent self-esteem and negative outcomes in relevant domains are independent of global self-esteem (Crocker, 2002; Crocker, et al., 2003; Deci & Ryan, 1995; Szpitalak et al., 2018).

People with higher attractiveness contingent self-esteem (ACSE) specifically base their self-esteem on how they measure up to their own and others' expectations and standards of attractiveness (Crocker & Wolfe, 2001; Deci & Ryan, 1995). As with contingent self-esteem in other domains, people with higher ACSE experience more negative self-relevant outcomes particularly with regard to self-evaluations of attractiveness, including body dissatisfaction. Higher ACSE is associated with greater concern about appearance both in community and university samples (Schwinger et al., 2017; Szpitalak et al., 2018). Similarly, undergraduate women with higher ACSE report greater body dissatisfaction both cross-sectionally (Noser & Zeigler-Hill, 2014) and longitudinally (Breines et al., 2008). Greater attractiveness contingent self-worth (a very similar construct to ACSE) is similarly associated with increased body-surveillance and decreased appearance satisfaction (Overstreet & Quinn, 2012) and greater body shame (Manago et al., 2015) in university samples, as well as decreased body appreciation in community samples (Homan & Tylka, 2015).

This previous research provides supporting evidence that women higher in ACSE will be more susceptible to body dissatisfaction. However, these negative self-evaluations should emerge more strongly when women encounter situations that provide negative interpersonal feedback about their attractiveness. A central premise of contingent self-esteem theory (Crocker & Wolfe, 2001; Deci & Ryan, 1995) is that greater contingent self-esteem predisposes people to negative self-relevant outcomes within socially evaluative contexts that signal a failure to meet internalized standards within the contingent domain. For example,

people whose self-worth is more contingent on academic achievement experience drops in self-esteem following negative academic feedback (Crocker, 2002; Crocker et al., 2003) and people whose self-worth is contingent on others' approval feel and evaluate themselves more negatively when they receive negative feedback about their likeability (Park & Crocker, 2008). Applying this central theoretical principle to the domain of attractiveness, the degree to which ACSE should lead to body dissatisfaction should be contingent on (i.e., vary according to) the extent to which people experience negative interpersonal feedback which threatens their attractiveness. As we describe next, romantic rejection provides specific and diagnostic feedback about attractiveness and thus should be a situation in which the negative outcomes of ACSE, such as body dissatisfaction, should be particularly apparent.

### **Romantic Rejection and Body Dissatisfaction**

Romantic rejection is a common interpersonal experience which provides particularly acute feedback relevant to attractiveness. Attractiveness (good looks, sexy body) is central to people's evaluation of potential romantic partners (Fletcher et al., 1999), and attractiveness may be the strongest predictor of whether people will express romantic interest in dating or relationship initiation contexts (Eastwick et al., 2014). Moreover, the significance of attractiveness in governing romantic interest is widely known, meaning that responses received in romantic contexts provide clear, diagnostic feedback about people's relative attractiveness. In particular, romantic rejection or lack of interest by potential romantic partners signals that those potential partners likely evaluated one's facial and body attractiveness unfavorably (Bale & Archer, 2013; Fletcher & Overall, 2007). Stated simply, romantic rejection signals that one is not attractive enough to entice romantic interest. Moreover, given women are evaluated more strongly on physical attractiveness in romantic contexts (Fletcher et al., 1999; Li et al., 2013), and women are more likely to evaluate themselves based on their attractiveness (Fredrickson & Roberts, 1997; Moradi et al., 2005),

women should be particularly sensitive to the attractiveness threat that accompanies romantic rejection.

Although no study that we are aware of has directly tested the links between romantic rejection and women's body dissatisfaction, prior studies have demonstrated that romantic rejection predicts lower self-esteem and perceived mate value in university samples (e.g., Brase & Guy, 2004; Leary & Baumeister, 2000; Penke & Denissen, 2008), whereas greater attractiveness offers women in particular more confidence of their romantic desirability, bolstering self-esteem (Bale & Archer, 2013). Moreover, in university samples, women's greater appearance-based rejection sensitivity is associated with greater symptoms of body dysmorphic disorder (Calogero et al., 2010; Park et al., 2010), and women's attachment anxiety predicts greater disordered eating (Koskina & Giovazolias, 2010). Despite providing supporting evidence for our theorizing that romantic rejection should be an important context in which body dissatisfaction is likely to emerge, these prior studies did not directly assess body dissatisfaction within the context of romantic rejection. Moreover, no prior studies have tested whether women who are high in ACSE are more susceptible to body dissatisfaction when experiencing romantic rejection and thus receiving negative feedback specifically related to the domain their self-esteem is contingent upon.

### **ACSE, Romantic Rejection, and Body Dissatisfaction**

The current research integrates two key theoretical principles of contingent self-esteem theory to investigate whether women higher in ACSE will experience greater body dissatisfaction particularly when they receive threatening attractiveness-relevant feedback in the form of romantic rejection. The importance of this theoretical application is illustrated by evaluating unexpected findings in the literature. Although the current research is the first to examine whether women higher in ACSE experience greater body dissatisfaction when experiencing *romantic* rejection, O'Driscoll and Jarry (2015) tested whether women higher in

body weight contingent self-worth experienced drops in body image satisfaction following experimentally manipulated *non-romantic* rejection. In this experiment, female participants were informed they would be working on a team-based decision-making task and were privately asked to select two fellow participants (out of three women they had just met) with whom they would like to work. Participants were then informed either that no other participants had chosen to work with them (rejection condition) or a mistake had been made and they would have to complete the next task alone (neutral). Participants then rated their body satisfaction. Contrary to predictions (and the theory we have outlined above), women with higher body weight contingent self-worth reported greater body satisfaction after rejection.

O'Driscoll and Jarry (2015) proposed their unexpected results might be explained by a compensatory self-protective process whereby women with greater body weight contingent self-worth responded to the self-esteem threat of rejection by bolstering their self-concept in the valued domain of body image. Although compensation processes might arise, it is unlikely that women whose self-esteem is contingent on their attractiveness would be able to defensively bolster their body image when they receive negative *domain-relevant* feedback. Indeed, a more precise examination of the role of contingent self-esteem is to assess forms of rejection that provide direct feedback relevant to the domain self-esteem is contingent upon. Because romantic rejection provides negative attractiveness-relevant feedback, and thus should directly threaten self-perceptions of attractiveness, we expect that romantic rejection will be more likely to lead to increases in body dissatisfaction for women with higher ACSE. In contrast, non-romantic rejection is less relevant to attractiveness, and may be attributed to a range of characteristics in the context of a team-based decision-making task, such as competence, intelligence, and stereotypes. Thus, by assessing rejection in a domain less

relevant to body satisfaction, the paradigm employed by O'Driscoll and Jarry (2015) may have offered an imprecise test of whether rejection can undermine body satisfaction.

We propose that the effects of rejection on body dissatisfaction for women high in ACSE are likely to be more acute in situations that provide threatening feedback directly relevant to body image. Compared to unknown (female) study partners participants have just met, romantic rejection experienced in daily life is more likely to capture negative feedback from people that women are interested in and whose approval and acceptance they are concerned about. Accordingly, we expected that romantic rejection would provide particularly threatening feedback about attractiveness, and thus predict lower body dissatisfaction, and this negative effect would emerge most strongly for women higher in ACSE, who should be more affected by the negative domain-relevant feedback romantic rejection entails.

### **Current Research**

The purpose of the present studies was to examine whether women whose self-esteem was more contingent on their attractiveness (women higher in ACSE) were more likely to experience increases in body dissatisfaction in the context of naturally occurring experiences of romantic rejection. Study 1 aimed to conduct an initial test of our predictions, as well as develop and test short form measures suitable for assessing these processes in daily life. We asked a large sample of women to complete a measure of ACSE, engage in tasks designed to immerse participants in past experiences of romantic rejection, and then report on the extent they generally feel body dissatisfaction in situations involving romantic rejection. We expected that women higher in ACSE would report greater body dissatisfaction in the context of romantic rejection. The aim of Study 2 was to provide a stronger test of these links in women's daily lives and to show that the effects were independent of global self-esteem. Using the measures developed in Study 1, we asked women enrolled in an upper-level

undergraduate course to complete measures of ACSE and then report their experiences of romantic rejection and feelings of body dissatisfaction each day for 10 days. We expected that women with higher (vs. lower) ACSE would experience greater within-person increases in body dissatisfaction on days involving greater romantic rejection. We also expected that these effects would be independent of global self-esteem.

### **Study 1**

Study 1 was designed to provide an initial test of our predictions that romantic rejection would be associated with greater body dissatisfaction, particularly for women higher in ACSE. We examined these links within a community sample that varied in age and experience, which had the added benefit of extending prior research that has primarily used university samples to examine the associations between ACSE or romantic rejection and outcomes related to body dissatisfaction. Study 1 also provided an initial test of short-form measures of attractiveness contingent self-esteem and body dissatisfaction, which were specifically adapted from longer, existing measures to be suitable for assessing these processes in daily life in our planned daily sampling study (Study 2). We designed an online questionnaire to immerse participants in past experiences of romantic rejection and recruited participants to complete the questionnaire via Amazon's Mechanical Turk.

### **Method**

**Participants.** Women not currently in exclusive romantic relationships were recruited via Amazon's Mechanical Turk and received \$2.00 USD for participation. Participants were screened for study eligibility through an initial demographic survey identifying relationship status. Respondents who identified themselves as being in romantic relationships were directed to a separate study on "relationship experiences." Participants in this survey were limited to MTurk users from the United States of America, Canada, and the United Kingdom. Recent studies examining the demographic breakdown of MTurk indicate users are

identifying as 75 % Caucasian (non-Hispanic), 8-9 % African American, 5-6 % Hispanic/Latino, 6 % Asian, and 2-3 % Mixed/Other (Burnham et al., 2018; Michel et al., 2018) and are educationally diverse with 26 % having no college degree, 16 % an Associate's degree, 40 % a Bachelor's degree, and 18 % an advanced degree (Michel et al., 2018). We aimed to have complete data from 150 women to ensure adequate statistical power to detect a reasonably small effect size ( $f^2 = .07$ ) with 0.80 power (Faul et al., 2009). Following established practices for collecting high quality data using MTurk, we restricted our study participants to MTurk users who had completed over 1,000 tasks with a 98% approval rate (Peer et al., 2014). Data collection was stopped at the end of the day the target sample size was met to increase the likelihood of reaching our target after removing participant data due to failing attention checks ( $n = 4$ ), showing anomalous patterns that indicated potentially low-effort responding (e.g., selecting the same response for every question, selecting only extreme responses, selecting responses in a stairwise manner; Hauser et al., 2018;  $n = 4$ ), or completing the survey in less than the pre-specified time believed necessary to accurately discriminate across variables (9 min,  $n = 3$ ). These exclusions resulted in a total sample size of 168 women who completed all of the measures describe below, resulting in no missing data. Participants ranged from 21 to 75 years of age (see Table 4.1) and described their relationship status as 'single' (94.6 %) or 'casually dating multiple people' (5.4 %).

**Procedure and measures.** Approval was obtained from the University of Auckland Human Participants Ethics Committee. The study was described as answering questions on "how you think, feel, and behave in dating situations." Informed consent was obtained from participants prior to completion of the measures. After reporting demographic information, participants completed a measure of attractiveness contingent self-esteem. Participants then completed a set of tasks designed to make salient prior experiences of romantic rejection



(described below) and reported on their dissatisfaction with their body following these instances. The questionnaire took an average length of 25 minutes to complete.

***Attractiveness contingent self-esteem (ACSE).*** We used the four items specifically assessing attractiveness contingent self-esteem from the Contingent Self-Esteem Scale (Kernis, 2003): “My overall feelings about myself are heavily influenced by how good I look”, “An important measure of my worth is how physically attractive I am”, “Even on a day when I don’t look my best, my feelings of self-worth remain unaffected” (reverse coded), and “If I am told that I look good, I feel better about myself in general” (1 = *strongly disagree*, 7 = *strongly agree*). Items were averaged to construct scores (see Table 4.1). The full Contingent Self-Esteem Scale is often used as an overall construct, but recent evidence has supported a domain-specific four-factor structure, with each factor having unique predictive ability (Schwinger et al., 2017; Szpitalak et al., 2018). The separate ACSE factor demonstrates internal consistency ( $\alpha = .75-.76$ ) and is uniquely related to lower self-liking, greater rumination about the self, trait anxiety, maladaptive perfectionism, neuroticism, and depressed mood providing evidence for its validity (Schwinger et al., 2017; Szpitalak et al., 2018). The ACSE items loaded onto one factor accounting for 58 % of the variance (see Appendix). We averaged the items to construct ACSE scores. As shown in Table 4.1, the mean, standard deviation, and internal reliability of ACSE was consistent with prior research (Schwinger et al., 2017; Szpitalak et al., 2018). ACSE scores were also normally distributed, with acceptable skewness and kurtosis (Gravetter & Wallnau, 2014).

***Body dissatisfaction.*** To assess body dissatisfaction following romantic rejection, participants were asked to complete a set of tasks designed to immerse them in past experiences of romantic rejection (see Appendix for full details). First, participants were presented with 11 common situations involving romantic rejection (e.g., “At a party, you ask for the contact information of an attractive person you’ve been chatting with, but they don’t

give it to you or give you fake information”) and were instructed to indicate which of these situations they had ever experienced. Second, using an autobiographical narrative approach previously employed to study the outcomes of rejection (e.g., Baumeister et al., 1998; Baumeister & Leary, 1995; Twenge & Campbell, 2003), participants were asked to write about a particularly memorable instance in which they had felt the most rejected, such as an instance “you were attracted to another person, but that person did not find you as appealing”. We did not specify that this situation needed to be one of the 11 common rejection situations previously displayed. Third, participants were asked, “In the instance you just wrote about: How long ago did this instance occur?” Fourth, the situations participants indicated they had experienced, and the situation they wrote about, were piped into the following page. Following the re-presentation of the situations selected and written about, participants were asked to: “consider instances in your life where you were romantically rejected, such as those outlined above” and then rated their body dissatisfaction following these experiences: “in general, to what extent do you feel the following ways after being rejected?”.

To assess body dissatisfaction, we selected and adapted four items from The Body Image State Scale (Cash et al., 2002) to specifically focus on body *dissatisfaction* following romantic rejection: “Dissatisfied with my physical appearance”, “Dissatisfied with my body size and shape”, “Worse about my looks than I usually feel”, and “Physically attractive” (reverse coded; 1 = *not at all like this*, 7 = *very much like this*). Two adaptations to the scale were made. First, we asked participants to report how they generally felt ‘after being rejected’ instead of how they felt ‘right now’. Second, we adjusted the response format from one presenting a range of possible satisfaction levels (e.g., Extremely satisfied with my body size and shape, Slightly satisfied with my body size and shape etc.) to a more targeted assessment of their dissatisfaction (i.e., Dissatisfied with my body size and shape; 1 = *not at all like this*, 7 = *very much like this*). Items were averaged to construct scores (see Table 4.1). The full

Body Image State Scale has shown both convergent and construct validity (Cash et al., 2002) and demonstrates 1-month test–retest reliability ranges from .74 to .86 (Cash et al., 2002).

The items used in this study loaded onto one factor accounting for 72 % of the variance (see Appendix). We averaged the items to construct body dissatisfaction scores. As shown in Table 4.1, this measure evidenced high internal consistency, variability across participants, and was normally distributed, with acceptable skewness and kurtosis (Gravetter & Wallnau, 2014).

### Results

We first tested the association between ACSE and body dissatisfaction using the Bivariate Correlation procedure in SPSS 26. As shown in Table 4.1, greater ACSE was associated with greater reported body dissatisfaction when experiencing romantic rejection. Given the retrospective prime and autobiographical recall method, we examined whether the association between ACSE and body dissatisfaction was altered by the number of rejection experiences participants selected or the length of time since the instance of romantic rejection participants wrote about using the Multiple Linear Regression Procedure in SPSS 26. Participants identified they had experienced an average of 2.93 ( $SD = 2.05$ ) out of the 11 romantic rejection situations presented. Experiencing a greater number of situations was not associated with ACSE but was associated with greater body dissatisfaction (see Table 4.1), supporting the theorized links between romantic rejection and body dissatisfaction. Nonetheless, regressing body dissatisfaction on ACSE, number of romantic rejection experiences, and the ACSE X number of experiences interaction revealed that greater ACSE continued to predict greater body dissatisfaction ( $B = .557, t = 5.800, 95\% \text{ CI } [.367, .746], p < .001$ ) and was not moderated by number of romantic rejection experiences ( $B = -.025, t = -0.543, 95\% \text{ CI } [-.115, .065], p = .588$ ). Participants wrote about a romantic rejection

**Table 4.1***Study 1 Descriptive Statistics, Reliabilities, and Correlations Across Measures*

Variables	Descriptive Statistics					Correlations			
	Mean	SD	$\alpha$	Skewness (SE)	Kurtosis (SE)	1.	2.	3.	4.
<b>Study 1</b>									
1. Attractiveness Contingent Self-Esteem	4.295	1.283	.758	.284 (.187)	-.418 (.373)	-			
2. Body Dissatisfaction after Romantic Rejection	4.445	1.811	.846	-.200 (.187)	-1.187 (.373)	.403***	-		
3. Number of Romantic Rejection Experiences Selected	2.935	2.051	-	.747 (.187)	.190 (.373)	.032	.293***	-	
4. Length of Time Since Written Instance of Romantic Rejection (years)	4.942	7.240	-	2.624 (.188)	7.584 (.374)	.058	.035	.020	-
5. Age	38.81	12.835	-	.831 (.187)	-.156 (.187)	-.095	-.040	.053	.359***

*Note.* ACSE and body dissatisfaction were measures on 1-7 scales, and items were averaged; thus, possible scores ranged from 1-7. Possible range of romantic rejection experiences = 0-11. Correlations are significant at  $p < .001$ .

experience that was on average 4.94 years ( $SD = 7.24$ ) in the past, indicating that participants' particularly memorable experiences when they felt the most rejection occurred some time ago. Nonetheless, time since the romantic rejection experience was not associated with ACSE or body dissatisfaction (Table 4.1), and regressing body dissatisfaction on ACSE, time since romantic rejection, and the ACSE X time since rejection interaction revealed that greater ACSE continued to predict greater body dissatisfaction ( $B = .570, t = 5.615, 95\% CI [.370, .771], p < .001$ ), and was not moderated by time since romantic rejection ( $B = -.003, t = -0.165, 95\% CI [-.033, .028], p = .869$ ). Finally, given the age range in the sample, and that older participants wrote about romantic rejection experiences that were further in the past (see Table 4.1), we tested whether the associations differed across age. Age was not correlated with ACSE or body dissatisfaction (Table 4.1), and regressing body dissatisfaction on ACSE, age, and the ACSE X age interaction revealed that ACSE continued to predict body dissatisfaction ( $B = .576, t = 5.671, 95\% CI [.376, .777], p < .001$ ) and this association was not moderated by age ( $B = -.006, t = -.728, 95\% CI [-.024, .011], p = .468$ ).<sup>1</sup>

## Discussion

Study 1 provided initial support for our prediction that women higher in ACSE would be more likely to experience greater body dissatisfaction when experiencing romantic rejection. By examining a community sample, Study 1 also demonstrated these effects in an older sample compared to the majority of prior studies using samples of university students to examine the links between variables related to romantic rejection and body dissatisfaction (e.g., Calogero et al., 2010; Koskina & Giovazolias, 2010; Park et al., 2010). The lack of age differences indicated that these associations likely generalize across an array of romantic rejection experiences for women of varying ages. Although time since the romantic rejection

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<sup>1</sup> To address reviewer concerns that the results may have been unduly affected by a small number of older women, we excluded 12 women over the age of 64, whose age was 3 standard deviations above the mean (and thus potential outliers). Rerunning the analyses after removing these women produced the same results: greater ACSE was associated with greater body dissatisfaction ( $r(155) = .419, p < .001$ ).

experiences recalled and age were not associated with ACSE or body dissatisfaction, and the primary associations remained controlling for (and were not modified by) these factors, the retrospective reports of body dissatisfaction within the context of general romantic rejection experiences could be subject to recall errors or be biased by participants' current body and self-evaluations. Study 2 (presented below) was designed to overcome this limitation by assessing ACSE prior to assessing women's daily experiences of romantic rejection and body dissatisfaction and examining the degree to which women reported greater body dissatisfaction as they encountered varying levels of romantic rejection across their daily lives.

### **Study 2**

Study 2 involved young adult women enrolled in an undergraduate psychology class, representing an age group particularly relevant to body concerns, which is a key reason why prior research has tended to focus on this population (e.g., Bucchianeri et al., 2013). Using the short form measures of ACSE and body dissatisfaction that performed well in Study 1, participants completed questionnaire assessments of ACSE and global self-esteem and then reported on their experiences of romantic rejection and body dissatisfaction at the end of each day for 10 days. Assessing repeated measures of romantic rejection and body dissatisfaction allowed us to test whether women higher in ACSE experienced greater within-person increases in body dissatisfaction on days they experienced greater romantic rejection. We also simultaneously modelled the main and interaction effects of self-esteem to distinguish the effects of ACSE from global levels of self-worth.

### **Method**

**Participants.** One hundred and one women enrolled in an upper-level undergraduate psychology course at a large city-based university participated for fulfilment of a research requirement. Women currently in a romantic relationship completed a different study

examining processes in committed relationships so that only women not currently involved in a romantic relationship completed the daily assessments below. Participants ranged from 19 to 35 years of age ( $M = 21.59$ ,  $SD = 2.47$ ). The self-reported ethnicity of our participants was as follows: New Zealand (NZ) European 30.7 %, NZ Māori 3.0 %, Asian 38.5 %, Indian 11.9 %, Pacific Nations 4.9 %, non-NZ European 3.9 %, Middle Eastern 2.0 %, and 'Other' 5.1 %. We aimed to recruit at least 100 women who completed the daily sampling procedure adequately and ran the current study for two consecutive academic years until that target was reached. The target sample size of 100 was chosen because estimates of sensitivity using intensive longitudinal methods suggest that 100 participants assessed at 10 time points would provide adequate statistical power to detect small effects (Bolger & Laurenceau, 2013).

**Procedure and measures.** Approval was obtained from the University of Auckland Human Participants Ethics Committee. In an initial in-person session, participants were provided detailed information about the study, gave informed consent, then completed scales assessing ACSE and self-esteem and were given detailed instructions for completing a web-based daily sampling procedure for the following 10 days. In this daily questionnaire, participants reported first on their experiences of romantic rejection that day and then on their feelings of body dissatisfaction. Each daily questionnaire took an average of 11 minutes to complete.

***Attractiveness contingent self-esteem.*** The same scale used in Study 1 assessed ACSE and produced comparable descriptive statistics and reliabilities (see Table 4.2).

***Self-esteem.*** Participants completed the Rosenberg (1965) Self-Esteem Scale, including 10 statements assessing general feelings of self-worth (e.g., "On the whole, I am satisfied with myself"; 1 = *strongly disagree*, 7 = *strongly agree*). Items were averaged so that higher scores represent greater self-esteem. As shown in Table 4.2, higher ACSE was associated with lower global self-esteem.

**Daily diary.** Participants were instructed to complete an online questionnaire at the end of each day for 10 days. Each daily record assessed participants' experiences of romantic rejection and body dissatisfaction that day. At the beginning of each daily record, participants reported the date of each entry, which was checked against the software-logged date and time to assess compliance. Before variable construction and data analyses, individual diary entries were excluded if they had been completed too early to reflect experiences across the entire day (before 4pm) or were completed in less than the pre-specified time necessary to accurately discriminate across variables (under 3 minutes). To be included in the sample, participants had to have completed 5 or more usable diary entries.<sup>2</sup> The 101 women who met these criteria completed on average 8.77 diary entries, resulting in 885 daily records for analyses. The multi-level analysis used to assess daily associations between romantic rejection and body dissatisfaction accounts for differing numbers of entries across participants by weighting the final sample estimates based on the reliability of each participant's data (i.e., participants with more diary entries contribute more to the final estimates; Bolger & Laurenceau, 2013).

**Daily experiences of romantic rejection.** Similar to the common instances of romantic rejection identified in Study 1, we generated six items to provide a multi-item global measure to reliably index experiences of romantic rejection in daily life. Each day, participants reported how much each statement reflected their experience that day (1 = *not at all*, 7 = *very much*): 'People I was attracted to rejected or ignored me', 'People I was attracted to seemed interested in me' (reverse coded), 'People I was attracted to weren't interested in spending time with me', 'People I was attracted to wanted to spend time with me' (reverse coded), 'People I was attracted to didn't seem to like me', and 'People I was attracted to

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<sup>2</sup> Number of diary entries was not associated with levels of ACSE ( $r(99) = -.039, p = .697$ ), daily romantic rejection ( $r(99) = -.062, p = .541$ ), or body dissatisfaction ( $r(99) = -.135, p = .177$ ).



valued and accepted me' (reverse coded). Items were averaged, with higher scores indicating greater experiences of daily romantic rejection. The items showed good reliability to assess change across days ( $R_c = .789$ ; Bolger & Laurenceau, 2013). Across-day aggregates indicated this daily measure of romantic rejection was internally consistent across participants and average scores were normally distributed (see Table 4.2).

**Body dissatisfaction.** Using the four items from Study 1, participants were asked to rate the extent they felt in the following ways that day (1 = *not at all*, 7 = *very much*): 'I felt dissatisfied with my physical appearance', 'I felt dissatisfied with my body size and shape', 'I felt worse about my looks than I usually feel', and 'I felt physically attractive' (reverse coded). Items were averaged, with higher scores indicating greater body dissatisfaction. The items showed good reliability to assess change across days ( $R_c = .757$ ). Across-day aggregates also showed the measure was internally consistent across participants and average scores were normally distributed (see Table 4.2).

## Results

To test our predictions, we conducted multilevel analyses following the procedures and syntax outlined by Bolger and Laurenceau (2013) in order to account for the dependence arising from participants providing repeated measurements across the 10 days. As detailed by the annotated syntax in the Appendix, these models treat each daily assessment as repeated measures within each participant and specify an autoregressive error structure (AR1) to account for the within-person associations across each daily report of the dependent variable (see Bolger & Laurenceau, 2013 for further details). Using the MIXED procedure in SPSS 26, we modelled the degree to which participants' state body dissatisfaction was a function of (a) ACSE, (b) levels of romantic rejection that day, and (c) the interaction between ACSE

**Table 4.2***Study 2 Descriptive Statistics, Reliabilities, and Correlations Across Measures*

Variables	Descriptive Statistics					Correlations			
	Mean	SD	$\alpha$	Skewness (SE)	Kurtosis (SE)	1.	2.	3.	4.
<b>Study 2</b>									
1. Attractiveness Contingent Self-Esteem	4.411	1.098	.804	-.190 (.077)	-.379 (.153)	-			
2. Daily Experiences of Romantic Rejection	3.508	1.102	.831	.104 (.083)	.851 (.165)	.200***	-		
3. Daily Body Dissatisfaction	3.634	1.148	.798	.107 (.082)	-.100 (.164)	.259***	.310***	-	
4. Self-Esteem	4.766	1.059	.905	.079 (.077)	-.601 (.153)	-.342***	-.163***	-.244***	-
5. Age	21.592	2.472	-	2.470 (.076)	8.071 (.153)	-.105**	-.088**	.097**	.110***

*Note.* ACSE, romantic rejection, body dissatisfaction and self-esteem were all measured on 1-7 scales, and items were averaged; thus possible scores ranged from 1-7. Descriptive statistics for daily experiences of romantic rejection and body dissatisfaction represent the sample average across the 10 days, and thus associated correlations represent associations between average levels of romantic rejection and body dissatisfaction. \*\* Correlations are significant at  $p < .01$ .

\*\*\* Correlations are significant at  $p < .001$ .

