

DON'T TRUST THE COMPETITION: WOMEN'S RESPONSES TO MATING
RELEVANT FEEDBACK FROM SAME-SEX OTHERS

by

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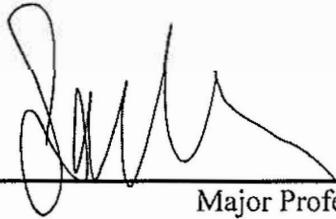
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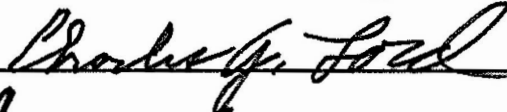
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Don't Trust the Competition:

Women's Responses to Mating Relevant Feedback from Same-Sex Others

Women in society are often portrayed as being hypercritical of other female's appearance. For example, take the animated film *Cinderella* (Disney, Geronimo, Jackson, & Luske, 1950). In Disney's retelling of the classic tale, not only does Cinderella, the protagonist, receive negative comments on her appearance from her stepsisters, her stepsisters also direct similar comments towards each other. Further popular culture depictions of women's appearance derogation of same-sex others can also be found in films such as *Mean Girls* (Waters, 2004) and *The Devil Wears Prada* (Frankel, 2006), to name a few. This phenomenon is not relegated to female fictional characters; nonfictional women also frequently engage in such behavior. For example, during 2014, women were found to have made more than 5 million female-attractiveness disparaging posts on the social media site Twitter ("THE POWER IS IN OUR HANDS," 2015). This finding sparked the viral #speakbeautiful campaign, which encouraged women to post positive statements about other females' appearance. The logic behind the #speakbeautiful campaign necessitates that negative physical attractiveness comments from same-sex others makes women view themselves as less attractive and desirable and hence positive comments will have the opposite effect.

This campaign raises an important question regarding the effect of same-sex others' appearance-based comments on women's self-perceptions of attractiveness and desirability as a mate. Incorporating theory and research on female intrasexual competition (Buss, 1988; Buss & Dedden, 1999; Campbell, 1999; Schmitt & Buss, 1996), the mating sociometer (Bale & Archer, 2013; Kavanagh, Robins, & Ellis, 2010; Kirkpatrick & Ellis, 2001; Kirkpatrick &

Ellis, 2006; Reeve, Kelly, & Welling, 2017; Zhang, Liu, Li, & Ruan, 2015), and manipulation in communication (Buss, 1991; Dawkins & Krebs, 1978; Krebs & Dawkins, 1984; Sperber et al., 2010; Wiley, 1983) may provide a useful perspective to understand how and when women are impacted by appearance feedback from same-sex others. These frameworks suggest that receiving negative feedback on a mating relevant characteristic (i.e., physical attractiveness) should prompt individuals to report lower self-perceptions of that characteristic. As physical appearance is more important for women's success in the mating domain (Buss & Schmitt, 1993; Li, Bailey, Kenrick, & Linsenmeier, 2002), they should be more affected by such feedback than would men. However, since women compete with one another in the domain of physical attractiveness (Buss, 1988; Greer & Buss, 1994; Hill & Durante, 2011; Walters & Crawford, 1994), and appearance derogation is a common intrasexual competition strategy (Buss & Dedden, 1990; Fisher & Cox, 2011), women may disregard negative appearance feedback from women, who pose as potential rivals. The present research experimentally examines the effect of appearance-based feedback on women's self-perceptions of desirability, attractiveness, and mate choice by manipulating feedback source and valence.

Intrasexual Competition and Mate Preferences

The theory of intrasexual competition, as described by Darwin (1874) in his seminal work *The Descent of Man and Selection in Relation to Sex*, arose from his observations of males in the animal kingdom fighting over possession of a female member of a species, concluding with the more powerful male's victory, and hence, sexual access to the female. Although Darwin originally described intrasexual competition as only occurring amongst males, females in many species also compete for access to desirable mates (Rosvall, 2013).

According to the theory, intrasexual competition occurs in domains that are important to mate choice. Research finds that men and women exhibit reliable differences in the qualities they desire in mates, where men place greater value on a mate's physical attractiveness and women have a greater preference for characteristics denoting access to resources (Buss et al., 1990; Furnham, 2009; Green, Buchanan, & Heuer, 1984; Li et al., 2013). These sex-specific differences in desired mate characteristics are believed to reflect different adaptive problems each sex encountered over evolutionary time (Buss, 1994; Buss & Barnes, 1986; Geary, Vigil, & Byrd-Craven, 2004). For instance, as women faced the pressure of pregnancy and offspring care, they developed a desire for men who exhibited characteristics indicative of ability and willingness to invest in offspring (Buunk, Dijkstra, Fetchenhauer, & Kenrick, 2002; Roney, Hanson, Durante, & Maestripieri, 2006). In modern society, this may be exemplified by women's desire for mates with high earning capacity (Waris, 1997). In contrast, men faced the evolutionary pressure of identifying fertile women, and hence developed a desire for characteristics that signaled fertility. Characteristics that signal fertility have been found to be highly related to physical attractiveness (Johnston, 2000; Pflüger, Oberzaucher, Katina, Holzleitner, & Grammer, 2012), providing empirical support for men's differential desire and choice of attractive women.

Because men place high importance on physical attractiveness in their mates (Nevid, 1984; Smith, Waldorf & Trembath, 1990), this has led women to compete intrasexually in this domain. Several studies have demonstrated that attractiveness is extremely important among women when evaluating potential mating competitors. Women perceive highly attractive women as presenting the greatest competitive threat in the mating arena (Fink, Klappauf, Brewer & Shackelford, 2014), even among pairs of female friends (Bleske-Rechek

& Lighthall, 2010). Exposure to attractive rivals has been found to cause women distress (Buss, Shackelford, Choe, Buunk & Dijkstra, 2000), and leads them to perceive themselves not only as being less attractive (Little & Mannion, 2006), but also as less desirable as marriage partners (Gutierrez, Kenrick & Partch, 1999). Correspondingly, to be more competitive in the mating market, women report enhancing their physical appearance (Buss, 1988; Greer & Buss, 1994; Hill & Durante, 2011; Walters & Crawford, 1994). This strategy not only increases women's desirability as a mate, but also effectively gives women a competitive advantage over rivals (Guéguen, 2008; Guéguen & Jacob, 2012; Guéguen & Lamy, 2013). Women's desire to gain an advantage over competitors can even lead them to engage in potentially dangerous beautification strategies, such as tanning and taking dangerous diet pills (Hill & Durante, 2011). Another commonly practiced female intrasexual competition strategy is derogation of rivals (Buss & Dedden, 1990; Fisher & Cox, 2011). Women's competitor derogation is analogous to their strategy of appearance enhancement, as it involves denigrating the attractiveness of rivals (Buss & Dedden, 1990). This strategy has been demonstrated to be effective in lowering men's perceptions of other women's attractiveness and desirability as romantic partners (Fisher & Cox, 2009).

Physical Attractiveness, the Mating Sociometer, and Effects of Appearance Derogation

Although physical attractiveness has advantages for both sexes (for review see Eagly, Ashmore, Makhijani, & Longo, 1991), it is often more important for women than men. Beauty not only provides women with benefits in the mating market, where physically attractive women are more likely to marry men with higher education and income than less attractive women (Udry & Eckland, 1984); it also has a positive impact on women's outcomes in other domains. For example, physically attractive female waitresses receive

higher tips (Lynn & Simons, 2000), and business women with increased levels of facial attractiveness earn more money than their less attractive counterparts (Frieze, Olson & Russell, 1991). Further, for women, but not men, attractiveness is predictive of happiness, self-esteem, and is highly related to the self-concept (Avsec, 2006; Bale & Archer, 2013; Campbell & Wilbur, 2009; Mathes & Kahn, 1975; Wade & Cooper, 1999).

The relationship between women's attractiveness and self-esteem is consistent with the mating sociometer theory (Kavanagh, Robins, & Ellis, 2010). The mating sociometer theory arose from Kirkpatrick and Ellis' (2001, 2006) work conceptualizing self-esteem as domain-specific mechanisms gauging success in meeting a variety of adaptive problems. According to this perspective, self-esteem is calibrated in a functional manner by evaluating domain-relevant features of the environment, conspecifics, and the self. When the adaptive problem in a specific domain has been met, self-esteem in that domain is high, and vice versa. The mating sociometer operates in a functional manner by evaluating the mating pool, quality of rivals, and mate value, adaptively calibrating mating aspirations and perceptions of mating relevant qualities (Kavanagh, Robins, & Ellis, 2010). For example, women who have high mate value (i.e., those who are highly desirable as romantic and sexual partners) have more stringent criteria for potential romantic and sexual partners (Edlund & Sagarin, 2010; Regan, 1998).

Prior experimental mating sociometer research has experimentally examined how romantic rejection and acceptance from opposite-sex members influences mating aspirations and choosiness for mate characteristics in potential partners (Kavanagh, Robins, & Ellis, 2010; Pass, Lindenberg, & Park, 2010; Reeve, Kelly, & Welling, 2017). Romantic rejection from opposite-sex members is found to result in lower mating aspiration and choosiness for

mate characteristics, while romantic acceptance is found to result in heightened mating aspirations and choosiness for mate characteristics (Kavanagh, Robins, & Ellis, 2010; Reeve, Kelly, & Welling, 2017).

The mating sociometer literature provides mixed results regarding whether cues of romantic rejection and acceptance impacts perceptions of mating relevant qualities. For instance, Pass and colleagues (2010) conducted two experiments examining the effect of negative versus positive feedback on state self-esteem and perceptions of desirability as a mate. In both experiments, participants completed a questionnaire which allegedly assessed their capacity as a mate or social partner. Their scores on this questionnaire were allegedly calculated by a computer which provided them with the experimental manipulation. In the first experiment, the computer provided bogus feedback on overall value as a mate (i.e., desirability as a romantic and sexual partner); in the second experiment, the computer provided bogus feedback on mate value based on attractiveness or competence and status. The findings of the first experiment revealed that negative feedback on overall mate value lowered state self-esteem, and the second experiment revealed that receiving negative physical attractiveness feedback lowers women's, but not men's, state self-esteem. Both experiments revealed that perceptions of desirability as a mate or mating relevant qualities (e.g., attractiveness) were not impacted by this feedback.

However, later research using a different manipulation provides evidence that romantic acceptance and rejection impacts both self-esteem and perceptions of self-perceived mate value (Zhang, Liu, Li, & Ruan, 2015). In Zhang and colleagues' (2015) manipulation, participants interacted with opposite-sex members and completed items regarding willingness to date each opposite-sex individual. The experimenters then provided the

participants with information regarding how many opposite-sex members reported wanting to speak with them further. Romantic rejection and acceptance was manipulated by bogus feedback regarding how many members of the opposite-sex selected them. Those who experienced romantic rejection reported lower state self-esteem and self-perceived mate value. Taken together, these results indicate that romantic rejection or feedback on mating relevant characteristics does impact self-esteem, but it is unclear whether such feedback impacts perceptions of desirability as a mate or mating relevant characteristics.

According to the mating sociometer perspective, individuals should be sensitive to feedback on characteristics relevant for mate choice. Because physical attractiveness has a larger impact on women's mating success than men's, females should be more sensitive to feedback on this characteristic. Indeed, women tend to be higher than men in appearance-based rejection sensitivity, a construct which assesses an individual's expectations of rejection based on physical attractiveness (Park, DiRaddo & Calogero, 2009). Women's heightened appearance-based rejection sensitivity is well-founded, as women are more likely to experience being called unattractive than men (Spreadbury & Reeves, 1983). Sex differences are also evident in emotional responses to appearance-based rejection. After appearance-based rejection, women are extremely upset, reporting experiencing feelings of sadness and embarrassment (Campbell & Wilbur, 2009; Spreadbury & Reeves, 1983). The negative affect elicited by negative appearance feedback may provide a further understanding for women's use of appearance derogation as a female intrasexual competition strategy. That is, such feedback may be used to lower a rival's self-perceptions of mate value and lead her to pursue less desirable mates. However, as the mating sociometer relies on domain specific inputs, this may indicate that women respond differentially to feedback on attractiveness

coming from men, who are potential romantic partners, versus similar feedback coming from women, who are potential competitors.

Manipulation in Communication

The manipulative nature of appearance derogation as an intrasexual competition strategy is consistent with evolutionary theories regarding the function of communication. These theories suggest that rather than simply serving the purpose of sharing of information, communication also functions as a means of manipulating and influencing others (Dawkins & Krebs, 1978; Krebs & Dawkins, 1978; Rendall, Owren, & Ryan, 2009). The ability to manipulate others in one's social environment is an adaptive quality hypothesized to have been selected for because of the numerous advantages it provided (Buss, 1988). Because of the high costs faced by the recipients of manipulative communication, some researchers hypothesize that counterstrategies to detect deception, and hence avoid manipulation, were selected for that function to protect the receiver from being misinformed (Sperber et al., 2010; Trivers, 1991).

Theoretical work by Sperber and colleagues (2010) on epistemic vigilance claims that individuals possess a suite of cognitive mechanisms to avoid manipulation and deception in communication. According to this theory, several different factors come into play when evaluating the truthfulness of communicated information. These factors include source and audience characteristics as well as the context and content of the communication. When evaluating the source, individuals are predicted to be especially vigilant of the communicator's motivation for sharing the information. The communicator must be perceived as benevolent in order for the information to be judged as trustworthy. If the

communicator is thought to have non-benevolent motives, the information will not be treated as reliable.

The principles of this theory would suggest that because women compete with each other in the domain of physical attractiveness (Fisher, Cox & Gordon, 2009), mating relevant communication coming from other women may be judged as unreliable, depending on the content. Specifically, as appearance derogation can be used to manipulate not only the emotions of rivals (Campbell & Wilbur, 2009; Spreadbury & Reeves, 1983), but also the perspective of potential partners (Fisher & Cox, 2009), do women disregard negative appearance feedback from same-sex others? The current research sought to address this question.

The Present Research

To my knowledge, the present research is the first to examine the effect of feedback from same-sex others on women's self-perceptions of desirability, attractiveness, and choosiness for mate characteristics. Incorporating theory and research on female intrasexual competition, the mating sociometer, and manipulation in communication, the following predictions were made: Because of the roles each sex plays in regards to mating, where same-sex others pose as potential competitors, and opposite-sex others pose as potential partners, women would be differentially impacted by mating relevant feedback as a function of feedback valence (i.e., negative versus positive), source (i.e., men versus other women), and domain (i.e., mating versus non-mating). Because women generally seek men as mates, women should be especially attuned to men's judgments of their desirability as a partner. As women compete on the dimension of physical attractiveness, women should be wary of potential competitors' feedback on this characteristic, specifically when this feedback is

negatively valenced. Hence, receiving negatively valenced appearance feedback from other women should not impact women's self-perceptions of desirability as a mate, attractiveness, or choosiness of mate characteristics. Experiment 1 was designed to examine the impact of appearance feedback on men and women's self-perceptions of physical attractiveness and desirability as a romantic partner. In Experiment 2, I examined whether women's perceptions of attractiveness and choosiness for mate characteristics would be impacted as a function of feedback source, valence, and trait levels of competition towards other women. Finally, in Experiment 3, I sought to establish a boundary condition by examining whether women are impacted by feedback from same-sex others in domains that are not relevant to mating.

