

# The Influence of Relationship Status, Mate Seeking, and Sex on Intrasexual Competition

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**ABSTRACT.** Researchers have little explored individuals' perceptions of same-sex attractiveness in terms of the influence of relationship status. By using intrasexual competition as a conceptual framework, the authors predicted that romantically involved individuals would protect their relationship by derogating competitors. Although previous researchers have strongly predicted this result, in the present study the relationship status had a negligible impact on competition, for which relationship commitment, sociosexual orientation, and self-monitoring did not account. Also, among uninvolved individuals, the authors expected those individuals seeking mates would use competitor derogation more than would those individuals not seeking mates, but there was no significant difference. Finally, because the vehicle for this investigation was attractiveness, an area in which women compete, the authors proposed that women would derogate more fiercely than would men. However, the results did not support this hypothesis either. The authors discuss future directions for research.

**Keywords:** competitor derogation, intrasexual competition, mate selection, physical attractiveness

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**THE SIGNIFICANCE OF PHYSICAL ATTRACTIVENESS** for individuals' formation of romantic relationships has been well investigated (e.g., Feingold, 1990; Fletcher, Simpson, Thomas, & Giles, 1999; Urbaniak & Kilmann, 2003). In terms of mate selection, a preference for physically attractive mates is expectable because attractiveness is tightly linked with fertility (Buss, 1989), health (Dixson, Halliwell, East, Wignarajah, & Anderson, 2003), and gene quality (Thornhill &

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Gangestad, 1993). Hence, attending to the attractiveness of a potential mate is advantageous.

Researchers have thought that this preference for attractive mates is particularly strong for men. Buss (1989) found cross-culturally that men considered attractive women to be those who are youthful and fecund. By preferring youthful mates, men potentially increase their reproductive success because these women may more reliably and more easily bear them children than would older women. In contrast, parental investment theory (Trivers, 1972) espoused that women should consider men's resourcefulness as the most important characteristic in prospective mates. Women have significant limitations on the number of offspring that they can bear and are frequently solely responsible for the survival of these offspring. Thus, women must primarily rely on men's provisioning, and consequently prefer men who express an ability and a willingness to invest resources such as time and protection.

### *Intrasexual Competition*

Given that men place a premium on a potential mate's attractiveness, and that women vary in their attractiveness, men may intrasexually compete for access to attractive women (Symons, 1979). Similarly, men vary in terms of their attractiveness and their abilities to provide resources (e.g., Buss, 1989) and to serve as protectors (Wilson, Daly, & Weghorst, 1980). Provisioning and protection by men very often increase the survival rate of children and may be considered important resources for women (e.g., Campbell, 1995). However, if all women desire attractive, resourceful, and protective men who are willing to paternally invest, it is not possible for all women to find their ideal mates. This problem is partly remedied by individual preferences, in that people tend to seek mates who are compatible with respect to characteristics such as values, intelligence, and group membership (Buss). Presumably there remains a degree of overlap among same-sex individuals for desirable mates, and thus, people must intrasexually compete for access to these mates. One well-documented strategy that people use for this purpose is competitor derogation.

### *Competitor Derogation*

*Competitor derogation* occurs when an individual tries to devalue the attributes of a rival relative to herself or himself (Buss & Dedden, 1990). Although researchers have explored the existence of this strategy, primarily through self-reported behaviors, there has been minimal, if any, investigation of the impact of relationship status on competitor derogation. Instead, prior researchers on relationship status and derogation have seemingly focused on how people may derogate a potential threat to a relationship, with the *threat* defined as an opposite-sex individual who may infiltrate the dyad (e.g., Lydon, Meana, Sepinwall,

Richards, & Mayman, 1999). Lydon et al. proposed the purpose of this derogation to be the devaluing of potential alternative mates, albeit unconsciously, rather than a mechanism to reassure mates.