**Table 4.3***Women's Daily Experiences of Romantic Rejection and Attractiveness Contingent Self-Esteem Predicting Body Dissatisfaction (Study 2)*

Variables	<i>B</i>	95 % <i>CI</i>		<i>t</i>	<i>p</i>	<i>r</i>
		Lower	Upper			
Attractiveness Contingent Self-Esteem	.210	.061	.360	2.792	.006	.272
Daily Experiences of Romantic Rejection	.248	.166	.329	5.975	< .001	.211
Attractiveness Contingent Self-Esteem X Daily Rejection	.098	.018	.177	2.419	.016	.087
Self-Esteem	-.208	-.363	-.053	-2.661	.009	.260
Self-Esteem X Daily Rejection	.052	-.032	.135	1.221	.223	.044

*Note.* *CI* = Confidence Interval. Effect sizes (*r*) were computed using Rosnow and Rosenthal's (2008) formula:  $r = \sqrt{t^2 / t^2 + df}$ . In these multilevel models, the Satterthwaite approximation is applied to provide specific degrees of freedom for each effect representing the weighted average of the between and within-person degrees of freedom, which were used to calculate the effect sizes. The significant 2-way interaction between daily experiences of romantic rejection and attractiveness contingent self-esteem is shown in Figure 4.1.

and romantic rejection that day. ACSE was grand-mean centered, but the repeated assessments of daily rejection were person-centered by subtracting each participant's mean level of romantic rejection from each daily report of rejection. By person-centering, the effect of romantic rejection represents daily variations in romantic rejection from each person's typical levels, and thus tests whether within-person changes in daily rejection are associated with within-person changes in body dissatisfaction. Our key question is tested by the interaction between ACSE and daily romantic rejection, which tests whether women with higher ACSE experienced greater body dissatisfaction on days they experienced greater romantic rejection compared to days when romantic rejection was low. In this same analysis, we also modelled (d) self-esteem (grand-mean centered) and (e) the interaction between self-esteem and romantic rejection to test whether the predicted effects of ACSE were independent of levels of global self-esteem<sup>3</sup>.

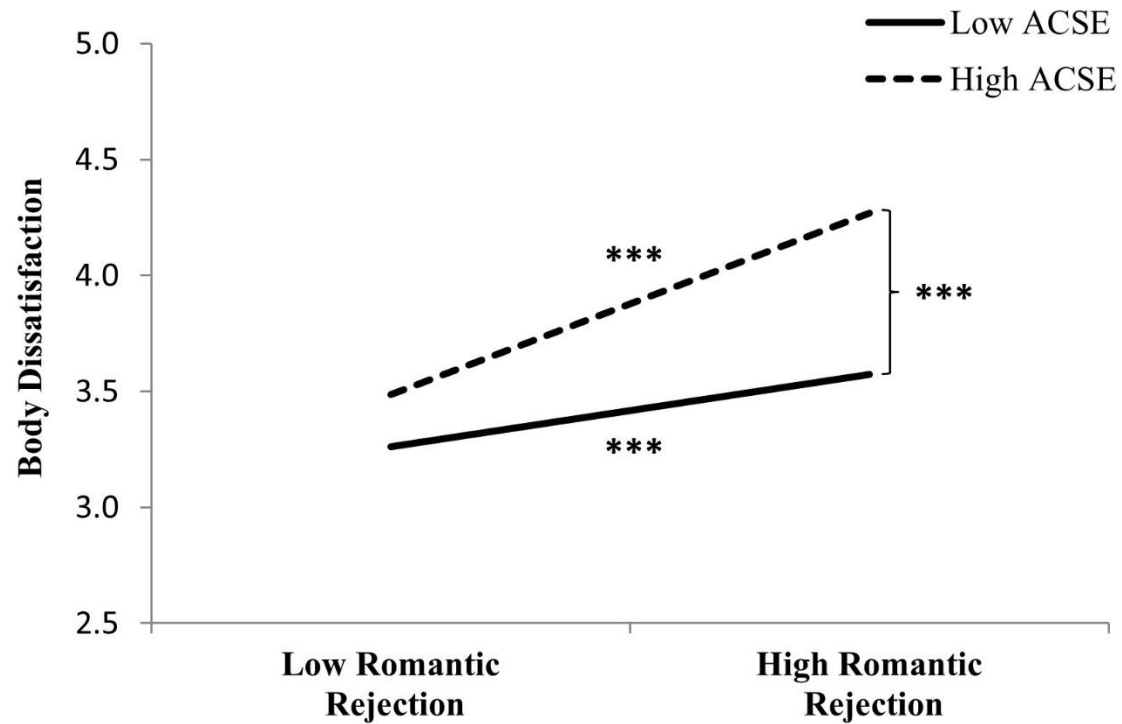
As shown in Table 4.3, within-person increases in daily romantic rejection were associated with women reporting greater body dissatisfaction. Women higher in ACSE also reported greater body dissatisfaction across days. Moreover, as expected, the significant ACSE X daily rejection interaction illustrated that the within-person links between romantic rejection and body dissatisfaction were greater for women higher in ACSE. Figure 4.1 displays the predicted values of body dissatisfaction on days of low and high romantic rejection at low ( $-1 SD$ ) versus high ( $+1 SD$ ) ACSE. On days women experienced romantic rejection they experienced greater body dissatisfaction, but this association was strongest for women whose self-esteem was more contingent on their attractiveness ( $B = .354, t = 4.567, 95\% CI [.199, .509], p < .001$ )

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<sup>3</sup> We also ran the analyses controlling for the main and interaction effect of depressive symptoms in place of self-esteem to test whether our primary effects were specific to ACSE rather than general negative affect. Full results are shown in the Appendix (see Table SM 4.1). Women with greater depressive symptoms entering the study reported greater body dissatisfaction across days, but depressive symptoms did not moderate the links between romantic rejection and body dissatisfaction. Moreover, the moderating effect of ACSE shown in Figure 4.1 was unchanged.

**Figure 4.1**

*The Moderating Effect of Attractiveness Contingent Self-Esteem on the Association between Women's Daily Experiences of Romantic Rejection and Body Dissatisfaction in Study 2.*



*Note.* ACSE = Attractiveness contingent self-esteem. High and low values represent 1 SD above and below the mean. \*\*\*slopes and simple effects significant at  $p < .001$ .

compared to women whose self-esteem was less contingent on their attractiveness ( $B = .140$ ,  $t = 3.842$ , 95 %  $CI$  [.066, .213],  $p < .001$ ). The implication of this contingency-based pattern is that there were no differences in body dissatisfaction between low and high ACSE on days romantic rejection was low ( $B = .103$ ,  $t = 1.169$ , 95 %  $CI$  [-.072, .278],  $p = .245$ ; see left side of graph). Instead, women high in ACSE had higher body dissatisfaction compared to women low in ACSE specifically on days they experience relatively high levels of romantic rejection ( $B = .318$ ,  $t = 3.644$ , 95 %  $CI$  [.199, .509],  $p < .001$ ; see right side of graph) and thus received negative attractiveness-related feedback relevant to the domain their self-esteem is contingent upon.

The effects of ACSE were independent of self-esteem. As shown in Table 4.3 (see bottom rows), women who had lower global self-esteem also reported greater body dissatisfaction across days, but the links between romantic rejection and body dissatisfaction did not vary across levels of self-esteem as they did with ACSE. This pattern supports that the observed effects arise from women whose self-worth is contingent on their attractiveness rather than those who have generally low levels of self-esteem. We also ran additional analyses controlling for average levels of body dissatisfaction across the daily reports. The ACSE X daily rejection interaction remained significant ( $B = .098$ ,  $t = 2.600$ , 95 %  $CI$  [.024, .172],  $p = .009$ ), which illustrates that the greater within-person associations between romantic rejection and body dissatisfaction for women higher in ACSE are independent of between-person differences in body dissatisfaction. Finally, although the age range in Study 2 was smaller than that of Study 1, for consistency we examined whether the effects varied across age. Younger participants had higher ACSE and lower body dissatisfaction (Table 4.2). Nonetheless, when adding the main and interaction effects of age into the primary model shown in Table 4.3, the interaction between ACSE and daily rejection predicting body dissatisfaction shown in Figure 4.1 remained significant ( $B = .111$ ,  $t = 2.670$ , 95 %  $CI$  [.029,

.192],  $p = .008$ ) and was not further moderated by age ( $B = -.022$ ,  $t = -1.300$ , 95 %  $CI [-.054, .011]$ ,  $p = .194$ ).<sup>4</sup>

## Discussion

Study 2 provided a strong test of our prediction that women higher in ACSE would experience greater body dissatisfaction when experiencing romantic rejection. By assessing repeated measures of romantic rejection and body dissatisfaction across daily life, Study 2 illustrated that women higher in ACSE experienced greater increases in body dissatisfaction on days they encountered naturally occurring romantic rejection compared to days when rejection was low. Accordingly, higher ACSE was only associated with greater body dissatisfaction on days perceived rejection was higher than typical. Study 2 also demonstrated that these effects were specific to ACSE, rather than global self-esteem.

## General Discussion

Women are at greater risk than men of body dissatisfaction and, in turn, the poor health and wellbeing that arises from body dissatisfaction (Bale & Archer, 2013; Fredrickson & Roberts, 1997; Furnham et al., 2002; Pass et al., 2010; Stice & Shaw, 2002). Although it is clear that social pressures and norms underpin women's body concerns, prior work has provided less clarity regarding whom these social standards most affect and the situations in which they are most salient. In the current research, we drew on two key principles of contingent self-esteem theory to propose that women whose self-esteem is more contingent on attractiveness standards (ACSE) should be more vulnerable to body dissatisfaction, particularly when they experience negative feedback relevant to the social pressures and norms that emphasize women's attractiveness (i.e., romantic rejection). Study 1 provided initial support for our predictions: women who were higher in ACSE reported feeling greater

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<sup>4</sup> As in Study 1, we also reran the analyses after excluding women whose age was 3 standard deviations above the mean (and thus potential outliers; 3 women over the age of 26). Removing these women did not alter the significant interaction between ACSE and daily experiences of romantic rejection on body dissatisfaction ( $B = .106$ , 95 %  $CI [.027, .186]$ ,  $t = 2.621$ ,  $p = .001$ ).

body dissatisfaction in the context of previous experiences of romantic rejection. Study 2 uniquely illustrated these processes as women encountered naturally occurring romantic rejection within daily life: women higher in ACSE were particularly likely to report within-person increases in body dissatisfaction on days they experienced greater romantic rejection compared to days of lower rejection. In the following sections, we discuss how the current research tests key theoretical principles and advances prior research.

### **Attractiveness Contingent Self-Esteem is a Risk Factor for Body Dissatisfaction in Relevant Evaluative Contexts**

Prior studies assessing the antecedents of women's body dissatisfaction have focused on the influence of social pressures and norms that dictate women should be thin and attractive (see Stice & Shaw, 2002). Yet, much less is known about who is more susceptible to the influence of social standards or how socially evaluative interactions that provide feedback about attractiveness may influence women's body dissatisfaction. The current studies provided answers to these important questions by identifying (1) ACSE as an individual difference factor that increases the risk that women will experience body dissatisfaction and (2) romantic rejection as a socially evaluative situation that provides particularly salient negative feedback that can amplify body dissatisfaction.

Contingent self-esteem theory (Crocker & Wolfe, 2001; Deci & Ryan, 1995) recognizes that people vary in how much their self-evaluations are contingent on internalized standards and expectations. People higher in ACSE base their self-worth more strongly on whether they are meeting their own and others' attractiveness standards, and thus ACSE is a key individual difference that should make women vulnerable to negative attractiveness-relevant self-evaluations, such as body dissatisfaction (Crocker & Wolfe, 2001; Deci & Ryan, 1995). The results of the current research illustrate that women higher in ACSE report experiencing greater body dissatisfaction, but expand prior findings and theory by illustrating



why: women higher in ACSE are particularly susceptible to body dissatisfaction when they encounter situations that provide feedback indicating they are failing to meet attractiveness standards.

Indeed, expanding examinations of ACSE and body dissatisfaction, the current research tested a central premise of contingent self-esteem theory and identified an important socially evaluative context that is likely critical in shaping body dissatisfaction. First, the predictive effects of contingent self-esteem should emerge most strongly in 'contingent' situations that provide threats to relevant domains (Crocker & Wolfe, 2001; Deci & Ryan, 1995). Second, given the primacy of physical attractiveness in guiding initial romantic interest, and evaluations of women in particular, romantic rejection should provide salient and threatening feedback about women's attractiveness (e.g., Bale & Archer, 2013; Eastwick et al., 2014; Li et al., 2013). Study 1 provided initial evidence that ACSE was associated with body dissatisfaction in contexts of romantic rejection, but Study 2 provided clear and novel evidence of the contingent nature of the links between ACSE and body dissatisfaction: higher ACSE predicted greater body dissatisfaction on days women experienced higher levels of romantic rejection, but not on days when women experienced lower levels of romantic rejection (see Figure 4.1).

These results illustrate the utility of our theoretical application by demonstrating that ACSE should be a risk factor of body dissatisfaction in contexts in which attractiveness standards are salient and negative attractiveness-relevant feedback is provided. By highlighting the importance of domain-relevant contexts, the current findings emphasize the relevance of examining romantic rejection in understanding body dissatisfaction and help explain inconsistent findings in the literature. Although prior research has suggested that romantic rejection has important implications for self-perceived attractiveness by lowering mate value (e.g., Brase & Guy, 2004; Leary & Baumeister, 2000; Penke & Denissen, 2008),

our results are the first to examine and illustrate the within-person links between naturally-occurring romantic rejection during daily life and associated increases in women's body dissatisfaction. Moreover, the contrast between the theoretically consistent pattern observed in the current research and the unexpected opposite results found in previous research examining non-romantic rejection (O'Driscoll & Jarry, 2015) illustrates that examining the effects of contingent self-esteem outside of directly relevant contexts may impede understanding of the risk ACSE has for women's body dissatisfaction.

### **Theoretical, Methodological, and Practical Implications**

Our application of contingent self-esteem theory, and integration of romantic rejection as an important evaluative context for examining body dissatisfaction, has important theoretical, empirical, and practical implications. First, despite the theoretical importance of assessing contingency-based patterns, relatively few studies have applied methods assessing the effects of contingent self-esteem across contexts relevant to the domain of self-worth. The current results emphasize the importance of examining body dissatisfaction within contexts that amplify the salience of the social pressures and norms underpinning women's body concerns. Our results show women's body dissatisfaction varied across days according to the relative presence of negative attractiveness-relevant feedback in the form of romantic rejection. Accordingly, examining body image devoid of context may underestimate the degree to which women experience dissatisfaction, or the role that ACSE has in predicting differences in body dissatisfaction. Future research assessing the effects of ACSE (or other forms of contingent self-esteem) should also assess contingency-based patterns in diagnostic domain-relevant contexts.

Second, examining body dissatisfaction in contexts that are less relevant to the provision of evaluative feedback about women's attractiveness may impede understanding of the risk factors of body dissatisfaction and/or highlight alternative processes relevant to body

dissatisfaction. For example, O'Driscoll and Jarry (2015) found that women's body weight contingent self-worth predicted more positive body image following rejection from other women who participants had just met. We argued above that this unexpected effect likely occurred because this type of rejection does not directly provide attractiveness-related feedback, whereas theoretically consistent effects are more likely to emerge in contexts where feedback is more clearly relevant to others' evaluations of women's body, such as romantic rejection. Yet, it is possible compensatory processes may occur in this type of context because women may attribute rejection to positive evaluations of their attractiveness, and thus competitive responses by women threatened by their attractiveness. This intriguing possibility highlights that women high in ACSE might show greater variations in body dissatisfaction to a wide range of contexts, including experiencing increases in dissatisfaction when receiving negative attractiveness-related feedback (romantic rejection) and greater drops in dissatisfaction when perceiving positive feedback. Such a dynamic would be consistent with contingent self-esteem theory and create volatility in body dissatisfaction that may reinforce a range of problematic behaviors associated with body dissatisfaction (e.g., anxiety, eating disorders).

Third, we focused on romantic rejection as an important socially evaluative context that provides negative attractiveness-relevant feedback, but other common social situations across women's daily lives are likely to provide attractiveness threatening feedback in ways that similarly shape changes in women's daily body evaluations. For example, well-meaning discussions of body weight ('fat-talk') from family members and friends (Curtis & Loomans, 2014; Stice et al., 2002), peer criticism (Carlson Jones, 2004), or discussions of other women (Wertheim et al., 1997), may represent common social situations that can amplify women's body dissatisfaction. Future research would benefit from adopting similar designs to assess the degree to which body dissatisfaction varies according to other common evaluative

situations that women face on a daily basis. Demonstrating the risk of specific social situations may offer directions for interventions targeting women's body dissatisfaction. Initiatives could include raising awareness of the impact of these situations, challenging and reducing unhelpful and potentially damaging conversations, and using these situations to exemplify the common and implicit presence of the social pressures and norms women face.

Fourth, identifying the links between ACSE, romantic rejection, and body dissatisfaction provides a foundation for considering other important outcomes that might emerge from the links between ACSE and body dissatisfaction. For example, previous research has shown strong links between women's body image and a range of sexual wellbeing outcomes, such as orgasm, sexual frequency, sexual satisfaction, and sexual initiation (Ackard et al., 2000). Greater body satisfaction is also related to more passion, openness, and less embarrassment in sexual domains (Donaghue, 2009) as well as sexual self-esteem (Hannier et al., 2018). Accordingly, it is possible that decreases in body dissatisfaction experienced by women higher in ACSE may have flow-on effects for their sexual self-esteem and well-being when facing romantic rejection or other unfavorable attractiveness-related feedback. On the basis of these connections, examining the links between women's ACSE, body dissatisfaction, and sexual wellbeing outcomes is likely a fruitful direction for future research.

Finally, identifying ACSE as an important individual difference risk factor for body dissatisfaction (and related outcomes) has important practical implications. There is no doubt that social pressures and norms contribute to women's body concerns, but the current research indicates that the extent to which women internalize and base their self-esteem on these pressures determines the impact of relevant socially evaluative contexts. Thus, in addition to targeting wider social standards, challenging and reducing harmful beliefs about the centrality of attractiveness for women's self-worth may help reduce or mitigate the

detrimental effects of ACSE and unfavorable social feedback (including romantic rejection) on women's body satisfaction. Interventions could employ self-affirmation strategies adapted to target women's contingency beliefs, similar to those used to counteract negative outcomes associated with low self-esteem (Jaremka et al., 2011; McQueen & Klein, 2006; Spencer et al., 2001). Our results suggest that targeting ACSE specifically, instead of self-esteem more generally, will be more effective in addressing the impact of social standards on body dissatisfaction, which (as we discuss below) is an important direction for future research.

### **Strengths, Caveats, and Future Directions**

By assessing actual experiences of romantic rejection in women's daily lives, the current studies illustrate the relevance of attractiveness-related threats for women in the course of their typical day-to-day lives. These associations between ASCE and body dissatisfaction in the context of romantic rejection were shown both within a community sample of women that varied in age (Study 1) and with a younger sample of undergraduate women (Study 2). While the strongest evidence for this association was provided by the younger sample in the daily experience sampling study, undergraduate women represent a particularly relevant population in which to assess these links because romantic rejection is relatively common, and body dissatisfaction increases, during this developmental period (Bucchianeri et al., 2013; Von Soest & Wichstrøm, 2009). Moreover, additional analyses provided evidence that the risk of ACSE, and the potential detrimental effect of romantic rejection, for body dissatisfaction did not differ by age and may be relevant across developmental periods. This pattern of results across studies indicates that future research investigating these processes would benefit from incorporating women across age ranges.

The current studies relied on self-reports of romantic rejection, which could be subject to a range of biases. Our initial investigation in particular involved participants reporting body dissatisfaction in the context of prior romantic rejection experiences. Although the

results were not altered as a function of time since the rejection experiences, participants' reports may still have been subject to recall errors or biased by current body and self-evaluations. Study 2 reduced the impact of potential retrospective biases by gathering daily reports and examining the degree to which women experienced within-person changes in body dissatisfaction in response to varying levels of romantic rejection experienced each day. However, other methods may reduce retrospective biases further to provide even clearer evidence that body dissatisfaction occurs as an immediate response to romantic rejection, such as an event-contingent approach involving participants completing assessments of body dissatisfaction on a mobile device directly following an experience of romantic rejection.

Assessing romantic rejection that people naturally encounter offers an ecologically valid examination of how body dissatisfaction is affected when experiencing high rejection compared to low rejection days. However, the correlational nature of our data prevents strong causal conclusions and leaves open the possibility of alternative explanations. With regard to causal direction, perhaps greater body dissatisfaction is a product of less desirability as a romantic partner, which in turn explains more romantic rejection. However, our results suggest this reverse causal direction is less plausible. Mate value is relatively static (Simpson et al., 2000) and thus it is unlikely that daily romantic rejection would be caused by within-person variation in actual body desirability. Nonetheless, it is possible that body dissatisfaction is associated with more negatively biased perceptions of romantic rejection, especially for women who have higher ACSE.

Future research manipulating the experience of relevant rejection in ways that provide meaningful feedback would strengthen the evidence for the impact of romantic rejection on body dissatisfaction (e.g., Ayduk et al., 1999; Blake et al., 2018). One possibility, for example, would involve recruiting women for a study on 'how online dating interactions influence social judgements' involving participants completing a 'dating profile' containing,

among decoy questions, a 'psychological profile' that assesses ACSE and a full-body photo. After selecting potential online dates from several profiles ostensibly belonging to willing dates, false feedback designed to manipulate romantic rejection would be delivered, such as participants being unable to chat with selected dates because the other person did not select them (manipulation) or because of a technical issue (control). Finally, participants would be asked to complete a questionnaire on 'self-perceptions' for an 'unrelated study' which would include a measure of body dissatisfaction. The advantages of assessing body dissatisfaction as it varies according to participants' own high vs low rejection experiences could also be included into experimental paradigms by adding a within-person component that compares body dissatisfaction when participants receive rejecting vs. accepting feedback.

Future studies using either ecological tracking of participants' rejection experiences or manipulating romantic rejection should also assess and rule out alternative explanations. In Study 2, we illustrated that the effect of ACSE was not attributable to global self-esteem. Another important direction is to examine if similar processes occur for other constructs that predict more negative reactions to rejection, such as appearance-based rejection sensitivity (appearance-RS), which involves anxious expectations of being rejected based on one's appearance (Park, 2007). Appearance-RS is distinct from ACSE and has distinct effects on relevant outcomes. For example, appearance-based rejection sensitivity and appearance contingent self-worth predict unique variance in disordered eating and the tendency to make social comparisons based on appearance (Park, 2007). We focused on ACSE in the current research given that ACSE is more closely related to variation in self-evaluations and because we predicted it would be a particularly important predictor of attractiveness-related self-evaluations (body dissatisfaction) following romantic rejection. However, previous research has identified links between rejection sensitivity (RS) and body dissatisfaction (Calogero et al., 2010; Park et al., 2010), and it is possible that women higher in appearance-RS

experience greater body dissatisfaction when experiencing romantic rejection for similar underlying reasons as ACSE (i.e., romantic rejection provides negative feedback about a domain that is relevant to specific rejection-based anxieties). Future studies would benefit from using similar contingency-based approaches to examine whether women higher in appearance-RS show greater body dissatisfaction in the context of romantic rejection and identify whether these moderating effects are distinct from ACSE or explained by the same processes.

Future research combining assessments of naturally-occurring rejection to test whether self-affirmation strategies specifically targeted to ACSE (or other interventions) buffer the effects of romantic rejection on body dissatisfaction will both provide causal evidence of the processes examined in the current studies and identify ways to curb the detrimental effects of ACSE and romantic rejection on women's body dissatisfaction. Future research should also consider how individual differences in spontaneous self-affirmation might mitigate the links between ACSE, romantic rejection, and body dissatisfaction. Spontaneous self-affirmation is the tendency for individuals to respond naturally to self-threats by reflecting on positive thoughts such as their values and strengths (Harris et al., 2019). Spontaneous self-affirmation bolsters self-worth in the face of challenging situations, including those that threaten body satisfaction such as learning one's body weight (Webb et al., 2020) and viewing media depictions of idealized bodies (Bergstrom et al., 2009). Thus, women higher in spontaneous self-affirmation may experience less dissatisfaction when facing negative attractiveness-related feedback, such as romantic rejection, even if they are also high in ACSE. Investigations testing the role of spontaneous self-affirmation would provide valuable insight into strategies that could be developed to reduce the detrimental effects identified in the current studies.



The current studies examined body dissatisfaction in the context of romantic rejection but did not assess how such rejection may shape body dissatisfaction across months or years. It is possible women's daily experiences of romantic rejection increase body dissatisfaction on that day, but that these effects are short-lived and do not accumulate. It is more likely, however, that accumulated experiences of romantic rejection contribute to increasingly lower levels of body dissatisfaction over time, especially for women higher in ACSE. Indeed, studies examining the effects of peer-teasing history (Cattarin & Thompson, 1994; Thompson et al., 1995) and attractiveness-related social comparisons (Carlson Jones, 2004) suggest that body dissatisfaction does increase over the course of years. Importantly, these prior longitudinal studies have not examined individual differences that make women particularly vulnerable to the development of body dissatisfaction across time. Future research could address these gaps by examining how contexts which provide attractiveness-related feedback, such as romantic rejection, predict increases in body dissatisfaction across time and whether, as we expect, ACSE magnifies these detrimental longitudinal associations.

Finally, in the current research we exclusively focused on women's body dissatisfaction because evaluations of women are often tied to attractiveness (Fredrickson & Roberts, 1997; Moradi et al., 2005) and women are evaluated more strongly on physical attractiveness in romantic contexts (Fletcher et al., 1999; Li et al., 2013). Romantic rejection may also provide particularly impactful feedback for women because men, compared to women, are less selective when choosing potential partners (Fletcher et al., 2014) and women may thus be less acclimated to romantic rejection. Nonetheless, men also experience body dissatisfaction, most often related to muscularity (Cafri et al., 2005; Cash, Morrow, et al., 2004), and romantic rejection may also threaten men's masculinity-related body image. In addition, extrapolating from our results, the effect of romantic rejection on men's body dissatisfaction may be greater for men whose self-worth is more strongly tied to possessing

masculine body types. Targeting these related, but potentially differentiated, processes in men is an important direction for future research.

### **Conclusion**

The current research applied two central principles of contingent self-esteem theory to demonstrate that women whose self-esteem was more contingent on their attractiveness (women higher in ACSE) were more likely to experience increases in body dissatisfaction when encountering negative attractiveness-related feedback in the form of romantic rejection. Across two studies, women whose self-esteem was more contingent on their attractiveness experienced increases in body dissatisfaction in the context of naturally occurring experiences of romantic rejection both recalled (Study 1) and during daily life (Study 2). These results highlight the importance of examining the effects of individual differences that predispose women to body dissatisfaction within contexts that provide diagnostic feedback relevant to body dissatisfaction. The results also illustrate the importance of identifying and counteracting both individual differences factors and everyday attractiveness threatening situations that risk body dissatisfaction, including promoting self-affirmation strategies to curtail the detrimental impact of women's ACSE and romantic rejection (or other relevant socially evaluative contexts). Future research will benefit from combining the assessment of naturally occurring romantic rejection applied in the current studies with experimental and longitudinal designs to determine how ACSE and romantic rejection accumulate across time to affect the development of body dissatisfaction.

## **CHAPTER FIVE: MEN'S AND WOMEN'S TRADITIONAL GENDER IDEOLOGY AND SEXUAL BEHAVIOR**

Chapters Two, Three, and Four provided important support for the central aims of my thesis by highlighting the importance of (1) examining the contexts in which the negative outcomes of traditional gender roles are most likely to emerge and (2) identifying key individual differences that place people at particular risk of experiencing these negative outcomes. Across eight studies, I demonstrated that gender role threatening contexts increase relevant negative outcomes for men and women, but that these associations emerge more strongly (or only for) men and women particularly sensitive to gender role threats. Thus, collectively, these findings provide important support for the proposition that the negative outcomes of traditional gender roles arise from social expectations and pressures that become more salient in certain contexts and are particularly salient for certain individuals.

The previous chapters have focused on the implications of men's and women's beliefs about their own gender roles. Chapter Five extends this work, and literature on gender roles more widely, by taking the novel approach of examining how men's traditional beliefs about women's roles and women's traditional beliefs about men's roles impact their sexual behavior. I argue that, particularly in mixed-gender relationships, people's actions should be shaped not only by the pressures placed on them, but also by their perception of the pressures placed on others. In particular, men's and women's beliefs about their partners' traditional gender roles are also likely to shape behavior in mixed-gender contexts, especially in contexts related to sex that make the expectations and pressures associated with traditional roles particularly salient. Accordingly, in Chapter Five, I investigated whether men's traditional beliefs about women's roles and women's traditional beliefs about men's roles would have important implications for their comfort initiating and refusing sex within mixed-gender relationships.