Experiment 1: Differential Effects of Negative Appearance-Based Feedback on Perceptions of Mate Value as a Function of Participant and Rater Sex

Experiment 1 sought to examine whether men and women respond differently to negative physical attractiveness feedback from potential romantic partners or competitors. To this end, participants were led to believe the current research was testing a new online dating site. This web-site allegedly incorporated physical attractiveness ratings to ensure that similarly attractive individuals were matched with one another. Participants were randomly assigned to one of three conditions: negative attractiveness feedback from same-sex others, negative attractiveness feedback from opposite-sex others, or no feedback (control condition). After receiving the experimental manipulation, participants completed measures assessing their self-perceived mate value and physical attractiveness.

Consistent with the mating sociometer perspective (Kavanagh, Robins, & Ellis, 2010), negative feedback on physical attractiveness, was expected to negatively impact self-perceptions of that characteristic. Because physical attractiveness is more important for

women than men in the mating domain (Feingold, 1990), receiving negative feedback on this characteristic was predicted to negatively impact women's, but not men's, judgments of self-perceived mate value and attractiveness. Further, women's self-perceptions were predicted to be impacted differently depending on the source of the feedback (i.e., feedback coming from same- or opposite-sex others). Specifically, women who received negative appearance feedback from men, who are potential romantic partners, were hypothesized to report lower perceptions of self-perceived mate value and attractiveness than women who received feedback from other women and women who received no feedback. As women compete intrasexually in the domain of physical attractiveness (Buss, 1988), women were predicted to disregard potential competitors' feedback in this domain. Accordingly, women in the no-feedback and negative-feedback from same-sex others conditions were not expected to exhibit difference in self-perceived mate value and attractiveness judgments. This hypothesis is consistent with the communication as manipulation perspective, suggesting that individuals take the feedback source into account when deliberating on whether or not communication is trustworthy.

Method

Participants. Participants were recruited via SONA systems during regular academic terms. The final sample consisted of 148 (82 women, $M_{\text{age}} = 19.05$, $SD_{\text{age}} = 1.22$, age range = 17 - 23) heterosexual college students from Texas Christian University (TCU). All individuals received nominal course credit as compensation. The majority of participants reported having prior romantic relationship experience ($n = 130$) and being currently involved in a romantic relationship ($n = 95$) at the time of the study. Persons were excluded prior to data analyses for failing to identify as heterosexual ($n = 2$), failing manipulation

checks ($n = 11$), reporting having discussed the study prior to participation ($n = 4$), or reporting being engaged or married ($n = 3$).

Procedure and materials. This research was conducted as part of a larger project. The overall design was a 2 (participant sex: women vs. men) \times 3 (rater sex: male raters, female raters, vs. no raters) between-subjects factorial design. Participants came into a research laboratory in mixed-sex groups of 5-20 to ostensibly test a new online dating website. They were told that this website required users to be rated on physical attractiveness to be matched with equivalently attractive members of the opposite-sex. Participants were greeted by a female researcher before being seated at privacy-partitioned individual computer terminals. All computers had been logged into and displayed an informed consent document via Qualtrics experimental software. After providing informed consent, participants signed a photo release form before the software displayed a stop sign telling them to raise their hand indicating they were ready to have their photo taken. All participants stood in front of a white background while their photo was taken with a digital camera. When all photos were taken, the researcher plugged the digital camera into a laptop computer to allegedly upload the photos to be shared and rated by “10 students at another university.” The researcher asked all participants to wait until the photos had been uploaded before continuing the study. After approximately 3 min, the researcher told participants that the photos had been uploaded and were being rated by students at another university. While participants were waiting to receive their ratings, the computer software displayed a loading graphic for approximately 3 min. Qualtrics software then randomly assigned participants to the male-raters, female-raters, or no-raters (control) condition. Those in the male- and female-raters conditions were told that they were rated by men or women, respectively, and received negative feedback from these

alleged raters on their physical attractiveness. Those in the control condition were told that due to a computer error, they would be unable to view the responses provided by the raters. Importantly, they were not told the sex of the raters nor did they receive feedback on their physical attractiveness. After the rater manipulation, participants completed tasks unrelated to the current research questions for approximately 10 min before they responded to measures assessing their self-perceived mate value (Landolt, Lalumière, & Quinsey, 1995) and self-perceived attractiveness (Goldberg, et al., 2006). Participants then responded to standard demographic items, items assessing romantic relationship experience and current relationship status, and items assessing suspicion. Finally, all participants were carefully debriefed, specifically as to the fictitious nature of the ratings by “other students.” They were told explicitly that there were no other students at other universities, that no one else had seen or rated their physical attractiveness, and that they had no reason to alter their self-perceptions—a process debriefing that has been shown empirically to undo any effects of similar manipulations (Ross, Lepper & Hubbard, 1975). After the debriefing, participants were thanked and dismissed. See Appendix A for stimuli and Appendix B for measures.

Rater sex and feedback manipulation. Participants were randomly assigned to one of the three rater manipulation conditions: *male raters*, *female raters*, or *no raters* (control). Those who were randomly assigned to the *male-raters* condition were told their photo was rated by 10 men at a nearby university, while those assigned to the *female-raters* condition were told their photo was rated by 10 women. They were also told that the ratings of their physical appearance were made on a scale ranging from 1 (*not all attractive*) to 9 (*extremely attractive*). Participants in these two conditions were shown identical negative attractiveness ratings. The negative attractiveness ratings were displayed in a table format below the

following sentence (modification for the *male-raters* condition in brackets): “These are the women’s [men’s] ratings of your physical attractiveness.” The table contained two columns; the right column was labeled “Rater,” and the left column was labeled “Response.” In the “Rater” column, the raters were listed in numerical order (e.g., Rater 1, Rater 2, Rater 3 ... Rater 10). The “Response” column contained the rating of each rater followed the value label of the rating in parentheses (e.g., 2 [*very unattractive*]). All ratings ranged from 2 to 5 ($M_{rating} = 3.60$, $SD_{rating} = .84$); they were displayed in the following order: 2, 3, 5, 4, 4, 3, 4, 4, 3, and 4. Immediately after receiving the ratings, participants completed a manipulation check asking them to indicate whether they were rated by men or women. Participants then responded to items asking them how many people rated them at each point on the 9-point scale (e.g., “How many people rated you as 5?”). In the *no-raters* (control) condition, after the “loading” symbol participants were shown an error message. This error message was a digital image of a standard “404 Error” pop-up. The following sentences were displayed in red text below the image: “Due to software malfunctions, you will be unable to see the responses provided by the group of individual who rated your picture on attractiveness. We apologize for the inconvenience. This glitch will be fixed in later versions of this survey.” Participants in this condition then continued on with the remainder of the study.

Self-perceived mate value. To assess perceptions of desirability to the opposite sex, participants completed the Self-Perceived Mate Value Scale (Landolt, Lalumière, & Quinsey, 1995). This is a well-validated measure consisting of 8 items answered on a 7-point Likert-type scale (1: *completely disagree*; 7: *completely agree*). One exemplary item is “Members of the opposite sex are attracted to me.” This measure essentially examines the extent to which individuals believe the opposite sex finds them desirable. Responses on the eight self-

perceived mate value items were averaged to create a mean composite score of self-perceived mate value ($\alpha = .90$), with higher scores indicating higher self-perceived mate value.

Self-perceived physical attractiveness. Participants also completed the Self-Perceived Physical Attractiveness Scale (Goldberg, et al., 2006). This measure consists of nine items responded to on a 5-point Likert scale (1: *very inaccurate*; 5: *very accurate*). Although this scale does include an item assessing one's desirability to the opposite sex (i.e., "Attract attention from the opposite sex."), items mostly examine one's own perceptions of attractiveness. An exemplary item is "Like to look at myself in the mirror." Responses were averaged ($\alpha = .92$) to create a composite score of self-perceived physical attractiveness.

Results

Separate between-subjects analyses of covariance (ANCOVA) were conducted to test the predictions. As prior research has found that individual factors such as relationship experience (Fisher, Cox, Bennett, & Gavric, 2008) and current relationship status (Brase & Guy, 2004; Zhang, Liu, Li, & Ruan, 2015) affect self-perceptions of mate value, these variables were controlled for in all analyses. The descriptive statistics reported in text used the adjusted means and standard errors after accounting for the effect of the covariates. All descriptive statistics can be seen in Table 1.

Self-perceived mate value. A 2 (participant sex: women vs. men) \times 3 (rater sex: male raters, female raters, and no raters) between-subjects ANCOVA was conducted to examine the effect of rater and participant sex on self-perceived mate value scores while controlling for prior relationship experience and current relationship status. The results revealed a main effect of participant sex on self-perceived mate value, $F(1, 140) = 6.56, p = .01, \eta^2 = .04$, where women ($M = 4.41, SE = .13$) reported significantly lower self-perceived mate value

than did men ($M = 4.89$, $SE = .14$). The results additionally revealed a main effect of rater sex on self-perceived mate value, $F(2, 140) = 3.38$, $p = .04$, $\eta^2 = .04$. Pairwise comparisons conducted using the Bonferroni correction provided evidence that those who were not rated ($M = 4.97$, $SE = .16$) reported significantly higher self-perceived mate value than those who received negative feedback from men ($M = 4.37$, $SE = .17$; $p = .03$), but not those who received negative feedback from women ($M = 4.61$, $SE = .17$; $p = .34$). No significant difference in self-perceived mate value was found between those rated by men and those rated by women ($p = .95$).

These main effects were qualified by a significant 2-way interaction between participant sex and rater sex on self-perceived mate value, $F(2, 140) = 4.53$, $p = .01$, $\eta^2 = .05$. See Figure 1 for interaction. Simple main effects revealed significant differences in women's, but not men's, self-perceived mate value as a function of rater sex, $F(2, 140) = 8.05$, $p \leq .001$, $\eta^2 = .09$, $F(2, 140) = 1.01$, $p = .37$, $\eta^2 = .01$, respectively. Specifically, women who received negative feedback from men ($M = 3.73$, $SE = .21$) reported significantly lower self-perceived mate value than women who received negative feedback from same-sex others ($M = 4.61$, $SE = .22$), and women who were not rated ($M = 4.90$, $SE = .22$), ($ps \leq .02$). There was no difference in self-perceived mate value scores between women who received negative feedback from same-sex others and women who were not rated ($p = 1.00$).

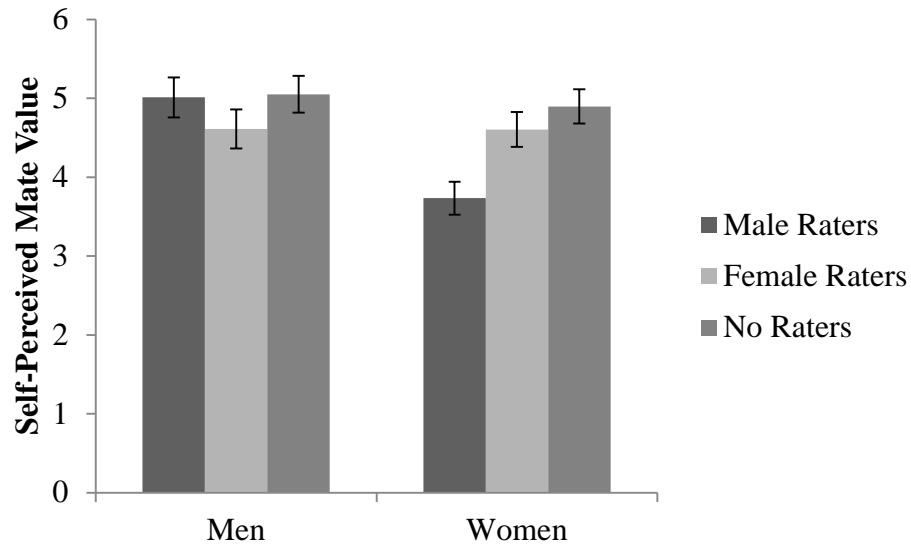


Figure 1. Self-perceived mate value scores as a function of participant sex and rater sex. Higher scores indicate higher self-perceived mate value (Experiment 1). Standard errors are represented in the figure by the error bars attached to each column.

Self-perceived physical attractiveness. A 2 (participant sex: women vs. men) \times 3 (rater sex: male raters, female raters, vs. no raters) between-subjects ANCOVA controlling for prior relationship experience and current relationship status examined the effects of rater and participant sex on self-perceived physical attractiveness scores. The analysis revealed a significant main effect of participant sex on self-perceived attractiveness scores, $F(1, 140) = 15.60, p \leq .001, \eta^2 = .10$, where women ($M = 3.20, SE = .09$) reported significantly lower self-perceived physical attractiveness scores than did men ($M = 3.72, SE = .10$). The main effect of rater sex was not significant, $F(2, 140) = 0.55, p = .58, \eta^2 = .01$, nor was the 2-way interaction between participant sex and rater sex $F(2, 140) = 1.80, p = .17, \eta^2 = .02$.

Table 1.

Experiment 1 descriptive statistics.

Variable	Male Raters		Female Raters		No Raters	
	Men	Women	Men	Women	Men	Women
SPMV	5.14 (1.11)	3.84 (1.34)	4.61 (0.95)	4.58 (1.45)	4.80 (1.29)	4.95 (0.95)
SPPA	3.86 (0.73)	3.00 (0.93)	3.53 (0.59)	3.26 (0.79)	3.72 (0.60)	3.38 (0.91)

Note. SPMV = self-perceived mate value; SPPA = self-perceived physical attractiveness. Standard deviations are in parentheses.

Moderation of self-perceived mate value by self-perceived physical attractiveness.

To examine whether self-perceived physical attractiveness interacted with rater sex and participant sex to influence self-perceived mate value, a moderated multiple regression was performed with participant sex (dummy coded), rater sex (dummy coded), and self-perceived physical attractiveness (centered) on self-perceived mate value while controlling for prior relationship experience and current relationship status. No significant 3-way interactions were revealed ($ps \geq .16$), indicating that self-perceived physical attractiveness did not interact with rater sex and participant sex to differentially influence self-perceived mate value. The results did provide evidence of a marginally significant 2-way interaction between participant sex and rater sex when the dummy code was comparing the male rater and female rater conditions, $b = -.74$ ($SE = .38$), $t = -1.96$, $p = .053$, $R^2 = .03$. Simple main effect tests revealed no difference among rater conditions for male participants ($p = .71$). However, there was a significant difference between rater conditions for female participants, $b = .63$ ($SE = .24$), $t = 2.63$, $p = .01$, $R^2 = .05$, where women who were received negative ratings from men

reported lower self-perceived mate value scores than those who received similar raters from same-sex others. This finding is consistent with the result from the prior ANCOVA analysis. None of the other 2-way interactions approached significance ($ps \geq .08$). The results revealed a significant main effect of self-perceived physical attractiveness on self-perceived mate value, $b = .99$ ($SE = .09$), $t = 10.85$, $p \leq .001$, $R^2 = .46$, where higher perceptions of physical attractiveness predicted higher levels of self-perceived mate value, while controlling for all other variables in the model. Further, a significant main effect of rater condition was revealed when the dummy code was comparing the male rater and no rater conditions, $b = .52$ ($SE = .18$), $t = 2.95$, $p = .004$, $R^2 = .06$, where those who were rated by men reported lower self-perceived mate value than those who were not rated, while controlling for all other variables in the model. None of the other main effects were significant ($ps \geq .08$).