A romantic relationship may be strengthened and stabilized by the dyad members' continual, albeit subtle, derogation of opposite-sex people whom either member may perceive as potential mates for the other. For example, relationship status influences perceptions of attractiveness, such that individuals in dating relationships derogate the physical and sexual attractiveness of opposite-sex people (Simpson, Gangestad, & Lerma, 1990). Furthermore, this derogation is influenced by an individual's level of commitment toward the relationship (Lydon et al., 1999). Lydon et al. asked participants to evaluate their attraction (a composite including overall evaluation, general attraction, and physical attractiveness) to a target individual on the basis of fictitious biographical information and a photograph. They constructed two targets: a *moderate threat*, in that she or he was attractive; and a *high threat*, in that she or he was attractive and expressed an attraction to the participant. Individuals involved in romantic relationships and with low or high levels of commitment responded in a way that was similar to that of those individuals not in relationships and did not derogate the attractiveness of the moderate threat target. In contrast, individuals with moderate levels of commitment derogated the attractiveness of the moderate threat target. Likewise, individuals with high levels of commitment derogated high-threat targets. In essence, when the level of the threat was matched to the level of commitment, a relationship maintenance mechanism (i.e., derogation) was activated, but it was not activated when the threat was above or below the level of commitment. Thus, Lydon et al. found that relationship status and commitment interact with ratings of attractiveness and activate derogation of possible alternatives.

### *Hypotheses*

Although interesting, the aforementioned research fails to address how intra-sexual competition, as evidenced by perceptions of potential rivals' attractiveness, may be influenced by relationship status. Accordingly, we were interested in investigating the following three hypotheses:

Hypothesis 1 ( $H_1$ ): Romantically involved individuals will use competitor derogation more than romantically uninvolved individuals.

$H_2$ : Romantically uninvolved individuals who are currently seeking a mate will use competitor derogation more than those who are not seeking a mate.

$H_3$ : Women, especially those involved in romantic relationships, will use competitor derogation more than men.

Since individuals, especially those in committed relationships, have already established a connection, they may opt to derogate rivals for a relationship

maintenance mechanism. This behavior would serve to defend the relationship from a potential same-sex infiltrating rival, leading to  $H_1$ . Given that feelings of commitment toward the relationship may affect competition, it is necessary for researchers to include it as a moderator. For example, individuals who do not feel committed may derogate potential rivals less because they are not concerned with maintaining the relationship, whereas individuals who feel heavily committed may derogate far more than do others.

This effect is also likely attenuated by variance in personality characteristics such as sociosexual orientation and self-monitoring, because attitudes toward, for example, promiscuity may complicate the issue. One frequently used method for examining sexual attitudes is to determine an individual's location on the sociosexual orientation continuum. Individuals with an unrestricted sexual orientation—at one anchor point of the continuum—value attractiveness and social visibility, whereas sexually restrictive individuals—at the opposite end of the continuum—value parenting and personality qualities (Simpson & Gangestad, 1992). In general, sexually unrestrictive women engage in primarily sexual, low-investment relationships with men who possess indicators of heritable fitness (e.g., dominance, physical attractiveness) instead of resource indicators (e.g., ambition, tangible wealth) (Simpson & Gangestad). Women with unrestrictive orientations, as opposed to those with restrictive orientations, report more sex partners and more sexual fantasies about someone other than their partner and are more comfortable with sexual involvement without emotional attachment. Women with restrictive orientations, as opposed to those with unrestrictive orientations, require more time, attachment, and commitment from their partners before becoming sexually involved, perhaps showing discrimination of characteristics related to paternal investment. In regard to men, those with an unrestricted orientation do not invest heavily or exclusively in their children and are not overly concerned with paternity certainty. In contrast, men who have restricted orientations are concerned with paternal investment, requiring time and commitment before investing in a long-term relationship.

It is interesting that sociosexual orientation relates to self-monitoring. *Self-monitoring* generally refers to a person's responsiveness to social and interpersonal cues of situations (Snyder, Simpson, & Gangestad, 1986). Individuals with high self-monitoring tend not to establish committed relationships and to maintain unrestrictive sexual orientations (Snyder et al.). In contrast, individuals with low self-monitoring tend to establish committed relationships and maintain restrictive sexual orientations. Given these findings, we expected sociosexual orientation and self-monitoring to act as moderators for competitor derogation.