### Abstract

Traditional gender role norms dictate rigid rules and standards prescribing which behaviors, thoughts, and feelings are considered masculine and feminine, especially in sexual domains. Thus, the internalization of these gendered beliefs (higher traditional gender ideology) may influence sexual behavior. Previous research has suggested that women's traditional beliefs about women's gender roles (traditional femininity ideology) and men's traditional beliefs about men's gender roles (traditional masculinity ideology) differentially shape sexual assertiveness. Yet, men can endorse traditional beliefs about women, and women can endorse traditional beliefs about men, and it is unclear how these beliefs affect people's sexual behavior. We addressed this gap by testing how both heterosexual men's ( $n = 397$ ) and women's ( $n = 393$ ) traditional masculinity and femininity ideology associate with their comfort initiating and refusing sex. When simultaneously accounting for both sets of beliefs, women's traditional beliefs about men's and women's roles interacted to predict comfort initiating sex, but not comfort refusing sex. Men's stronger traditional beliefs about men's roles predicted less comfort refusing sex, and their stronger traditional beliefs about women's roles predicted less comfort initiating sex. This novel research underscores the value of examining beliefs about both sets of traditional gender roles for understanding people's sexual behavior.

*Keywords:* Traditional gender roles, gender ideology, sexual assertiveness, sexual refusal, sexual initiation

### **It Takes Two to Tango: Links Between Traditional Beliefs about Both Men's and Women's Gender Roles and Sexual Assertiveness**

Buffy and Chad have a long-standing mixed-gender romantic relationship. Like most couples, they aspire to navigate their sex life harmoniously. However, Buffy holds the traditional belief that women should not be sexually assertive, thus does not feel comfortable initiating or refusing sex with Chad. Conversely, Chad holds the traditional belief that men should always be ready for sex and initiate sex whenever possible; thus, although he feels particularly comfortable initiating sex, he feels less comfortable refusing sex. Previous research has primarily focused on how women's beliefs about women's gender roles (i.e., Buffy's beliefs about women's roles) and men's beliefs about men's gender roles (i.e., Chad's beliefs about men's roles) determine their behavior, but what about Buffy's beliefs about men's roles or Chad's beliefs about women's roles? These beliefs have important theoretical and practical implications. For instance, Buffy's beliefs about Chad's role as the sexual instigator might make her particularly uncomfortable initiating sex, while Chad's beliefs about Buffy's passivity might make him particularly comfortable initiating sex. The current research will explore these novel possibilities by examining how both sets of traditional gender role beliefs relate to men's and women's sexual behavior.

Traditional gender role norms dictate which behaviors, thoughts, and feelings are considered masculine and feminine, and these constraints are particularly rigid within situations involving sex (Levant et al., 1992, 2007; Mahalik et al., 2003). Traditional masculine role norms dictate that men should often initiate sex but never refuse it (Levant et al., 1992); whereas traditional feminine role norms dictate that women should never initiate sex, but remain receptive to their partner's advances (Byers, 1996; Levant et al., 2007). Indeed, women who have more traditional beliefs about women's roles are less sexually assertive (less comfortable refusing, initiating, and discussing sex with their partner; Curtin et

al., 2011; Greene & Faulkner, 2005; Morokoff et al., 1997), whereas men who have more traditional beliefs about men's roles are more sexually aggressive and coercive (e.g., Murnen et al., 2002; Thompson & Cracco, 2008).

Yet, in monogamous sexual relationships, people's behavior should be influenced both by how they believe they should act and how they believe *their partner* should act. Indeed, as sex in romantic relationships typically involves both members of the dyad, and couple members are interdependent, each partner can influence the other's experiences in the sexual domain (for discussion of dyadic effects in sex research, see Muise et al., 2018). Research to date has only focused on how beliefs about one's own gender roles (e.g., Buffy's beliefs about how women should act) relates to sexual behavior and has neglected to examine how one's beliefs about the other traditional gender role may play a part (e.g., Buffy's beliefs about how men should act). However, to fully understand the effects of traditional gender beliefs on mixed-gender attracted people's sex lives, it is essential to examine how women think men should behave (their traditional masculinity ideology) and how men think women should behave (their traditional femininity ideology). The current research aims to address this gap by examining how men's and women's traditional masculinity and femininity ideologies relate to their ability to initiate and refuse sex with their intimate partner. Our research questions are as follows:

RQ1) Beliefs about own traditional gender roles: How do women's beliefs about women's roles and men's beliefs about men's roles relate to their comfort initiating and refusing sex?

RQ2) Beliefs about partner's traditional gender roles: How do women's beliefs about men's roles and men's beliefs about women's roles relate to their comfort initiating and refusing sex?

RQ3) Beliefs about both men's and women's traditional gender roles: How do men's

and women's traditional masculinity and femininity ideologies simultaneously relate to their comfort initiating and refusing sex (when modeled as competing predictors and allowed to interact)?

### **The Importance of Sexual Assertiveness Within Intimate Relationships**

Sexual assertiveness captures the ability to initiate and refuse sexual activity as well as negotiate desired sexual outcomes (Morokoff et al., 1997). Sexual assertiveness is essential for achieving desired intimacy within intimate relationships. Indeed, couples who are more sexually assertive report greater relationship satisfaction (Greene & Faulkner, 2005).

Women's greater sexual assertiveness is associated with critical relationship outcomes such as greater relationship length, satisfaction, and power, as well as greater sexual satisfaction, sexual activity, and orgasm frequency (Hurlbert, 1991; Morokoff et al., 1997). Conversely, lower sexual assertiveness is related to negative outcomes for women such as higher sexual compliance—or willingness to engage in unwanted sexual activity (Darden et al., 2019)—and may represent an important risk factor predicting women's experiences of sexual abuse from intimate partners (Apt & Hurlbert, 1993).

Though previous research has primarily focused on the benefits of sexual assertiveness, it is important to be mindful that over-assertiveness may link to negative relationship outcomes. For instance, assertiveness may be linked to pressuring partners into unwanted sex (Basile, 1999; Gavey, 1992, 2005, 2018; Katz & Tirone, 2010), which is a common occurrence in relationships (Katz & Tirone, 2010; O'Sullivan & Allgeier, 1998; Smith et al., 2018). Although pressuring a partner when initiating sex may be implicitly expected and culturally normative (Gavey, 1992, 2005), the ability to exert such pressure likely requires a high degree of sexual assertiveness. Given sexual assertiveness is linked to both relationship drawbacks and benefits, it is important to look at individual differences that may impact sexual assertiveness, including traditional gender beliefs.

### **Traditional Gender Ideology and Sexual Assertiveness**

Traditional gender role norms are rules and standards that prescribe which behaviors, thoughts, and feelings are considered masculine and feminine (Levant, 1992). Through social observation, people internalize gender role norms and are influenced to behave in ways consistent with them (Mahalik et al., 2003). Individuals who have more strongly internalized traditional gender role norms are higher in traditional gender ideology (Levant, 2011, 1996; Pleck, 1995; Thompson & Pleck, 1995), meaning they have more traditional beliefs regarding how men and/or women should act. Traditional masculinity ideology (TMI) captures one's internalization of masculine role norms (traditional beliefs about how men should act), whereas traditional femininity ideology (TFI) captures one's internalization of feminine role norms (traditional beliefs about how women should act; Levant et al., 2007; Levant, 2011; Pleck, 1995). Importantly, because traditional gender ideology simply captures beliefs, men can endorse TFI (which captures their beliefs about women's roles), and women can endorse TMI (which captures their beliefs about men's roles).

Traditional gender role norms involve a particularly rigid set of constraints in situations related to sex (Levant et al., 2007; Mahalik et al., 2003). People higher in TMI believe that men should be assertive, dominant, and have a high sex drive—often initiating sex but never refusing it (Byers, 1996; Levant et al., 1992), whereas people higher in TFI believe that women should be passive, compliant, and have a low sex drive—never initiating sex but remaining receptive to their partner's advances (Byers, 1996; Levant et al., 2007). The rigidity of these constraints on sexual behavior makes traditional gender ideology a particularly important predictor of men's and women's ability to initiate and refuse sex. Indeed, previous research suggests that women's traditional beliefs about women's roles are associated with lower sexual assertiveness (i.e., a unitary construct including comfort



refusing sex, initiating sex, and discussing sex with the partner; Curtin et al., 2011; Greene & Faulkner, 2005).

However, in contrast to the approach of previous research, we suggest that it is important to assess comfort initiating and refusing sex as separate constructs when examining their relation to traditional gender ideology, as traditional gender ideology yields different predictions for each behavior. For instance, whereas women's TFI should undermine their comfort both initiating and refusing sex, men's TMI should increase their comfort in initiating sex but *decrease* their comfort in refusing sex. Despite these clear theoretical implications, relatively little research has assessed initiation and refusal of sex as separate outcomes. Moreover, no research to our knowledge has directly examined the association between men's TMI and their comfort refusing or initiating sex (Gerdes et al., 2018; Levant & Richmond, 2007).

The following section will outline the theoretical links between traditional gender ideologies and men's and women's sexual initiation and refusal in detail, as well as our predictions (see also Table 5.1). First, we will outline our predictions for how men's and women's beliefs about their own gender roles relate to their sexual behavior (RQ1), the primary approach of research to date. Then, we will outline our novel predictions for how women's beliefs about men's roles and men's beliefs about women's roles should relate to their sexual behavior (RQ2).

### **RQ1) How Do Women's Traditional Beliefs About Women's Gender Roles and Men's Traditional Beliefs About Men's Gender Roles Relate to Their Comfort Initiating and Refusing Sex?**

#### ***Women's TFI***

**Initiation.** Women's TFI may undermine their ability to initiate sex with their romantic partners for several reasons. First, traditional feminine norms dictate that women

should have a low sex drive, be sexually reluctant, and have relatively few sexual needs (Byers, 1996), and internalization of these ideas may restrict women from initiating sex on their own behalf. Second, as traditional feminine norms dictate that women should put the needs of their partner before their own needs (Byers, 1996; Lewin, 1985; Small & Kerns, 1993), sexual initiation may feel like an imposition on their partner who might feel obligated to accept. Finally, traditional feminine norms dictate that women be passive, compliant, and deferent (Byers, 1996; Levant et al., 2007), and these norms are inconsistent with the traits needed to initiate sex (e.g., vocalizing one's desires). Overall, we expect that women higher in TFI will report less comfort initiating sex.

**Refusal.** Likewise, women's TFI may undermine their ability to refuse sex. First, neglecting their partner's 'needs' by refusing sex may violate traditional feminine norms, which dictate that women must nurture and care for their partner (Lewin, 1985; Small & Kerns, 1993). Indeed, previous qualitative work has noted how pressure from gender roles may oblige women to accommodate their husbands' sexual wishes irrespective of their own sexual desire (Bay-Cheng & Eliseo-Arras, 2008; Gavey, 1992; Russell, 1982), and women may do so to preserve their relationships (Muehlenhard & Cook, 1988). Second, women's TFI may also undermine their ability to refuse sex because refusing sex can require forceful or repeated resistance, inconsistent with the passive, submissive, and unassertive nature of traditional femininity (Byers, 1996). As men's traditional norms involve assertiveness and dominance in sexual initiation, men may often exert persistent pressure on their partners for sex (Basile, 1999; Byers, 1996; Gavey, 1992, 2005; Jozkowski et al., 2014; Katz & Tirone, 2010; O'Sullivan & Allgeier, 1998). Women higher in TFI may feel it is inappropriate to provide the forceful resistance necessary to counter this pressure and successfully refuse sex (Bay-Cheng & Eliseo-Arras, 2008; Byers, 1996; Morgan et al., 2006). Thus, we expect that women higher in TFI should report less comfort refusing sex.

### ***Men's TMI***

**Initiation.** People higher in TMI believe that men should be agentic and dominant in sexual encounters, increasing the extent of sexual activities in any given intimate interaction and using their assertiveness to overcome 'token' resistance from their female partners (Byers, 1996). This assertiveness integral to traditional masculinity should mean men higher in TMI feel especially empowered to initiate sex, and the extent of their comfort initiating sex may even lead men to exert pressure on their partner to engage in sex (e.g., Gavey et al., 2001; Gavey, 2005; O'Sullivan & Allgeier, 1998). Indeed, men who do not persist in their advances to overcome their partner's resistance may be viewed societally as not sufficiently masculine to gain sexual access and, as a result, this sexual pressure may be perceived as normative or even socially desirable by men (Byers, 1996; Jozkowski et al., 2014; Muehlenhard & Hollabaugh, 1988). Thus, we expect men higher in TMI will be more comfortable initiating sex in their intimate relationships.

**Refusal.** Traditional masculine roles dictate that men should be highly motivated to engage in sexual activity and be willing to exploit or pursue any sexual opportunity made available by a woman (Byers, 1996). Therefore, even though the masculine sexual role is highly agentic, internalizing this role should undermine men's ability to refuse sex. Supporting this idea, men report feeling pressured to feign sexual desire to live up to masculine norms (Murray, 2018) and report ambivalence when experiencing sexual coercion due to perceived pressure to never refuse sex (Fagen & Anderson, 2012). Thus, we expect that men higher in TMI will report less comfort refusing sex.

### **The Importance of Examining Women's TMI and Men's TFI**

Previous research has primarily focused on the influence of men's and women's beliefs about their own gender roles. Yet, as detailed above, women can endorse TMI, and men can endorse TFI. Indeed, men endorse TFI to a greater extent than women (Levant et al.,

2007). Likewise, prior work has found associations between women's TMI and outcomes such as conservative political ideology, hostile sexism, benevolent sexism, and rape myth acceptance (Gerdes et al., 2018; McDermott et al., 2019, 2021), suggesting that women's beliefs about men's roles have implications for women's attitudes. Despite the important theoretical implications of men's TFI and women's TMI, and indeed calls for investigations into this topic (Levant, 2011), little or no previous research has examined the influence of these beliefs on sexual behavior.

The lack of research examining how men's TFI and women's TMI predict sexual behavior represents an important gap in the literature because an individual's perception of their partner's gender roles is likely to impact their ability to initiate and refuse sex. The relational nature of sex between two people makes it imperative to examine not only how an individual thinks they should behave but also how they believe their partner will react to their behavior, such as Chad's belief that Buffy will react to his sexual assertiveness with passive compliance. Thus, to fully understand the impact of traditional gender ideology on sexual initiation and refusal, it is necessary to examine how men's TFI and women's TMI relate to their sexual behavior. The following section will outline the theoretical rationale for these associations in more detail. As examining men's TFI and women's TMI represents a novel approach to assessing the impacts of traditional gender ideology on sexual behavior, these predictions are exploratory.

## **RQ2) How Do Women's Traditional Beliefs About Men's Gender Roles and Men's Traditional Beliefs About Women's Gender Roles Relate to Their Comfort Initiating and Refusing Sex?**

### ***Women's TMI***

**Initiation.** Although these links have received relatively little consideration in previous research, there are several key reasons why women's traditional beliefs about men's

roles may undermine their ability to initiate sex with their intimate partners. As traditional masculine norms dictate that men be active, assertive initiators of sexual activity (Byers, 1996; Levant et al., 1992), women who endorse these beliefs may feel that depriving men of this role may threaten their masculinity and lead to negative consequences such as anger, hurt feelings, and even rejection (e.g., Lamarche et al., 2020). Moreover, women who believe that men are highly motivated to engage in sexual activity may view their partner's initiation as a demonstration of their affection and a lack of initiation as a sign of problems within the relationship. Thus, by initiating sex themselves, women who hold traditional views of men may feel they risk reprisal and deprive themselves of a key relationship diagnostic (i.e., gauging their partner's affection). Thus, we expect that women higher in TMI will experience less comfort initiating sex.

**Refusal.** Women's TMI may undermine their sexual assertiveness through the belief that men's sex drive is 'unstoppable' and that interruption of this momentum during intimacy may result in men getting 'carried away' (Gavey et al., 2001; Gavey, 2005; MacCorquodale, 1989; Miller & Marshall, 1987; Weiss, 2009). This view of men's sexual behavior may lower women's ability to refuse sex as it suggests that refusal may have negative consequences such as partner dissatisfaction or even pressure and coercion (Gavey, 2005; Katz & Tirone, 2010; Muehlenhard & Cook, 1988). Indeed, qualitative interviews suggest women may opt for unwanted sex with their romantic partner as a trade-off between strategically complying with unwanted sex or else experiencing pressure or dissatisfaction from their partner (Basile, 1999; Gavey, 1992, 2005; Livingston et al., 2004). Importantly, this threat need not be explicitly voiced: women may feel pressured into having unwanted sex through subtle forms of pressure stemming from dominant cultural gender norms, without the presence of any direct pressure from a sexual partner (e.g., Gavey, 1992, 2005). Thus, we expect that women higher in TMI will feel less comfortable refusing sex.

***Men's TFI***

**Initiation.** As traditional feminine norms dictate that women should nurture and care for their partner, even at the expense of their own needs, women are expected to remain sexually available for their partner's pleasure (Byers, 1996; Lewin, 1985; Russell, 1982). Consequently, men who endorse traditional beliefs about women may feel particularly confident about initiating sex. Likewise, traditional feminine norms dictate that women mount 'token resistance' against sexual advances, gently limiting men's sexual advances to maintain the appearance of 'purity' (Kim et al., 2007; MacCorquodale, 1989; Tolman et al., 2007) and men who hold these beliefs about women's roles may feel justified in persisting in the face of legitimate sexual refusals. In support of this idea, men's greater internalization of stereotypes about women as passive sexual objects is associated with more perpetration of unwanted sex (see Walker, 1997 for review). Further, men who have more (versus less) traditional or conservative attitudes towards women's roles are more likely to perpetrate unwanted sex (Byers & Wilson, 1985; Koss et al., 1985, 1987; Rapaport & Burkhart, 1984) and are less likely to understand sexual consent (Warren et al., 2015). Thus, we expect that men higher in TFI may feel more comfortable initiating sex.

**Refusal.** There are several possible reasons why men's traditional beliefs about women could undermine their ability to refuse sex with their partners. First, men who believe their partner's role is to nurture and support them may feel unable to refuse sex—even if their sexual desire is low—as they may consider their partner's initiation to be a form of caring for them or relationship maintenance. Secondly, men who hold traditional beliefs that women are delicate and must be protected may feel that refusing their partner's sexual advances could hurt them (Murray, 2018). Finally, men who believe women have very low sex drives may feel pressured to accept sex because when their partner initiates sex, it may be perceived as

too rare of an opportunity not to take advantage of. Thus, we expect that men higher in TFI may feel less comfortable refusing sex.

### **RQ3) Examining Traditional Masculinity and Femininity Ideology Simultaneously**

In addition to the lack of studies examining the effects of women's TMI and men's TFI on sexual assertiveness, no studies that we know of have accounted for the effects of both traditional gender ideologies together. Accounting for both ideologies fills a critical gap in the literature because, as detailed above, there is considerable theoretical rationale to support that people's beliefs about what behaviors, thoughts, and feelings to expect from their partner's gender role may have a significant impact on their own attitudes and behaviors (Gerdes et al., 2018; Levant, 2011; Levant et al., 2007; McDermott et al., 2019), and these rationales are distinct from those pertaining to beliefs about the person's own gender roles. Moreover, as TMI and TFI represent distinct but closely related constructs (Levant et al., 2007; Levant, 2011), it is necessary to account for the effects of both simultaneously to fully understand what unique variance (if any) each predicts for sexual initiation and refusal. Indeed, without accounting for both traditional gender ideologies at once, we cannot conclude which traditional gender ideology predicts sexual behavior, if they interact, or if both ideologies predict behavior independently of each other. For instance, Buffy's TFI may undermine her ability to refuse sex because she believes doing so is not appropriate for women. However, her inability to refuse sex may be better accounted for by her TMI-based belief that Chad's sex drive should not be hindered. Moreover, Buffy's beliefs about her own gender roles and Chad's gender roles may interact whereby she is particularly uncomfortable refusing sex when she strongly believes in both traditional ideologies.

Although we believe the current research is the first to examine how men's and women's traditional gender ideology relates to their sexual initiation and refusal, one study has provided initial evidence that both traditional masculine and feminine roles may play an

important part in understanding sexual behavior. Kiefer and Sanchez (2007) found that endorsement of concepts related to traditional sexual roles (i.e., male dominance and female passivity) was associated with greater sexual passivity among women but less passivity among men. The current research will provide several important extensions to this work. First, instead of measuring beliefs about sexual roles in isolation, the current study will measure the constructs of TMI and TFI more broadly, including traditional beliefs across many domains (e.g., employment, family, leisure time). This approach will also allow us to test whether observed effects are predicted by traditional gender ideology itself, as opposed to views about sex alone, which may not necessarily equate to other traditional gender beliefs. Second, instead of treating traditional beliefs about both men's and women's roles as a unitary construct, the current research tests TMI and TFI as distinct constructs, allowing us to account for their shared variance while observing the unique predictive ability of each. Finally, the current research will examine general feelings of comfort initiating and refusing sex instead of assessing the tendency to adopt passive roles in sexual intercourse, which may not necessarily indicate a lack of sexual assertiveness (e.g., one may desire, and thus autonomously choose, to adopt a passive role, while maintaining comfort initiating sex).

### **Current Research**

In sum, the purpose of the current research was to examine how men's and women's traditional gender ideologies relate to their comfort initiating and refusing sex (see Table 5.1 for summary of all predictions). Our aim was to examine both people's views about their own gender role, as has been the primary approach of previous literature examining the links between women's TFI and sexual assertiveness, as well as people's views about their partner's gender role, which is a more novel approach. To achieve this aim, we conducted three sets of analyses. First, we employed the most traditional methodological approach by examining how women's TFI and men's TMI separately predict their comfort initiating and



**Table 5.1**  
*Overview of Predictions*

Participant's Gender	Views About	Sexual Initiation	Sexual Refusal
Women	Women's Gender Roles	Lower Comfort	Lower Comfort
	Men's Gender Roles	Lower Comfort	Lower Comfort
Men	Women's Gender Roles	Greater Comfort	Lower Comfort
	Men's Gender Roles	Greater Comfort	Lower Comfort

refusing sex (RQ1). We predicted that women's TFI would be associated with lower comfort initiating and refusing sex consistent with prior findings linking women's greater TFI to lower sexual assertiveness. Although no prior research has examined this association, we also predicted men's TMI would be associated with greater comfort initiating sex but lower comfort refusing sex, as TMI dictates that men must always be ready for sex and never refuse it. Second, we adopted the novel approach of examining how women's TMI and men's TFI predicted their comfort initiating and refusing sex (RQ2). Our predictions for these analyses were more exploratory: We expected women's TMI would be associated with lower sexual initiation and refusal as women's beliefs about men as highly agentic in sex would discourage their initiation and refusal of sex. We also expected men's TFI would be associated with a) greater sexual initiation, as men perceive women as receptive to their advances and b) lower sexual refusal, as men's perception of women as delicate may motivate men to accept sex to avoid hurting their feelings. Finally, we took the novel approach of modeling men's and women's TFI and TMI against each other as alternative predictors to determine what unique variance (if any) each predicts in comfort with sexual initiation and refusal (RQ3). In these analyses, we also explored if any interactions emerged between TFI and TMI.

## **Method**

### **Participants**

As part of a broader study with diverse aims, we recruited 840 participants using Prolific, an online crowd-sourcing platform (<https://www.prolific.co/>; see Palan & Schitter, 2018). We collected the data just prior to the COVID-19 pandemic (end of February 2020). All participants completed identical measures for the current research, which were part of either a longer (40 minute) or shorter (20 minute) version of the broader study. We compensated participants with £4.17 GBP or £2.09 GBP, respectively. The broader study eligibility criteria were sexually active people over the age of 18 who were working or

studying and did not have children<sup>1</sup>. We excluded 30 participants who failed to pass the attention check(s) embedded in the survey<sup>2</sup>. Because of our focus on how traditional attitudes influence behavior in mixed-gender relationships, for the present analyses, we further excluded 18 participants who did not identify as heterosexual and two who did not identify as either men or women. Our remaining sample ( $N = 790$ ) comprised 397 men and 393 women. Participants ranged in age from 18 to 76 ( $SD = 10.63$ ) and had been in their relationships for an average of 7 years ( $SD = 7.30$ ). The self-reported ethnicity of our participants was as follows: White/Caucasian 83.9 %, East Asian 6.3 %, Black/African-American 3.5 %, Latin American/Hispanic 2.9 %, South Asian 2.3 %, South East Asian 2.4 %, Pacific Islander .8 %, African .8 % Indigenous/Aboriginal .5 %, Arab/West Asian .5 %, and 'Other' 1.6 %. We conducted a conservative power analysis (Faul et al., 2009) that sought to account for the key group differences we planned to examine. We aimed to have complete data from 400 men and 400 women to ensure adequate statistical power to detect a small effect size. Results of a sensitivity analysis suggests this sample size would allow us to detect a small effect ( $f^2 = .02$ ) with .95 power in a MANOVA analysis (to account for two correlated outcome variables: comfort initiating and refusing sex) with two groups (i.e., men and women), and seven predictors.<sup>3</sup> Traditional masculinity and femininity ideologies are highly correlated ( $r(790) = .57, p < .001$ ) but distinct constructs and thus likely predict some of the same variance in sexual assertiveness. Thus, we aimed to achieve a high degree of statistical power to detect small differences in the predictive ability of these constructs.

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<sup>1</sup> These criteria were dictated by the goals of the broader study but were not of relevance to the current manuscript. Thus, we retained people who participated even if they were not working or studying or if they had children.

<sup>2</sup> We excluded participants who failed the attention check in the shorter version of the survey ("It's important that you pay attention to this study. Please select 'Strongly Disagree'") or any of the three attention checks ("It's important that you pay attention to this study. Please select 'Strongly Disagree'", "I am paying attention. If you are paying attention, select strongly disagree.", "I am paying attention. If you are paying attention, select number two.") in the longer version of the survey.

<sup>3</sup> A sample size of 400 per gender also affords 80% statistical power to detect small effects ( $f^2 = .02$ ) when examining a multiple regression analysis with seven predictors.

## **Procedure and Measures**

The authors' university ethics committee approved the procedure, which included additional measures beyond the scope of the present study. Participants first completed a measure of self-esteem, followed by measures of traditional masculinity and femininity ideology, comfort initiating and refusing sex, and finally demographic information. See Appendix 4 section 2 for all items employed in the present study.

### ***Traditional Masculinity Ideology***

To assess traditional masculinity ideology, we administered The Male Role Norms Inventory Very Brief (MRNI-VB; McDermott et al., 2019), which is a unidimensional, five-item assessment developed from the 21-item Male Role Norms Inventory Short Form (MRNI-SF; Levant et al., 2013). Participants rated their agreement with a series of normative statements about how men "should" or "should not" think, feel, and behave, such as "A man should always be the boss" (1 = *strongly disagree*, 7 = *strongly agree*), with higher scores indicating greater endorsement of traditional masculine norms. Research has demonstrated the validity (convergent and discriminant) and reliability of the MRNI-VB, and the scale has demonstrated comparable predictive ability to the larger MRNI-SF (McDermott et al., 2019). Research has also demonstrated configural and metric invariance of the MRNI-VB in samples of cisgender men and women (McDermott et al., 2021).

### ***Traditional Femininity Ideology***

To assess traditional femininity ideology, we analyzed four items from the Dependency/Deference subscale and four items from the Purity subscale of the Femininity Ideology Scale (FIS; Levant et al., 2007; see Appendix 4 section 1 for details on item selection). We focused on these subscales because they had the most relevance to women's and men's sexual beliefs and sexual behavior. Participants rated their agreement with a series of normative statements about how women "should" or "should not" think, feel, and behave,

e.g., “A woman should not swear.” (1 = *strongly disagree*, 7 = *strongly agree*), with higher scores indicating greater endorsement of traditional femininity ideology. Evidence has established the construct validity (discriminant and convergent) and reliability of the original 45-item measure (Levant et al., 2007), as well as configural invariance and partial metric invariance for men and women for a shorter version of the scale (Levant et al., 2017).