Discussion

Experiment 1 examined whether men and women exhibit different responses to negative physical attractiveness feedback from potential romantic partners or competitors. It was hypothesized that women would be more affected than men by negative attractiveness feedback, and the results were consistent with this prediction. For men, receiving negative feedback on this characteristic did not appear to affect perceptions of desirability as a mate, regardless of whether it comes from potential partners (i.e., women) or potential rivals (i.e., men). This could be because men's physical attractiveness has less of an impact on their romantic success in the mating domain (Feingold, 1990; Lee, Loewenstein, Ariely, Hong, & Young, 2008). That is not to say that physical attractiveness does not play any role for men in mating contexts; it is just not as relevant for men's mating success as it is for women. For example, research examining the relative importance the sexes place on a variety of mate

characteristics found that women rate physical attractiveness as less important in a mate than do men in (Buss & Barnes, 1986).

As hypothesized, women exhibited changes in perceptions of desirability as a mate after receiving negative appearance-based feedback, and their responses differed based on the sex of the raters. This finding shows that women's response to negative appearance-based feedback varies as a function of whether the feedback comes from men or other women. After receiving negative feedback from men, women perceived themselves to be less desirable as a mate. These results are consistent with the mating sociometer perspective (Kavanagh, Robins, & Ellis, 2010), which claims that people's self-perceptions are based on feedback in domains valued by the opposite sex. Such alterations in self-perceptions reflect an adaptive response, as women's ability to attract a desirable partner is affected by how desirable opposite-sex others perceive them to be (Buss & Shackelford, 2008). The current research demonstrates that changes in self-perceptions appear to rely heavily on the source of the feedback. That is, the female participants in Experiment 1 did not report lowered perceptions of mate value after receiving negative appearance-related feedback from other women. This finding provides initial support for the hypothesis, suggesting that women may distrust negative mating relevant feedback from same-sex others, who may pose as potential rivals.

While women's self-perceived mate value varied based on sex of the raters, the wording of the items in the self-perceived mate value scale made it difficult to conclude that women distrust negative feedback from potential competitors, and that such feedback has no influence on their perceptions of physical attractiveness. That is, they necessitate feedback explicitly from the opposite-sex (e.g., "I receive compliments from the opposite sex.").

Further, the predicted interaction between participant sex and rater condition on self-perceived physical attractiveness was not significant. This lack of effect may be due to the phrasing of the scale items. The majority of the items appear to assess the extent to which individuals garner enjoyment from observing their appearance (e.g., “Like to look at myself in the mirror.”), which may not be accurately assessing physical attractiveness. These issues were addressed by including a different measure of physical attractiveness in the subsequent experiments.

Experiment 2: Examination of Appearance Feedback on Women’s Subjective Attractiveness as a Function of Feedback Valence, Rater Sex, Trait Intrasexual Competition, and Hostility towards Other Women

Because Experiment 1 revealed that men’s reported self-perceived mate value did not vary as a function of rater sex, Experiments 2 and 3 focused specifically on women. Experiment 2 was designed with several goals in mind. First, one goal of the current work was to elucidate whether women disregard all attractiveness feedback from same-sex others or whether this effect is specific to only negatively-valenced feedback. To this end, Experiment 2 manipulated the valence of feedback (i.e., positive, negative, vs. no feedback) and the sex of the feedback source (i.e., feedback from men compared to feedback from women). Second, this experiment sought to conceptually replicate the findings of Experiment 1 with a different measure of physical attractiveness. Since people often use others as a reference point when making inferences about their qualities and characteristics (Festinger, 1954; Goffin & Olson, 2011), the attractiveness measure in the current experiment assessed self-perceptions of physical attractiveness in comparison to other women (Lucas & Koff, 2014). As prior research has shown that receiving negative feedback on mating relevant

characteristics or being rejected in the mating domain leads impacts women's choosiness for characteristics in a romantic partner (Reeve, Kelly, & Welling, 2017), Experiment 2 also sought to examine the effects of feedback valence and sex of feedback source on women's choosiness of desired mate characteristics for varying relationship levels (i.e., single date, sex partner, and marriage partner). Finally, Experiment 2 sought to examine whether women's disregard of negative feedback from same-sex others would be moderated by individual differences in trait intrasexual competitiveness and hostility towards same-sex others. Women's subjective physical attractiveness and choosiness for mate characteristics scores were predicted to differ depending on the sex of rater, the valence of the feedback, and trait levels of hostility and competition towards other women. The predictions of the specific 2- and 3-way interactions are laid out in the following sections.

Predictions for Women Rated by Men

For women who were rated by men, those who received negative feedback were predicted to report lower subjective physical attractiveness scores and less partner choosiness than those who received positive and no feedback. Women who received positive feedback were predicted to report higher subjective physical attractiveness scores and more choosiness for a marriage and single date partner than those who received no feedback. No effects of trait intrasexual competition and hostility towards other women on the dependent variables were predicted for women who were rated by men.

Predictions for Women Rated by Women

Replicating the findings of Experiment 1, women were predicted to disregard negatively-valenced attractiveness feedback from potential rivals. That is, the negative and no feedback groups were predicted to show no difference in subjective physical

attractiveness scores or partner choosiness. However, women were predicted to respond to positive attractiveness feedback regardless of rater sex. This effect was expected because individuals are motivated to view themselves positively and hence are more accepting of positive feedback (Halperin, Snyder, Shenkel, & Houston, 1976; Shrauger, 1975; Stone & Stone, 1985). For women who were rated by same-sex others, those who received positive feedback were predicted to report higher levels of subjective physical attractiveness and partner choosiness than those in the negative and no feedback groups. Trait levels of intrasexual competition and hostility towards other women were predicted to differentially impact women who received feedback from same-sex others as a function of the feedback valence. Because women's lack of response to negative feedback from same-sex others is hypothesized to arise from women's beliefs that such feedback competitively motivated, women who do not view same-sex members competitively (i.e., those who have relatively low trait levels of intrasexual competition and hostility towards other women) should report lowered perceptions of attractiveness and choosiness for mate characteristics after receiving negative feedback from same-sex others.

Method

Participants. Participants were recruited from TCU's SONA systems during regular academic terms and were compensated with nominal course credit. The final sample consisted of 181 heterosexual female undergraduate students ($M_{\text{age}} = 19.62$, $SD_{\text{age}} = 1.33$, age range = 18 - 27). Approximately half of the participants ($n = 84$) reported currently being in a romantic relationship, and most of the participants had prior romantic relationship experience ($n = 175$). Participants were excluded from data analyses if they were over the age of 30

($n = 3$), engaged or married ($n = 2$), failed manipulation checks ($n = 2$), or if they reported discussing the study's manipulation prior to participation ($n = 5$).

Design and procedure. The overall design was a 2 (rater sex: men vs. women) \times 3 (feedback valence: positive, negative, vs. no feedback) between-subjects design. The procedure was similar to Experiment 1, where participants were told the cover story regarding a new online dating website. Prior to coming into the lab, participants completed a short survey online to assess their baseline levels of intrasexual competition (Buunk & Fisher, 2009) and hostility towards other women (Lonsway & Fitzgerald, 1995). Everyone came into the laboratory in groups of 3-15; they were greeted by a female research assistant, who was wearing a t-shirt printed with the name of the alleged online dating site to bolster the ruse. After being assigned a three-digit participant ID number, all participants were seated at individually partitioned computer terminals. The computers had been logged onto prior to the beginning of the session and were displaying the informed consent via Qualtrics experimental software. After providing informed consent and completing a photo release form, participants were photographed while holding a white board on which their three-digit participant ID had been written. The alleged purpose of this was to ensure that participants' ratings would be linked to the correct participant. Once all the photographs had been taken, the researcher inserted the camera card into a laptop computer and indicated that the photos were being uploaded to be shared and rated with 10 individuals at another university. A loading graphic was displayed by the computer software for 3 min while the photos were purportedly being uploaded. After 3 min had passed, the page automatically advanced, and participants were randomly assigned to the male raters or female raters condition via Qualtrics software. Individuals then completed distractor tasks for 10 min to lend support to

the ruse that other individuals were rating their photographs. Upon completion of the distractor tasks, the software indicated that their ratings had arrived, and participants were randomly assigned to the positive, negative, or no ratings feedback valence prime. After receiving feedback, participants completed distractor online dating questions before completing the dependent variables of interest assessing their choosiness of mate characteristics for a single date, sex partner, and marriage partner and subjective physical attractiveness. Finally, participants in the negative and positive ratings group completed a manipulation check assessing valence of ratings they received. Everyone completed a manipulation check assessing sex of rater, standard demographic items, items assessing relationship status and prior relationship experience, and questions assessing suspicion. The debriefing procedure was the same as in Experiment 1. Additionally, participants were asked to sign a form indicating that they would not share the study's use of deception with other students. See Appendix A for stimuli and Appendix B for measures.

Rater sex manipulation. The first independent variable was rater sex. Participants were randomly assigned to one of two rater sex conditions: *male raters* or *female raters*. To this end, participants were shown a picture with 10 male or female silhouettes captioned “You were rated by 10 men / women.” In the *female-raters* condition participants were told that 10 women at a different university rated their photo. In the *male-raters* condition participants were told that 10 men at a different university rated their photo.

Feedback valence manipulation. The second independent variable was feedback valence. Participants were randomly assigned to one of three feedback valence conditions: *positive feedback*, *negative feedback*, and *no feedback*. In the *positive* and *negative* feedback valence conditions, participants were shown 10 ratings of their physical attractiveness

allegedly from raters at a nearby university. As in Experiment 1, participants were provided information about the rating scale, and the ratings were displayed in a table format. Those in the *positive feedback* condition received relatively high ratings ranging from 5 to 9 (actual ratings in order displayed: 8, 7, 5, 7, 7, 7, 6, 9, 7, and 7), and they were told their average rating was 7. Those in the *negative feedback* condition received relatively low ratings ranging from 5 to 1 (actual ratings in order displayed: 2, 3, 5, 4, 4, 3, 4, 4, 1, and 4), and they were told their average rating was 3. The *no ratings* condition was identical to Experiment 1, where participants were shown an error screen and told that due to a software malfunction, they were unable to view their scores.

Distractor task. After receiving the rater sex manipulation, participants complete tasks while they were waiting for their photographs to be rated. These tasks were included to lend support to the ruse that other individuals were currently rating their photographs. Individuals were shown the *Jabberwocky* (Carroll, 1871) and were instructed to record all of the words containing the letters “e” and “i.” After five minutes had passed, the survey automatically advanced to the next page. On this page, Qualtrics software displayed the words they had recorded, and participants were instructed to define the words to the best of their ability. After 5 min had passed, the survey automatically advanced, and participants were told that their ratings had arrived.

Intrasexual competition. To test the hypothesis that trait levels of intrasexual competition would moderate the relationship between rater sex and feedback valence conditions, participants completed the Intrasexual Competition Scale (Buunk & Fisher, 2009) prior to coming into the laboratory for the experimental manipulation. This 12-item scale measures the extent to which individuals perceive same-sex members as competitors in the

mating domain. An exemplar item is, “I don’t like it when other women receive more attention than I do.” All items were responded to on a 7-point scale (1: *not at applicable*; 7: *completely applicable*). A trait intrasexual competition score was created by averaging responses on the 12 items ($\alpha = .89$).

Hostility towards other women. To examine whether women’s trait hostility towards same-sex others moderates the relationship between rater sex and feedback type, participants completed the Hostility toward Women Scale (Lonsway & Fitzgerald, 1995) prior to coming into the laboratory. This 10-item scale was adapted for the current study to reflect hostility towards other women; an exemplar item would be, “When it really comes down to it, a lot of other women are deceitful.” All items were answered on a 7-point scale (1: *strongly disagree*; 7: *strongly agree*). A trait hostility towards other women score was created by averaging participants’ responses on the 10 items ($\alpha = .80$).

Subjective physical attractiveness. Participants responded to seven items assessing their subjective physical attractiveness (Lucas & Koff, 2014). Participants were instructed to indicate the extent to which they agreed with each item. Because the items assessed attractiveness in comparison with other women, participants were instructed to consider similarly aged women when answering. An exemplar item from this measure is, “I think I’m prettier than most other women.” Items were responded to on a 7-point scale (1: *strongly disagree*; 7: *strongly agree*). Scores of subjective physical attractiveness were calculated by averaging responses on these seven items ($\alpha = .90$).

Choosiness of mate characteristics. All participants completed a mate preference inventory (Li, Bailey, Kenrick, & Linsenmeier, 2002) assessing choosiness for the following 10 mate characteristics: physical attractiveness, creativity, friendliness, work ethic,

intelligence, interesting personality, romance, sense of humor, special nonwork talents, and yearly income. Following protocol from Kenrick and colleagues (1990), participants were asked to consider their minimal criteria when choosing a a) single date, b) sex partner, and c) marriage partner. They were instructed to provide the minimum percentile of each characteristic they would find acceptable in a partner for each specified relationship level on an 11-point scale (0: 0th percentile, below the rest of the population; 5: 50th percentile, average; 10: 100th percentile, above the rest of the population). Participants were provided with examples prior to providing their criteria, e.g., “Choosing three (3) for the characteristic of romance would indicate that your partner is at the 30th percentile on romance. Your partner is above 30% of other people on intelligence, and below 69% of other people on this dimension.” Composite choosiness scores for each relationship level were created by averaging responses for the 10 mate characteristics: single date ($\alpha = .89$), sex partner ($\alpha = .88$), and marriage partner ($\alpha = .88$).

Results

Manipulation check. A 2 (rater sex: men vs. women) \times 2 (feedback valence: positive vs. negative) between-subjects analysis of variance (ANOVA) was conducted on perception of ratings. This analysis was performed only on the positive and negative feedback valence group and served as a manipulation check of ratings received. Results revealed a main effect of feedback valence, $F(1, 114) = 794.08, p \leq .001, \eta^2 = .87$, where those who received positive feedback ($M = 5.71, SD = .46$) reported receiving more positive ratings than those who received negative feedback ($M = 2.41, SD = .78$). Neither the main effect of rater sex nor the interaction between rater sex and feedback valence was significant ($ps = .53$). This finding confirms the effectiveness of the feedback valence manipulation, providing evidence

that those who were rated negatively perceived themselves to be rated more negatively than those who were rated positively.

As in Experiment 1, all of the analyses testing the predictions were performed while controlling for prior relationship experience and current relationship status. All descriptive statistics can be seen in Table 2.

Subjective physical attractiveness. To examine whether rater sex and feedback valence had an effect on subjective physical attractiveness, a 2 (rater sex: men vs. women) \times 3 (feedback valence: positive, negative, no feedback) between-subjects ANCOVA was conducted controlling for prior relationship experience and current relationship status. The analysis revealed a marginally significant effect of rater sex on subjective physical attractiveness scores, $F(1, 173) = 3.52, p = .06, \eta^2 = .02$. Women who received feedback from female raters ($M = 3.70, SD = 1.13$) reported lower subjective physical attractiveness than those who received feedback from male raters ($M = 4.06, SD = 1.08$), regardless of feedback valence. No significant main effect of feedback valence was revealed, $F(2, 173) = 1.73, p = .18, \eta^2 = .02$, nor was there a significant interaction between rater sex and feedback condition, $F(2, 173) = 0.53, p = .53, \eta^2 = .01$.