$H_1$  includes romantically uninvolved individuals. We asserted that it is incorrect to assume that all uninvolved individuals are seeking a relationship. Instead, one might expect that those who are not currently seeking a mate may withdraw from competition, rather than devote unnecessary energy or time, because they are not prepared to pursue a relationship. This proposal leads to  $H_2$ : Romantically

uninvolved individuals who are currently seeking a mate will show evidence of competition, through competitor derogation, relative to those who are not seeking a mate. We predicted that competitor derogation will be exhibited by those individuals seeking a mate, but not by those who have withdrawn from mate seeking.

Previously, researchers have relied on self-reported behavior when examining intrasexual competition (Buss, 1988; Buss & Dedden, 1990). This approach is problematic, because it allows the potential introduction of social desirability bias and false representation of behavior. To ameliorate these issues, one alternative is to use attractiveness ratings as a proxy for competitor derogation (Fisher, 2004). Thus, individuals are provided with photographs of same- and opposite-sex others, enabling the researcher to determine whether attractiveness ratings parallel the predicted pattern for competitor derogation. This pattern is such that an individual's decreased attractiveness ratings indicate her or his derogation of a rival's attractiveness (see Fisher).

Researchers should also note that, because the vehicle for investigating competition relies on attractiveness, any effects should be particularly salient for women, because attractiveness is a key component in female intrasexual competition (Campbell, 1995; Fisher, 2004). Thus,  $H_3$  predicts that women, especially those involved in romantic relationships, will exhibit more pronounced competitor derogation, through decreased facial attractiveness ratings, than will men.

## Method

### *Participants*

Participants were 43 women ( $M$  age = 19.09 years,  $SD$  = 1.19 years) and 47 men ( $M$  age = 20.68 years,  $SD$  = 2.96 years). Participants were students in a psychology department pool of participants, and they received course credit for their participation in the present study. All participants were heterosexual. Of the 43 women, 27 reported that they were currently involved in an exclusive romantic relationship, with an average duration of 79.22 weeks ( $SD$  = 67.90 weeks). Similarly, of the 47 men, 26 were currently involved in an exclusive romantic relationship, with an average duration of 86.32 weeks ( $SD$  = 77.29 weeks). Due to the skewness of relationship length, we normalized values through log transformation. On the basis of the normalized values,  $t(50) = 0.35$ ,  $p > .05$ , we found no significant sex difference in relationship duration. Among the 16 women who were not involved in romantic relationships, 9 stated that they were seeking a mate, and 7 stated that they were not. Similarly, among the 21 men not involved in romantic relationships, 13 stated that they were seeking a mate, and 8 stated they were not.

### *Stimuli*

*Facial attractiveness rating software.* The stimuli consisted of color photographs of 35 female and 30 male faces. The models were students in a 1st-year

psychology class at another university in Toronto, Canada, and the photographs had been taken several years prior to the study (Geldart, Maurer, & Henderson, 1999). We made no attempt to select models on the basis of preestablished criteria. However, models were excluded if they had an unnatural hair color (e.g., purple;  $n = 2$ ), had obvious facial piercing(s) ( $n = 2$ ), or were visibly much older than the rest of the sample ( $n = 1$ ). For the purpose of standardization, we selected photographs of models who displayed neutral expressions, wore black smocks, and removed any accessories, including eyeglasses. We displayed each face individually, with an attractiveness Likert-type scale, ranging from 1 (*extremely unattractive*) to 7 (*extremely attractive*), to the right of the face. The faces were presented in a random order on a laptop computer with custom software, and participants could not alter their original responses. To familiarize participants with the program, we had three practice trials precede the experimental trials. In addition to the ratings, all response times were recorded because Quinsey, Ketsetzis, Earls, and Karamanoukian (1996) demonstrated that attractiveness ratings significantly correlate with viewing time.

*Sociosexuality Orientation Inventory.* The Sociosexuality Orientation Inventory (SOI; Simpson & Gangestad, 1991) determines where someone is located along the sociosexual orientation continuum. The inventory is anchored at one end by sexual restrictiveness (low score) and at the other end by sexual unrestrictiveness (high score). It contains seven items, with the first three allowing for an open-ended response to questions about how many different sexual partners the participant had in the past year, the number of different sexual partners expected in the next 5 years, and the number of partners with whom sex was had on only one occasion. One fantasy-related item is included to measure the frequency with which the participant has sexual fantasies involving someone other than the current partner, with eight responses: 1 (*never*); 2 (*once every two to three months*); 3 (*once a month*); 4 (*once every two weeks*); 5 (*once a week*); 6 (*a few times each week*); 7 (*nearly every day*); 8 (*at least once a day*). The last three items measure attitudes toward casual sex: (a) "Sex without love is okay," (b) "I can imagine myself being comfortable and enjoying 'casual' sex with different partners," and (c) "I would have to be closely attached to someone (both emotionally and psychologically) before I could feel comfortable and fully enjoy having sex with him or her." Participants respond to these three items by using a Likert-type scale ranging from 1 (*I strongly agree*) to 9 (*I strongly disagree*).