### ***Comfort Initiating and Refusing Sex***

To assess comfort initiating and refusing sex, we asked participants to rate two items regarding their current romantic relationship: “I am comfortable refusing sex” and “I am comfortable initiating sex” (1 = *strongly disagree*, 7 = *strongly agree*).

### ***Control and Additional Variables***

**Self-Esteem.** To confirm that any observed associations with sexual assertiveness were due to differences in traditional gender ideology and not a general lack of sexual confidence stemming from low global evaluations of self-worth, participants completed the Rosenberg Self-Esteem Scale (Rosenberg, 1965), which includes 10 items (e.g., “I feel that I’m a person of worth, at least on an equal plane with others;” 1 = *strongly disagree*, 7 = *strongly agree*).

**Sexual Knowledge & Skill.** To assess participants’ perceptions of their own sexual knowledge and skill, we asked participants to rate one item with reference to their current romantic relationship: “I have the knowledge and skills needed to have a satisfying sex life.” (1 = *strongly disagree*, 7 = *strongly agree*).

## **Results**

### **Descriptive Statistics**

Table 5.2 displays the descriptive statistics, reliabilities, and bivariate correlations across our primary measures. The means and standard deviations suggest that participants felt generally comfortable initiating and refusing sex with their partner, but there was variance in

**Table 5.2***Descriptive Statistics and Correlations Between Measures*

Variables	Descriptive Statistics			Correlations					
	<i>Mean</i>	<i>SD</i>	<i>α</i>	1.	2.	3.	4.	5.	6.
1. Femininity Ideology	1.58	0.83	.82	-	.60***	-.15**	-.18***	.03	.09
2. Masculinity Ideology	2.48	1.40	.86	.53***	-	-.12*	-.15**	.11*	.14*
3. Comfort Initiating Sex	5.61	1.47	--	-.15**	.00	-	.34***	.21***	.03
4. Comfort Refusing Sex	5.46	1.44	--	-.18***	-.20***	.22***	-	.24***	-.09
5. Self-Esteem	4.81	1.20	.93	-.03	.01	.30***	.10*	-	.24***
6. Age	32.30	10.63	-	.09	-.07	-.07	-.09	.11*	-

*Note.* Correlations for women are presented above the diagonal, correlations for men are presented below. \*\*\* $p < .001$ . \*\* $p < .01$ . \* $p < .05$ . All other values are not significant ( $p > .05$ ).

this comfort. As predicted, women's endorsement of TFI and TMI were both associated with lower comfort initiating sex and refusing sex. Also as expected, men's endorsement of both TMI and TFI were associated with lower comfort refusing sex. However, contrary to our predictions, men's endorsement of TFI was associated with *lower* comfort initiating sex, and there was no association between TMI and comfort initiating sex. Although these results provided initial descriptive information, testing our predictions involved additional analyses, including using simple effects analyses to isolate effects for men and women separately and examining how interactions between TMI and TFI are related to comfort initiating and refusing sex. Thus, we next conducted additional regression analyses.

### **Linear Regressions**

To test each of our three research questions, we conducted a series of linear regression analyses. Although our outcome variables, comfort initiating and refusing sex, were correlated ( $r(790) = .27, p < .001$ ), as our predictions differed for each, we examined them as separate dependent variables. Additional results from multivariate analyses accounting for the shared variance between these outcomes are presented in Appendix 4 (section 4). Our central aim was to examine the associations between endorsement of TMI and TFI and sexual assertiveness for men and women separately. As such, we opted to conduct simple effects analyses within each gender (rather than first examining the significance of any gender interactions) in order to isolate the effects for men versus women (guided by West et al., 1996). In these simple effects analyses, we dummy-coded gender with a value of 0 representing the target gender in that model (see Appendix 4 section 3 for code for all analyses).

***RQ1) How Do Women's Traditional Beliefs About Women's Gender Roles and Men's Traditional Beliefs About Men's Gender Roles Relate to Their Comfort Initiating and Refusing Sex?***

Our goal for the first set of analyses was to examine how women's TFI and men's TMI predicted their comfort initiating and refusing sex. Thus, we conducted linear regression analyses predicting both comfort initiating and refusing sex simultaneously from either 1) women's TFI or 2) men's TMI, gender, as well as the interaction between gender and ideology. Women's greater endorsement of TFI was significantly associated with both lower comfort initiating sex and lower comfort refusing sex (see Table 5.3). Men's greater endorsement of TMI was significantly associated with lower comfort refusing sex but not with comfort initiating sex (see Table 5.4).

***RQ2) How Do Women's Traditional Beliefs About Men's Gender Roles and Men's Traditional Beliefs About Women's Gender Roles Relate to Their Comfort Initiating and Refusing Sex?***

The goal of our second set of analyses was to examine how women's TMI and men's TFI predicted their comfort initiating and refusing sex. Thus, we conducted linear regression analyses predicting both comfort initiating and refusing sex simultaneously from either 1) women's TMI or 2) men's TFI, gender, as well as the interaction between gender and ideology. Women's greater endorsement of TMI was significantly associated with both lower comfort initiating sex and lower comfort refusing sex (see Table 5.3). Men's greater TFI was significantly related to both lower comfort initiating sex and lower comfort refusing sex (see Table 5.4).

***RQ3) How Do Men's and Women's TMI and TFI Relate to Their Comfort Initiating and Refusing Sex When Modeled as Competing Predictors and Do They Interact?***

The goal of our third and final set of analyses was to examine how both women's and men's TMI and TFI predicted their comfort initiating and refusing sex when modeled as alternative predictors alongside their interaction. Thus, we conducted linear regression analyses predicting both comfort initiating and refusing sex simultaneously from either 1)



**Table 5.3***The Effects of Masculinity and Femininity Ideology on Women's Comfort Initiating and Refusing Sex*

Dependent Variable		<i>b</i>	<i>SE</i>	<i>t</i>	<i>p</i>	<i>95% CI</i>	
						Lower	Upper
<b>Research Question 1</b>							
Comfort Initiating Sex	<b>Femininity Ideology</b>	<b>-.31</b>	<b>.10</b>	<b>-3.01</b>	<b>.003</b>	<b>-.52</b>	<b>-.11</b>
Comfort Refusing Sex	<b>Femininity Ideology</b>	<b>-.34</b>	<b>.10</b>	<b>-3.37</b>	<b>.001</b>	<b>-.53</b>	<b>-.14</b>
<b>Research Question 2</b>							
Comfort Initiating Sex	<b>Masculinity Ideology</b>	<b>-.15</b>	<b>.06</b>	<b>-2.41</b>	<b>.016</b>	<b>-.27</b>	<b>-.03</b>
Comfort Refusing Sex	<b>Masculinity Ideology</b>	<b>-.17</b>	<b>.06</b>	<b>-2.89</b>	<b>.004</b>	<b>-.29</b>	<b>-.06</b>
<b>Research Question 3</b>							
Comfort Initiating Sex	<b>Femininity Ideology</b>	<b>-.42</b>	<b>.15</b>	<b>-2.91</b>	<b>.004</b>	<b>-.71</b>	<b>-.14</b>
	Masculinity Ideology	-.05	.08	-0.68	.498	-.20	.10
	<b>Femininity x Masculinity Ideology</b>	<b>.21</b>	<b>.08</b>	<b>2.62</b>	<b>.009</b>	<b>.05</b>	<b>.38</b>
Comfort Refusing Sex	Femininity Ideology	-.24	.14	-1.75	.080	-.52	.03
	Masculinity Ideology	-.08	.07	-1.10	.274	-.23	.06
	Femininity x Masculinity Ideology	-.02	.08	-0.20	.843	-.17	.14

*Note.* *CI* = Confidence Interval. Results presented are from regression model simple effects analysis examining women.

**Table 5.4***The Effects of Masculinity and Femininity Ideology on Men's Comfort Initiating and Refusing Sex*

Dependent Variable		<i>b</i>	<i>SE</i>	<i>t</i>	<i>p</i>	<i>95% CI</i>	
						Lower	Upper
<b>Research Question 1</b>							
Comfort Initiating Sex	Masculinity Ideology	.00	.05	0.03	.977	-.10	.10
Comfort Refusing Sex	<b>Masculinity Ideology</b>	<b>-.21</b>	<b>.05</b>	<b>-4.25</b>	<b>&lt; .001</b>	<b>-.31</b>	<b>-.11</b>
<b>Research Question 2</b>							
Comfort Initiating Sex	<b>Femininity Ideology</b>	<b>-.24</b>	<b>.08</b>	<b>-2.94</b>	.003	<b>-.39</b>	<b>-.08</b>
Comfort Refusing Sex	<b>Femininity Ideology</b>	<b>-.30</b>	<b>.08</b>	<b>-3.86</b>	<b>&lt; .001</b>	<b>-.45</b>	<b>-.15</b>
<b>Research Question 3</b>							
Comfort Initiating Sex	Masculinity Ideology	.12	.06	1.91	.057	.00	.23
	<b>Femininity Ideology</b>	<b>-.30</b>	<b>.12</b>	<b>-2.51</b>	<b>.012</b>	<b>-.54</b>	<b>-.07</b>
Comfort Refusing Sex	Femininity x Masculinity Ideology	-.02	.05	-0.38	.707	-.13	.09
	<b>Masculinity Ideology</b>	<b>-.15</b>	<b>.06</b>	<b>-2.58</b>	<b>.010</b>	<b>-.26</b>	<b>-.04</b>
	Femininity Ideology	-.16	.12	-1.35	.177	-.38	.07
	Femininity x Masculinity Ideology	-.01	.05	-0.22	.828	-.11	.09

*Note.* *CI* = Confidence Interval. Results presented are from regression model simple effects analysis examining men.

women's TFI and TMI or 2) men's TMI and TFI, gender, and all higher-order interactions.

We report the observed associations in Figures 5.1 and 5.2, which plot high and low levels of traditional gender ideology at 1 SD above or below the sample mean.

**Women.** Women's greater TFI was not related to comfort refusing sex but was significantly associated with less comfort initiating sex (Figure 5.1, top half; dashed line; see Table 5.3). No significant association emerged between women's TMI and comfort refusing or initiating sex; however, a significant interaction emerged between women's TMI and TFI predicting comfort initiating sex. This interaction is shown in Figure 5.2. For women lower in TMI ( $-1\ SD$ ), higher TFI was associated with less comfort initiating sex ( $b = -.72, SE = .22, p = .001, 95\%CI [-1.15, -.29]$ ), but for women high in TMI ( $+1\ SD$ ), TFI was unassociated with comfort initiating sex ( $b = -.12, SE = .14, p = .382, 95\%CI [-.39, .15]$ ). Or, put another way, for women low in TFI, greater endorsement of TMI was associated with less comfort initiating sex ( $b = -.23, SE = .10, p = .023, 95\%CI [-.43, -.03]$ ), whereas for women high in TFI, greater TMI was not significantly associated with comfort initiating sex ( $b = .13, SE = .10, p = .232, 95\%CI [-.08, .33]$ ). Taken together, comfort initiating sex was highest for women who showed low endorsement of both TFI and TMI.

**Men.** Men's greater TMI was related to greater comfort initiating sex, although this did not reach traditional levels of significance ( $p = .057$ ), and significantly related to lower comfort refusing sex (Figure 5.1, bottom half; solid line; Table 5.4). Men's greater endorsement of TFI was significantly associated with less comfort initiating sex; however, there was no association between men's TFI and comfort refusing sex (Figure 5.1, top half; solid line; Table 5.4). No significant interaction effects between TMI and TFI emerged.

### Alternate Explanations

**Self-Esteem.** Men's and women's ability to assert their own sexual desires within their intimate relationships is likely to be impacted by their self-esteem: People higher in self-

esteem will likely feel more confident and comfortable being sexually assertive than those lower in self-esteem (Ménard & Offman, 2009). As such, we tested whether the observed associations were specific to endorsement of TMI and TFI, as we hypothesized, rather than general feelings of self-worth. We reran the primary analyses presented in Tables 5.3 and 5.4, adding self-esteem as a simultaneous predictor (see Appendix Tables SM 5.1 and SM 5.2 for full results). For both men and women, greater self-esteem was associated with more comfort initiating and refusing sex. Nevertheless, the significant associations between endorsement of TMI and TFI and sexual assertiveness reported in Tables 5.3 and 5.4 remained significant when accounting for this association. These control analyses support that endorsing TMI and TFI is uniquely associated with sexual assertiveness, independent of negative self-views.

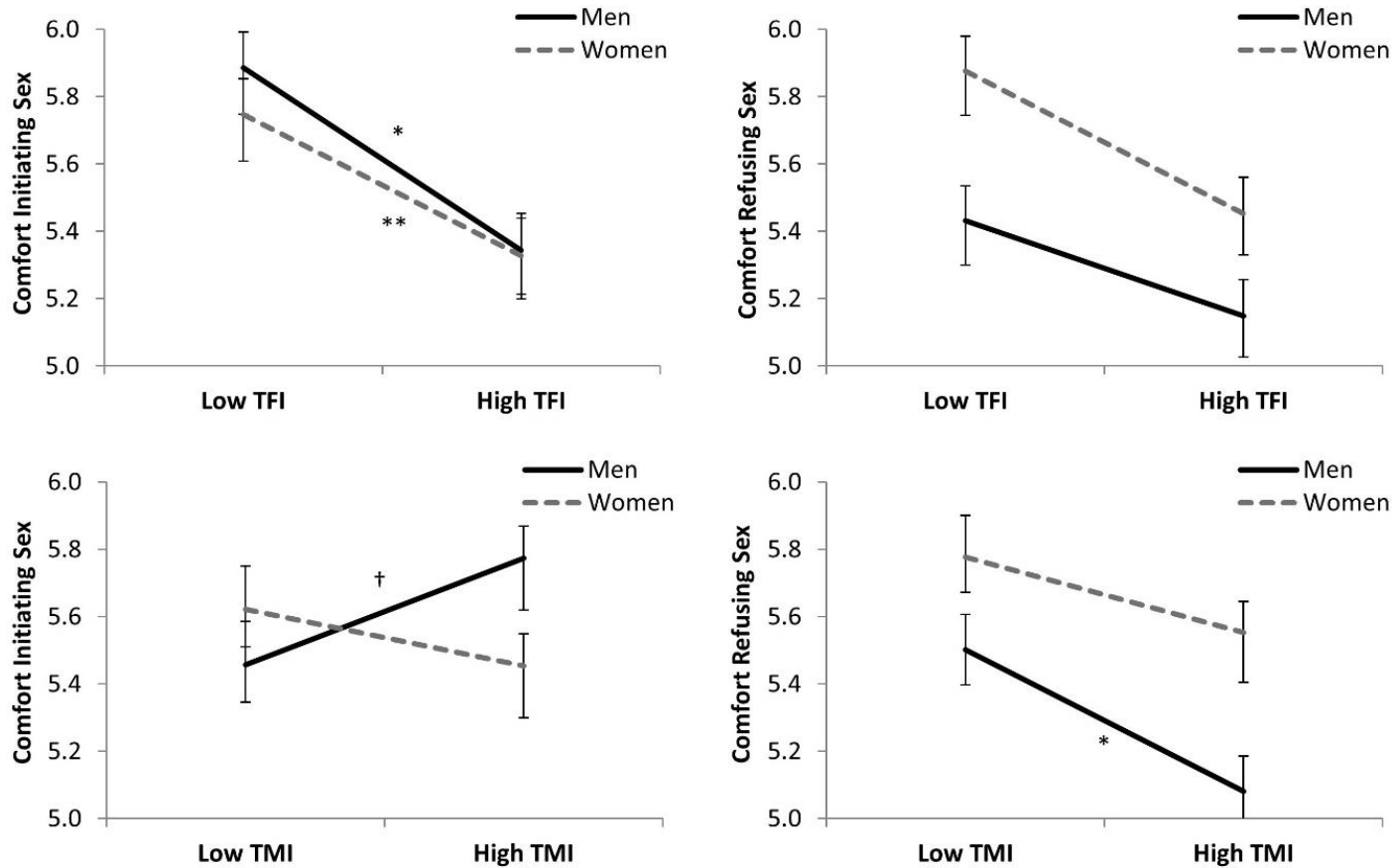
**Age.** Next, we tested whether the reported associations might be accounted for by participants' age, given age tends to be associated with traditional attitudes (Lynott & McCandless, 2000; Young, 1995). We again reran the primary analyses presented in Tables 5.3 and 5.4, adding age as a simultaneous predictor (see Appendix 4 Tables SM 5.3 and SM 5.4). For women, there was no effect of age on comfort initiating or refusing sex. Moreover, when accounting for the effects of age, the significant associations reported in Table 5.3 remained significant. Likewise, for men, there was no effect of age on comfort initiating or refusing sex, and the significant associations reported in Table 5.4 remained significant. These control analyses support that endorsement of TMI and TFI is uniquely associated with sexual assertiveness independently of age.

### **Exploratory Analyses**

In contrast to our prediction, our results suggested that men who have more traditional beliefs about women (higher TFI) were *less* comfortable initiating sex. To help explain this unexpected association, we reasoned that men who strongly endorse TFI (and thus view women as pure) may view sex and sexuality as taboo, and have less sexual knowledge and

**Figure 5.1**

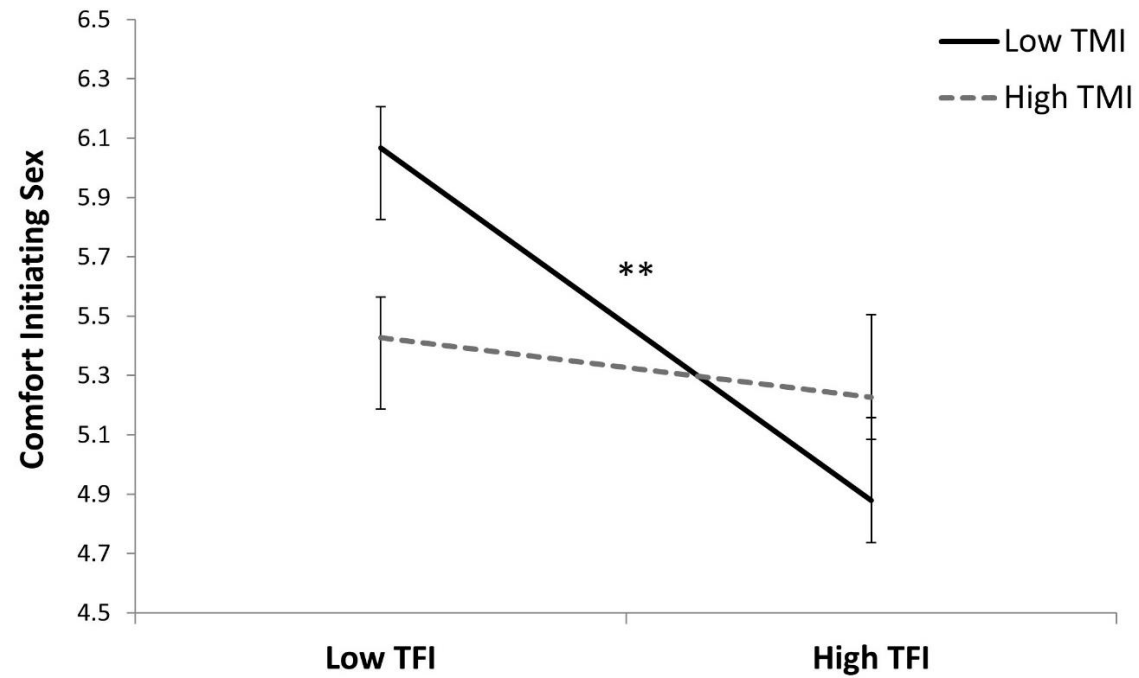
*The Associations Between Men's and Women's Endorsement of Traditional Masculinity Ideology (TMI) and Traditional Femininity Ideology (TFI) and Their Comfort Initiating and Refusing Sex*



*Note.* High and low values represent 1 SD above and below the mean. \*\* $p < .01$ . \* $p < .05$ . † $p = .057$ . All other slopes are not significant ( $p > .05$ ).

**Figure 5.2**

*Women's Comfort Initiating Sex as a Function of Their Endorsement of Traditional Femininity Ideology (TFI) and Traditional Masculinity Ideology (TMI)*



*Note.* High and low values represent 1 *SD* above and below the mean.  $**p < .01$ .

less sexual skill, ultimately leading to lower self-efficacy and decreased comfort initiating sex. We conducted a mediation analysis on only the men sampled using the PROCESS macro for SPSS 26 (model 4, estimating 10,000 bootstrap resamples; Hayes, 2017), testing whether the association between men's TFI and comfort initiating sex was mediated by their perception of their skills and knowledge about sex, while simultaneously accounting their TMI as a covariate. The results were consistent with our reasoning: men's greater endorsement of TFI was associated with lower knowledge and skills ( $b = -.35, SE = .08, p < .001$ ) which, in turn, was associated with lower comfort initiating sex ( $b = .70, SE = .05, p < .001$ ), and the indirect effect of TFI on comfort initiating sex through knowledge and skills was significant ( $b = -.25, SE = .07, CI_{95\%} [-.38, -.12]$ ). Moreover, accounting for the indirect effect reduced the direct effect of men's TFI on comfort initiating sex below the traditional threshold of significance ( $b = -.08, SE = .08, p = .28$ ). These results provide some preliminary support for the notion that men who more strongly endorse TFI may feel less confident in their sexual knowledge and abilities, which in turn contributes to less comfort initiating sex.

### Discussion

The particularly rigid constraints dictated by traditional gender ideology in situations related to sex mean that men's and women's traditional beliefs should strongly impact their comfort initiating and refusing sex with their partner. However, in monogamous sexual relationships, people's behavior should be influenced both by how they believe they should act and how they believe *their partner* should act, and the latter association has received comparatively little attention in previous work. The current research aimed to explore these associations (and highlight the importance of this novel approach) by examining how men's and women's TMI and TFI relate to their sexual behavior (see Table 5.5 for an overview of results). When examining each ideology on its own, both women's TFI and TMI were related

**Table 5.5***Support for Predictions (From RQ3 Pitting the Traditional Ideologies Against Each Other)*

Participant's Gender	Views About	Sexual Initiation	Sexual Refusal
Women	Women's Gender Role Predicts:	<b>Lower Comfort</b> —independently and when accompanied by low Masculinity Ideology	<del>Lower Comfort</del>
	Men's Gender Role Predicts:	<b>Lower Comfort</b> —when accompanied by low Femininity Ideology	<del>Lower Comfort</del>
Men	Women's Gender Role Predicts:	<del>Greater Comfort</del> Lower Comfort	<del>Lower Comfort</del>
	Men's Gender Role Predicts:	<b>Greater Comfort</b> †	<b>Lower Comfort</b>

*Note.* Bold font indicates supported prediction. Struck-through text indicates failure to support prediction. † indicates a marginally significant association ( $p = .057$ ).



to lower reported comfort initiating and refusing sex with their partner. When modeling women's TMI and TFI together, women's TFI continued to be associated with lower comfort refusing sex, while their TMI and TFI interacted, such that women low in both TMI and TFI reported the most comfort initiating sex. For men, when examining each ideology on its own, both TMI and TFI were related to lower comfort refusing sex, and TFI (but not TMI) was related to lower comfort initiating sex. When examined together, men's TMI was related to lower comfort refusing sex, while their TFI was related to lower comfort initiating sex, which was accounted for by their lower levels of perceived sexual skills and experience. All of our effects were robust to the influence of age and self-esteem. Taken together, it is evident that examining people's beliefs about their own and their partner's gender roles together can yield additional insights not gained from examining either in isolation. We next highlight the importance of these results and discuss how they advance prior research.

### **Women's Traditional Beliefs**

Our first set of analyses for women (RQ1) focused on how women's beliefs about their own traditional gender roles relate to their sexual assertiveness, as has been the primary approach of previous studies examining the links between traditional beliefs and sexual behavior. Past research suggests that women's traditional beliefs about their gender roles undermine their comfort initiating and refusing sex (Curtin et al., 2011; Greene & Faulkner, 2005). By replicating these associations, the current results further support that women's traditional views of their own gender roles have implications for their sexual behavior, including both for their comfort initiating and refusing sex (when examined as separate outcomes).

Our second set of analyses for women (RQ2) took the novel approach of examining how women's TMI is associated with their comfort initiating and refusing sex. Although the relational nature of sex (e.g., Theiss, 2011) means that people's beliefs about their partner

have important theoretical and practical implications, no studies to our knowledge have examined how these beliefs predict sexual behavior. Providing novel support for this theorizing, women's greater TMI was associated with lower comfort initiating and refusing sex with their partner.

Our first and second set of analyses for women supported that heterosexual women's greater traditional beliefs about their own and their partner's gender roles are independently associated with less comfort initiating and refusing sex. However, given TMI and TFI represent distinct but closely related constructs (Levant et al., 2007), a more robust test of the role of traditional beliefs in women's sexual behavior is to examine the independent effects of each ideology against each other as alternative predictors, alongside their interaction. The results of these analyses (RQ3) revealed that the effects of both women's TMI and TFI on comfort refusing sex were reduced below the threshold of significance when accounting for their shared variance. However, women's TMI and TFI interacted to predict comfort initiating sex (see Figure 5.2), such that women who were lower in their endorsement of both TMI and TFI were most comfortable initiating sex. This pattern suggests that traditional beliefs about their own or their partner's gender roles are enough to undermine women's comfort initiating sex. Although not included in our original predictions, this interaction provides novel insight into the association between women's traditional beliefs and their sexual behavior by suggesting that the effects of traditional ideology on women's sexual initiation are particularly pernicious. That is, endorsing traditional ideology continues to undermine women's comfort initiating sex even if they have, for instance, relatively egalitarian beliefs about women's gender roles but more traditional beliefs about men's gender roles (or vice versa).

### **Men's Traditional Beliefs**

Few prior studies have examined how heterosexual men's beliefs about men impact their comfort initiating and refusing sex, despite the important theoretical and practical implications of these links. Addressing this gap, our first set of analyses (RQ1) demonstrated that men's greater TMI was associated with lower comfort refusing sex, illustrating the importance of examining men's traditional beliefs about men's gender roles for understanding their sexual behavior. Extending this novel inquiry, our second set of analyses (RQ2) demonstrated that men's greater TFI was associated with lower comfort refusing sex, illustrating the importance of also examining how men's traditional beliefs about their partner's gender roles influence men's sexual behavior. However, in both the first and second set of analyses (RQ1 and RQ2), the observed effects of men's traditional beliefs on their comfort initiating sex were inconsistent with our predictions. No association between men's TMI and comfort initiating sex emerged, and men's greater TFI was associated with *lower* comfort initiating sex, the reverse direction of our predictions. As discussed below, subsequent analyses clarified this result and highlighted the importance of accounting for men's beliefs about women in understanding men's sexual behavior.

Our third set of analyses for men (RQ3) further emphasized the importance of examining the independent effects of each ideology against each other as alternative predictors of sexual behavior. When shared variance was accounted for, men's TFI was no longer associated with comfort refusing sex, while greater TMI continued to be associated with lower comfort refusing sex. These results suggest that men's traditional beliefs about men may have a more robust impact on their comfort refusing sex than their beliefs about women, consistent with the strong emphasis traditional masculine norms place on men being continually ready for sex.

Intriguingly, men's greater TFI continued to be associated with lower comfort initiating sex, and the association between men's greater TMI and more comfort initiating sex

approached the traditional threshold for significance ( $p = .057$ ) when shared variance with TFI was accounted for. Although the observed effects of men's TFI on their comfort initiating sex were in the opposite direction to our predictions, exploratory analyses revealed that men's self-evaluations of their knowledge and skills in sexual domains mediated this association. One potential interpretation of these results is that men with more traditional views of women may view their partner as 'pure' and non-sexual, undermining their ability to communicate with their partner about sex (Greene & Faulkner, 2005; Norton et al., 2016). Because sexual communication is an important predictor of women's sexual pleasure (Jones et al., 2018), men who feel less able to communicate with their partner about sex may perceive they have insufficient skills and experience to please their partner (e.g., Oattes & Offman, 2007), thereby lowering their comfort initiating sex.

The observed association between men's TFI and their comfort initiating sex may also explain the unexpected lack of association between men's TMI and sexual initiation. Indeed, as TMI and TFI are correlated, men with higher TMI are also likely to have higher TFI and thus may be pressured by their traditional beliefs about men to initiate sex, while their traditional beliefs about women simultaneously undermine their comfort initiating sex. Thus, when controlling for the conceptual overlap between TMI and TFI, the opposing influence of these two traditional beliefs is revealed, and the underlying effects of men's TMI begin to emerge. However, this explanation is speculative, and further research will be needed to provide support for it.