Single date choosiness. Single date choosiness scores were analyzed using a 2 (rater sex: men vs. women) \times 3 (feedback valence: positive, negative, no feedback) between subjects ANCOVA controlling for prior relationship experience and current relationship status. The main effects of rater sex, $F(1, 173) = 1.76, p = .19, \eta^2 = .01$, and feedback condition, $F(2, 173) = 0.40, p = .67, \eta^2 = .00$, were not significant. However, the results revealed a marginally significant 2-way interaction, $F(2, 173) = 2.60, p = .08, \eta^2 = .03$. To probe this interaction, simple main effect tests were conducted examining the influence of

feedback valence within rater sex. There was no significant difference among feedback conditions for women rated by female raters, $F(2, 173) = 0.48, p = .62, \eta^2 = .00$. The simple main effect of male raters on single date choosiness was marginally significant, $F(2, 173) = 2.54, p = .08, \eta^2 = .03$. Follow-up tests conducted using Bonferroni corrections to evaluate the three pairwise differences among the means found no statistically significant differences ($ps \geq .16$).

Table 2.

Experiment 2 descriptive statistics.

Variable	Positive Feedback		Negative Feedback		Control	
	Male Raters	Female Raters	Male Raters	Female Raters	Male Raters	Female Raters
ICS	2.96 (0.97)	2.81 (1.00)	2.81 (0.84)	2.56 (1.03)	3.03 (1.22)	2.99 (0.85)
HTW	3.54 (0.80)	3.51 (0.80)	3.33 (0.88)	3.38 (0.79)	3.54 (1.01)	3.45 (0.91)
SPA	4.13 (1.14)	3.80 (1.10)	3.94 (1.03)	3.37 (1.07)	4.09 (1.09)	3.88 (1.18)
Single Date	6.04 (1.33)	5.65 (1.03)	5.38 (0.98)	5.96 (1.36)	5.41 (1.62)	5.91 (1.08)
Sex Partner	5.81 (1.45)	5.67 (1.19)	5.44 (1.32)	5.50 (1.46)	5.63 (1.52)	5.61 (1.24)
Marriage Partner	6.82 (1.21)	6.58 (0.94)	6.62 (1.16)	6.57 (1.09)	6.57 (1.34)	6.78 (1.01)

Note. ICS = intrasexual competition; HTW = hostility towards other women; SPA = subjective physical attractiveness. Standard deviations are in parentheses.

Sex partner choosiness. A 2 (rater sex: men vs. women) \times 3 (feedback valence: positive, negative, no feedback) between subjects ANCOVA controlling for prior relationship experience and current relationship status was conducted to test the effects of rater sex and feedback valence on choosiness for a sex partner. Results revealed no significant effect of rater sex or feedback valence on sex partner choosiness ($ps \geq .56$). Further, no significant 2-way interaction was revealed ($p = .97$).

Marriage partner choosiness. The effect of rater sex and feedback valence on marriage partner choosiness was examined using a 2 (rater sex: men vs. women) \times 3 (feedback valence: positive, negative, no feedback) between subjects ANCOVA controlling for prior relationship experience and current relationship status. The analysis revealed no significant effects of rater sex, feedback valence ($ps \geq .85$), and no significant 2-way interaction on marriage partner choosiness ($p = .54$).

Moderation by trait intrasexual competition. To examine whether trait levels of intrasexual competition interacted with rater sex and feedback valence to influence subjective physical attractiveness and partner choosiness, moderated multiple regressions were performed with rater sex (dummy coded), feedback valence (dummy coded), and intrasexual competition (centered) while controlling for prior relationship experience and current relationship status.

Subjective physical attractiveness. The moderated multiple regression analysis conducted on subjective physical attractiveness scores revealed no significant 3-way interactions ($ps \geq .57$), indicating that trait intrasexual competition did not interact with rater sex and feedback valence to influence subjective physical attractiveness. Additionally, none

of the 2-way interactions were significant ($ps \geq .37$), nor were there any significant main effects ($ps \geq .09$).

Single date choosiness. The results provided no evidence of a 3-way interaction for single date choosiness ($ps \geq .36$). Additionally, no significant 2-way interactions were found ($ps \geq .08$), except for the interaction between rater sex and feedback valence when the dummy code was comparing the control and positive feedback valence conditions, $b = -.95$ ($SE = .45$), $t = -2.09$, $p = .04$, $R^2 = .03$. Simple main effect tests revealed that women who were rated positively by men reported higher single date choosiness compared to the control group, $b = .65$ ($SE = .32$), $t = 2.02$, $p = .05$, $R^2 = .03$. No such difference was revealed for women who received ratings from female raters ($p = .35$). Further, the analysis revealed no evidence of significant main effects ($ps \geq .20$).

Sex partner choosiness. No significant 3-way interactions between intrasexual competition, rater sex, and feedback valence were found for sex partner choosiness scores ($ps \geq .20$). Additionally, the analysis revealed no significant 2-way interactions ($ps \geq .21$) or main effects ($ps \geq .30$).

Marriage partner choosiness. A marginally significant 3-way interaction between rater sex, feedback valence, and trait intrasexual competition was found for marriage partner choosiness scores when the dummy code was comparing the control and negative feedback valence conditions, $b = .86$ ($SE = .45$), $t = 1.91$, $p = .058$, $R^2 = .02$. Simple slopes tests revealed no effect of intrasexual competition on marriage partner choosiness in any of feedback valence conditions for women rated by men ($ps \geq .38$) or other women ($ps \geq .18$). To probe the marginal interaction, differences among the control and negative feedback valence conditions were examined within each rater sex condition on women relatively high

and low (1 *SD* above and below the mean, respectively) in trait intrasexual competition. Results revealed that women relatively low in intrasexual competition (-1 *SD*) who received ratings from alleged same-sex others exhibited marginally lower marriage partner choosiness scores in the negative feedback valence condition compared to the control condition, $b = -.77$ ($SE = .43$), $t = -1.79$, $p = .075$, $R^2 = .02$. See Figure 2 for interaction.

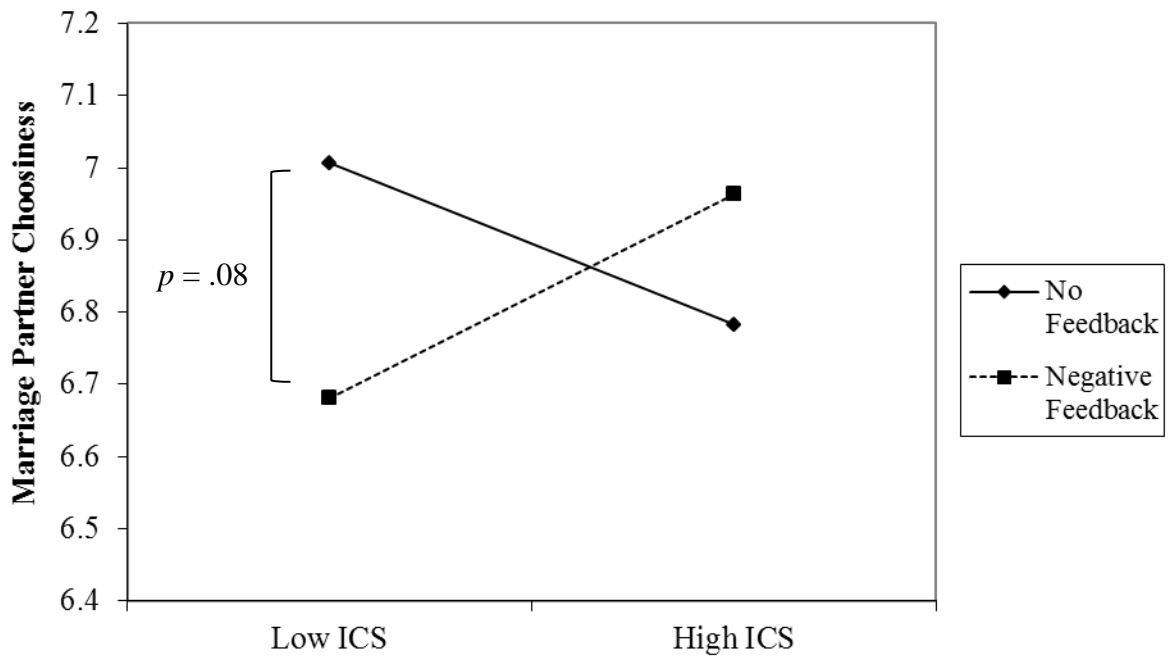


Figure 2. Marriage partner choosiness scores as a function of rater sex, feedback valence, and trait intrasexual competition (ICS; Experiment 2). Figure depicts negative and control feedback conditions for those who were rated by other women.

Women with low levels of intrasexual competition who were rated by men also did not exhibit feedback valence differences in marriage partner choosiness scores ($ps \geq .17$). No significant differences based on feedback valence condition were found for highly intrasexually competitive women (+1 *SD*) who were rated by other women ($ps \geq .39$) or men ($ps \geq .66$). None of the other 3-way interactions approached significance ($ps \geq .17$), and the analysis additionally revealed no significant 2-way interactions or main effects ($ps \geq .27$).

Moderation by hostility towards other women. Moderated multiple regressions were performed with rater sex (dummy coded), feedback valence (dummy coded), and hostility towards other women (centered) on the dependent variables of interest while controlling for prior relationship experience and current relationship status.

Subjective physical attractiveness. The analysis conducted on scores of subjective physical attractiveness revealed no significant 3-way ($ps \geq .17$) or 2-way ($ps \geq .33$) interactions. A marginally significant main effect of rater sex on subjective physical attractiveness scores was revealed, $b = -.31$ ($SE = .17$), $t = -1.86$, $p = .06$, $R^2 = .02$, where women who were rated by women reported lower physical attractiveness than women who were rated by men. None of the other main effects were significant ($ps \geq .11$).

Single date choosiness. The analyses conducted on single date choosiness scores did not provide evidence of any significant 3-way interactions ($ps \geq .20$). A marginally significant 2-way interaction between rater sex and feedback valence were revealed for the analysis with the dummy code comparing the positive and control feedback valence conditions, $b = -.88$ ($SE = .45$), $t = -1.95$, $p = .053$, $R^2 = .02$. Simple effects revealed that between women who were rated by men, positive feedback resulted in marginally higher single date choosiness compared to the control condition, $b = -.64$ ($SE = .32$), $t = -1.99$, $p = .05$, $R^2 = .02$. The simple effect for women who were rated by other females was not significant ($p = .45$). The results further revealed a marginally significant interaction between rater sex and feedback valence for the analysis comparing the positive and negative valence conditions, $b = .90$ ($SE = .47$), $t = 1.92$, $p = .06$, $R^2 = .02$. Simple effects revealed that for women who were rated by men, those who received positive feedback reported higher choosiness for a single date than those who received negative feedback,

$b = -.66$ ($SE = .33$), $t = -2.01$, $p = .05$, $R^2 = .02$. The simple effect for women rated by other females was not significant ($p = .47$). None of the other 2-way interactions approached significance ($ps \geq .10$), and none of the main effects were significant ($ps \geq .19$).

Sex partner choosiness. The moderated multiple regression conducted on sex partner choosiness scores revealed marginally significant 3-way interactions when the dummy codes were comparing the control and positive, $b = 1.09$ ($SE = .58$), $t = 1.88$, $p = .06$, $R^2 = .02$, and the negative and positive feedback valence conditions, $b = -1.14$ ($SE = .63$), $t = -1.81$, $p = .07$, $R^2 = .02$. Simple slopes tests revealed that higher trait levels of hostility towards other women predicted lower sex partner choosiness for women who received positive feedback from men, $b = -.87$ ($SE = .31$), $t = -2.79$, $p = .01$, $R^2 = .04$. No significant effect of trait levels of hostility towards other women was found for women rated by men in the control ($p = .99$) or negative feedback valence conditions ($p = .85$), and no effect of trait levels of hostility towards other women was found for women rated by same-sex others in any of the feedback valence conditions ($ps \geq .52$). Although the interactions were not conventionally significant, follow-up tests were conducted on women high and low (1 *SD* above and below the mean, respectively) in trait hostility towards other women to examine the differences among feedback valence conditions within each rater sex condition. Women low in hostility towards same-sex others who were rated positively by men reported marginally higher sex partner choosiness scores than those who received no feedback from men, $b = .97$ ($SE = .51$), $t = 1.91$, $p = .058$, $R^2 = .02$. See Figure 3 for interaction.

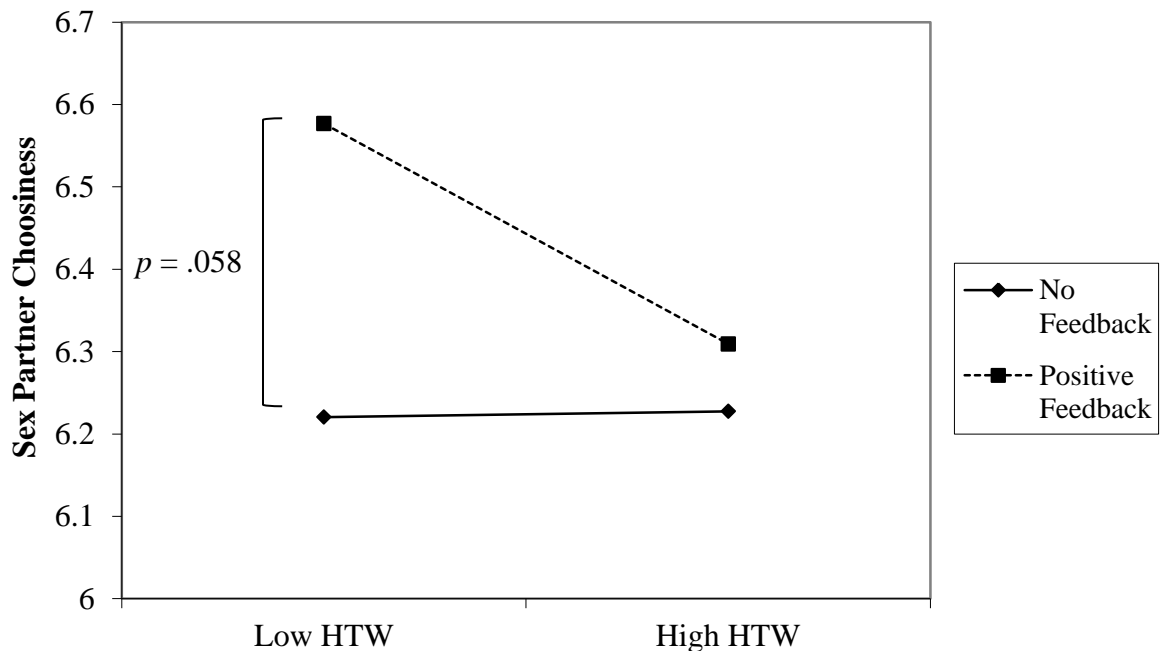


Figure 3. Sex partner choosiness scores as a function of rater sex, feedback valence and trait hostility towards other women (HTW; Experiment 2). Figure depicts pattern of results only for those who were rated by men.