*Self-Monitoring Measure.* The Self-Monitoring Measure (SM; 18-item adaptation by Snyder & Gangestad, 1986) differentiates between people who are responsive to social and interpersonal cues of situations (i.e., high self-monitors) and people whose actions reflect their own attitudes and dispositions (i.e., low self-monitors). Participants respond to each statement by selecting "true" or "false." Sample questions include the following: (a) "At parties and social

gatherings, I do not attempt to do or say things that others will like,” (b) “I guess I put on a show to impress or entertain others,” and (c) “In a group of people I am rarely the center of attention.”

*Relationship Commitment Survey.* The Relationship Commitment Survey (RCS) is a nine-item measure of commitment (Gagné & Lydon, 2003). Four items measure moral commitment, including feelings of commitment, obligation, attachment, and a sense of duty. Four items concern enthusiasm toward commitment, such as how much one enjoys one’s relationship and would not feel relieved if it were to end. Responses are recorded on a 9-point Likert-type scale ranging from 1 (*not at all*) to 9 (*extremely*). One final item asks participants how long they expect the relationship to last, which Gagné and Lydon adopted from Rusbult (1983), with the scale ranging from 1 (*a week or so*) to 9 (*decades*).

### *Procedure*

Interested participants contacted the female researcher, Maryanne Fisher, to establish an appointment for testing. When the participant arrived, Fisher explained the procedure, and the participant provided consent. Then, the participant was led to the private room to complete the attractiveness-rating program and then a brief computerized demographic survey. The participant then completed the SOI and the SM as paper–pencil tasks and sealed the finished surveys in an unmarked envelope. This action marked the end of the study and initiated debriefing.

### *Analysis*

We used the Linear Mixed Models procedure of SPSS 13.0 for the statistical analysis. The linear mixed model (LMM; for an introduction and discussion of the application of LMM, see SPSS, 2007) expands on the general linear model, in that the LMM allows separate error terms for the levels of the within-subject factors and does not assume homogeneity of covariance. Therefore, the LMM models not only the means of the data but also the variances and covariances of the data. We estimated parameters in the LMM by using the Restricted Maximum Likelihood method (Harville, 1977). We combined the information on (a) relationship status of the participants and (b) if they were romantically uninvolved, whether they were seeking mates. Thus, we obtained a grouping variable of status with the values of 1 (*in a relationship*), 2 (*seeking a relationship*), and 3 (*not seeking a relationship*). We chose mean attractiveness rating as the dependent variable. Participant sex (female vs. male) and status (in a relationship vs. seeking a relationship vs. not seeking a relationship) were between-subjects variables. Sex of the stimuli face (female vs. male) was the within-subject variable. We implemented mean viewing duration, measures of sociosexual orientation, and



self-monitoring as covariates. The covariance matrix of the model was specified as unstructured.