### **Theoretical, Methodological, and Practical Implications**

Taken together, these results illustrate the importance of examining the combination of both men's and women's TMI and TFI when examining their links to sexual behavior. Indeed, results revealed that some associations which appeared robust in our first and second set of analyses were reduced below the threshold of significance when controlling for both

sets of beliefs, and thus if we had conducted only the first or second set of analyses the results obtained would have provided an incomplete picture. Future research examining how traditional gender ideology impacts sexual behavior should adopt the approach of examining participants' beliefs about both men and women to avoid misleading results.

Previous theoretical and empirical work suggests that the influence of traditional gender roles within sexual domains may become less pronounced in the context of long-term intimate relationships (Byers, 1996; Masters et al., 2013; Milhausen & Herold, 1999). However, by demonstrating the associations between TMI and TFI and sexual behavior within long-standing ( $M = 7$  years,  $SD = 7.25$ ) relationships, the current study's results suggest that traditional gender role beliefs may continue to influence men's and women's sexual behavior in their established relationships. An important function of traditional gender roles in sexual contexts is to provide sexual 'scripts' that help guide behavior and lend predictability to interactions in uncertain situations (Simon & Gagnon, 1986). Theoretically, therefore, the importance of adhering to traditional gender role-consistent behavior should become less pressing as couples become more familiar with each other and uncertainty decreases. Supporting this theorizing, evidence suggests that in ongoing, established relationships, much overlap exists in women's and men's behavior in sexual interactions, with both men and women adopting behavior inconsistent with their traditional gender roles (Byers, 1996; Masters et al., 2013; Milhausen & Herold, 1999). Notably, however, these studies have not explored the extent to which gender-inconsistent sexual behaviors emerge for men and women who have more traditional beliefs about gender roles (Dworkin & O'Sullivan, 2005). Thus, the current research provides an important extension to this prior work by demonstrating that men and women who hold traditional beliefs about gender roles may continue to be constrained by traditional expectations, even in long-term relationships.

Although the current research focused on the links between traditional gender role beliefs and sexual behavior within intimate relationships, these links should be especially relevant outside of established relationships. As traditional gender roles provide sexual scripts that guide behavior in uncertain sexual situations, traditional gender role beliefs should have a particularly strong influence on sexual behavior in situations where people are less familiar with their partner and have less knowledge about their partner's expectations (e.g., one-night stands). Thus, by examining men's and women's TMI and TFI within relationships, the current results provided a conservative test of these links, as the observed associations between traditional beliefs and sexual behavior should be especially strong outside of established relationships, increasing the risk of negative outcomes. For instance, the links between men's TMI and their comfort refusing sex should be particularly likely to undermine their ability to refuse sex with new sexual partners, placing men at risk for unwanted sex. Likewise, the links between women's TMI and TFI and their comfort initiating sex may be especially likely to undermine their ability to initiate sex with desired partners. Additionally, our sample comprised relatively satisfied partnered individuals who showed generally high levels of comfort initiating and refusing sex with their established partner and are likely sensitive and respectful of their partner's needs (including their desires to not have sex, e.g., Muise et al., 2017). Thus, the observed associations between traditional ideology and assertiveness may be more impactful for individuals who are navigating relatively more uncertain sexual experiences with new partners or negotiating sexual consent. Future research should extend the current study by examining the links between men's and women's TMI and TFI and their sexual behavior outside of established intimate relationships.

The current research focused on the associations between traditional gender roles and sexual behavior because traditional roles dictate particularly rigid constraints in situations related to sex. However, the observed associations are likely to have implications for

relationship functioning outside sexual domains. Within romantic relationships, traditional gender roles dictate a specific set of behaviors for men and women; men must protect, provide, and lead the family, while women must nurture, support, and care for the family (Mahalik et al., 2003, 2005). Men and women who have more traditional beliefs about gender roles are likely to adhere to these roles more rigidly, and thus the impact of these roles on their behavior should be more pronounced. Supporting this theorizing, men's TMI is associated with lower relationship satisfaction (Wade & Coughlin, 2012), lower participation in childcare (Bonney et al., 1999), as well as relationship violence (Jakupcak et al., 2002). Surprisingly, few studies have examined how women's TFI is associated with relationship outcomes not related to sex. Moreover, no studies that we are aware of have examined how men's TFI and women's TMI may also impact their relationship outcomes. Thus, in light of the current results, future research should explore how women's traditional views about women's and men's roles, and men's traditional views about women's roles, influence relationship functioning outside of the sexual domain.

The association between men's and women's TFI and TMI and their comfort initiating sex and refusing sex may suggest that men's and women's traditional gender role beliefs increase their vulnerability to negative sexual outcomes. When supported by future research replicating the observed effects and establishing causality, these results may offer direction for interventions targeting men's and women's sexual well-being. Such initiatives should address the unique pressures and restrictions men and women place on themselves through their beliefs about their own and their partner's gender roles by (1) highlighting and confronting these beliefs to exemplify the implicit presence and negative consequences of the social pressures men and women face, and (2) encouraging positive behavior which is congruent with the person's own sexual desires, even if the behavior is incongruent with these social pressures.

### **Strengths, Caveats, and Future Directions**

The current research is the first to demonstrate the links between both men's and women's TMI and TFI and their comfort initiating and refusing sex, thereby providing a novel illustration of the importance of examining both sets of beliefs simultaneously alongside their interaction. This key extension of previous work was also accomplished in a large, gender-balanced sample (women = 393, men = 397), which varied in age ( $M = 32.30$ ,  $SD = 10.63$ ), and the observed associations were robust controlling for factors known to influence sexual assertiveness (i.e., participant self-esteem and age).

Despite these strengths, we also acknowledge the limitations of the current studies. The correlational, cross-sectional nature of our data leaves open the possibility that the reverse causal direction occurs, whereby lower sexual assertiveness predicts greater endorsement of traditional gender ideology. However, this explanation is less theoretically plausible given the strict and pervasive social rules gender roles prescribe for sexual behavior. Nonetheless, it is possible that men's and women's lower sexual assertiveness may increase their traditional beliefs, and this alternative explanation should be explored in future research. Moreover, as we assessed men's and women's general self-reported comfort initiating and refusing sex, and not actual sexual behavior, more research is needed to ascertain the extent to which men's and women's comfort initiating and refusing sex translates to their enacted initiation and refusal in their relationship (e.g., in daily life or in experimental scenarios, Day et al., 2015).

Although the current study extended previous research by examining how people's traditional beliefs about their own gender, as well as their traditional beliefs about their partner's gender, relate to their sexual behavior, the conclusions that can be drawn from our results are limited in that we indirectly assessed people's beliefs about their partner's gender roles through their beliefs about men's and women's roles in general. Indeed, it is possible



that women's belief that men should generally initiate sex makes them feel generally less comfortable initiating sex, but that their specific view of their partner's role is less rigid, allowing them to feel more comfortable initiating sex in their relationship. To address this limitation of the current study, future research could examine how traditional gender ideology relates to sexual behavior using dyadic methods which assess and account for both an individual's traditional gender beliefs and their partner's traditional gender beliefs. Moreover, dyadic methods would also extend the current research by examining how a person's partner's beliefs impact their sexual behavior. For instance, Chad's belief that men should be the initiator of sex may undermine Buffy's comfort initiating sex over and above Buffy's own beliefs about men's and women's roles. Thus, although the current research provides a novel demonstration of the importance of men's and women's TMI and TFI in predicting their sexual behavior, further studies taking a dyadic approach would greatly expand these findings.

Another important direction for future research is to examine how TMI and TFI influence the sexual behavior of non-heterosexual and non-cisgendered people. The current research focused on heterosexual, cisgendered men and women because previous research has suggested that measures of traditional gender-based attitudes such as TMI and TFI may not have equivalent meaning for people of diverse sexual orientations and gender identities, and thus may not be suited for measuring differences in traditional gender beliefs across diverse populations (Cross et al., 2021; McDermott et al., 2021). However, the strict and pervasive social pressures and expectations associated with traditional gender roles may mean that gender-based attitudes also have important consequences for non-cisgendered, non-heterosexual individuals (e.g., Sánchez et al., 2010, 2013). Thus, future research should address the limitations of the measures currently available to assess gender-based attitudes

and explore the important links between TMI and TFI and sexual behavior outside of the limited scope of the current study.

### **Conclusion**

Buffy and Chad aspire to navigate their sex life harmoniously, however, the results presented in this study suggest that Buffy's and Chad's traditional beliefs about their own gender role, as well as their traditional beliefs about each other's gender role, may undermine their comfort initiating and refusing sex, impeding their desired harmony. For instance, although Buffy may hold relatively egalitarian views of either her own or Chad's gender role, the observed associations suggest she will only be more comfortable initiating sex if she holds neither set of traditional beliefs. Likewise, Chad's traditional beliefs about his own roles are likely to undermine his comfort refusing sex, while his beliefs about Buffy's gender roles will decrease his comfort initiating sex. Thus, as sexual assertiveness is important for achieving pleasurable and satisfactory sexual relationships (Apt & Hurlbert, 1993; Greene & Faulkner, 2005; Hurlbert, 1991; Morokoff et al., 1997), Buffy's and Chad's traditional beliefs are likely to jeopardize the harmony of their sex life. Taken together, these results highlight the importance of not only assessing the impact of both sets of traditional gender role beliefs but examining both sets of beliefs together. Further, these results highlight the importance of identifying and confronting the ways in which these beliefs may have costs for men's and women's relationships.

## CHAPTER SIX: GENERAL DISCUSSION

Traditional gender roles pressure men and women to conform to rigid social expectations and thus have important and impactful consequences for men's and women's thoughts, feelings, and behaviour. The central role of social expectations and pressures in shaping and perpetuating the negative outcomes of traditional gender roles is supported by a wide body of literature highlighting how people's sensitivity to pressures associated with traditional gender roles place them at greater risk for these negative outcomes. However, if social pressures and expectations underlie the negative outcomes of traditional gender roles, then these outcomes should emerge most strongly in situations where these pressures are particularly salient, such as situations that threaten adherence to traditional gender roles. Moreover, people who are particularly sensitive to traditional gender role pressures and expectations should experience these negative outcomes to a greater extent. Informed by this theoretical rationale, this thesis aimed to advance understanding of traditional gender roles by exploring two central predictions: (1) the pressures associated with traditional gender roles should be most salient, and thus their outcomes most prominent, in gender role threatening contexts, and (2) these outcomes should emerge most strongly for people more sensitive to gender role threats. In this final chapter, I discuss the implications of the influence of contextual and individual difference factors on the outcomes of traditional gender roles, highlight important directions for future research, and discuss several theoretical and empirical challenges facing traditional gender role research moving forward.

### **Summary of Results: When and for Whom the Negative Outcomes of Traditional Gender Roles Emerge**

The aim of this thesis was to examine how relevant contexts and individual differences promote the negative outcomes associated with traditional gender roles. Consistent with this aim, the research presented provides a consistent and coherent

demonstration that understanding *when* and *for whom* the negative outcomes of traditional gender roles are likely to emerge is essential for understanding the costs of traditional gender roles. Across eight studies (Chapters Two-Four), the negative outcomes of traditional gender roles emerged most strongly in contexts that threatened adherence to masculine and feminine gender roles, but these associations were most pronounced for people who were particularly concerned about adhering to these roles. Moreover, in an additional study (Chapter Five), I highlight the importance of examining not only the effects of people's attitudes about their own gender roles but also their beliefs about their partner's gender roles for understanding the outcomes of these roles in relevant contexts. Thus, the results presented across four empirical chapters both advance understanding of traditional gender roles and their consequences for men and women and inform the way in which these processes should be studied in future research.

Chapter Two demonstrated the importance of understanding how contexts that can threaten masculinity, as well as men's sensitivity to this threat, can promote the negative outcomes of traditional masculine gender roles. Four studies illustrated that masculinity threatening contexts can promote the negative outcomes of traditional masculine roles by showing that men reported enacting greater aggression towards their intimate partner when they experienced low power in their intimate relationships (a context that can threaten masculinity) but not when they experienced high power in their relationships. However, highlighting the role of sensitivity to masculinity threat in driving men's aggression in response to low relationship power, the association between low relationship power and aggression only emerged for men higher in MGRS who are particularly sensitive to masculinity threats. These novel results illustrate how social pressures and expectations related to traditional masculinity can motivate men to enact aggression in response to masculinity threatening contexts, but that these pressures are most likely to be felt, and

aggression most likely to be enacted, by men who are more sensitive to masculinity threat.

The patterns of results provide support for my central proposal that understanding the negative outcomes (e.g., aggression) arising from traditional gender roles requires (1) examining relevant outcomes within masculinity threatening contexts (e.g., low power), and (2) understanding that these effects emerge predominantly for men particularly sensitive to masculinity threats (e.g., men higher in MGRS).

Chapters Three and Four extended the focus on the outcomes of traditional masculine gender roles for men by demonstrating the importance of examining relevant outcomes of traditional feminine gender roles for women, particularly for women especially sensitive to specific gender role threats. Chapter Three provided evidence across two studies that on days or weeks women reported lower feelings of femininity they experienced concomitant decreases in self-esteem, but these effects were strongest for women higher in FGRS who are more sensitive to femininity threat. Chapter Four then provided a more specific and focused test of the outcomes of traditional feminine gender roles for women within a domain integral to traditional feminine roles: attractiveness. Across two studies, Chapter Four demonstrated that women experienced greater body dissatisfaction when they encountered naturally occurring romantic rejection, but this association was particularly pronounced for women higher in ACSE who are more sensitive to threats to attractiveness. Chapters Three and Four offer an important illustration of the impact of feminine gender roles on women in their day-to-day lives, which has received relatively little attention. Additionally, Chapters Three and Four provide support for my central proposition that understanding the outcomes of traditional feminine gender roles requires (1) examining the risk of negative outcomes within routine situations that threaten women's adherence to expectations and pressures associated with traditional feminine gender roles (e.g., feeling less feminine, romantic rejection) and (2)

identifying the ways in which women's sensitivity to gender-relevant threats (FGRS, ACSE) exacerbate the risk of these negative outcomes.

Chapter Five expanded my focus on how people's sensitivity to pressures associated with their own traditional gender roles (e.g., men's MGRS) promotes negative outcomes to uniquely assess how men's and women's attitudes about each other's traditional gender roles impact their sexual behaviour. In particular, the study presented in Chapter Five examined how men's traditional beliefs about women's roles (men's traditional femininity ideology [TFI]) and women's traditional beliefs about men's roles (women's traditional masculinity ideology [TMI]) predicted their comfort initiating and refusing sex. The results illustrated the importance of my novel approach by demonstrating that men's TFI predicted lower comfort refusing sex with their partner, and women's TMI predicted lower comfort initiating sex with their partner. Importantly, these results emerged controlling for both traditional beliefs about men's roles (TMI) and women's roles (TFI), revealing the specific and unique effects of people's beliefs about the other traditional gender role. Thus, although individual differences in sensitivity to gender role pressures, such as men's MGRS and women's FGRS, promote the negative outcomes of traditional gender roles, men's and women's beliefs about each other's gender roles also likely play an important part in shaping behaviour in mixed-gender relationships.

In sum, the current research supports the central predictions of my thesis by demonstrating that understanding the outcomes of traditional gender roles requires (1) considering relevant outcomes (e.g., aggression, body dissatisfaction) within common contexts that people encounter within their day-to-day lives that threaten adherence to traditional gender roles (e.g., low relationship power, romantic rejection), and (2) assessing people's sensitivity to these threats (e.g., MGRS, FGRS), which determine the relative risk that negative outcomes will emerge. Illustrating the importance of both context and

individual differences provides a deeper account of why and how the negative outcomes of traditional gender roles will manifest in men's and women's day-to-day lives, as well as why and how gender role socialization puts men and women at particular risk of these negative outcomes.

### **Implications and Extensions**

As each chapter includes a discussion of how the results presented offer important implications directly relevant to the focus of that chapter, in this section I consider more broadly how the studies presented across this thesis provide novel implications and directions for future research. I first consider how the primary conclusions of this thesis offer specific implications for future research, including: (I) the importance of assessing the outcomes of traditional gender roles in relevant contexts, (II) examining whether the outcomes of traditional gender roles promote greater adherence to these roles, and (III) examining the outcomes of traditional feminine gender roles and femininity threat for women. I then consider more broadly how the conclusions drawn from my focus on interpersonal processes (IV) provide important implications for examinations of how traditional gender role threat may emerge at a societal level and (V) how the results presented in this thesis help inform interventions aimed at reducing the negative impacts of traditional gender roles.

#### **I. The Outcomes of Traditional Gender Roles in Context**

The studies in this thesis reveal that when men and women encounter situations that threaten their adherence to traditional gender roles (e.g., low relationship power, romantic rejection), they are more likely to enact or experience relevant negative outcomes (e.g., aggression, body dissatisfaction). By contrast, these outcomes are less likely to occur in contexts that are not threatening (e.g., high power, acceptance, feeling feminine). The consistent demonstration and replication of these contextual effects highlights that future research will need to examine the outcomes of traditional gender roles within relevant

contexts to accurately assess the costs of these roles. Failing to examine the outcomes of gender roles in relevant contexts may reveal weak effects and suggest erroneous conclusions that such outcomes may not occur. Moreover, recognizing that the outcomes associated with traditional gender roles emerge in relevant contexts provides novel directions for future research examining the antecedents and outcomes of traditional gender roles. In the following paragraphs, I briefly outline three such directions for future research.

First, future research should examine how gender role threat emerges across a range of relevant contexts. Although the studies presented in this thesis assessed gender role threat across several different contexts (e.g., relationship power, romantic rejection), these represent only a selection of the common contexts that may threaten adherence to traditional gender roles. Indeed, gender role threat may emerge in any context in which people feel they are failing to embody the qualities and characteristics central to their traditional gender role. For instance, although the current studies primarily focused on gender role threat that can occur within interpersonal interactions, gender role threat may also emerge due to (1) limitations of physical ability (e.g., becoming paraplegic may threaten men's sexual ability, decreased fertility may threaten women's childbearing ability), (2) limitations of mental ability (e.g., less intelligent men may feel less able to obtain and demonstrate status), and (3) poor mental health (e.g., women with depression may feel less able to be consistently nurturant and caring). Thus, to further advance understanding of the antecedents of gender role threat, future research should identify the range of contexts in which gender role threats are likely to emerge.

Second, future research should examine the range of outcomes that may emerge as a result of gender role threat across relevant contexts. The studies presented across this thesis illustrate how contexts that threaten adherence to traditional gender roles (e.g., low power) produce domain-relevant outcomes specifically related to the gender role threat (e.g.,



aggression to restore feelings of power). Thus, as a range of different contexts can threaten adherence to traditional gender roles, the range of outcomes emerging from gender role threat is likely to be broad, illustrating the relevance of these links to many different domains. For instance, the centrality of power and status to traditional masculinity may mean that the outcomes of masculine gender role threat have important applications within organizational settings. Traditional masculine gender roles dictate that men possess and demonstrate power, particularly over women. Accordingly, men are likely to experience gender role threat when they feel their power is curtailed by a female boss, and this threat may lead men to enact aggression to restore their feelings of power and masculinity. However, given the constraints of a workplace context, this aggression is unlikely to emerge as physical violence and instead may emerge in the form of sexual harassment of women superiors. Indeed, female superiors are frequently targets of sexual harassment (Chamberlain et al., 2008; McLaughlin et al., 2012), which is theorized to represent attempts to redress relational power threats rather than sexual desire (McLaughlin et al., 2012). Thus, future research should continue to identify the range of contexts that threaten adherence to traditional gender roles in order to develop a more complete understanding—and ability to target—the diverse outcomes that will likely emerge from gender role threats.

Finally, future research may benefit from examining how the outcomes of traditional gender roles emerge within situations that do not involve gender role threat but nonetheless make salient the social pressures and expectations associated with these roles. The studies presented in Chapters Two, Three, and Four focused on how contexts that threaten adherence to traditional gender roles promote the negative outcomes of these roles. I adopted this approach as the stress involved in failing to adhere to traditional gender roles is particularly likely to promote negative outcomes, including harmful attempts to restore adherence to gender identities (e.g., aggression) and negative self-evaluations (e.g., low self-esteem, body

dissatisfaction). However, many situations may make salient the social pressures and expectations associated with traditional gender roles that do not involve traditional gender role threat, and these situational contexts are also likely to have harmful consequences for people's lives. For instance, broader social contexts in which adherence to traditional gender roles is encouraged, actively supported, and even prescribed (e.g., within college fraternities or sororities) may equally make salient social pressures and expectations associated with traditional gender roles across a range of situations. Indeed, chronic social contexts may promote negative outcomes from ongoing attempts to achieve adherence to salient and prized gender roles (e.g., hazing rituals, harmful weight-management strategies). Thus, in order to advance understanding of the ways in which negative outcomes of traditional gender roles can emerge, future research should also include social or environmental contexts that create ongoing and persistent pressures for men and women to adhere to gender roles.

## **II. Do the Outcomes of Gender Role Threat Promote Greater Adherence to Traditional Gender Roles?**

Another important direction for future research is to examine whether the outcomes of gender role threat reinforce men's and women's commitment and adherence to gender role identities. For example, the primary reason proffered for men's aggressive responses to low power is that low power threatens masculinity and, as aggression represents an active assertion and demonstration of power, aggression may redress this threat and restore men's feelings of masculinity. Providing preliminary support for this proposition, previous experimental work has demonstrated that overt demonstrations of physical aggression decrease men's anxiety-related cognitions following masculinity threatening experiences, potentially indicating a decrease in men's feelings of threat following these aggressive displays (Vandello et al., 2008). However, despite the central theoretical importance of this proposition, no research has directly tested whether such overt assertions and demonstrations

of masculinity actually restore men's feelings of masculinity. Research on these restorative processes would not only provide empirical support for a central theory underlying examinations of the outcomes of masculinity threat but would also provide important targets for interventions aiming to reduce harmful gender role threat-related behaviours, including aggression. Indeed, if negative behaviours such as aggression restore men's feelings of masculinity, these links may partially account for why such harmful behaviours persist and suggest that interventions helping men become aware of the underlying motivations for their behaviour may facilitate less destructive responses to masculinity threat.

Similarly, future research may also benefit from exploring whether the negative outcomes women experience following femininity threat motivate responses that may increase adherence to traditional feminine roles. Although the importance of power and status to traditional masculinity makes overt attempts to redress gender role threat most relevant for men, the social pressures and expectations women face to conform to traditional feminine roles should also motivate women to increase their adherence to these roles following femininity threat. For instance, experiences of body dissatisfaction following rejection for women who are more sensitive to attractiveness threat (as demonstrated in Chapter Four) may motivate internalized responses designed to increase women's feelings of attractiveness and thus femininity, such as weight-management strategies. Although no research has directly tested whether women's experiences of femininity threat motivate such responses, greater FGRS has been associated with greater disordered eating (Mussap, 2007), suggesting a possible link between gender role discrepancy strain and attempts to increase adherence to traditional feminine qualities related to attractiveness. Similarly, reductions in felt-femininity and associated drops in self-esteem may motivate women sensitive to femininity threats to be more deferent or seek social acceptance by conforming to the expectations of others. Future research examining whether femininity threat promotes responses in women which may

increase adherence to traditional femininity would both provide important implications for the feminine gender role threat literature and important targets for interventions aiming to reduce such behaviours. For instance, demonstrating that experiences of femininity threat promote women's unhealthy weight-management behaviours or deferent, conforming attempts to be accepted would provide key insight into one potential source for, and thus targets to reduce, these potentially harmful behaviours.

### **III. The Outcomes of Women's Traditional Feminine Gender Roles and Femininity Threat**

Compared to the wide body of research examining men and masculinity, relatively little research has examined the outcomes of women's traditional feminine roles and experiences of feminine gender role threat. Yet, like men, women face expectations and pressures to adhere to traditional gender roles and face reprisals when these expectations are not met (Bussey & Bandura, 1992; Rudman, 1998). Thus, women too should experience the stress, strain, and negative outcomes of traditional feminine gender roles, particularly in contexts that threaten their adherence to qualities associated with these roles (Sanchez & Crocker, 2005; Witt & Wood, 2010). Illustrating this key proposition, Chapters Three and Four demonstrated the important costs that traditional feminine roles have for women, the contexts in which these costs are most likely to emerge, and the women most at risk for these costs. Together, the results across four studies emphasize the vital importance of future research examining the consequences that traditional feminine roles have for women's wellbeing.

Extant experimental research examining the outcomes of women's femininity threat has provided mixed results (Kosakowska-Berezecka et al., 2016; Mori et al., 1987; Munsch & Willer, 2012). When women are provided feedback that they are more masculine or more like men, women eat less in a social context, thereby presenting a desired feminine ideal

(Mori et al., 1987), and they express more support for victims of sexual assault, thereby identifying more with feminine social identities (Munsch & Willer, 2012). However, these effects are weaker than the opposing effects observed for men's masculinity threat (Munsch & Willer, 2012), and women do not endorse stereotypical gender roles more strongly as men do when presented with gender role incongruent feedback (Kosakowska-Berezecka et al., 2016). The inconsistent effects observed in prior studies suggest that this relatively abstract feedback delivered within a lab setting may not effectively evoke feelings of gender role threat for women. In contrast, rather than focusing on a single experience in the lab, I used repeated measures designs to directly examine gender role threat emerging organically in women's daily and weekly lives; variation which is likely to stem from meaningful and impactful experiences in which women feel less feminine. The effects observed in Chapters 3 and 4 illustrate both the relevance and methodological soundness of examining the outcomes of gender role threat through naturally occurring experiences in women's lives and suggest that this approach may have greater power to detect feelings of gender role threat than single, specific, experimentally-constructed experiences in the laboratory.

However, in addition to key strengths, the repeated measures designs I employed in these studies (along with the other designs in Chapters 2 and 5) also have important limitations. The correlational nature of the effects I present across the thesis do not allow me to provide causal evidence for the observed processes, leaving open the potential for alternative explanations, such as reverse causal directions and the effects of unaccounted for variables. Future research combining the assessments of femininity threat and related outcomes applied in this thesis with experimental designs would likely provide the strongest causal evidence for the negative outcomes of femininity threat. Indeed, the contrast between the inconsistencies observed in prior experimental work and the robust results presented in this thesis indicates that a more theoretically-driven approach to examining the outcomes of

femininity threat is needed, including (1) assessing (manipulating) femininity threat in contexts that have meaningful implications for women's lives, (2) assessing theoretically relevant outcomes of femininity threat, and (3) accounting for variance in women's sensitivity to femininity threat. In the next paragraphs, I discuss ways in which future experimental work can implement these advances to provide causal evidence for the costly outcomes of women's femininity threat (Also see the discussions in Chapters 2, 3, and 4 for similar reflections on the limitations and strengths of the current studies and experimental designs with regard to the other processes discussed in this thesis).

First, the results presented in Chapters Three and Four suggest that future research manipulating experiences of femininity threat in ways that provide meaningful feedback will likely provide the most accurate assessment of the outcomes of femininity threat. The primary approach of previous studies examining the outcomes of gender role threat has been to experimentally manipulate threat by providing men and women with feedback that they are 'less feminine' or 'less masculine' than other men and women (Bosson et al., 2012, 2009; Cohn et al., 2009; Kosakowska-Berezecka et al., 2016; Mori et al., 1987; Munsch & Willer, 2012; Vandello et al., 2008). This approach has been effective in examining outcomes of masculinity threat (e.g., Bosson et al., 2012), likely because possessing and demonstrating masculine status is a central facet of traditional masculinity, and thus receiving feedback that challenges this status is particularly threatening to masculinity. However, inconsistent effects in prior studies attempting to manipulate femininity threat suggest this approach may not threaten femininity to the same degree (Kosakowska-Berezecka et al., 2016; Mori et al., 1987; Munsch & Willer, 2012). Indeed, the communal focus on solidarity emphasized by traditional femininity may even make overt recognition of feminine status incongruent with embodying a traditional feminine identity. Instead, experimental designs may offer stronger tests by administering femininity threatening feedback which has meaningful implications

and is relevant to specific domains central to femininity. For instance, women could be told that they have scored low on a test of child-care skills (threatening nurturance), are less attractive than the average woman (threatening attractiveness), or are perceived as unfriendly or cold by a group of people (threatening communality). Alternatively, women could be placed in situations in which they are required to contravene feminine norms, such as a situation where they must behave assertively, take control, or argue a point. Manipulations such as these would provide clear feedback that women are failing to adhere to traditional feminine roles without relying on threats to social status and thus would likely provide a particularly strong test of the impacts of femininity threat on women's wellbeing.