Additionally, the results revealed that women low in hostility towards same-sex others who were rated negatively by men reported significantly lower sex partner choosiness scores than women who received positive ratings from men, $b = -1.17$ ($SE = .50$), $t = -2.34$, $p = .02$, $R^2 = .03$. See Figure 4 for the interaction. No feedback valence differences were found for low hostility women who received ratings from same-sex others ($ps \geq .69$). Further, there were no differences among feedback valence conditions for women high in hostility towards other women who were rated by men ($ps \geq .27$) or same-sex others ($ps \geq .44$). There was no significant 3-way interaction between the control and negative feedback valence conditions ($p = .93$). Finally, the analysis revealed no significant 2-way interactions ($ps \geq .23$) or main effects ($ps \geq .17$).

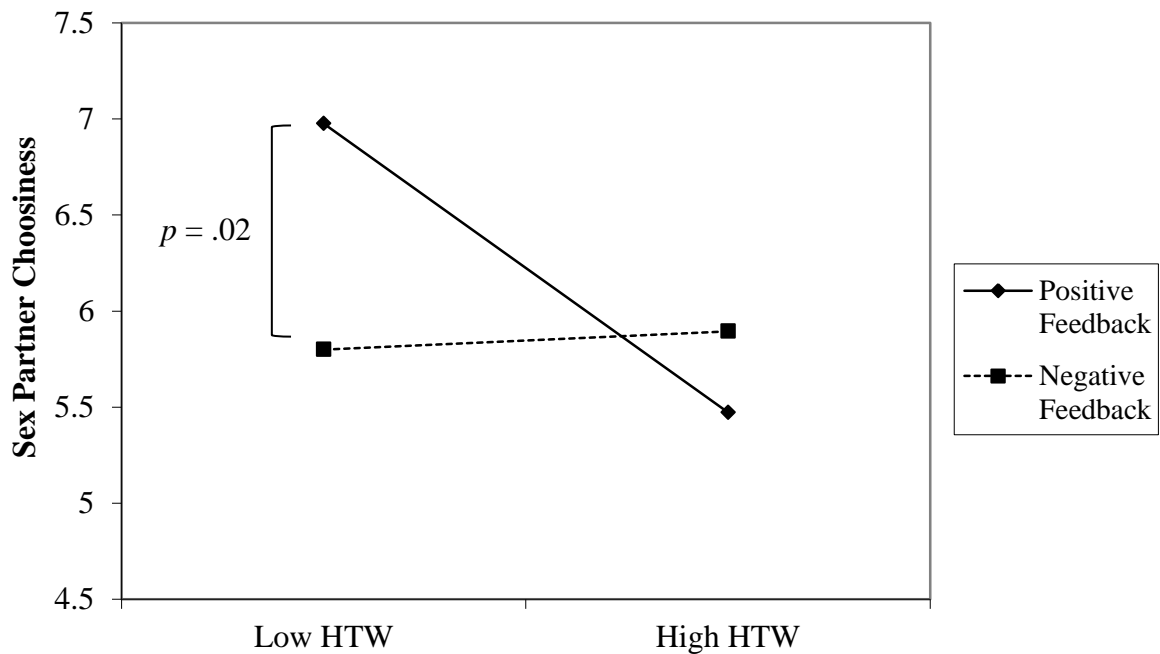


Figure 4. Sex partner choosiness scores as a function of rater sex, feedback valence and trait hostility towards other women (HTW; Experiment 2). Figure depicts positive and negative feedback conditions for those who were rated by men.

Marriage partner choosiness. The moderated multiple regression conducted on marriage partner choosiness scores revealed a significant 3-way interaction for the analysis with the dummy code comparing the positive and control feedback valence condition, $b = -1.09$ ($SE = .52$), $t = -2.09$, $p = .04$, $R^2 = .03$. See Figure 5 for the interaction. Similar to what was found for sex partner choosiness scores, simple slopes tests revealed that women who received positive feedback from men experienced less marriage partner choosiness with the more trait levels of hostility towards other women they have, $b = -.75$ ($SE = .26$), $t = -2.88$, $p = .004$, $R^2 = .05$. Trait hostility towards other women was not found to have an effect for women rated by men in the control or negative feedback valence conditions ($ps \geq .92$), nor was any effect found for women rated by same-sex others in any of the feedback valence conditions ($ps \geq .22$). This interaction was further elucidated by follow-up

tests examining the influence of the positive and negative feedback valence conditions within each rater sex condition in women high and low (1 *SD* above and below the mean) in trait hostility towards other women. As was found for the sex partner choosiness analysis, women relatively low in same-sex hostility reported lower choosiness for a marriage partner when they were rated negatively by men than compared to those who were rated positively, $b = -.89$ ($SE = .42$), $t = -2.13$, $p = .04$, $R^2 = .03$.

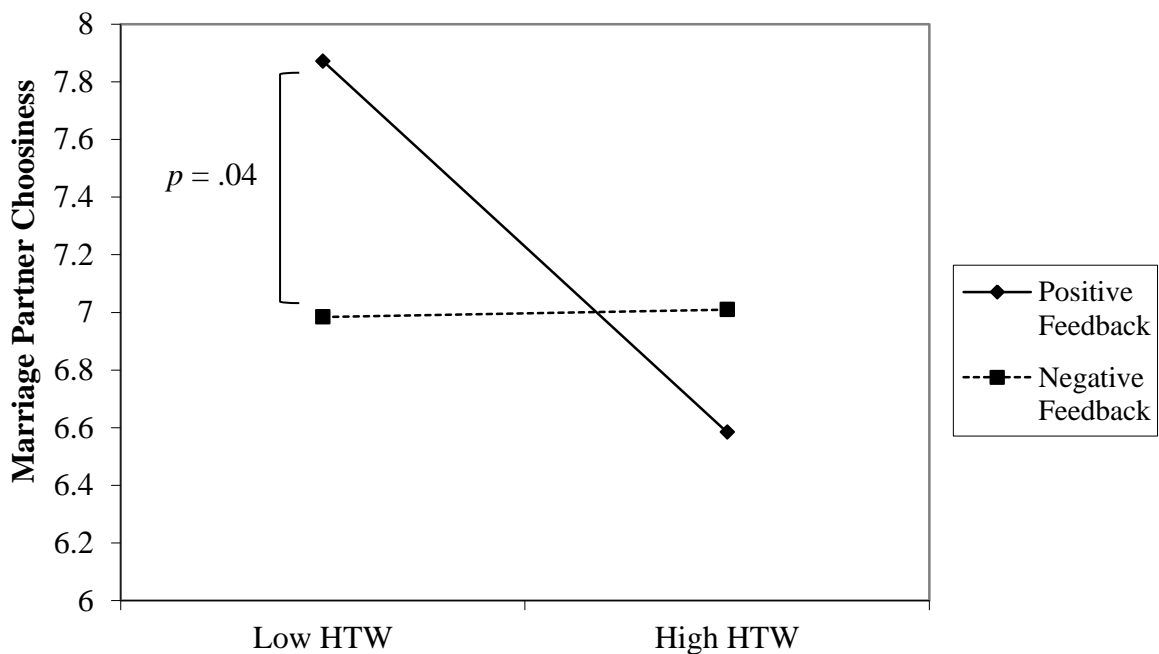


Figure 5. Marriage partner choosiness scores as a function of rater sex, feedback valence and trait hostility towards other women (HTW; Experiment 2). Figure depicts positive and negative feedback conditions for those who were rated by men.

No feedback valence differences were found for low trait hostility women rated by same-sex others ($ps \geq .51$), and no feedback valence differences were found for women relatively high in trait hostility regardless of rater sex condition ($ps \geq .24$). There were no significant 3-way interaction between the control and negative or the control and the positive

feedback valence conditions ($ps \geq .10$). Finally, no two-way interactions ($ps \geq .19$) or main effects were revealed to be significant ($ps \geq .08$).

Discussion

Experiment 2 tested the prediction that women's subjective physical attractiveness and mate characteristic choosiness would vary as a function of feedback valence, sex of feedback source, and trait levels of intrasexual competition and hostility towards other women. Overall, the results of Experiment 2 largely did not support the hypotheses. Contrary to the main hypothesis, no interaction was found between feedback valence and rater sex on women's perceptions of physical attractiveness. Further, women's trait levels of hostility and competitiveness towards same-sex others were not found to interact with rater sex and feedback valence to influence perceptions of attractiveness. These results appear to suggest that receiving appearance feedback, regardless of valence or trait characteristics of competition towards other women does not influence women's perceptions of their own attractiveness in comparison to same-sex others.

Interestingly, sex of rater was found to marginally effect women's perceptions of physical attractiveness, where women who were rated by same-sex others reported lowered perceptions of subjective physical attractiveness than those who were rated by men, regardless of feedback valence. This may suggest that the mere act of being rated by same-sex others leads women to perceive themselves more harshly. Recent research on objectification theory may provide a potential explanation for this unexpected finding (Riley, Evans, & Mackiewicz, 2016). The basis of objectification theory is that heightened focus on women's bodies (and subsequent treatment of women as mere bodies) leads women to experience heightened appearance concerns which has negative implications for women's

mental and physical health (Fredrickson & Roberts, 1997). Previous research in objectification theory has emphasized the importance of the male gaze, where anticipating a male gaze increases women's appearance concerns and body shame (Calogero, 2004). However, more recent research has focused on the importance of the female gaze for women's appearance concerns, finding that women perceive same-sex others' looks to be rife with appearance judgment and comparison (Riley et al., 2016). In light of the current research, this may indicate that women who believed they were rated by same-sex others experienced heightened appearance concerns, which negatively impacted their perceptions of physical attractiveness.

The results also did not provide evidence of the hypothesized interactions between rater sex and feedback valence on women's mate preference choosiness scores, and trait levels of intrasexual competition were not found to interact with the independent variables to influence single date or sex partner choosiness scores. However, a marginally significant interaction in the predicted direction was found between women's trait levels of intrasexual competition, rater sex, and feedback valence on marriage partner choosiness scores. That is, women with low levels of intrasexual competitive who were rated negatively by same-sex others reported marginally lower marriage partner choosiness scores than those who received no feedback. This finding is consistent with the hypothesis that women who do not view same-sex others competitively will respond to negative feedback provided by same-sex members by reporting lowered criteria for a mate.

While trait levels of hostility towards other women were found to interact with rater sex and feedback valence to influence marriage and sex partner choosiness, the results were not in the predicted direction. Rather, women with low levels of hostility towards same-sex

others were responding differently to feedback valence conditions when they were rated by men. Specifically, less hostile women rated negatively by men reported significantly lower choosiness for a sex and marriage partner than those who were rated positively. Additionally, women low in hostility towards same-sex others who were rated positively by men reported marginally higher sex partner and significantly higher marriage partner choosiness than those who received no feedback. Low hostility women could simply be more agreeable, and more likely to respond to feedback from potential partners, while still not responding to feedback from potential competitors. Another potential explanation for these unexpected findings is that women with low levels of hostility towards same-sex others are less concerned with competition over mates and hence are more likely to respond to feedback from men. As the experimental manipulation took place in a room full of other women and each session was run by a female research assistant, these factors could have influenced women with high trait levels of hostility to discount feedback received from men. For example, women with high trait hostility could believe that the research assistant took an unflattering photograph, and hence the ratings from men didn't accurately reflect their attractiveness. These findings may suggest that women who have high levels of hostility towards other women do not alter changes in mate criteria regardless of whether the feedback comes from men or women.

Experiment 3: Examination of Women's Responses to Feedback as a Function of Domain, Feedback Valence, Rater Sex, and Trait Intrasexual Competition and Hostility towards Other Women

Because women often view other women as competitors in the realm of mating, they were expected to distrust negative mating-relevant feedback from same-sex others. Experiments 1 and 2 were designed to test this hypothesis. Experiment 3 was designed to

establish a boundary condition of the predicted effect by examining whether women respond to negative feedback from same-sex others in a non-mating domain (e.g., handwriting). To examine this, following procedures from Experiment 2, female participants first completed measures assessing trait intrasexual competition and hostility towards other women prior to coming into the laboratory to ostensibly test a new online dating site. All participants were told that they were testing a dating site which required users to be rated on physical appearance or a personal attribute (i.e., handwriting) in order to be matched with similar opposite-sex individuals. After having a photo of their appearance and handwriting taken, participants were randomly assigned to receive positive or negative feedback from same- or opposite-sex others on their physical (a mating-relevant quality) or handwriting attractiveness (a quality unrelated to mating) before completing measures assessing handwriting quality, subjective physical attractiveness, and mate characteristic choosiness.

As in Experiment 1 and 2, it was hypothesized that women who received negative appearance feedback from men would report lower perceptions of physical attractiveness and mate characteristic choosiness than those who received positive feedback, and no feedback-valence differences were expected for women who were rated by same-sex others. However, it was hypothesized that women who received negative handwriting feedback would report lower perceptions of handwriting attractiveness regardless of whether the feedback came from same- or opposite sex others. Women were predicted to lower perceptions of handwriting attractiveness after receiving negative handwriting feedback from same-sex others because this is not an evolutionarily relevant domain on which women compete. Because handwriting attractiveness is not a mating relevant characteristic, handwriting feedback, regardless of valence and rater sex, was not expected to impact perceptions of

physical attractiveness or mate characteristics choosiness. Experiment 3 additionally examined whether trait levels of intrasexual competition and hostility towards other women interacted with domain, rater sex, and feedback valence to influence perceptions of physical attractiveness and mate characteristic choosiness. These differences were only expected to emerge for those who received mating relevant feedback. As in Experiment 2, it was hypothesized that women who had low levels of competitiveness and hostility towards other women would exhibit lowered physical attractiveness and mate characteristic choosiness after receiving negative appearance-feedback from same-sex others.

Method

Participants. The sample consisted of 275 female heterosexual undergraduate students ($M_{\text{age}} = 19.85$, $SD_{\text{age}} = 1.77$, age range = 18 - 29) who participated for nominal course credit. Participants were recruited from SONA systems at TCU ($n = 132$) and the University of Texas at Arlington ($n = 143$) during regular academic terms. Participants were excluded from data analyses if they were engaged or married ($n = 2$), failed manipulation checks ($n = 15$), were non-heterosexual ($n = 6$), or if they reported discussing the study's manipulation prior to participation ($n = 9$). Slightly less than half of the participants ($n = 124$) reported currently being in a romantic relationship, and most of the participants had prior romantic relationship experience ($n = 254$).