## Results

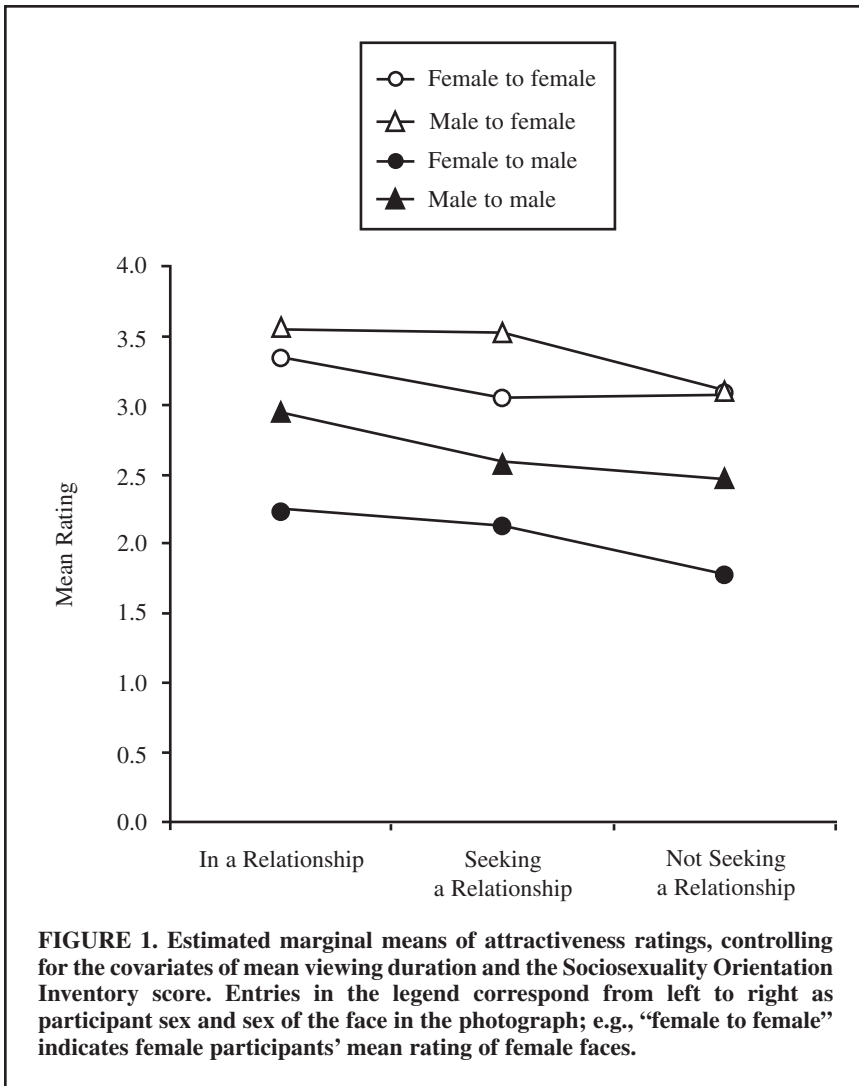
We excluded 2 participants (1 woman, 1 man) from the analyses because of their outlying responses on the SOI. For the remaining 88 participants, the SOI ( $M = 18.41$ ,  $SD = 7.34$ , Cronbach's  $\alpha = .56$ ), the SM ( $M = 10.30$ ,  $SD = 3.11$ , Cronbach's  $\alpha = .60$ ), and the RCS (completed by only those in relationships,  $M = 61.56$ ,  $SD = 7.86$ , Cronbach's  $\alpha = .60$ ) all yielded moderate reliability.

To check the influence of the covariates (SOI, SM, and viewing duration), we created first models with their inclusion and then models with their omission. Note that only a subset of the total sample completed the RCS and, hence, we could not enter the RCS into the model as a covariate. These analyses revealed that only mean viewing duration and SOI score influenced the measured effects. To determine the best model, we used Akaike's information criterion (AIC) as a measure of model fit and explored various patterns of covariate implementation (i.e., all three covariates, no covariates, and various combinations thereof). This process revealed that implementing only mean viewing duration yielded the best fit ( $AIC = 346.73$ ). However, because SOI scores had a significant impact on the main effect of participant sex, and its inclusion did not substantially alter the  $AIC$  ( $AIC = 347.58$ ), we included these two covariates in our model and excluded self-monitoring. Only when SOI scores were included was there a significant effect due to participant sex. SOI scores were highly correlated with participant sex ( $r = .58$ ,  $p < .001$ ), with men having the higher scores.