Second, the results presented in Chapters Three and Four suggest that future experimental research examining outcomes that are theoretically relevant to traditional feminine gender roles will likely provide the most accurate assessment of the costs of femininity threat. Previous experimental research examining the outcomes of men's masculinity threat has primarily focused on how masculinity threat motivates overt displays of masculinity, such as aggression (Bosson et al., 2012, 2009; Cohn et al., 2009; Vandello et al., 2008), which is theoretically consistent with the emphasis on social status central to traditional masculine roles. However, overt demonstrations of feminine status are less theoretically relevant to traditional femininity, which may explain why previous experimental work assessing similar outcomes (e.g., overt expressions of support and endorsement of traditional roles) in women has met with mixed results (Kosakowska-Berezecka et al., 2016; Mori et al., 1987; Munsch & Willer, 2012). Drawing on the results of Chapters Three and Four, I propose that future experimental designs may offer a more accurate test of the costs of femininity threat by assessing internalized, self-relevant outcomes which are more consistent with the nature of traditional femininity (e.g., decreases in self-esteem, increased body dissatisfaction). Indeed, greater emphasis on internalized self-relevant outcomes may reveal

links between women's experiences of femininity threat and many important outcomes such as depressed mood, self-blame, shame and guilt, and rumination.

Finally, the results presented in Chapters Three and Four suggest that future experimental research examining the outcomes of traditional feminine gender roles will provide the most accurate assessment of the impact of these roles by accounting for variance in women's sensitivity to femininity threat. One particularly important gap in previous research examining the outcomes of gender role threat in experimental paradigms is that this work has examined these associations without accounting for the ways in which individual differences in sensitivity to gender role threat affect them. As illustrated in Chapters Two, Three, and Four, the impact of gender role threatening situations is felt most strongly by those particularly sensitive to these threats, such as men and women higher in MGRS, FGRS, and ACSE. These results highlight how understanding the negative outcomes of traditional gender roles requires understanding not only *when* these outcomes are likely to occur but also *for whom*. Consequently, previous research examining the outcomes of masculinity and femininity threats without accounting for these individual sensitivities may have underestimated the impacts of gender role threat on men and women. Taken together, future experimental research is essential for advancing understanding of the outcomes of women's experiences of femininity threat, but this research may benefit from combining the theoretically-driven assessments of femininity threat and related outcomes applied in this thesis to provide the most accurate test of these outcomes.

#### **IV. Traditional Gender Role Threat at the Societal Level**

Although this thesis focused on situational contexts which can promote gender role threat (e.g., low power within intimate relationships, romantic rejection, low feelings of femininity), gender role threat can also emerge from broader societal contexts and examining this source of gender role threat represents an important direction for future research. Across



Chapters Two, Three, and Four, I demonstrated that the negative outcomes associated with traditional gender roles are particularly likely to emerge within situational contexts that promote gender role threat, providing robust support for one of the central proposals of this thesis. However, as stipulated by the GRSP, gender role threat is not limited to situational contexts but can emerge as the result of broader social and historical contexts (Pleck, 1995). For instance, gender role threat may emerge when changes in societal attitudes towards traditional gender roles mean that gender role beliefs held by a person (e.g., men should be tough) begin to conflict with prevalent societal attitudes within a given context (e.g., men do not have to always be tough). As a result of this change, new social pressures and expectations (e.g., it is not OK for men to solve disagreements through aggression) come into conflict with attitudes and beliefs which have previously been rigidly socialized (e.g., men should be willing to get into a physical fight if necessary; Mahalik et al., 2003), threatening people's ability to adhere to traditional gender roles.

Gender role threat emerging from changes in societal context is a particularly important topic for future research because societal expectations and pressures for men and women are constantly changing (Brewster & Padavic, 2000; Dorius & Firebaugh, 2010; Knight & Brinton, 2017), and gender role threat emerging from these changes is likely to have important negative consequences. Indeed, gender role threat resulting from societal change may promote negative reactions and resistance to these changes, which are likely to impede important progress towards a more egalitarian society. For instance, in the wake of the #metoo movement, men are increasingly being held accountable for harmful behaviours, which are often closely linked to the performance of traditional masculine roles. This type of social change is vital to generating more equitable and positive social environments for women and men but is likely to increase uncertainty and anxiety, particularly for people who hold more traditional gender role attitudes. The resulting gender role threat may have

negative flow-on effects, such as increased apathy, social disengagement, engagement with alternate media and fringe views, and even radicalization. Despite the theoretical and practical importance of gender role threat emerging from changes at the societal level, no research to my knowledge has explored these links. Investigating the ways in which gender role threat can emerge from changes in societal attitudes may provide insight into how to promote change to harmful gender role attitudes and behaviours while minimizing negative reactance to these social change efforts.

#### **V. Informing Interventions: Reducing the Negative Outcomes of Traditional Gender Roles**

Although social attitudes towards men's and women's roles are becoming more egalitarian (Brewster & Padavic, 2000; Dorius & Firebaugh, 2010; Knight & Brinton, 2017), the studies presented in this thesis illustrate that traditional gender roles continue to have costs for men's and women's lives, emphasizing the importance of interventions targeting these costs. Nine studies demonstrated the links between traditional gender roles and harmful outcomes, including aggression towards intimate partners, decreases in self-esteem, body dissatisfaction, and low sexual assertiveness. Importantly, however, these negative outcomes were most likely to emerge in contexts that made the social pressures and expectations associated with traditional gender roles particularly salient and for people most sensitive to these pressures, highlighting the central role social pressures play in the negative outcomes of traditional gender roles. Thus, the current results emphasize that interventions targeting the social pressures and expectations associated with traditional gender roles may be most effective in curtailing the negative outcomes of these roles and provide two key ways the impact of these social pressures can be curtailed. First, by targeting people's sensitivity to social pressures associated with traditional gender roles, thereby decreasing their vulnerability to stress and strain when they cannot conform to these pressures. Second, by

decreasing the prevalence and strength of these social pressures so that they become less influential and evoke less stress. In this section, I draw upon the important advances made in this thesis to outline how these insights generate novel implications and future directions for interventions as well as the shape such interventions might take.

Highlighting the central role social pressures and expectations play in promoting the negative outcomes associated with traditional gender roles emphasizes the importance of targeting individual sensitivity to these pressures. As the pressures associated with traditional gender roles are demanding, and it is difficult for men and women to consistently conform to them (Bosson et al., 2009; Pleck, 1981, 1995; Rudman & Fairchild, 2004), these pressures can cause stress and strain, motivating negative outcomes such as harmful attempts to restore adherence (e.g., aggression towards intimate partners) and negative self-relevant evaluations (e.g., body dissatisfaction). However, as demonstrated in Chapters Two, Three, and Four, people who are less sensitive to these social pressures, and consequently are less likely to experience stress and strain when facing them, are at lower risk of these outcomes, suggesting that interventions should aim to reduce people's sensitivity to gender role pressures. Such initiatives could include raising awareness of the impact of gender role threatening situations and the ways in which social pressures can create strain in these contexts, as well as challenging and reducing people's beliefs about the necessity to rigidly conform to traditional gender roles. For instance, interventions could (1) encourage people to identify instances in their lives when they have experienced stress and strain as a result of social pressures associated with traditional gender roles, (2) invite them to critically consider the importance of consistently meeting gender role expectations, and (3) whether their reactions to this strain is reflective of the person they want to be.

Importantly, however, as gender role socialization begins at a young age, and this early socialization is likely to have lasting effects on people's sensitivity to social pressures

related to traditional gender roles (Egan & Perry, 2001; Halpern & Perry-Jenkins, 2016), initiatives aiming to reduce this sensitivity should also target pressures placed on children. Children as young as three years old have been observed to not only possess knowledge of traditional gender roles but to self-regulate their own adherence to these roles (Bussey & Bandura, 1992), and much of this socialization stems from constraints parents place on their children (Witt, 1997). For instance, young boys are most likely to restrict themselves to gender role congruent behaviours when they believe their fathers would view gender role incongruent behaviour negatively (Raag & Rackliff, 1998). Thus, initiatives targeting early socialization of traditional gender role pressures and expectations could include working with parents to (1) recognize and acknowledge the ways in which their own early socialization developed their traditional gender role attitudes, (2) critically evaluate the importance and consequences of these attitudes in their own lives, and (3) strategize ways in which to impart important values and beliefs to their children (e.g., the importance of caring for family) without restrictive traditional roles (e.g., the importance of protective paternalism).

Although people's sensitivity to the social pressures associated with traditional gender roles plays an important part in promoting the negative outcomes of these roles, the stress and strain people experience in gender role threatening contexts is not arbitrary and likely often represents expectations of social reprisal and other meaningful consequences. For instance, women demonstrating agentic qualities in job applications (violating feminine roles of passivity) are perceived as qualified but socially deficient and unlikable, while men demonstrating communal qualities (violating masculine roles of independence) are perceived as likeable but less competent and hireable (Rudman & Glick, 1999, 2001; Rudman, 1998). Similarly, female managers with a direct, task-oriented leadership style are evaluated more negatively than their male counterparts (Eagly et al., 1992), and men who self-disclose problems to a stranger are viewed as more psychologically disturbed than an identically

described woman (Costrich et al., 1975; Derlega & Chaikin, 1976). Thus, initiatives targeting the negative outcomes of traditional gender roles should also consider ways in which to decrease the prevalence and strength of social reactions to deviations from gender role expectations so that they become less influential and invoke less stress. Such interventions would need to target both (1) social discourses surrounding these roles, such as by raising public awareness of the unnecessary, restrictive, and harmful nature of gendered expectations, and (2) the ways in which people perpetuate and enforce these norms in interactions with others, such as by encouraging people to be aware of the unhelpful and potentially damaging expectations they have for others and how these stem from traditional attitudes which they may not knowingly support.

Finally, the central role social pressures and expectations play in the negative outcomes of traditional gender roles suggests that interventions should avoid adopting approaches that attempt to reframe traditional gender roles in a prosocial way. As traditional gender roles dictate many positive qualities for men and women (e.g., greater agency for men, greater nurturance for women), initiatives targeting the negative outcomes associated with these roles could include reframing messages related to traditional roles to discourage such harmful behaviours. For instance, masculine roles such as protector and provider could be reframed to discourage intimate partner aggression as being inconsistent with these roles. Similarly, feminine roles such as communality and nurturance could be reframed to encourage workplace assertiveness as being central to contributing to the success and morale of the team. However, the importance of gender role threat in motivating negative outcomes suggests that this approach may prove less effective as these messages, while more positive, may increase the salience of social pressures and expectations associated with traditional gender roles and increase people's feelings of gender role threat when they feel unable to embody these expectations. Instead, as addressed throughout this section, interventions

should target the need to rigidly conform to social pressures and expectations related to traditional gender roles and increase awareness of how behaviours that sustain these pressures may impact others negatively.

### **Future Challenges to the Traditional Gender Role Literature**

In the 40 years since the inception of the GRSP, a vast breadth of research has explored the antecedents, contents, and outcomes of traditional gender roles, providing important advances in both the theory and methods used to assess these associations and the approaches used to address them in interventions. However, future research on traditional gender roles faces several important challenges which, if not addressed, may hinder the development of the field. In this section, I briefly explore three such challenges and discuss implications they present for future research in the field.

**Gender Roles and Culture.** First, future research will likely need to contend with cultural differences in gender roles and the implications these differences have for the limitations of research focusing primarily on the outcomes of traditional gender roles. The studies presented in this thesis focused on how *traditional* gender roles have important consequences for men's and women's lives, mirroring the primary focus of previous research within the field. The outcomes of traditional gender roles are particularly important as they are shaped and informed by traditional gender ideologies which are theorized to represent the dominant cultural script (Brannon, 1976; Levant, 2011; Pleck, 1995) and thus likely to have widespread influence. However, although traditional gender ideology likely represents the *dominant* cultural script, many distinct gender ideologies exist which shape and inform gender roles in different ways across different cultures (Harris, 1994; Levant & Fischer, 1998; Pettigrew, 1964; Wade, 1996). For example, although traditional masculinity emphasizes independence and emotional suppression (Mahalik et al., 2003), these attributes are not as central to African-American masculinities which emphasize interconnectedness

with family and friends and allow for expressions of emotion, including gentleness, warmth, and love for others (Cazenave, 1984; Hammond & Mattis, 2005; Harris et al., 1994; Hunter & Davis, 1992). Similarly, masculine gender roles in Mexican culture also support male expressions of emotional interconnectedness with friends and family through the norm *caballerismo* (Arciniega et al., 2008). Moreover, although traditional femininity emphasizes dependence, passiveness, and deference, feminine gender roles in African-American culture have been observed to include self-reliance, tenacity, resistance, and sexual equality (Collins, 1991, 2000, 2004; Harris, 1996; Reid, 1988; Ward, 1996).

The growing body of research demonstrating important differences in gender roles across cultures highlights the limitations of current research on the outcomes of traditional gender roles. Indeed, although many people are influenced by dominant gender ideologies, divergent gender roles emerging from gender ideologies of other cultures also have important influences, and these influences are not likely to be reflected in studies focused on the outcomes of traditional gender roles. For instance, although African-American men's endorsement of traditional masculinity ideology may also be related to difficulties expressing emotions, more nuanced effects could emerge involving African-American gender roles counteracting the effect of traditional masculinity ideology by promoting greater comfort expressing emotion and lowering risk of the negative outcomes associated with emotional suppression. Additionally, although the prevalence of traditional gender role pressures and expectations likely makes the influence of traditional gender roles widespread, these traditional roles are theoretically grounded in the dominant gender ideology of the United States (Levant & Powell, 2017; Pleck, 1995). Thus, 'traditional gender roles' actually reflects 'traditional white Western heterosexual gender roles', and attempting to examine these roles as though they are uniformly influential across all cultures may have significant limitations

Despite the important theoretical implications of cultural differences in gender roles, relatively few studies have examined these differences, and fewer still have explored how these differences affect associations with relevant outcomes. Thus, scholars have outlined that examining cultural differences in traditional gender roles and related outcomes is an important direction for future research (e.g., Good et al., 1994; Harris, 1994; Pleck et al., 1993; Thompson et al., 1992; Wong et al., 2017). However, exploring differences in gender roles and related outcomes across cultures may represent a considerable challenge. Indeed, in contrast to the prevalence and relatively uniform influence of traditional gender roles, divergent gender roles that emerge across other cultures may only appear within smaller pockets of people who may be challenging to sample in quantitative work. Moreover, important differences may even emerge within small *subcultures* (e.g., African-American men from high versus low SES contexts; Hammond & Mattis, 2005). Nonetheless, exploring differences in gender roles that emerge across cultures remains an important direction for future research which, if left unaddressed, will likely hinder understanding of the influence of gender roles on people's thoughts, feelings, and behaviour.

**Traditional Gender Roles and Sexuality.** The outcomes of traditional gender roles for people of diverse sexual orientations (e.g., lesbian, gay, bisexual [LGB]) represents an important area of research development. However, a central challenge facing this work is that it is currently unclear if sexual orientation affects the extent to which people are likely to experience the negative outcomes of traditional gender roles. On one hand, LGB people may be less likely to endorse, adhere to, and be invested in traditional gender roles, and thus may be less vulnerable to the negative outcomes associated with these roles (Hooberman, 1979; O'Neil, 2008; Parent & Bradstreet, 2017; Wade & Donis, 2007). Indeed, the structure and contents of traditional gender roles are closely linked to heterosexual models of relationships (Herek, 1990) with traditional masculine roles related to paternalistic protection of, and



provision for, women, while women's roles prioritize attractiveness as well as deference for, and dependence on, men's power and status (Mahalik et al., 2003, 2005). Moreover, key aspects of traditional masculinity are strongly orientated towards rejection of homosexuality (Eisler & Skidmore, 1987; Mahalik et al., 2003). The centrality of heterosexual relationships to traditional gender roles renders these roles less relevant to LGB people and may motivate them to critically examine their own adherence to traditional gender roles and reject related social pressures and expectations (O'Neil, 2008; Wade & Donis, 2007). LGB people may instead adopt more flexible gender roles (Hooberman, 1979), making them less susceptible to the negative outcomes that can occur when experiencing gender role threat (e.g., intimate partner aggression, body dissatisfaction). Indeed, LGB people tend to endorse traditional gender ideology to a lower extent than do heterosexual people (O'Neil, 2008; Wade & Donis, 2007).

On the other hand, it is also possible that social expectations and pressures associated with traditional gender roles may continue to exert pressure on LGB people to conform to these roles, and their relative inability to embody gender role-congruent qualities may increase their experiences of gender role strain, placing them at particular risk for experiencing negative outcomes. Supporting this view, one study revealed that the majority of gay adolescents sampled reported changing their behaviours due to fear of being identified as gay (Pachankis & Goldfried, 2006), and this fear has been linked with lower satisfaction with life and lower perceptions of social support in LGB adolescent (Safren & Pantalone, 2006). Further, gay and bisexual men's perception of their own conflict with masculine ideals is associated with lower self-esteem and greater depression and anxiety (Simonsen et al., 2000; Szymanski & Carr, 2008).

Thus, there appears to be theoretical and empirical evidence to support that LGB people are both at greater and lesser risk for the outcomes of traditional gender roles.

However, the studies presented in the current thesis highlight that addressing this challenge requires acknowledging that the negative outcomes of traditional gender roles should be most likely to emerge for people who are particularly concerned about adhering to these roles. Thus, negative outcomes may emerge less strongly for LGB people who have rejected traditional gender roles but will likely emerge as strongly (if not more strongly) for LGB people who continue to endorse, and feel pressure to conform to, traditional gender roles. Supporting this proposition, gay men's concern about violating masculine ideals predicts their negative feelings about being gay (Sánchez et al., 2010), and gay men's conformity to masculine norms is more strongly predictive of lower positive help-seeking attitudes than is heterosexual men's conformity to masculine norms (Sánchez et al., 2010). Taken together, a central challenge facing future research examining the outcomes of traditional gender roles for LGB people is that it is currently unclear if sexual orientation changes the extent to which people are likely to experience the negative outcomes of traditional gender roles. However, future research examining how individual differences in investment in traditional gender roles affect the impact of traditional gender roles for LGB people may provide a solution to this challenge and facilitate future research in this domain.

**Publicizing Important Findings and Conclusions.** The breadth of research examining the structure, contents, and outcomes of traditional gender roles has provided consistent, clear, and compelling evidence for the harmful consequences of traditional gender roles. Yet, the strength of this evidence is not currently reflected in public beliefs about, and attitudes towards, traditional gender roles. Indeed, although most people believe that gender equality is important (e.g., Minkin, 2020), beliefs such as gender essentialism—the notion that men and women have fundamentally different traits and thus are better suited to different roles—continue to persist (Charles & Bradley, 2009; Charles & Grusky, 2018), particularly among men (Smiler & Gelman, 2008). One possible reason for this divergence of public

attitudes from the prevailing views of the literature is that ‘scholarly’ opinions vocally in favour of ideas such as gender essentialism are both readily available and particularly prominent on platforms many people rely on for information and insight. For example, the first result returned when searching “traditional gender roles” on Youtube at the time of writing (October 2021) is a segment taken from a very popular podcast (200 million monthly listens on Spotify) which explains why “traditional gender roles make us happier”. This video features a widely-known and popular clinical psychologist (whose own Youtube channel has 4.2 million subscribers) who is vocally critical of “radically politically correct thinking”, which he views as resulting in pervasive “bias” in the field of social psychology, including in the traditional gender role literature.

In contrast to the primacy and reach of this content, which is starkly inconsistent with the theories and conclusions of the traditional gender role literature, the vast bulk of academic research supporting the negative outcomes of traditional gender roles (including the studies included in this thesis) remain behind paywalls and thus are out of reach for the average layperson. Moreover, content available on platforms like Youtube and Spotify has the advantage over published research of being directly targeted to the layperson and easily digestible, meaning it is far more likely to be impactful than the more esoteric and incremental conclusions of published research. This state of affairs raises the question: how can the important findings and conclusions of the traditional gender role literature be made readily available to the public in digestible and approachable ways? While many solutions to this challenge likely exist, I suggest that utilizing these same platforms which currently primarily spread information inconsistent with academic conclusions may prove useful. This could include scholars in the field making an effort to assure their research is being publicized, going beyond relying on journalists to request interviews. Additionally, organizations could be founded with the specific purpose of collating and presenting

important findings and conclusions in the field in a way that retains and communicates key nuance while remaining approachable and digestible to the average person.

Although the added responsibility of publicizing findings may seem like an additional burden for academic researchers, I suggest that communicating research is an essential facet of contributing to positive social change. Indeed, although the development of scholarly knowledge is an important outcome in itself, if research and conclusions are not communicated to the public and, more importantly, if alternative views take centre-stage in the public mind, the effectiveness of interventions targeting the negative outcomes of traditional gender roles will likely be significantly curtailed. Thus, in order for the hard work of the many scholars in this field to translate to meaningful change which has positive implications for society, greater attention to publicizing important findings and conclusions from this literature represents a critical direction for future consideration.

### **Final Conclusions**

The aim of this thesis was to examine how the negative outcomes of traditional gender roles emerge within relevant contexts for people particularly sensitive to these contexts. A growing body of work has demonstrated that traditional gender roles have negative outcomes for men and women and that these outcomes likely stem from rigid social pressures and expectations. The studies in this thesis extend this work by providing a consistent and coherent demonstration that understanding the negative outcomes of traditional gender roles requires considering *when* and *for whom* these negative outcomes are likely to emerge. Despite the principal focus of much of the gender role literature, the studies emphasize that these gender role processes are likely just as impactful on women's lives as they are for men, but the contexts and outcomes differ across women and men, aligning with differences in traditional femininity and masculinity. Additionally, women's and men's behaviour is not only influenced by their beliefs about their own gender roles but also by their

beliefs about their partner's gender roles. These novel advances provide important directions for theoretical and methodological extensions, including the importance of examining gender role threats in a range of relevant contexts, focusing on diverse outcomes within these contexts, and attending to the individual, social and cultural factors that determine the relative risk that traditional gender roles will have negative outcomes for women and men. Following these directions may help address current challenges in the field and will provide key insights into how interventions may best target the negative outcomes of traditional gender roles.

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**APPENDICES****Appendix 1 - Chapter Two Supplemental Materials**

These supplemental materials contain additional method and results information including items for our measures of masculine gender role stress, sexual rejection situations presented to participants, details of factor analyses, and results of control analyses.

1. Masculine Gender Role Stress Items (Studies 1-3) .....	243
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**1. Masculine Gender Role Stress Items (Studies 1-3)**

To reduce participant burden and enhance reliability given the data collection paradigm, our primary approach was to remove 2 items from each of the 5 factors of the full MGRS scale. Items removed were those that were very similar to other higher-loading items (from the original scale development; Eisler & Skidmore, 1987), items that referred to participants' children (which may not be relevant to many participants across samples), or items that would be judged very stressful for everyone and not just those high in MGRS (e.g., getting fired). We outline the included and removed items in the table below.

<b>Sub Scale of the Masculine Gender Role Stress Scale (Eisler &amp; Skidmore, 1987)</b>	<b>MGRS Items in Studies 1-3</b>	<b>MGRS Items Removed from each Factor</b>
<b>Physical Inadequacy</b>	Not being able to find a sexual partner Having your lover say that she/he is not satisfied Being perceived by someone as "gay" Losing in a sports competition Being perceived as having feminine traits Appearing less athletic than a friend Knowing you cannot hold your liquor as well as others	Feeling that you are not in good physical condition Being compared unfavourably to men
<b>Emotional Inexpressiveness</b>	Telling someone that you feel hurt by what she/he said Admitting that you are afraid of something Talking with a woman who is crying Comforting a male friend who is upset	Telling your spouse that you love her/him Having your children see you cry Having a man put his arm around your shoulder
<b>Subordination to Women</b>	Being outperformed at work by a woman Having a female boss Letting a woman take control of the situation Being outperformed in a game by a woman Being with a romantic partner who is much taller than you Needing your partner to work to help support the family	Being with a women who is more successful than you

	<p>Admitting to your friends that you do housework</p> <p>Being married to someone who makes more money than you</p>	
<p><b>Intellectual Inferiority</b></p>	<p>Having to ask for directions when you are lost</p> <p>Talking with a 'feminist'</p> <p>Having people say that you are indecisive</p> <p>Having others say that you are too emotional</p> <p>Working with people who are brighter than yourself</p>	<p>Working with people who seem more ambitious than you</p> <p>Staying home during the day with a sick child</p>
<p><b>Performance Failure</b></p>	<p>Not making enough money</p> <p>Finding you lack the occupational skills to succeed</p> <p>Being unable to perform sexually</p> <p>Being too tired for sex when your lover initiates it</p> <p>Being unable to become sexual aroused when you want</p> <p>Getting passed over for a promotion</p>	<p>Being unemployed</p> <p>Getting fired from your job</p>

## 2. Masculine Gender Role Stress Items (Study 4)

To reduce participant burden and maximize attentive responding given the more extensive data collection paradigm involving asking participants to identify and write about sexual rejection experiences, we used a shorter MGRS scale in Study 4. However, we still aimed to retain a more detailed assessment of MGRS than the previously used abbreviated scale of 15 items (Swartout et al., 2015), so we included a larger set of 21 MGRS items that included at least four items from each of the five subscales. As in Studies 1-3, items removed were those that had particularly low loading or were very similar to other higher-loading items from the original scale development (Eisler & Skidmore, 1987), or were not as relevant to highly committed couples (e.g., Telling your spouse that you love her/him). We outline the included and removed items in the table below.

<b>Sub Scale of the Masculine Gender Role Stress Scale</b> (Eisler & Skidmore, 1987)	<b>MGRS Items in Studies 4</b>	<b>MGRS Items Removed from each Factor</b>
<b>Physical Inadequacy</b>	Feeling that you are not in good physical condition Not being able to find a sexual partner Having your lover say that they are not satisfied Losing in a sports competition Being perceived as having feminine traits	Being perceived by someone as "gay" Appearing less athletic than a friend Being compared unfavourably to men Knowing you cannot hold your liquor as well as others
<b>Emotional Inexpressiveness</b>	Telling someone that you feel hurt by what they said Admitting that you are afraid of something Having your children see you cry Comforting a male friend who is upset	Telling your spouse that you love her/him Talking with a woman who is crying Having a man put his arm around your shoulder
<b>Subordination to Women</b>	Being out performed by a woman at work Having a female boss Letting a woman take control of the situation Being married to someone who makes more money than you	Being with a women who is more successful than you Needing your spouse to work to help support the family Admitting to your friends that you do housework Being with a woman who is much taller than you

		Being outperformed in a game by a woman
<b>Intellectual Inferiority</b>	<p>Having to ask for directions when you are lost</p> <p>Working with people who seem more ambitious than you</p> <p>Having people say that you are indecisive</p> <p>Working with people who are brighter than yourself</p>	<p>Talking with a feminist</p> <p>Having others say that you are too emotional</p> <p>Staying home during the day with a sick child</p>
<b>Performance Failure</b>	<p>Being unemployed</p> <p>Not making enough money</p> <p>Being unable to perform sexually</p> <p>Getting fired from your job</p>	<p>Finding you lack the occupational skills to succeed</p> <p>Being too tired for sex when your lover initiates it</p> <p>Being unable to become sexual aroused when you want</p> <p>Getting passed over for a promotion</p>

### 3. Sexual Rejection Situations (Study 4)

In Study 4, participants identified situations they had previously experienced from 12 common situations involving sexual rejection from a romantic partner. Participants were then asked to write about an instance in which they had felt sexually rejected by their partner, such as an instance “you wanted to be intimate with your partner but they were not interested”. The situations that participants indicated they had experienced, and the situation they wrote about, were then piped into the following page, which asked participants to indicate the extent to which they had responded aggressively following these instances.