Design and procedure. Experiment 3 utilized a 2 (rater sex: men vs. women) \times 2 (domain: mating vs. non-mating) \times 2 (feedback condition: positive vs. negative) between-subjects factorial design. The cover story, design, procedure, and materials were similar to Experiment 2. All participants completed measures assessing intrasexual competition ($\alpha = .89$) and hostility towards other women ($\alpha = .85$) before to coming into the laboratory. In

the current experiment, participants were told that the website required users to be rated on personal attributes (i.e., handwriting) or physical appearance in order to be matched with opposite-sex others who share similar characteristics. The addition of this between-subjects factor (i.e., domain: mating vs. non-mating) was intended to establish a boundary condition of women's distrust of feedback from same-sex others. Participants had a photo of their appearance and handwriting taken before they were randomly assigned to a rater sex condition. While waiting for their ratings, participants completed the same distractor task as in Experiment 2 before being randomly assigned to a feedback valence condition. To simplify the design, the current experiment included only the positive and negative feedback valence conditions. After receiving their ratings, participants completed the same distractor online dating items, measures assessing choosiness of mate characteristics (single date, $\alpha = .90$; sex partner, $\alpha = .90$; marriage partner, $\alpha = .91$), subjective physical attractiveness ($\alpha = .90$), and a 1-item manipulation check assessing perceptions of ratings (e.g., “How was your handwriting / physical attractiveness rated?” 1: *extremely unattractive*; 7: *extremely attractive*). Further, participants completed a measure assessing their subjective handwriting attractiveness (i.e., non-mating domain characteristic). The debriefing and post-debriefing procedures were identical to Experiment 2. See Appendix A for stimuli and Appendix B for measures.

Domain manipulation. All participants wrote the following sentence on a piece of paper: “*The quick fox jumped over the lazy dog.*” Photographs were then taken of all participants’ handwriting and appearance. After the photos were allegedly uploaded, participants were randomly assigned to the mating (physical appearance) or non-mating (handwriting) domain via Qualtrics software. In the *mating* condition, participants were told

that they would be given feedback on their physical attractiveness. In the *non-mating* condition, participants were told that they would receive feedback on their handwriting.

Subjective handwriting attractiveness. All participants responded to seven items assessing their subjective handwriting attractiveness, which served as an additional dependent measure in Experiment 3. This measure was adapted from the subjective physical attractiveness measure (Lucas & Koff, 2014) and required participants to compare their handwriting attractiveness to that of similarly aged other women. An exemplar item is, “My handwriting is prettier than most other women’s handwriting.” Items were responded to on a 7-point scale (1: *strongly disagree*; 7: *strongly agree*). A subjective handwriting attractiveness score was calculated by averaging responses on these seven items ($\alpha = .97$).

Results

Manipulation check. To examine whether our feedback manipulation was successful, a 2 (rater sex: men vs. women) \times 2 (domain: mating vs. non-mating) \times 2 (feedback condition: positive vs. negative) between-subjects ANOVA was conducted on the 1-item perception of ratings. The analysis revealed a main effect of feedback valence, $F(1, 267) = 1199.13, p \leq .001, \eta^2 = .81$, where those who received positive feedback ($M = 5.58, SD = .58$) reported receiving more positive ratings than those who received negative feedback ($M = 2.54, SD = .85$). The main effects of domain condition and rater sex were not significant ($ps \geq .30$). Further, none of the 2-way interactions were significant ($ps \geq .17$) and neither was the 3-way interaction ($p = .77$).

As in Experiments 1-2 all of the following analyses conducted while controlling for prior relationship experience and current relationship status. Descriptive statistics can be seen in Table 3.

Table 3.

Experiment 3 descriptive statistics.

Raters Variable	Mating Domain				Non-Mating Domain			
	Positive Feedback		Negative Feedback		Positive Feedback		Negative Feedback	
	Male	Female	Male	Female	Male	Female	Male	Female
ICS	2.90 (1.01)	2.78 (1.21)	2.35 (0.97)	2.64 (1.11)	2.22 (0.83)	2.44 (0.94)	2.53 (1.06)	2.80 (0.77)
HTW	3.54 (1.10)	3.66 (0.94)	3.06 (1.05)	3.51 (0.86)	3.23 (0.81)	3.24 (0.88)	3.52 (0.99)	3.64 (1.11)
SPA	4.04 (0.81)	4.43 (1.04)	3.64 (1.00)	3.71 (1.23)	3.48 (1.03)	4.02 (0.88)	3.78 (1.29)	3.77 (1.00)
HWA	3.94 (1.04)	3.83 (1.55)	3.59 (1.14)	3.58 (1.24)	3.45 (1.39)	3.75 (1.31)	3.41 (1.39)	3.31 (1.23)
Single Date	6.18 (1.23)	6.01 (1.35)	5.49 (1.08)	5.72 (1.26)	6.14 (1.02)	5.84 (1.56)	6.02 (1.55)	5.78 (1.15)
Sex Partner	5.83 (1.69)	6.07 (1.31)	5.31 (1.63)	5.69 (1.37)	6.05 (1.16)	5.53 (1.61)	5.78 (1.77)	5.82 (1.33)
Marriage Partner	7.04 (0.97)	7.01 (1.35)	6.35 (1.17)	6.73 (1.29)	6.84 (1.04)	6.69 (1.52)	6.94 (1.24)	6.27 (1.66)

Note. ICS = intrasexual competition; HTW = hostility towards other women; SPA = subjective physical attractiveness; HWA = handwriting attractiveness. Standard deviations are in parentheses.

Subjective physical attractiveness. A 2 (rater sex: men vs. women) \times 2 (domain: mating vs. non-mating) \times 2 (feedback condition: positive vs. negative) between-subjects ANCOVA was conducted on subjective physical attractiveness scores while controlling for prior relationship experience and current relationship status. Results revealed a significant main effect of feedback valence on perceptions of physical attractiveness, $F(1, 265) = 4.67$, $p = .03$, $\eta^2 = .02$. Regardless of domain, negative ($M = 3.72$, $SE = .09$), compared to positive ($M = 3.99$, $SE = .09$) feedback, resulted in lower physical attractiveness scores. A marginally significant effect of rater sex on perceptions of physical attractiveness was also revealed, $F(1, 265) = 3.83$, $p = .051$, $\eta^2 = .01$, where women who received ratings from men ($M = 3.74$, $SE = .09$) reported lower physical attractiveness scores than those who received ratings from same-sex others ($M = 3.99$, $SE = .09$). No effect of domain condition on physical attractiveness scores was found ($p = .18$).

The main effect of feedback valence was qualified by a significant 2-way interaction between domain and feedback condition on subjective physical attractiveness, $F(1, 265) = 4.73$, $p = .03$, $\eta^2 = .02$. See Figure 6 for interaction. Simple main effects tests revealed a significant difference in subjective physical attractiveness scores between feedback valence conditions for the mating domain ($F[1, 265] = 10.17$, $p = .002$, $\eta^2 = .04$), but not for the non-mating domain ($p = .98$). Specifically, women in the mating domain who received negative feedback ($M = 3.67$, $SE = .12$) reported lower subjective physical attractiveness than those who received positive feedback ($M = 4.23$, $SE = .12$). None of the other interactions were significant (2-way interactions: $ps \geq .12$; 3-way interaction: $p = .90$). The pattern of results remained while controlling for participant student body.

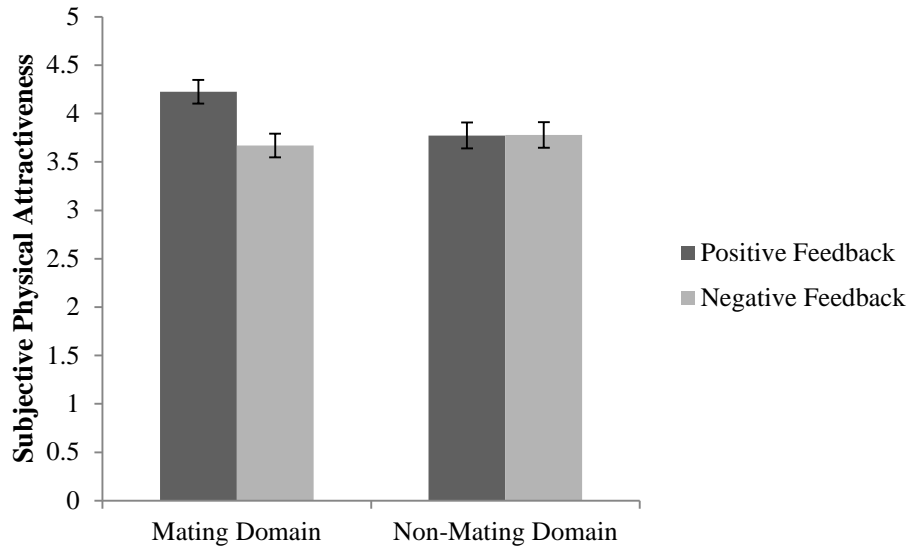


Figure 6. Interaction between domain and feedback valence on subjective physical attractiveness (Experiment 3).

Subjective handwriting attractiveness. To examine whether rater sex and feedback valence had an effect on subjective handwriting attractiveness, a 2 (rater sex: men vs. women) \times 2 (domain: mating vs. non-mating) \times 2 (feedback condition: positive vs. negative) between-subjects ANCOVA was conducted on subjective handwriting attractiveness scores while controlling for prior relationship experience and current relationship status. The analysis revealed a marginally significant effect of feedback valence on handwriting attractiveness scores, $F(1, 265) = 3.06, p = .08, \eta^2 = .01$, where women who received any type of negative feedback (about either their handwriting or physical appearance) reported lower perceptions of handwriting attractiveness ($M = 3.47, SE = .11$) than women who received positive feedback ($M = 3.75, SE = .11$). The main effects of rater sex ($p = .87$) and domain ($p = .13$) were not significant, and no significant interactions were found ($ps \geq .56$). When controlling for participant student body, the pattern of results did not change.

Single date choosiness. Single date choosiness scores were analyzed using a 2 (rater sex: men vs. women) \times 2 (domain: mating vs. non-mating) \times 2 (feedback condition: positive vs. negative) between subjects ANCOVA controlling for prior relationship experience and current relationship status. Results revealed a marginally significant effect of feedback valence condition on single date choosiness, $F(1, 265) = 3.36, p = .07, \eta^2 = .01$, where women who received negative feedback ($M = 5.75, SE = .11$) reported less stringent criteria for a single date than those who received positive feedback ($M = 6.04, SE = .11$), regardless of whether the feedback was on handwriting or physical attractiveness. None of the other results approached significance (main effects: $ps \geq .53$; 2-way interactions: $ps \geq .16$; 3-way interaction: $p = .60$). Controlling for participant student body yielded a similar pattern of results.

Sex partner choosiness. The 2 (rater sex: men vs. women) \times 2 (domain: mating vs. non-mating) \times 2 (feedback condition: positive vs. negative) between subjects ANCOVA controlling for prior relationship experience and current relationship status conducted on sex partner choosiness scores revealed no significant results (main effects: $ps \geq .22$; 2-way interactions: $ps \geq .12$; 3-way interaction: $p = .55$). Controlling for student body did not change the pattern of results.

Marriage partner choosiness. Marriage partner choosiness scores were analyzed using a 2 (rater sex: men vs. women) \times 2 (domain: mating vs. non-mating) \times 2 (feedback condition: positive vs. negative) between subjects ANCOVA controlling for prior relationship experience and current relationship status. The analysis revealed a significant effect of feedback valence on marriage partner choosiness, $F(1, 265) = 4.08, p = .04, \eta^2 = .01$. Women who received negative feedback on handwriting or physical attractiveness

($M = 6.57$, $SE = .11$) reported lower choosiness for a marriage partner than those who received positive feedback ($M = 6.89$, $SE = .11$). The main effects of rater sex and domain on marriage partner choosiness scores were not significant ($ps = .47$).

A marginally significant interaction between domain and rater sex on marriage partner choosiness scores was revealed, $F(1, 265) = 3.50$, $p = .06$, $\eta^2 = .01$. Simple main effects tests looking at the effect of domain condition within each rater sex revealed a marginally significant difference in marriage partner choosiness scores between domain condition for female raters, $F(1, 265) = 3.30$, $p = .07$, $\eta^2 = .01$, but not male raters ($p = .42$). Specifically, women who received mating feeding from same-sex others ($M = 6.88$, $SE = .15$) reported marginally higher choosiness for a marriage partner than those who were received handwriting feedback from same-sex others ($M = 6.47$, $SE = .17$). The remaining interactions were not significant (2-way interactions: $ps \geq .29$; 3-way interaction: $p = .10$). The pattern of results remained while controlling for participant student body.

Moderation by trait intrasexual competition. To examine whether trait intrasexual competition interacted with domain, rater sex, and feedback valence to influence the dependent variables of interest, moderated multiple regressions were performed with domain (dummy coded), rater sex (dummy coded), feedback valence (dummy coded), and intrasexual competition (centered) while controlling for prior relationship experience and current relationship status. All analyses were conducted with and without controlling for participant student body. When controlling for participant student body, the pattern of results persisted throughout.

Subjective physical attractiveness. The moderated regression performed on scores of subjective physical attractiveness revealed no significant 4- or 3-way interactions ($ps \geq .10$).

No significant 2-way interactions were revealed ($ps \geq .06$). The main effect of feedback valence was significant, $b = -.29$ ($SE = .13$), $t = -2.31$, $p = .02$, $R^2 = .02$, where any sort of negative feedback decreased perceptions of physical attractiveness. No further significant main effects were found ($ps \geq .06$).

Subjective handwriting attractiveness. The analyses performed on subjective handwriting attractiveness scores provided no evidence of significant 4-, 3-, or 2-way interactions ($ps \geq .18$) or main effects ($ps \geq .07$).

Single date choosiness. The 4-way interaction for the single date choosiness analysis was not significant ($p = .64$). A significant 3-way interaction between rater sex, domain, and trait intrasexual competition was revealed, $b = .94$ ($SE = .35$), $t = 2.73$, $p = .01$, $R^2 = .03$. None of the simple slopes were significant ($ps \geq .20$). Follow-up tests which examined the influence of domain within each rater sex condition in women high and low (1 *SD* above and below the mean) in trait intrasexual competition found no significant differences ($ps \geq .19$). None of the other 3- or 2-way interactions were significant ($ps \geq .14$), and no significant main effects were found ($ps \geq .07$).

Sex partner choosiness. The analysis performed on sex partner choosiness scores revealed no significant 4-way interaction ($p = .15$). A significant 3-way interaction was revealed between rater sex, feedback domain, and trait levels of intrasexual competition, $b = 1.06$ ($SE = .40$), $t = 2.65$, $p = .01$, $R^2 = .03$. None of the simple effects were significant ($ps \geq .13$). Follow-up tests examined differences in rating domain within each rater sex condition for women high and low (1 *SD* above and below the mean) in trait intrasexual competition. Results revealed that for women with low levels of intrasexual competition who received ratings from other females, those who received ratings in the mating domain

reported higher sex partner choosiness than those who received ratings in the non-mating domain, $b = -.95$ ($SE = .47$), $t = -2.01$, $p = .05$, $R^2 = .02$. None of the other follow-up tests were significant ($ps \geq .11$). None of the other 3- or 2-way interactions were significant ($ps \geq .11$), and no significant main effects were found ($ps \geq .23$).

Marriage partner choosiness. No significant 4-way interaction was revealed for the moderated regression conducted on marriage partner choosiness scores ($p = .11$).

Additionally, no significant 3- or 2-way interactions or main effects ($ps \geq .06$) were found.

Moderation by trait hostility towards other women. To examine whether trait hostility towards other women interacted with domain, rater sex, and feedback valence to influence the dependent variables of interest, moderated multiple regressions were performed with domain (dummy coded), rater sex (dummy coded), feedback valence (dummy coded), and hostility towards other women (centered) while controlling for prior relationship experience and current relationship status. All analyses were conducted with and without controlling for participant student body. The pattern remained similar regardless of whether or not this variable was included in the model.