1. You express your love for your partner but they don't respond the way you want them to
2. Your partner seems distant and you suspect they're thinking about someone else
3. You try to initiate sex with your partner but they aren't interested
4. You make an effort to look attractive for your partner but your partner doesn't seem to notice
5. You and your partner are out together and you notice that your partner is attracted to someone else
6. You try to cuddle or kiss your partner but they don't reciprocate your affection
7. You try to 'spice up' your sex life but your partner doesn't respond with the same enthusiasm
8. You arrange a special occasion to have sex with your partner but they are dismissive or disinterested
9. You have sex with your partner but they seem to be dissatisfied or distracted
10. You do or say something to communicate your sexual desire for your partner but they ignore you
11. You hint that you want your partner to initiate sex, but you still have to take the lead
12. You communicate to your partner that you want to have sex but they seem reluctant

#### 4. Factor Analyses on Aggression Items (Studies 1-3)

Results from principal components factor analyses with a direct oblimin rotation revealing two factors with eigenvalues above 1.

	Study 1		Study 2		Study 3	
	Factor 1	Factor 2	Factor 1	Factor 2	Factor 1	Factor 2
<b>CTS Items</b>						
Stomped out of the room or house	.012	<b>.816</b>	-.090	<b>.862</b>	-.020	<b>.885</b>
Insulted or swore at your partner	.052	<b>.855</b>	.071	<b>.804</b>	.016	<b>.832</b>
Did or said something to spite your partner	-.034	<b>.891</b>	.083	<b>.769</b>	.023	<b>.838</b>
Threatened to hit or throw something	<b>.804</b>	.120	<b>.766</b>	.224	<b>.760</b>	.232
Threw, smashed, hit, or kicked something	<b>.701</b>	.195	<b>.706</b>	.276	<b>.810</b>	.150
Pushed, grabbed, or shoved your partner	<b>.937</b>	-.023	<b>.834</b>	.063	<b>.915</b>	-.027
Slapped your partner	<b>.965</b>	-.058	<b>.943</b>	-.076	<b>.968</b>	-.079
Hit or tried to hit your partner with something	<b>.958</b>	-.062	<b>.910</b>	-.062	<b>.936</b>	-.050
Kicked, bit, or hit your partner	<b>.961</b>	-.063	<b>.935</b>	-.124	<b>.947</b>	-.065
<b>Percentage of variance accounted for</b>	<b>61%</b>	<b>18%</b>	<b>61%</b>	<b>18%</b>	<b>61%</b>	<b>18%</b>

*Note.* Effects in bold represent the highest loading for each of the two extracted factors

**5. Analyses Controlling for Relationship Satisfaction and Hostile Sexism**

**Table SM 2.1. Men’s Relationship Power and MGRS on Aggression Controlling for Relationship Satisfaction across all Studies**

Variables	Physical Aggression				Verbal Aggression			
	$\beta$	$t$	$p$	95% CI	$\beta$	$t$	$p$	95% CI
<b>Study 1</b>								
Relationship Power	-.177	-2.571	.011	-.309, -.041	-.093	-1.225	.222	-.334, .078
Relationship Satisfaction	-.022	-.320	.749	-.133, .096	-.193	-2.575	.011	-.405, -.054
MGRS	.325	5.621	<.001	.218, .454	.273	4.273	<.001	.211, .573
Relationship Power x MGRS	<b>-.366</b>	<b>-6.015</b>	<b>&lt;.001</b>	<b>-.436, -.221</b>	-.056	-.837	.404	-.235, .095
Relationship Satisfaction x MGRS	.080	1.311	.191	-.035, .173	.052	.766	.445	-.097, .221
<b>Study 2</b>								
Relationship Power	.038	.466	.641	-.086, .140	.145	1.741	.083	-.026, .415
Relationship Satisfaction	-.360	-4.299	<.001	-.295, -.110	-.362	-4.269	<.001	-.574, -.211
MGRS	.199	2.949	.004	.045, .228	.295	4.327	<.001	.213, .569
Relationship Power x MGRS	<b>-.281</b>	<b>-3.490</b>	<b>.001</b>	<b>-.299, -.083</b>	<b>-.192</b>	<b>-2.363</b>	<b>.019</b>	<b>-.464, -.042</b>
Relationship Satisfaction x MGRS	.020	.245	.807	-.073, .094	-.046	-.558	.578	-.209, .117
<b>Study 3</b>								
Relationship Power	-.194	-2.250	.026	-.307, -.020	-.052	-.588	.557	-.290, .157
Relationship Satisfaction	.061	.689	.491	-.082, .169	-.115	-1.266	.207	-.321, .070
MGRS	.308	3.935	<.001	.151, .454	.302	3.786	<.001	.217, .690
Relationship Power x MGRS	<b>-.086</b>	<b>-1.082</b>	<b>.281</b>	<b>-.228, .067</b>	.070	.862	.390	-.129, .330
Relationship Satisfaction x MGRS	-.126	-1.486	.139	-.266, .037	-.121	-1.396	.164	-.404, .069

---

**Study 4**

Relationship Power	-.343	-4.330	<.001	-.411, -.154	-.395	-5.419	<.001	-.543, -.253
Relationship Satisfaction	.225	2.800	.006	.051, .291	.124	1.673	.096	-.020, .250
MGRS	.137	2.074	.039	.006, .254	.296	4.845	<.001	.203, .482
Relationship Power x MGRS	<b>-.270</b>	<b>-3.646</b>	<b>&lt;.001</b>	<b>-.364, -.109</b>	<b>-.302</b>	<b>-4.433</b>	<b>&lt;.001</b>	<b>-.467, -.180</b>
Relationship Satisfaction x MGRS	.215	2.890	.004	.053, .282	.115	1.678	.095	-.019, .239

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*Note.* *CI* = Confidence Interval. The 2-way interactions that were significant in the primary analyses are presented in bold. Of these six interactions, one interaction was no longer significant when controlling for relationship satisfaction (see Study 3, bold italics), but the relationship satisfaction x MGRS interactions in this study were also not significant. As shown in Table SM 2.2, meta-analyses revealed significant interaction effects between relationship power and MGRS on physical but not verbal aggression when controlling for relationship satisfaction across studies.



**Table SM 2.2. Meta-analysis of Men's Relationship Power and MGRS on Aggression Controlling for Relationship Satisfaction across all Studies**

Variables	Physical Aggression				Verbal Aggression			
	<i>Mean r</i>	<i>z</i>	<i>p</i>	<i>95% CI</i>	<i>Mean r</i>	<i>z</i>	<i>p</i>	<i>95% CI</i>
Relationship Power	-.174	-2.349	.019	-.311, -.029	-.105	-.932	.351	-.315, .116
Relationship Satisfaction	-.026	-.216	.829	-.259, .209	-.139	-1.406	.160	-.324, .055
MGRS	.244	6.376	<.001	.171, .315	.291	8.639	<.001	.228, .352
Relationship Power x MGRS	<b>-.254</b>	<b>-4.651</b>	<b>&lt;.001</b>	<b>-.353, -.149</b>	<b>-.122</b>	<b>-1.568</b>	<b>.117</b>	<b>-.270, .031</b>
Relationship Satisfaction x MGRS	.049	.741	.459	-.081, .177	.002	.052	.958	-.085, .089

*Note.* *CI* = Confidence Interval. The significant 2-way interactions between relationship power and MGRS are presented in bold revealing that the links between lower relationship power and aggression were moderated by MGRS for physical but not verbal aggression when controlling for relationship satisfaction across studies.

**Table SM 2.3. Men’s Relationship Power and MGRS on Aggression Controlling for Hostile Sexism across Studies 3 and 4**

Variables	Physical Aggression				Verbal Aggression			
	$\beta$	$t$	$p$	95% CI	$\beta$	$t$	$p$	95% CI
<b>Study 3</b>								
Relationship Power	-.156	-2.080	.039	-.257, -.007	-.057	-.756	.451	-.267, .119
MGRS	.218	2.965	.003	.072, .358	.249	3.349	.001	.154, .594
Hostile Sexism	.087	1.203	.231	-.038, .159	.107	1.464	.145	-.039, .264
Relationship Power x MGRS	<b>-.146</b>	<b>-2.046</b>	<b>.042</b>	<b>-.269, -.005</b>	.069	.966	.335	-.104, .302
Relationship Power x HS	-.020	-.267	.789	-.099, .075	-.188	-2.466	.015	-.302, -.034
<b>Study 4</b>								
Relationship Power	-.187	-2.778	.006	-.263, -.045	-.308	-5.092	<.001	-.430, -.190
MGRS	.103	1.413	.159	-.039, .235	.268	4.068	<.001	.160, .460
Hostile Sexism	.089	1.266	.207	-.030, .137	.070	1.103	.271	-.040, .143
Relationship Power x MGRS	<b>-.116</b>	<b>-1.518</b>	<b>.130</b>	<b>-.234, .030</b>	<b>-.210</b>	<b>-3.058</b>	<b>.003</b>	<b>-.370, -.080</b>
Relationship Power x HS	-.003	-.045	.964	-.080, .077	-.014	-.201	.841	-.095, .077

*Note.* CI = Confidence Interval. The 2-way interactions that were significant in the primary analyses are presented in bold. Of these three interactions, one was no longer significant when controlling for hostile sexism (see Study 4, bold italics), but hostile sexism was not a significant moderator in this case. Nonetheless, as shown in Table SM 2.4, meta-analyses revealed significant interaction effects between relationship power and MGRS on physical aggression when controlling for hostile sexism, whereas the interaction effect between relationship power and hostile sexism did not emerge as a reliable effect across studies. With regards to verbal aggression, in Study 3, relationship power was associated with greater verbal aggression for men high in hostile sexism (see interaction in italics). In addition, the interaction effect between relationship power and MGRS on verbal aggression was not significant in the meta-analyses across Studies 3 and 4 when controlling for hostile sexism, but hostile sexism did not emerge as a significant moderator of the links between power and verbal aggression.

**Table SM 2.4. Meta-analysis of Men's Relationship Power and MGRS on Aggression Controlling for Hostile Sexism across Studies 3 and 4**

Variables	Physical Aggression				Verbal Aggression			
	<i>Mean r</i>	<i>z</i>	<i>p</i>	<i>95% CI</i>	<i>Mean r</i>	<i>z</i>	<i>p</i>	<i>95% CI</i>
Relationship Power	-.172	-3.570	<.001	-.263, -.078	-.178	-1.783	.075	-.362, .018
MGRS	.159	3.297	.001	.065, .250	.242	5.078	<.001	.151, .330
Hostile Sexism	.088	1.813	.070	-.007, .182	.094	1.928	.054	-.002, .187
Relationship Power x MGRS	<b>-.131</b>	<b>-2.697</b>	<b>.007</b>	<b>-.223, -.036</b>	<b>-.066</b>	<b>-.573</b>	<b>.567</b>	<b>-.284, .159</b>
Relationship Power x HS	-.011	-.230	.818	-.106, .084	-.099	-1.750	.080	-.207, .012

*Note.* *CI* = Confidence Interval. The significant 2-way interactions between relationship power and MGRS are presented in bold revealing that the links between lower relationship power and aggression were moderated by MGRS for physical but not verbal aggression when controlling for hostile sexism.

**Table 3. Meta-Analysis of the Effects of Men's Relationship Power and MGRS on Log Transformed Physical Aggression across all Studies**

To rule out the possibility that a right-skewed distribution in our measure of physical aggression accounted for the presented effects, we re-ran our analyses with physical aggression log transformed to reduce skewness ( $< 3.0$ ). A meta-analysis of these effects across all four studies demonstrated that the predicted pattern continued to emerge when skewness of the physical aggression measure was reduced.

Variables	Physical Aggression			
	<i>Mean r</i>	<i>z</i>	<i>p</i>	<i>95% CI</i>
Relationship Power	-.078	-2.247	.025	-.145, -.010
MGRS	.099	2.855	.004	.031, .166
Relationship Power x MGRS	<b>-.076</b>	<b>-2.203</b>	<b>.028</b>	<b>-.143, -.008</b>

*Note.* *CI* = Confidence Interval.

**Appendix 2 - Chapter Three Supplemental Materials**

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**1. Feminine Gender Role Stress Items (Studies 1 & 2)**

Our assessment of FGRS included 24 of the original 39 items to maximize attentive responding given the data collection paradigm and align with abbreviated measures now used to assess MGRS. Our primary approach was to select 5 items from each of the 5 subscales. Items removed were those that (1) were very similar to other high-loading items from the original scale development (Gillespie & Eisler, 1992), (2) involved situations that are not widely generalizable (e.g., Being unusually tall), or (3) we judged were likely to be very stressful for everyone and thus may not as sensitively assess level of threat to women’s feminine identity (e.g., Hearing that a dangerous criminal has escaped nearby).

<b>Sub Scale of the Feminine Gender Role Stress Scale (Gillespie &amp; Eisler, 1992)</b>	<b>FGRS Items in Studies 1 &amp; 2</b>	<b>FGRS Items Removed from Each Factor</b>
<b>Fear of Unemotional Relationships</b>	Being considered promiscuous Having others believe that you are emotionally cold Being pressured for sex when seeking affection from your intimate partner Not being able to meet family members' emotional needs Your intimate partner will not discuss your relationship problems	Feeling pressured to engage in sexual activity Having to deal with unwanted sexual advances Being taken for granted in a sexual relationship Having multiple sex partners Having an intimate relationship without any romance
<b>Fear of Physical Unattractiveness</b>	Being perceived by others as overweight Finding out that you gained 10 pounds Turning middle-aged and being single Feeling less attractive than you once were Wearing a bathing suit in public	Being heavier than your mate Being unusually tall Being unable to change your appearance to please someone
<b>Fear of Victimization</b>	Hearing a strange noise while you are home alone Having your car break down on the road Feeling that you are being followed by someone Receiving an obscene phone call	Hearing that a dangerous criminal has escaped nearby Having to move to a new city or town alone Bargaining with a salesperson when buying a car

<p><b>Fear of Behaving Assertively</b></p>	<p>Talking with someone who is angry with you                  Supervising older and more experienced employees at work                  Having to "sell" yourself at a job interview                  Making sure you are not taken advantage of when buying a house or car                  Bargaining with a salesperson when buying a car</p>	<p>Negotiating the price of car repairs                  Trying to be a good parent and excel at work</p>
<p><b>Fear of Not Being Nurturant</b></p>	<p>A very close friend stops speaking to you                  Losing custody of your children after divorce                  Your child is disliked by his or her peers                  Returning to work soon after your child is born</p>	<p>Your mate is unemployed and cannot find a job                  Having a weak or incompetent spouse                  Having someone else raise your children                  Trying to get your spouse to take responsibility for childcare</p>

**2. Masculine Gender Role Stress Items (Study 2)**

In Study 2, participants completed a more detailed assessment of MGRS than the abbreviated MGRS scale (Swartout et al., 2015) which consisted of 30 of the original 40 items (Eisler & Skidmore, 1987). Participants rated each item according to how stressful they would find each situation to be if they were in that situation (1 = *not at all stressful*, 7 = *extremely stressful*). Our primary approach was to remove 2 items from each of the 5 factors. Items removed were those that (1) were very similar to other higher-loading items from the original scale development (Eisler & Skidmore, 1987) or (2) referred to children and thus implied parental status, which may not be relevant to some or many of our participants.

<p><b>Sub Scale of the Masculine Gender Role Stress Scale</b> (Eisler &amp; Skidmore, 1987)</p>	<p><b>MGRS Items in Study 2</b></p>	<p><b>MGRS Items Removed from each Factor</b></p>
<p><b>Physical Inadequacy</b></p>	<p>Not being able to find a sexual partner                  Having your lover say that she/he is not satisfied                  Being perceived by someone as "gay"                  Losing in a sports competition                  Being perceived as having feminine traits</p>	<p>Feeling that you are not in good physical condition                  Being compared unfavorably to men</p>

	<p>Appearing less athletic than a friend</p> <p>Knowing you cannot hold your liquor as well as others</p>	
<p><b>Emotional Inexpressiveness</b></p>	<p>Telling someone that you feel hurt by what she/he said</p> <p>Admitting that you are afraid of something</p> <p>Talking with a woman who is crying</p> <p>Comforting a male friend who is upset</p>	<p>Telling your spouse that you love her/him</p> <p>Having your children see you cry</p> <p>Having a man put his arm around your shoulder</p>
<p><b>Subordination to Women</b></p>	<p>Being outperformed at work by a woman</p> <p>Having a female boss</p> <p>Letting a woman take control of the situation</p> <p>Being outperformed in a game by a woman</p> <p>Being with a romantic partner who is much taller than you</p> <p>Needing your partner to work to help support the family</p> <p>Admitting to your friends that you do housework</p> <p>Being married to someone who makes more money than you</p>	<p>Being with a woman who is more successful than you</p>
<p><b>Intellectual Inferiority</b></p>	<p>Having to ask for directions when you are lost</p> <p>Talking with a 'feminist'</p> <p>Having people say that you are indecisive</p> <p>Having others say that you are too emotional</p> <p>Working with people who are brighter than yourself</p>	<p>Working with people who seem more ambitious than you</p> <p>Staying home during the day with a sick child</p>
<p><b>Performance Failure</b></p>	<p>Not making enough money</p> <p>Finding you lack the occupational skills to succeed</p> <p>Being unable to perform sexually</p> <p>Being too tired for sex when your lover initiates it</p> <p>Being unable to become sexual aroused when you want</p> <p>Getting passed over for a promotion</p>	<p>Being unemployed</p> <p>Getting fired from your job</p>



### 3. SPSS Syntax for Analyses Presented in Table 3.2 (Study 1)

In Study 1 we used SPSS 26 to estimate the model following the syntax and procedures outlined by Bolger and Laurenceau (2013). Below we present the SPSS syntax used to test whether the association between decreases in daily feelings of femininity and decreases in daily feelings of self-esteem is moderated by feminine gender role stress. Lowercase is a variable, and uppercase is required SPSS syntax.

```
MIXED dailyselfesteem WITH dailyfemininty_pc FGRS_c
/FIXED= dailyfemininty_pc FGRS_c dailyfemininty_pc*FGRS_c
/PRINT= SOLUTION TESTCOV COVB
/RANDOM= intercept | SUBJECT(participantno) COVTYPE(UN)
/REPEATED= respondeday | SUBJECT(participantno) COVTYPE(AR1).
```

This syntax specifies a multi-level model for analyzing repeated assessments nested within each participant (participantno). The REPEATED statement treats each daily assessment as repeated measures within each participant to account for the nonindependence across the daily assessments for each participant. The AR1 term specifies an autoregressive error structure. Essentially, the model accounts for the within-person associations across each daily report of the dependent variable (in this case self-esteem) so that any predictor of the dependent variable does not over-estimate effects that arise from correlated repeated assessments from the same person.

The MIXED line specifies the structure of the multilevel model. The variable *dailyselfesteem* represents the daily assessments of self-esteem participants experienced that day and is the dependent variable in this model. The remaining variables on the first line (following WITH) are those included in the model to specify the fixed effects of predictors and moderators: *dailyfemininty\_pc* is participants' reported feelings of femininity that day (person-mean centered); *FGRS\_c* is participants' feminine gender role stress when entering the study (grand-mean centered).

The FIXED line estimates the effects of each variable and interaction term predicting self-esteem presented in Table 3.2. *Dailyfemininty\_pc* models the effects of feelings of femininity, which was person-centered such that the coefficient models whether variations in daily feelings of femininity from person's typical levels of femininity predict decreases in self-esteem that day. *FGRS\_c* tests whether women higher in feminine gender role stress have generally lower daily feelings of self-esteem. The *dailyfemininty\_pc\*FGRS\_c* interaction tests if the within-person association between daily feelings of femininity and self-esteem is moderated by feminine gender role stress. The RANDOM line specifies that the intercept (average *dailyselfesteem*) is modelled as a random effect, and thus models how much daily self-esteem varies across participants.

Additional analyses testing whether our effect was independent of masculine gender role stress were run with an identical analytic strategy to that presented above except that *MGRS\_c* and the *dailyfemininty X MGRS\_c* interaction were added.

#### 4. SPSS Syntax for Analyses Presented in Table 3.2 (Study 2)

In Study 2 we once again used SPSS 26 to estimate the model following the syntax and procedures outlined by Bolger and Laurenceau (2013). Below we present the SPSS syntax used to test whether the association between decreases in weekly feelings of femininity and lower self-esteem is moderated by feminine gender role stress. Lowercase is a variable, and uppercase is required SPSS syntax.

```
MIXED weeklyselfesteem WITH weeklyfemininity_pc FGRS_c
/FIXED= weeklyfemininity_pc FGRS_c weeklyfemininity_pc*FGRS_c
/PRINT= SOLUTION TESTCOV COVB
/RANDOM= intercept | SUBJECT(participantno) COVTYPE(UN)
/REPEATED= responseweek | SUBJECT(participantno) COVTYPE(AR1).
```

This syntax specifies a multi-level model for analyzing repeated assessments nested within each participant (participantno). The REPEATED statement treats each weekly assessment as repeated measures within each participant to account for the nonindependence across the weekly assessments for each participant. The AR1 term specifies an autoregressive error structure. Essentially, the model accounts for the within-person associations across each weekly report of the dependent variable (in this case self-esteem) so that any predictor of the dependent variable does not over-estimate effects that arise from correlated repeated assessments from the same person.

The MIXED line specifies the structure of the multilevel model. The variable *weeklyselfesteem* represents the weekly assessments of self-esteem participants experienced that week and is the dependent variable in this model. The remaining variables on the first line (following WITH) are those included in the model to specify the fixed effects of predictors and moderators: *weeklyfemininity\_pc* is participants' reported feelings of femininity that week (person-mean centered); *FGRS\_c* is participants' feminine gender role stress when entering the study (grand-mean centered).

The FIXED line estimates the effects of each variable and interaction term predicting self-esteem presented in Table 3.2. *Weeklyfemininity\_pc* models the effects of feelings of femininity that week, which was person-centered such that the coefficient models whether variations in weekly feelings of femininity from person's typical levels of femininity predict decreases in self-esteem that week. *FGRS\_c* tests whether women higher in FGRS have generally lower self-esteem. The *weeklyfemininity\_pc\*FGRS\_c* interaction tests if any association between feelings of femininity and self-esteem is moderated by feminine gender role stress. The RANDOM line specifies that the intercept (average levels of *weeklyselfesteem*) is modelled as a random effect, and thus how much weekly self-esteem varies across participants.

Additional analyses testing whether our effect was independent of masculine gender role stress were run with an identical analytic strategy to that presented above except that *MGRS\_c* and the *weeklyfemininity X MGRS\_c* interaction were added.

## 5. Examining Sub-Samples Gathered Prior versus Post COVID-19 Pandemic (Study 2)

As in Study 1, we recruited a large sample by running Study 2 across three academic semesters ( $N = 165$ ). Two semesters occurred in 2019 prior to the emergence of the COVID-19 pandemic, and the third occurred after the COVID-19 had initially been eliminated in the community in 2020. However, 80 participants sampled in 2020 experienced a short lockdown (18 days) during the data collection period. We included all data for transparency and to maximize statistical power, and because we did not have firm a priori expectations that the post-COVID semester would have weaker (minimize femininity threat) or stronger (amplify femininity threat) effects. Here we provide the results of analyses examining whether the main and interaction effects of felt-femininity and MGRS on weekly self-esteem differed between responses collected in 2019 and those collected in 2020. To do this, we added the main and interaction effects of year sampled ( $0 = 2019$ ,  $1 = 2020$ ) to the main analyses reported in Table 3.2. These results are shown in SM Table 3.1 on page 8 of this appendix. The main and interaction effects of felt-femininity and FGRS did not significantly differ across data collected in 2019 versus 2020. Nonetheless, as the Weekly Feelings of Femininity X Feminine Gender Role Stress X Year 3-way interaction was  $p = .062$ , we tested the main and interaction effects separately for the 2019 semesters and 2020 semesters. The results are shown in SM Table 3.2 and SM Figure 2.1 (on pages 9 and 10 of this document). The interaction effect was weaker (and non-significant) in the 2020 sample. However, as is clearly visible in SM Figure 2.1, this was because the main effect of FGRS on lower self-esteem was stronger in the sample that may have faced more stress, and this main effect was not reduced when felt-femininity was high. Thus, the results continued to support that within-person reductions in felt-femininity was associated with concomitant decreases in lower self-esteem, and greater FGRS predicted lower self-esteem even when felt-femininity was high.

**SM Table 3.1**

*Women’s Weekly Feelings of Femininity and Feminine Gender Role Stress Predicting Weekly Self-Esteem Controlling for Year Sampled (Study 2)*

Variables	B	95% CI		t	p	r
		Lower	Upper			
Weekly Feelings of Femininity	.217	.134	.299	5.143	< .001	.168
Feminine Gender Role Stress	-.561	-.918	-.203	-3.095	.002	.237
Year	.159	-.213	.530	.845	.400	.066
Weekly Feelings of Femininity X Feminine Gender Role Stress	.191	.070	.312	3.107	.002	.102
Weekly Feelings of Femininity X Year	-.002	-.118	.115	-.030	.976	.001
Feminine Gender Role Stress X Year	-.058	-.605	.490	-.208	.836	.016
Weekly Feelings of Femininity X Feminine Gender Role Stress X Year	-.173	-.355	.009	-1.869	.062	.062

*Note.* CI = Confidence Interval. Year coded as: 0 = 2019, 1 = 2020. Effect sizes (*r*) were computed using Rosnow and Rosenthal’s (2008) formula:  $r = \sqrt{(t^2 / (t^2 + df))}$ . In these multilevel models, the Satterthwaite approximation is applied to provide specific degrees of freedom for each effect representing the weighted average of the between and within-person degrees of freedom, which were used to calculate the effect sizes.

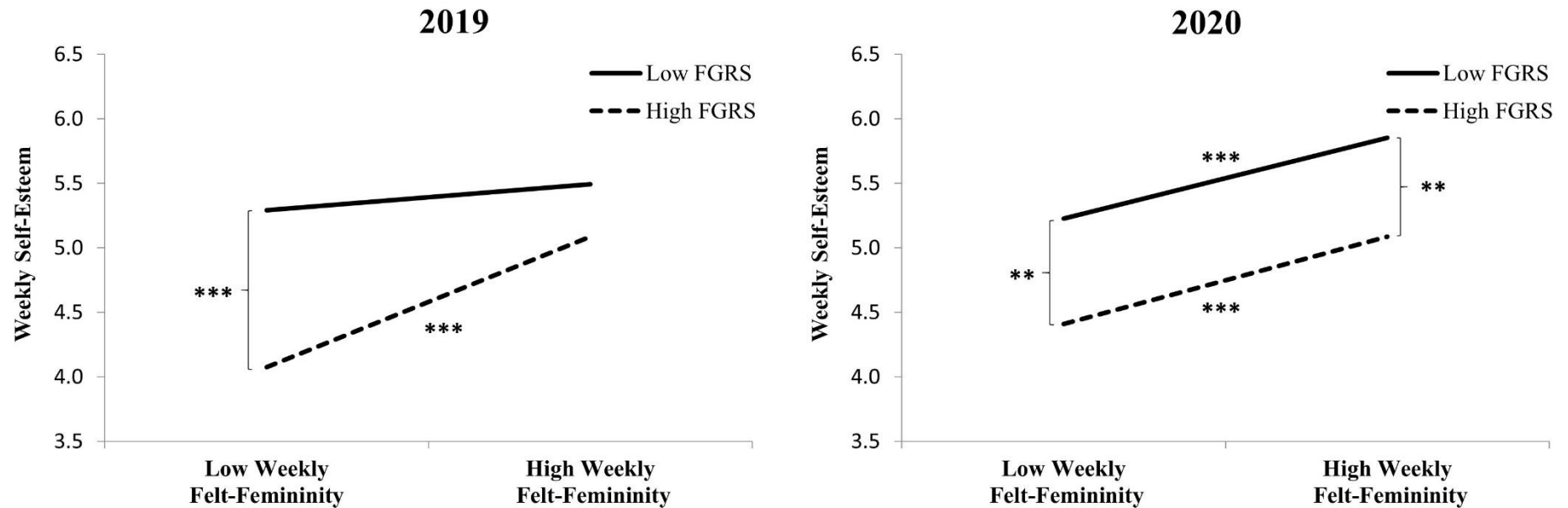
**SM Table 3.2***Women's Weekly Feelings of Femininity and Feminine Gender Role Stress Predicting Weekly Self-Esteem Split by Year Sampled: Study 2*

Variables	<i>B</i>	95% <i>CI</i>		<i>t</i>	<i>p</i>	<i>r</i>
		Lower	Upper			
<b>2019</b>						
Weekly Feelings of Femininity	.210	.127	.293	4.991	< .001	.227
Feminine Gender Role Stress	-.560	-.933	-.187	-2.988	.004	.312
Weekly Feelings of Femininity X Feminine Gender Role Stress	.193	.072	.314	3.137	.002	.144
<b>2020</b>						
Weekly Feelings of Femininity	.221	.139	.303	5.310	< .001	.243
Feminine Gender Role Stress	-.616	-1.018	-.214	-3.051	.003	.326
Weekly Feelings of Femininity X Feminine Gender Role Stress	.013	-.123	.148	.185	.853	.009

*Note.* *CI* = Confidence Interval. Year coded as: 0 = 2019, 1 = 2020. Effect sizes (*r*) were computed using Rosnow and Rosenthal's (2008) formula:  $r = \sqrt{(t^2 / (t^2 + df))}$ . In these multilevel models, the Satterthwaite approximation is applied to provide specific degrees of freedom for each effect representing the weighted average of the between and within-person degrees of freedom, which were used to calculate the effect sizes.