Subjective physical attractiveness. The moderated regression performed on subjective physical attractiveness scores revealed no significant 4- or 3-way interactions ($ps \geq .19$). A significant 2-way interaction between rater sex and trait levels of hostility towards other women was revealed, $b = .27$ ($SE = .13$), $t = 2.14$, $p = .03$, $R^2 = .02$. The simple effect for women rated by other women was significant, $b = .50$ ($SE = .13$), $t = 4.00$, $p \leq .001$, $R^2 = .06$, with higher trait hostility levels predicting higher subjective physical attractiveness scores. Additionally, the simple effect for those rated by men was marginally significant, $b = .23$ ($SE = .12$), $t = 1.90$, $p = .06$, $R^2 = .01$, where increased trait hostility

predicted higher subjective physical attractiveness scores. Follow-up tests were conducted to compare differences in rater sex condition between women relatively low and high (1 *SD* above and below the mean) in hostility towards same-sex others. Women who had high trait hostility reported higher physical attractiveness scores when they were rated by other women compared to when they were rated by men, $b = .65$ ($SE = .24$), $t = 2.67$, $p = .01$, $R^2 = .03$. No differences in rater sex were found for women who were relatively low in trait hostility ($p = .66$). None of the other 2-way interactions were significant ($ps \geq .08$). Results revealed a significant main effect of feedback valence, where women reported lower physical attractiveness when they received negative compared to positive feedback, $b = -.30$ ($SE = .13$), $t = -2.36$, $p = .02$, $R^2 = .02$. The results also revealed a significant main effect of trait levels of hostility towards other women, where women increased hostility towards other women predicted higher subjective physical attractiveness scores, $b = .19$ ($SE = .06$), $t = 2.94$, $p = .004$, $R^2 = .03$. None of the other main effects were significant ($ps \geq .13$).

Subjective handwriting attractiveness. No significant 4-, 3-, or 2-way interactions were revealed for the moderated regression conducted on subjective handwriting attractiveness scores ($ps \geq .21$). Further, no significant main effects were revealed ($ps \geq .07$).

Single date choosiness. The moderated regression conducted on single date choosiness scores did not provide evidence of a significant 4-way interaction ($p = .99$). However, there was a significant 3-way interaction between feedback domain, valence, and trait hostility towards other women, $b = .80$ ($SE = .34$), $t = 2.37$, $p = .02$, $R^2 = .02$. The simple effect of women who were rated positively in the mating domain was significant, indicating that these women experienced increased single date choosiness with higher levels of trait hostility towards other women, $b = .55$ ($SE = .19$), $t = 2.90$, $p = .004$, $R^2 = .03$. None of the

other simple slopes were significant ($ps \geq .32$). Follow-up tests examined the influence of rating valence within each domain for women relatively low and high (1 *SD* above and below the mean) in trait hostility towards other women. Results revealed that in the mating domain, women with high trait hostility reported lower choosiness for a single date when they were rated negatively compared to positively, $b = -1.26$ ($SE = .43$), $t = -2.91$, $p = .004$, $R^2 = .03$. None of the other comparisons were significant ($ps \geq .44$). No other significant 3- or 2-way interactions were found ($ps \geq .12$). A significant main effect of trait hostility towards other women was revealed, where women reported higher choosiness for a single date with higher levels of trait hostility towards other women, $b = .18$ ($SE = .08$), $t = 2.27$, $p = .02$, $R^2 = .02$. None of the other main effects were significant ($ps \geq .07$).

Sex partner choosiness. No significant 4-way interaction was revealed for the moderated regression conducted on sex partner choosiness scores ($p = .33$). A significant 3-way interaction was revealed between feedback valence, domain, and trait hostility towards other women, $b = .90$ ($SE = .40$), $t = 2.27$, $p = .02$, $R^2 = .02$. No significant simple effects were found ($ps \geq .08$). To examine the influence of feedback valence within each domain for women with high and low levels of trait hostility (1 *SD* above and below the mean), follow-up tests were conducted. For women with high trait hostility in the mating domain, negative feedback, compared to positive feedback, decreased women's choosiness for a sex partner, $b = -1.16$ ($SE = .51$), $t = -2.29$, $p = .02$, $R^2 = .02$. No other significant follow-up tests were found, ($ps \geq .26$). The remaining 3- and 2-way interactions were not significant ($ps \geq .10$), nor were any of the main effects ($ps \geq .23$).

Marriage partner choosiness. No significant 4-way interaction was revealed for the moderated regression analysis conducted on marriage partner choosiness scores ($p = .25$).

Additionally, none of the 3- or 2-way interactions were significant ($ps \geq .06$), and no significant main effects were revealed ($ps \geq .06$).

Discussion

Experiment 3 tested the prediction that women's responses to negative feedback from same-sex others would differ based on the feedback domain. As in Experiment 2, the results largely did not support the hypotheses. Moreover, individual's trait levels of intrasexual competition and hostility towards other women did not significantly interact with domain, rater sex, or feedback valence to influence any of the dependent variables. This finding, or rather, lack of finding, could be due to power issues. Because the current experiment utilized an 8 cell design, more participants were most likely need for significant 4-way interactions to emerge.

It was hypothesized that women would report lower perceptions of physical attractiveness when receiving negative attractiveness feedback from men, but not other women. Contrary to what was found in Experiment 2, women who were rated by men, regardless of rating valence, reported marginally lower perceptions of physical attractiveness. The results did show that perceptions of physical attractiveness are influenced by domain specific feedback. That is, women who received positive attractiveness feedback reported higher perceptions of attractiveness than those who received negative attractiveness feedback, and perceptions of physical attractiveness were not impacted by feedback on handwriting. However, the result did not vary based on the sex of the raters. While this appears to suggest that women do not disregard negative attractiveness feedback from same-sex others, such a conclusion may be inaccurate due to the lack of a true control group. Instead, this result may be due to women's increased perceptions of attractiveness after

receiving positive attractiveness feedback rather than decreased perceptions after receiving negative feedback.

Further, it seemed that receiving negative feedback, regardless of domain or rater sex, impacted perceptions of qualities unrelated to mating as well as mate characteristic choosiness. Women who received negative handwriting feedback were hypothesized to report lower perceptions of handwriting attractiveness relative to those who received positive feedback on this quality. Instead, a marginally significant effect of feedback valence was found, where negative feedback, regardless of domain, resulted in lower perceptions of handwriting attractiveness. The results also revealed that receiving negative feedback in general seemed to affect women's choosiness for a single date (marginally significant) and a marriage partner. Although it was hypothesized that women who received negative attractiveness feedback from men would report lower choosiness for a single date and marriage partner, this was not supported. The analyses instead revealed that women who received negative feedback, regardless of rater sex and domain, reported lower choosiness for mate characteristics. An explanation for these findings could be that receiving any negative feedback lowers self-esteem, which is then reflected in lowered perceptions of qualities unrelated to mating and lowered criteria for a mate. While no research, to my knowledge, has directly tested this link, there is some supportive evidence for this interpretation. Prior research finds that women who received negative feedback on their personality reported greater liking for a male confederate than those who received positive feedback (Walster, 1965). In modern society, this strategy, known as "negging," is lauded as a successful approach by men pursuing aggressive short-term mating strategies (Markovik, 2007). However, the current research suggests that women lower criteria for a partner regardless of

whether negative feedback comes from men or other women. Because women's responses to negative feedback occur regardless of rater sex, it is possible that men might utilize negative feedback to more easily attract mates while women utilize negative feedback to scare away the competition.

General Discussion

Although women frequently derogate the appearance of same-sex others (Buss & Dedden, 1990), little research has examined how women's self-perceptions of attractiveness and desirability are impacted by such feedback. Based on previous research and theory on appearance derogation as a female intrasexual competition strategy, the mating sociometer, and manipulation in communication, I conducted three experiments examining the specific impact of feedback source, valence, domain, and trait levels of competitiveness on self-perceptions of attractiveness, desirability to the opposite-sex, and mate characteristics choosiness. Because of the separate roles played by same- and opposite-sex others in mating contexts, I hypothesized that women's perceptions of desirability as a mate, physical attractiveness, and choosiness of mate characteristics would be sensitive to negative mating-relevant feedback from opposite- but not same-sex others. Providing initial support for the hypothesis, Experiment 1 found that women's, but not men's, self-perceived mate value was differently impacted by the source of negative appearance feedback. That is, receiving negative appearance feedback from men, but not women, lowered women's perceptions of desirability as a mate. However, none of the experiments provided consistent evidence supporting the predictions for perceptions of physical attractiveness (Experiments 1-3) or mate characteristic choosiness (Experiments 2-3). Finally, throughout Experiments 2 and 3, no uniform pattern of results was found in support of the hypothesized effect of trait levels of

intrasexual competition and hostility towards other women on perceptions of physical attractiveness and mate characteristic choosiness. Overall, the results were not consistent across these three experiments and largely did not support the hypotheses.

While the current results did not provide support for the hypotheses, they nevertheless have important implications for the body of research on the mating sociometer. The majority of experimental research on the mating sociometer has focused on state self-esteem as a dependent variable after manipulating mating acceptance versus rejection cues, finding that receiving rejection cues lowers state self-esteem (Kavanagh, Fletcher, & Ellis, 2014; Kavanagh, Robins, & Ellis, 2010; Pass, Lindenberg, Park, 2010; Zhang, Liu, Li, & Ruan, 2015). The current research expands on this work by examining how feedback on a mating-relevant quality coming from same- or opposite-sex others impacts perceptions of desirability as a mate, attractiveness, and mate characteristic choosiness. Contrary to prior findings by Pass, Lindenberg, and Park (2010), Experiment 1 suggests that receiving negative feedback on characteristics relevant to mating capacity did indeed impact women's, but not men's, beliefs about desirability as a mate. Moreover, this response was specific to the source of the feedback, where women reported lower perceptions of self-perceived mate value when the feedback came from potential romantic partners, but not potential competitors. The present finding is consistent with Zhang and colleagues' (2015) research, indicating that perceptions of desirability as a romantic partner can be impacted not only by romantic rejection or acceptance from opposite-sex others, but also by feedback from opposite-sex others on mating relevant qualities. Further, the current research, viewed in concert with Zhang and colleagues' (2015) findings, may shed light on the null effects found by Pass, Lindenberg,

and Park (2010). That is, in order for mating-relevant feedback to effect perceptions of desirability as a mate, this feedback might need to come from opposite-sex members.

Although Experiment 3 provided evidence that negative appearance feedback lowers perceptions of physical attractiveness, this pattern was not consistently supported across the other two experiments. The present findings are consistent with research showing that direct evaluations of physical attractiveness are resistant to change in response to environmental cues (Gutierrez, Kenrick, and Partch, 1999; Kenrick, Neuberg, Zierk, & Krones, 1994; Richins, 1991). For example, Gutierrez, Kenrick, and Partch (1999) examined the effect of exposure to highly attractive or average photographs of same-sex others on women's perceptions of physical attractiveness and desirability as a mate. After exposure to highly attractive same-sex others, women rated themselves as a less desirable marriage partner, but their perceptions of physical attractiveness did not change. As the current results suggest, physical attractiveness feedback may not impact direct evaluations of physical attractiveness, but it may impact perceptions of desirability as a mate (Experiment 1). Future research in this area may benefit from distinguishing the specific differences between self-perceptions of attractiveness and desirability as a mate.

Additionally, it was hypothesized that negative appearance feedback from members of the opposite-sex would negatively impact mate characteristic choosiness. However, the results of Experiment 2 and 3 did not support this prediction. These results are not consistent with prior research finding that romantic rejection from members of the opposite-sex decreases mate choosiness (Kavanagh, Robins, & Ellis, 2010; Reeve, Kelly, & Welling, 2017). There are several potential explanations for this apparent inconsistency between prior research and the research at hand; one of which is the use of different manipulations.

Kavanagh et al. (2010) and Reeve et al. (2017) utilized a romantic rejection-acceptance paradigm, where participants were explicitly told that many or no members of the opposite-sex wanted to interact with them. Instead of manipulating explicit romantic rejection or acceptance, the current research manipulated feedback valence, where participants received negative or positive ratings of their physical attractiveness. Because people are hesitant to accept negative feedback and tend to view such feedback as inaccurate (Audia & Locke, 2003; Ilgen et al., 1978), negative feedback on appearance may have been disregarded by participants in the current research. More generally, these differences in findings may indicate that feedback on mating relevant characteristics and romantic rejection may not be equivalent experiences and do not have the same implications for mate characteristics choosiness. Future research may benefit from examining differences and similarities in the experience and impact of negative feedback and romantic rejection.

Limitations of the Present Research

The most obvious limitation of the current research was power issues. Although I based the sample sizes for Experiment 2 and 3 on the results of a priori power analyses using G*Power software (version 3.1; Faul, Erdfelder, Lang & Buchner, 2007), these analyses were conducted using the effect size of the interaction in Experiment 1, which included both male and female participants. This effect size may not have been applicable for Experiments 2 and 3 which only included female participants. Moreover, I did not account for the addition of two covariates, prior relationship experience and current relationship status, which needed to be added to the model for conceptual and empirical reason. Additionally, testing for moderating effects of individual differences in trait levels of intrasexual competitiveness and hostility towards other women increased the number of predictors and necessitated a larger

sample size. These oversights resulted in drastically underestimated sample sizes, and hence, inadequate power. If Experiments 2 and 3 had been adequately powered, it is possible that the hypothesized effects would have emerged.

Other limitations are inherent in the public nature of the procedure. The majority of mating sociometer research manipulating rejection and acceptance cues from the opposite-sex ran subjects in individual rather than group sessions (Kavanagh, Robins, Ellis, 2010; Kavanagh, Fletcher, & Ellis, 2014; Reeve, Kelly, Welling, 2017). Running the sessions in a group computer lab with several other participants could have detracted from the cover story's believability. This may have led participants to be less affected by the rater sex and feedback valence manipulations than they would have been if they experienced them individually.

Conclusion

Overall, the results of the current research did not provide evidence for the predicted hypotheses, suggesting that negative feedback on physical appearance does not negatively impact women's perceptions of physical attractiveness or mate characteristic choosiness, regardless of whether this feedback comes from potential competitors or partners. These results could be due to limitations such as inadequate power and procedural issues. However, it is also possible these results illuminate women's wariness to trust feedback from any individual who they perceive as having ulterior or deceptive motives, an interpretation consistent with theory and research on manipulation in communication (Sperber et al., 2010). Indeed, Russell et al. (2013, 2016, 2017) finds that women distrust mating relevant feedback from same- and opposite-sex others, perceiving same-sex others to have ulterior competitive motives, and opposite-sex others to have ulterior mating motives. Accordingly, beliefs about

deceptive motivations of same- and opposite-sex others could provide an explanation as to why negative appearance feedback did not lower women's perceptions of physical attractiveness in the current research. Taken together, the findings of these experiments provide an important contribution to the literature by showing that women's perceptions of attractiveness are not necessarily impacted by attractiveness feedback from same- and opposite-sex others.