**Figure SM1**

*The Moderating Effect of FGRS on the Association between Women’s Weekly Feelings of Femininity and Self-Esteem Split by Year Sampled: Study 2*



*Note.* FGRS = Feminine Gender Role Stress. High and low values represent 1 SD above and below the mean. \*\*\*slopes and simple effects significant at  $p < .001$ . \*\* Simple effects significant at  $p < .01$ .

**Appendix 3 – Chapter Four Supplemental Materials**

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## 1. Romantic Rejection Prime (Study 1)

In Study 1, participants were asked to complete a set of tasks designed to immerse them in prior experiences of romantic rejection. First, participants were presented with 11 common situations involving romantic rejection (shown directly below) and were instructed to indicate which of these situations they had ever experienced.

Below are situations that people often experience. Please indicate if you have ever experienced any of the situations below.

Select **all** situations similar to those you've experienced.

- At a bar or restaurant you try to start a conversation with someone you find attractive but they give you the cold shoulder or don't talk to you.
- You've been connected with someone through online dating. You chat with them online and think things are going well, but they stop replying or tell you they don't want to talk with you anymore.
- Your friend sets you up with another single person. You go on a date with them that seems to go well, but afterwards you find they aren't interested in seeing you again.
- At a party you ask for the contact information of an attractive person you've been chatting with, but they don't give it to you or give you fake information.
- You go on a date with someone. You think the date has gone well but afterwards they stop talking to you or tell you things aren't going to work out.
- You've just had sex for the first time with someone. You contact them afterwards, but they don't reply or express they aren't interested in seeing you again.
- You arrange a date with someone but they stand you up.
- You've been spending time with someone you have feelings for, but you find out that they only see you as a friend.
- You develop feelings for a co-worker, but when you express this they don't share your feelings.
- You've been on a few dates with someone, but they suddenly stop talking to you or tell you they're no longer interested.
- You hit it off with someone at a party, but then you see them being intimate with someone else.

The percent of participants who responded they had experienced each of these situations are (in order of presentation above): cold shoulder or don't talk to you at bar or restaurant (20%), stop replying or don't want to talk with you anymore online (40%), set up by a friend but you find they aren't interested in seeing you again (23%), don't give you contact information or gave you fake information at a party (4%), stop talking to you or tell you things aren't going to work out after a date (36%), don't reply or express they aren't interested in seeing you again after sex (22%), you arrange a date but they stand you up (23%), spend time with someone but they see you as a friend (47%), a co-worker doesn't share your feelings (18%), after a few dates they stop talking to you or tell you they're no longer interested (25%), you see them being intimate with someone else at a party (33%).



Participants were then asked to write about a particularly memorable instance in which they had felt romantically rejected, such as an instance “you were attracted to another person, but that person did not find you as appealing”.

Think about a time when you were romantically rejected - a situation in which you were attracted to another person, but that person did not find you as appealing.

Perhaps you expressed your feelings toward them or asked that person to spend time with you, but they did not share the same feelings or they declined your offer. Perhaps you tried to express your feelings in more indirect ways, but the person did not express attraction toward you.

---

In the box below, please describe a time when you felt romantically rejected by someone you were attracted to.

Tell us about a time that is particularly memorable or when you felt the most rejected.

After writing about a memorable situation when they felt the most rejected, participants were then asked “In the instance you just wrote about: How long ago did this instance occur?” (in months).

Finally, the situations that participants indicated they had experienced, and the situation they wrote about, were then piped into the following page. Following the re-presentation of the situations selected and written about, participants were asked to: “consider instances in your life where you were romantically rejected, such as those outlined above” and then rated their body dissatisfaction following these experiences: “in general, to what extent do you feel the following ways after being rejected?”



## 2. Factor Analyses of Attractiveness Contingent Self-Esteem and Body Dissatisfaction Items (Study 1)

Results from principal components factor analyses with a direct oblimin rotation in both analyses revealing one factor with an eigenvalue above 1.

<b>Attractiveness Contingent Self-Esteem Items</b>	<b>Factor 1</b>
Even on a day when I don't look my best, my feelings of self-worth remain unaffected (reverse coded)	.526
An important measure of my worth is how physically attractive I am	.858
My overall feelings about myself are heavily influenced by how good I look	.889
If I am told that I look good, I feel better about myself in general	.720
<b>Percentage of variance accounted for</b>	<b>58%</b>

<b>Body Dissatisfaction Items</b>	<b>Factor 1</b>
Dissatisfied with my physical appearance	.953
Dissatisfied with my body size and shape	.914
Worse about my looks than I usually feel	.936
Physically attractive (reverse coded)	.508
<b>Percentage of variance accounted for</b>	<b>72%</b>

### 3. SPSS Syntax for Analyses Presented in Table 4.3 (Study 2)

We used SPSS 26 to estimate the model following the syntax and procedures outlined by Bolger and Laurenceau (2013). Below we present the SPSS syntax used to test whether attractiveness contingent self-esteem moderates the association between experiences of daily rejection and greater body dissatisfaction while simultaneously modelling the main and interaction effects of self-esteem. Lowercase is a variable, and uppercase is required SPSS syntax.

```
MIXED dailybodydissatisfaction WITH acse_c dailyrejection_pc selfesteem_c
/FIXED= acse_c dailyrejection_pc acse_c*dailyrejection_pc selfesteem_c
selfesteem_c*dailyrejection_pc
/PRINT= SOLUTION TESTCOV COVB
/RANDOM= intercept | SUBJECT(participantno) COVTYPE(UN)
/REPEATED= respondeday | SUBJECT(participantno) COVTYPE(AR1).
```

This syntax specifies a multi-level model for analysing repeated assessments nested within each participant (participantno). The REPEATED statement treats each daily assessment as repeated measures within each participant to account for the nonindependence across the daily assessments for each participant. The AR1 term specifies an autoregressive error structure. Essentially, the model accounts for the within-person associations across each daily report of the dependent variable (in this case body dissatisfaction) so that any predictor of the dependent variable does not over-estimate effects that arise from correlated repeated assessments from the same person.

The MIXED line specifies the structure of the multilevel model. The variable *dailybodydissatisfaction* represents the daily assessments of body dissatisfaction participants experienced that day and is the dependent variable in this model. The remaining variables on the first line (following WITH) are those included in the model to specify the fixed effects of predictors and moderators: *acse\_c* is participants' attractiveness contingent self-esteem when entering the study (grand-mean centred); *dailyrejection\_pc* is participants' reported experiences of rejection that day (person-mean centred); and *selfesteem\_c* is participants' global self-esteem when entering the study (grand-mean centred).

The FIXED line estimates the effects of each variable and interaction term predicting body dissatisfaction presented in Table 4.3. *Acse\_c* tests whether women whose self-esteem is more contingent on their attractiveness have generally greater body dissatisfaction. *Dailyrejection\_pc* models the effects of experiences of romantic rejection that day, which was person-centred such that the coefficient models whether variations in daily rejection from person's typical levels of rejection predict increases in body dissatisfaction that day. The *acse\_c\*dailyrejection\_pc* interaction tests if any association between daily rejection and body dissatisfaction is moderated by attractiveness contingent self-esteem. The last two variables control for any effects of global self-esteem. *Selfesteem\_c* models the main effect of self-esteem and *selfesteem\_c\*dailyrejection\_pc* models whether the association between daily rejection and body dissatisfaction is moderated by global self-esteem. The RANDOM line specifies that the intercept (body dissatisfaction) is modelled as a random effect, which tests and models the degree to which body dissatisfaction varies across participants.

Additional analyses testing whether our effect was independent of depressive symptoms were run with an identical analytic strategy to that presented above except that self-esteem and the self-esteem X rejection interaction was exchanged for depressive symptoms and the depressive symptoms X rejection interaction. The full results of these analyses are presented below.

#### 4. Analyses Controlling for Depressive Symptoms (Study 2)

To ascertain whether the moderating effect of ACSE on the links between daily romantic rejection and body dissatisfaction was independent of depressive symptoms, we repeated our primary analyses substituting depressive symptoms in place of self-esteem. Depressive symptoms were assessed using the Centre of Epidemiological Studies Depression Scale (Radloff, 1977) designed for use with non-clinical samples to assess current levels of clinically meaningful depressive symptoms. Participants completed the 20-item scale which assessed the frequency of emotional (e.g., “I felt depressed”, “I enjoyed life” (reverse-scored) and behavioral (e.g., “I had crying spells”, “I did not feel like eating; my appetite was poor”) depressive symptoms experienced during the past week (0 = ‘Rarely or none of the time [less than 1 day]’ to 3 = ‘Most or all of the time [5-7 days]’). Items were averaged such that higher scores reflected greater depressive symptoms ( $M = .872$ ,  $SD = .464$ ). As shown below, women who had greater depressive symptoms entering the study reported greater body dissatisfaction across days, but depressive symptoms did not moderate the links between rejection and body dissatisfaction. Moreover, the main effect of ACSE was stronger than depressive symptoms and the moderating role of ACSE remained.

##### SM Table 4.1

*Women’s Attractiveness Contingent Self-Esteem, Daily Experiences of Rejection, and Depressive Symptoms predicting Body Dissatisfaction in Study 2*

Dependent Variable	<i>B</i>	95% <i>CI</i>		<i>t</i>	<i>p</i>	<i>r</i>
		Lower	Upper			
<b>Study 2</b>						
Attractiveness Contingent Self-Esteem	.237	.093	.381	3.262	.002	.117
Daily Experiences of Rejection	.246	.165	.328	5.917	< .001	.514
Attractiveness Contingent Self-Esteem X Daily Rejection	.081	.006	.156	2.115	.035	.076
Depressive Symptoms	.459	.116	.803	2.652	.009	.260
Depressive Symptoms X Daily Rejection	.011	-.148	.170	.132	.895	.005

*Note.* *CI* = Confidence Interval.

**Appendix 4 – Chapter Five Supplemental Materials**

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### 1. Femininity Ideology Scale Items Included and Removed

Given our measures were part of a broader study, to reduce participant burden we generated a shorter version of the Femininity Ideology Scale (Levant et al., 2007). Unfortunately, when we administered the survey, we were unaware that a short-form version of the scale had already been validated in previous research (Levant et al., 2017). However, of the eight items employed in analyses, six appear in the shorter version of the scale (bolded items below). When administering items to participants, our approach was to enhance reliability of the shortened measure by selecting the highest loading items from each subscale that were not (1) overtly antiquated (e.g., “Women should not want to succeed in the business world because men will not want to marry them”) or (2) too specific for use in a shorter assessment (e.g., “A woman should not tell dirty jokes”, “A woman should remain a virgin until she is married;” Levant et al., 2007). For our manuscript analyses we then decided to exclude an item that (3) directly referenced one of our outcomes, and thus was potentially recursive (e.g., “A woman should not initiate sex”; Levant et al., 2007), and (4) an item we deemed beyond the scope of the present focus from the Stereotypic Image subscale (“Women should have large breasts”). We outline the included and removed items in the table below.

Subscale of the Femininity Ideology Scale (Levant et al., 2007)	Femininity Ideology Scale Items Included in Analyses	Femininity Ideology Scale Items Removed from each Subscale <sup>1</sup>
<p style="text-align: center;"><b>Deference/Dependence</b></p>	<p><b>A woman should not expect to be sexually satisfied by her partner.</b></p> <p>A woman should not make more money than her partner.</p> <p><b>A woman’s worth should be measured by the success of her partner.</b></p> <p><b>A woman should not consider her career as important as a man’s.</b></p>	<p>Women should not want to succeed in the business world because men will not want to marry them.</p> <p>A woman should not be competitive.</p> <p>Women should have men make decisions for them.</p> <p>Women should act helpless to attract a man.</p> <p>A woman should not marry a younger man.</p> <p><i>A woman should not initiate sex. (removed for analysis)</i></p>

<p><b>Purity</b></p>	<p><b>Women should not view/use pornographic material.</b>  <b>It is not acceptable for a woman to masturbate.</b>  <b>A woman should not swear.</b>  A woman should not have a baby until she is married.</p>	<p>A woman should remain a virgin until she is married.  A woman should not tell dirty jokes.  A woman should be dependent on religion and spirituality for guidance.  Women should dress conservatively so they do not appear loose.  If a woman chooses to have an abortion, she should not feel guilty.</p>
<p><b>Stereotypic Image</b></p>		<p><i>Women should have large breasts. (removed for analysis)</i></p>

*Note.* Bolded items appear in the previously validated short-form version of the scale.

<sup>1</sup>Italicized items were administered to participants but removed prior to analysis. All other removed items were not administered to participants.



**2. Scales and Items Used in Manuscript Analyses**

Scale	Items
<p><b>The Male Role Norms Inventory Very Brief<sup>1</sup></b> (McDermott et al., 2018)</p>	<p>Men should watch football games instead of soap operas. Boys should prefer to play with trucks rather than dolls. A man should always be the boss. I think a young man should try to be physically tough, even if he’s not big. Men should not be too quick to tell others that they care about them.</p>
<p><b>Selected Items from the Femininity Ideology Scale</b> (Levant et al., 2007)</p>	<p>A woman should not expect to be sexually satisfied by her partner. A woman should not make more money than her partner. A woman’s worth should be measured by the success of her partner. A woman should not consider her career as important as a man’s. Women should not view/use pornographic material. It is not acceptable for a woman to masturbate. A woman should not swear. A woman should not have a baby until she is married.</p>
<p><b>Comfort Initiating Sex</b></p>	<p>I am comfortable initiating sex</p>
<p><b>Comfort Refusing Sex</b></p>	<p>I am comfortable refusing sex</p>
<p><b>The Rosenberg Self-Esteem Scale</b> (Rosenberg, 1965)</p>	<p>I feel that I’m a person of worth, at least on an equal plane with others. I feel that I have a number of good qualities. All in all, I am inclined to feel that I am a failure. I am able to do things as well as most other people. I feel I do not have much to be proud of. I take a positive attitude toward myself. On the whole, I am satisfied with myself. I wish I could have more respect for myself. I certainly feel useless at times. At times I think I am no good at all.</p>
<p><b>Sexual Knowledge &amp; Skill</b></p>	<p>I have the knowledge and skills needed to have a satisfying sex life.</p>

*Note.* <sup>1</sup>As we did with the Femininity Ideology Scale (see section 1), for our analyses we removed two administered items that were directly related to our outcome measures: “A man should not turn down sex,” and “A man should always be ready for sex.”

### 3. Syntax for Analyses

*Note.* Initiating = comfort initiating sex, refusing = comfort refusing sex, tfi\_c = traditional femininity ideology (mean centred), tmi\_c = traditional masculinity ideology (mean centred), gender\_w = women coded as 0 and men coded as 1, gender\_m = men coded as 0 and women coded as 1.

Variables separated by an 'x' denote an interaction term of these variables, e.g., tfixtmi is the interaction of traditional masculinity ideology and traditional femininity ideology.

#### a) RQ1

```
GLM initiating refusing WITH tfi_c gender_w tfixgender_w  
/METHOD=SSTYPE(3)  
/INTERCEPT=INCLUDE  
/PRINT=ETASQ PARAMETER  
/CRITERIA=ALPHA(.05)  
/DESIGN= tfi_c gender_w tfixgender_w.
```

```
GLM initiating refusing WITH t tmi_c gender_m tmixgender_m  
/METHOD=SSTYPE(3)  
/INTERCEPT=INCLUDE  
/PRINT=ETASQ PARAMETER  
/CRITERIA=ALPHA(.05)  
/DESIGN= tmi_c gender_m tmixgender_m.
```

#### b) RQ2

```
GLM initiating refusing WITH tmi_c gender_w tmixgender_w  
/METHOD=SSTYPE(3)  
/INTERCEPT=INCLUDE  
/PRINT=ETASQ PARAMETER  
/CRITERIA=ALPHA(.05)  
/DESIGN= tmi_c gender_w tmixgender_w.
```

```
GLM initiating refusing WITH tfi_c gender_m tfixgender_m  
/METHOD=SSTYPE(3)  
/INTERCEPT=INCLUDE  
/PRINT=ETASQ PARAMETER  
/CRITERIA=ALPHA(.05)  
/DESIGN= tfi_c gender_m tfixgender_m.
```

**c) RQ3**

GLM initiating refusing WITH tfi\_c tmi\_c tmixtfi gender\_w tmixgender\_w tfixgender\_w  
tmixtfixgender\_w

/METHOD=SSTYPE(3)

/INTERCEPT=INCLUDE

/PRINT=ETASQ PARAMETER

/CRITERIA=ALPHA(.05)

/DESIGN= tfi\_c tmi\_c tmixtfi gender\_w tmixgender\_w tfixgender\_w tmixtfixgender\_w

GLM initiating refusing WITH tmi tfi tmixtfi gender\_m tmixgender\_m tfixgender\_m  
tmixtfixgender\_m

/METHOD=SSTYPE(3)

/INTERCEPT=INCLUDE

/PRINT=ETASQ PARAMETER

/CRITERIA=ALPHA(.05)

/DESIGN= tmi tfi tmixtfi gender\_m tmixgender\_m tfixgender\_m tmixtfixgender\_m.

**d) Mediation Analyses Conducted in PROCESS**

To explore the unexpected negative association between men's TFI and their comfort initiating sex, we conducted a mediation analysis on only the men sampled using the PROCESS macro for SPSS 26 (model 4, estimating 10,000 bootstrap resamples; Hayes, 2017), testing whether the association between men's TFI and comfort initiating sex was mediated by their perception of their skills and knowledge about sex while simultaneously accounting their TMI as a covariate. The following syntax illustrates the model used to conduct these analyses. Uppercase represents a variable and lowercase represents required PROCESS syntax.

```
process y=INITATIONCOMFORT/m=KNOWLEDGESKILLS/x=TFI/bmatrix=1,1,1/  
cov=TMI.
```

#### 4. Results of Multivariate Tests

We conducted multivariate tests to allow us to control for correlated errors in our outcomes. The results of these tests can be thought of as whether or not TFI or TMI predict sexual assertiveness on the whole (i.e., comfort initiating and comfort refusing sex together).

##### a) RQ1

###### *Results of Multivariate Tests for Men*

	<b>Wilks' Lambda Value</b>	<b>F</b>	<b>p</b>
<b>Masculinity Ideology</b>	<b>0.98</b>	<b>9.77</b>	<b>&lt; .001</b>
<b>Gender (Men)</b>	<b>0.98</b>	<b>7.46</b>	<b>.001</b>
Masculinity Ideology x Gender (Men)	0.99	2.30	.101

###### *Results of Multivariate Tests for Women*

	<b>Wilks' Lambda Value</b>	<b>F</b>	<b>p</b>
<b>Femininity Ideology</b>	<b>0.98</b>	<b>8.12</b>	<b>&lt; .001</b>
<b>Gender (Women)</b>	<b>0.97</b>	<b>12.75</b>	<b>&lt; .001</b>
Femininity Ideology x Gender (Women)	1.00	0.19	.824

##### a) RQ2

###### *Results of Multivariate Tests for Men*

	<b>Wilks' Lambda Value</b>	<b>F</b>	<b>p</b>
<b>Femininity Ideology</b>	<b>0.98</b>	<b>9.46</b>	<b>&lt; .001</b>
<b>Gender (Men)</b>	<b>0.97</b>	<b>12.75</b>	<b>&lt; .001</b>
Femininity Ideology x Gender (Men)	1.00	0.19	.824

###### *Results of Multivariate Tests for Women*

	<b>Wilks' Lambda Value</b>	<b>F</b>	<b>p</b>
<b>Masculinity Ideology</b>	<b>0.99</b>	<b>5.58</b>	<b>.014</b>
<b>Gender (Women)</b>	<b>0.98</b>	<b>7.46</b>	<b>.001</b>
<b>Masculinity Ideology x Gender (Women)</b>	<b>0.99</b>	<b>2.30</b>	<b>.006</b>

## a) RQ3

*Results of Multivariate Tests for Men*

	<b>Wilks' Lambda Value</b>	<b>F</b>	<b>p</b>
<b>Masculinity Ideology</b>	<b>0.98</b>	<b>6.95</b>	<b>.001</b>
<b>Femininity Ideology</b>	<b>0.99</b>	<b>3.40</b>	<b>.034</b>
Masculinity Ideology x Femininity Ideology	1.00	0.08	.925
<b>Gender (Men)</b>	<b>0.98</b>	<b>8.66</b>	<b>&lt; .001</b>
Masculinity Ideology x Gender (Men)	0.99	2.21	.110
Femininity Ideology x Gender (Men)	1.00	0.26	.774
Masculinity Ideology x Femininity Ideology x Gender (Men)	0.99	3.13	.044

*Results of Multivariate Tests for Women*

	<b>Wilks' Lambda Value</b>	<b>F</b>	<b>p</b>
<b>Femininity Ideology</b>	<b>0.99</b>	<b>4.74</b>	<b>.009</b>
Masculinity Ideology	1.00	0.68	.508
<b>Femininity Ideology x Masculine Ideology</b>	<b>0.99</b>	<b>3.87</b>	<b>.021</b>
<b>Gender (Men)</b>	<b>0.98</b>	<b>8.66</b>	<b>&lt; .001</b>
Femininity Ideology x Gender (Men)	1.00	0.26	.774
Masculinity Ideology x Gender (Men)	0.99	2.21	.110
<b>Femininity Ideology x Masculinity Ideology x Gender (Men)</b>	<b>0.99</b>	<b>3.13</b>	<b>.044</b>

## 5. Analyses Controlling for Self-Esteem

**Table SM 5.1**

*The Effects of Masculinity and Femininity Ideology on Women's Comfort Initiating and Refusing Sex Controlling for Self-Esteem*

Dependent Variable		<i>b</i>	<i>SE</i>	<i>t</i>	<i>p</i>	95% <i>CI</i>	
						Lower	Upper
<b>Research Question 3</b>							
Comfort Initiating Sex	<b>Femininity Ideology</b>	<b>-.40</b>	<b>.14</b>	<b>-2.84</b>	<b>.005</b>	<b>-.67</b>	<b>-.12</b>
	Masculinity Ideology	-.09	.08	-1.18	.237	-.24	.06
	<b>Femininity x Masculinity Ideology</b>	<b>.21</b>	<b>.08</b>	<b>2.67</b>	<b>.008</b>	<b>.06</b>	<b>.37</b>
	<b>Self-Esteem</b>	<b>.28</b>	<b>.06</b>	<b>4.58</b>	<b>&lt; .001</b>	<b>.16</b>	<b>.39</b>
Comfort Refusing Sex	Femininity Ideology	-.23	.14	-1.66	.098	-.50	.04
	Masculinity Ideology	-.10	.07	-1.40	.163	-.25	.04
	Femininity x Masculinity Ideology	-.02	.08	-0.23	.822	-.17	.14
	<b>Self-Esteem</b>	<b>.17</b>	<b>.06</b>	<b>2.84</b>	<b>.005</b>	<b>.05</b>	<b>.29</b>

*Note.* *CI* = Confidence Interval. Results presented are from regression model simple effects analysis.

**Table SM 5.2***The Effects of Masculinity and Femininity Ideology on Men's Comfort Initiating and Refusing Sex Controlling for Self-Esteem*

Dependent Variable		<i>b</i>	<i>SE</i>	<i>t</i>	<i>p</i>	95% <i>CI</i>	
						Lower	Upper
<b>Research Question 3</b>							
Comfort Initiating Sex	Masculinity Ideology	.10	.06	1.79	.074	-.01	.22
	<b>Femininity Ideology</b>	<b>-.28</b>	<b>.12</b>	<b>-2.41</b>	<b>.016</b>	<b>-.51</b>	<b>-.05</b>
	Femininity x Masculinity Ideology	-.02	.05	-0.40	.686	-.12	.08
	<b>Self-Esteem</b>	<b>.35</b>	<b>.06</b>	<b>5.98</b>	<b>&lt; .001</b>	<b>.23</b>	<b>.46</b>
Comfort Refusing Sex	<b>Masculinity Ideology</b>	<b>-.15</b>	<b>.06</b>	<b>-2.66</b>	<b>.008</b>	<b>-.27</b>	<b>-.04</b>
	Femininity Ideology	-.15	.12	-1.29	.196	-.37	.08
	Femininity x Masculinity Ideology	-.01	.05	-0.22	.823	-.11	.09
	<b>Self-Esteem</b>	<b>.12</b>	<b>.06</b>	<b>2.11</b>	<b>.035</b>	<b>.01</b>	<b>.23</b>

*Note.* *CI* = Confidence Interval. Results presented are from regression model simple effects analysis.

## 6. Analyses Controlling for Age

**Table SM 5.3**

*The Effects of Masculinity and Femininity Ideology on Women's Comfort Initiating and Refusing Sex Controlling for Age*

Dependent Variable		<i>b</i>	<i>SE</i>	<i>t</i>	<i>p</i>	95% <i>CI</i>	
						Lower	Upper
<b>Research Question 3</b>							
Comfort Initiating Sex	<b>Femininity Ideology</b>	<b>-.43</b>	<b>.15</b>	<b>-2.94</b>	<b>.003</b>	<b>-.71</b>	<b>-.14</b>
	Masculinity Ideology	-.06	.08	-0.78	.434	-.21	.09
	<b>Femininity x Masculinity Ideology</b>	<b>.22</b>	<b>.08</b>	<b>2.68</b>	<b>.008</b>	<b>.06</b>	<b>.38</b>
	Age	.01	.01	1.04	.299	-.01	.02
Comfort Refusing Sex	Femininity Ideology	-.24	.14	-1.71	.087	-.51	.04
	Masculinity Ideology	-.07	.07	-0.95	.341	-.22	.08
	Femininity x Masculinity Ideology	-.02	.08	-0.27	.786	-.18	.13
	Age	-.01	.01	-1.34	.180	-.02	.00

*Note.* *CI* = Confidence Interval. Results presented are from regression model simple effects analysis.



**Table SM 5.4***The Effects of Masculinity and Femininity Ideology on Men's Comfort Initiating and Refusing Sex Controlling for Age*

Dependent Variable		<i>b</i>	<i>SE</i>	<i>t</i>	<i>p</i>	95% <i>CI</i>	
						Lower	Upper
<b>Research Question 3</b>							
Comfort Initiating Sex	Masculinity Ideology	.12	.06	1.91	.056	.00	.23
	<b>Femininity Ideology</b>	<b>-.29</b>	<b>.12</b>	<b>-2.39</b>	<b>.017</b>	<b>-.53</b>	<b>-.05</b>
	Femininity x Masculinity Ideology	-.02	.05	-0.44	.663	-.13	.08
	Age	-.01	.01	-1.18	.240	-.02	.01
Comfort Refusing Sex	<b>Masculinity Ideology</b>	<b>-.15</b>	<b>.06</b>	<b>-2.58</b>	<b>.010</b>	<b>-.26</b>	<b>-.04</b>
	Femininity Ideology	-.14	.12	-1.20	.231	-.37	.09
	Femininity x Masculinity Ideology	-.02	.05	-0.30	.764	-.12	.09
	Age	-.01	.01	-1.62	.105	-.02	.00

*Note.* *CI* = Confidence Interval. Results presented are from regression model simple effects analysis.