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APPENDIX A

Stimuli

1. Loading Graphic (Experiment 1 – 3)
2. Cat's Eye Slogan and T-Shirt (Experiments 2-3)
3. Rater and Feedback Manipulation
 - a. Negative Feedback from Male and Female Raters (Experiment 1)
 - b. Error Message (Experiment 1-2)
 - c. Rater Sex Silhouettes (Experiments 2-3)
 - d. Feedback Valence Manipulation (Experiment 2-3)
 - e. Handwriting Sheet (Experiment 3)

Loading Graphic



Cat's Eye Slogan and T-Shirt



CAT'S EYE®
a better way to date

Negative Feedback from Male and Female Raters

Negative Feedback from Male Raters:

These are the men's ratings of your physical attractiveness.

Rater	Response
Rater 1	2 (<i>very unattractive</i>)
Rater 2	3 (<i>moderately unattractive</i>)
Rater 3	5 (<i>neither attractive not unattractive</i>)
Rater 4	4 (<i>slightly unattractive</i>)
Rater 5	4 (<i>slightly unattractive</i>)
Rater 6	3 (<i>moderately unattractive</i>)
Rater 7	4 (<i>slightly unattractive</i>)
Rater 8	4 (<i>slightly unattractive</i>)
Rater 9	3 (<i>moderately unattractive</i>)
Rater 10	4 (<i>slightly unattractive</i>)

Negative Feedback from Female Raters:

These are the women's ratings of your physical attractiveness.

Rater	Response
Rater 1	2 (<i>very unattractive</i>)
Rater 2	3 (<i>moderately unattractive</i>)
Rater 3	5 (<i>neither attractive not unattractive</i>)
Rater 4	4 (<i>slightly unattractive</i>)
Rater 5	4 (<i>slightly unattractive</i>)
Rater 6	3 (<i>moderately unattractive</i>)
Rater 7	4 (<i>slightly unattractive</i>)
Rater 8	4 (<i>slightly unattractive</i>)
Rater 9	3 (<i>moderately unattractive</i>)
Rater 10	4 (<i>slightly unattractive</i>)

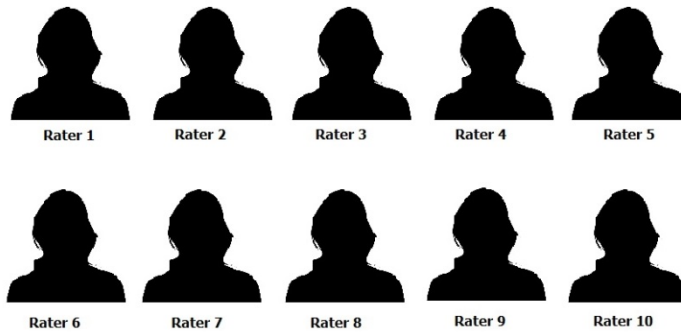
Error Message



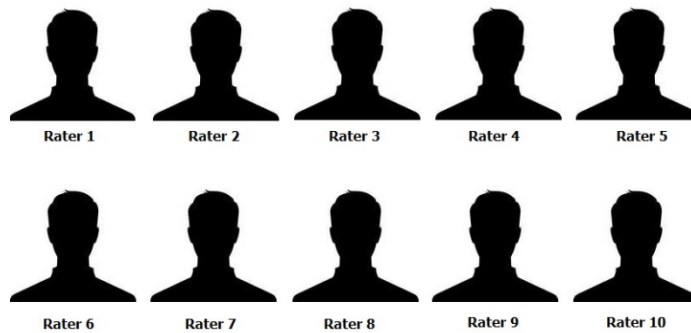
Due to software malfunctions, you will be unable to see the responses provided by the group of individuals who rated your picture on attractiveness. We apologize for the inconvenience. This glitch will be fixed in later versions of this survey.

Rater Sex Silhouettes

Female Raters:



Male Raters:



Feedback Valence Manipulation

Negative Feedback:

Raters	Ratings
4	2
7	3
1	5
2	4
10	4
3	3
9	4
5	4
6	1
8	4
	Average = 3

Positive Feedback:

Raters	Ratings
4	8
7	7
1	5
2	7
10	7
3	7
9	6
5	9
6	7
8	7
	Average = 7

Handwriting Sheet

Participant ID # (on post-it): _____

Please write the following sentence below: **The quick fox jumped over the lazy dog.**

Bring this paper when the researcher calls you to the front to take your photo.

APPENDIX B

Measures

1. Attractiveness:
 - a. Self-Perceived Mate Value (Experiment 1)
 - b. Self-Perceived Physical Attractiveness (Experiment 1)
 - c. Subjective Physical Attractiveness (Experiment 2-3)
 - d. Subjective Handwriting Attractiveness (Experiment 2-3)
2. Choosiness of Mate Characteristics (Experiments 2-3)
3. Competitiveness:
 - a. Intrasexual Competition (Experiment 2-3)
 - b. Hostility Towards Women (Experiment 2-3)
4. Manipulation Checks:
 - a. Rater Sex: (Experiment 1-3)
 - b. Rating Number (Experiment 1)
 - c. Physical Attractiveness Rating Valence (Experiment 2)
 - d. Physical or Handwriting Attractiveness Rating Valence (Experiment 3)
 - e. Rating Domain (Experiment 3)
5. Attention Checks and Suspicion Items (Experiment 1-3)
6. Demographics (Experiments 1-3)
7. Post-Debriefing Sheet (Experiment 2-3)

Self-Perceived Mate Value (Landolt, Lalumière, & Quinsey, 1995)

Please state the extent to which you agree or disagree with each statement.

1	2	3	4	5	6	7
Completely Disagree			Neither Agree nor Disagree			Completely Agree

1. Members of the opposite sex that I like tend to like me back.
2. Members of the opposite sex notice me.
3. I receive many compliments from members of the opposite sex.
4. Members of the opposite sex are not very attracted to me. (R)
5. I receive sexual invitations from members of the opposite sex.
6. Members of the opposite sex are attracted to me.
7. I can have as many sexual partners as I choose.
8. I do not receive many compliments from members of the opposite sex. (R)

Self-Perceived Physical Attractiveness (Goldberg, et al., 2006)

Please use the rating scale below to describe how accurately each statement describes you. Describe yourself as you honestly see yourself, in relation to other people you know of the same sex as you are, and roughly your same age. Please read each statement carefully, and then fill in the blank that corresponds to the number on the scale.

1	2	3	4	5
Very Inaccurate	Moderately Inaccurate	Neither Inaccurate nor Accurate	Moderately Accurate	Very Accurate

1. Am considered attractive by others.
2. Attract attention from the opposite sex.
3. Have a pleasing physique.
4. Like to look at my body.
5. Like to look at myself in the mirror.
6. Like to show off my body.
7. Don't consider myself attractive. (R)
8. Dislike looking at myself in the mirror. (R)
9. Dislike looking at my body. (R)

Subjective Physical Attractiveness (Lucas & Koff, 2014)

For each of the items below, indicate the extent to which you agree with the item. Please read the items carefully to be sure your responses accurately and honestly reflect your attitudes. The group considered should be women around your age.

1	2	3	4	5	6	7
Strongly Disagree			Neither Agree Nor Disagree			Strongly Agree

1. I'm thinner than most other women.
2. I'm better looking than most other women.
3. I have a better sense of style than most other women have.
4. I'm sexier than most other women
5. I have a more attractive body than most other women.
6. I'm prettier than most other women.
7. I dress better than most other women.

Self-Perceived Handwriting Attractiveness

For each of the items below, indicate the extent to which you agree with the item. Please read the items carefully to be sure your responses accurately and honestly reflect your attitudes. The group considered should be women around your age.

1	2	3	4	5	6	7
Strongly Disagree			Neither Agree Nor Disagree			Strongly Agree

1. I have worked on my handwriting more than most other women
2. My handwriting is better looking than most other women's handwriting.
3. I have a better sense of handwriting style than most other women have.
4. My handwriting is more pleasing to look at than most other women's handwriting.
5. The shape of my handwriting is more attractive than most other women's handwriting.
6. My handwriting is prettier than most other women's handwriting.
7. The quality of my handwriting is better than most other women's handwriting.

Choosiness of Mate Characteristics (Li, Bailey, Kenrick, & Linsenmeier, 2002)

The following questions examine what women look for when choosing a partner for different types of romantic relationships. Please give the minimum percentile of each characteristic you would find acceptable in a partner for the specified relationship level. In other words, how low would you be willing to go?

Percentile information:

10 = 100th percentile (above the rest of the population)

9 = 90th percentile

8 = 80th percentile

7 = 70th percentile

6 = 60th percentile

5 = 50th percentile (average)

4 = 40th percentile

3 = 30th percentile

2 = 20th percentile

1 = 10th percentile

0 = 0th percentile (below the rest of the population)

Single Date

Design a romantic partner with minimally acceptable levels of the following characteristics for a single date. In other words, how low would you be willing to go on these characteristics when choosing a partner for a single date?

- ___ sense of humor
- ___ creativity
- ___ friendliness / sociability
- ___ intelligence
- ___ work ethic
- ___ interesting personality
- ___ romance
- ___ physical attractiveness
- ___ special nonwork related talents
- ___ yearly income

Marriage Partner

Design a romantic partner with minimally acceptable levels of the following characteristics for a marriage partner. In other words, how low would you be willing to go on these characteristics when choosing a marriage partner?

- ___ sense of humor
- ___ creativity
- ___ friendliness / sociability
- ___ intelligence
- ___ work ethic

- ___ interesting personality
- ___ romance
- ___ physical attractiveness
- ___ special nonwork related talents
- ___ yearly income

Sex Partner

Design a romantic partner with minimally acceptable levels of the following characteristics for a sex partner. In other words, how low would you be willing to go on these characteristics when choosing a sex partner?

- ___ sense of humor
- ___ creativity
- ___ friendliness / sociability
- ___ intelligence
- ___ work ethic
- ___ interesting personality
- ___ romance
- ___ physical attractiveness
- ___ special nonwork related talents
- ___ yearly income

Intrasexual Competition (Buunk & Fisher, 2009)

Please indicate how much the following statements apply to you.

1	2	3	4	5	6	7
Not at all applicable						Completely applicable

1. I can't stand it when I meet another woman who is more attractive than I am.
2. When I go out, I can't stand it when men pay more attention to a friend of mine than to me.
3. I tend to look for negative characteristics in attractive women.
4. When I'm at a party, I enjoy it when men pay more attention to me than to other women.
5. I wouldn't hire a very attractive woman as a colleague.
6. I just don't like very ambitious women.
7. I tend to look for negative characteristics in women who are very successful.
8. I wouldn't hire a highly competent woman as a colleague.
9. I like to be funnier and more quick-witted than other women.
10. I want to be just a little better than other women.
11. I always want to beat other women.
12. I don't like seeing other women with a nicer house or a nicer car than mine.

Hostility towards Other Women (Lonsway & Fitzgerald, 1995)

Please indicate the extent you that you agree or disagree with the following statements.

1	2	3	4	5	6	7
Strongly Disagree						Strongly Agree

1. I feel that many times other women flirt with men just to tease them or hurt them.
2. I believe that most women tell the truth. (R)
3. I usually find myself agreeing with most women. (R)
4. I think that most other women would lie just to get ahead.
5. It is generally safer not to trust women too much.
6. When it really comes down to it, a lot of other women are deceitful.
7. I am easily angered by other women.
8. I am sure I get a raw deal from the other women in my life.
9. Sometimes other women bother me by just being around.
10. Other women are responsible for most of my troubles.

Manipulation Checks

Who rated your photo?

_____ Men _____ Women

1. How many people rated you as 9?
2. How many people rated you as 8?
3. How many people rated you as 7?
4. How many people rated you as 6?
5. How many people rated you as 5?
6. How many people rated you as 4?
7. How many people rated you as 3?
8. How many people rated you as 2?
9. How many people rated you as 1?

How was your physical attractiveness rated?

1	2	3	4	5	6	7
extremely unattractive	moderately unattractive	slightly unattractive	neither unattractive nor attractive	slightly attractive	moderately attractive	extremely attractive

How was your physical attractiveness / handwriting rated?

1	2	3	4	5	6	7
extremely unattractive	moderately unattractive	slightly unattractive	neither unattractive nor attractive	slightly attractive	moderately attractive	extremely attractive

What were you rated on?

_____ Handwriting Quality _____ Physical Attractiveness

Attention Checks and Suspicion Items

Recent research shows that our attitudes are affected by context (for example, our moods, previous knowledge, and environment). To show that you have read these instructions, please ignore this question about how you are feeling and instead check only the "None of the above" option as your answer.

___ Interested	___ Hostile	___ Nervous
___ Distressed	___ Enthusiastic	___ Determined
___ Excited	___ Proud	___ Attentive
___ Upset	___ Irritable	___ Jittery
___ Strong	___ Alert	___ Active
___ Guilty	___ Ashamed	___ Afraid
___ Scared	___ Inspired	___ None of the above

Did you discuss the details of this study with any other students prior to participating?

_____ Yes _____ No

Demographics

What is your biological sex?

_____ Male _____ Female

How old are you? _____

What is your primary sexual orientation?

_____ Heterosexual
_____ Homosexual
_____ Bisexual
_____ Other
_____ Prefer not to respond

Have you ever been in a romantic relationship?

_____ Yes _____ No

Are you currently in a romantic relationship?

Yes No

Please state in more detail what your current relationship status is:

Single

Casually dating someone

In a committed relationship

In a committed relationship and living with this person

Engaged

Married

Divorced or Separated

Post-Debriefing Sheet

Thank you for your participation. Your involvement in research at TCU is indispensable. Without your help, we would be unable to do research. Because TCU is such a small school, it is extremely important that you do not talk about this study with other students. Knowing about our study procedure (and our use of deception) would make people respond in a different way than they normally would. This would make the results of our study inaccurate. Please do not share the ruse or talk to any students about this study. Your signature below indicates that you will not communicate to other students about this study, the procedures used, or any related aspects.

Name

Date

ABSTRACT

DON'T TRUST THE COMPETITION: WOMEN'S RESPONSES TO MATING RELEVANT FEEDBACK FROM SAME-SEX OTHERS

by Hannah K. Bradshaw, M.S., 2015
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Thesis Advisor: Sarah E. Hill, Associate Professor of Psychology

Appearance derogation is a commonly-observed female intrasexual competition strategy. Accordingly, women may interpret appearance-related feedback differently depending on whether it is coming from a man or another woman. The current research examined the impact of appearance feedback – given by men or women – on women's perceptions of desirability as a mate, attractiveness, and mate choice. Women were predicted to respond positively to positive feedback given by men or women. However, because women may be cognizant of the use of competitor derogation as a strategy of intrasexual competition, negative feedback was predicted to only negatively impact women's self-perceptions when it was provided by men. Results provided mixed support for this hypothesis. Experiment 1 found that women's self-rated perceptions of desirability as a mate are lowered after receiving negative feedback from men, but not other women. No consistent results for women's self-rated perceptions of attractiveness and mate choice were found.

VITA

Hannah K. Bradshaw was born November 4, 1991, in Galesburg, Illinois. She is the third daughter of Lesley Dwayne and Pamela Louise Bradshaw. In 2011 she received a Bachelor of Science degree from Western Illinois University where she majored in psychology. She later went on to receive a Master of Science degree in Experimental Psychology in 2015 at the same institution. In 2015 she began graduate study at Texas Christian University, where she is currently pursuing a Doctor of Philosophy degree in Experimental Psychology under the tutelage of Dr. Sarah E. Hill.