The final model yielded a significant main effect due to the sex of the person in the photograph,  $F(1, 96.08) = 179.95$ ,  $p < .001$ . There was also a significant main effect for participant sex,  $F(1, 80.94) = 4.53$ ,  $p = .036$ . However, the significant main effect of participant sex was qualified by a significant interaction between participant sex and the sex of the person in the photograph,  $F(1, 82.13) = 8.46$ ,  $p = .005$ . Men provided significantly higher ratings than did women only for photographs of men (see Figure 1). Figure 1 also shows that relationship status exerted a negligible impact on mean ratings of attractiveness,  $F(2, 80.62) = 2.00$ ,  $p > .05$ , and that there was significant interaction neither between relationship status and participant sex,  $F(2, 80.71) = 0.04$ ,  $p > .05$ , nor between relationship status and the sex of the person in the photograph,  $F(2, 81.52) = 0.29$ ,  $p > .05$ . The three-way interaction between participant sex, sex of the person in the photograph, and relationship status was also not significant,  $F(2, 81.41) = 2.24$ ,  $p > .05$ . Mean viewing duration,  $F(1, 130.93) = 11.17$ ,  $p = .001$ , and SOI score,  $F(1, 79.94) = 6.17$ ,  $p = .015$ , were significant covariates.

As the LMM procedure does not provide a direct measure of effect size (i.e., partial  $\eta^2$ ), researchers interpret differences in estimated marginal means according to Cohen's  $d$ . The significant main effect of the sex of the person in





the photograph is clearly evident in Figure 1, which shows estimated marginal means controlled for covariates, for all relationship status groups and for both women and men. Controlling for covariates, we found that the difference in estimated marginal means of ratings of female people in the photographs versus male people in the photographs was 0.92 (95%-CI = 0.79–1.06,  $d = .94$ ), in favor of photographs of female faces.

Furthermore, as we expected, the covariate of mean viewing duration was positively associated with mean attractiveness ratings: Longer viewing duration

led to higher rating (+0.14 on mean rating per unit of mean viewing duration, 95%-CI = 0.06–0.23). Also, the covariate of SOI scores showed a negative correlation with the dependent variable (–.03 on mean rating per unit of SOI score, 95%-CI = –0.06–0.01).

Given that feelings of commitment may influence attractiveness ratings, we explored whether the residuals of the fitted LMM correlated with RCS scores. If there is a correlation between residuals and the RCS scores, then we could use this finding to indicate the impact of the RCS on attractiveness ratings. This procedure is comparable to partial correlation, in which the effects of other variables are partialled out. In these data, the correlation was  $r = -.06$ ,  $p = .68$  for photographs of female faces and  $r = -.07$ ,  $p = .62$  for photographs of male faces, suggesting no systematic interrelation between RCS scores and attractiveness ratings.

Finally, to more directly examine the possibility of derogation, we obtained attractiveness ratings for all 65 photographs by an independent sample of 57 women and 48 men who were students at the same university. We then used these ratings to partition the photographs. After calculating the mean ratings from this sample, we selected only the photographs that received ratings above or equal to the median rating for all the faces combined. This process resulted in 16 photographs of female faces and 12 photographs of male faces, which researchers could then consider to be attractive to both women and men.

We used the same model as before, but we only included this partial sample of photographs. This method resulted in a significant main effect for the sex of the person in the photograph,  $F(1, 88.25) = 106.46$ ,  $p < .001$ , but the main effect of participant sex failed to reach significance,  $F(1, 82.83) = 3.75$ ,  $p = .056$ . As before, there was significant effect neither for relationship status,  $F(2, 81.10) = 2.18$ ,  $p > .05$ ; nor for the interaction of relationship status and participant sex,  $F(2, 81.09) = 0.25$ ,  $p > .05$ ; nor for the interaction of relationship status and sex of the person in the photograph,  $F(2, 82.08) = 0.20$ ,  $p > .05$ . The interaction between participant sex and the sex of the person in the photograph was not significant,  $F(2, 81.72) = 3.22$ ,  $p = .077$ . The three-way interaction for participant sex, sex of the photograph, and relationship status was also not significant,  $F(2, 81.52) = 2.24$ ,  $p > .05$ . As we found in the previous model, the covariates of mean viewing duration,  $F(1, 122.66) = 4.78$ ,  $p = .031$ , and SOI score,  $F(1, 80.11) = 8.50$ ,  $p = .004$ , were significant. It is interesting that mean viewing duration had less influence on ratings of attractive faces than did SOI score, although both covariates remained significant predictors (positive 0.09 on mean rating per unit of mean viewing duration, 95%-CI = 0.01–0.17; –.04 on mean rating per unit of SOI score, 95%-CI = –0.07–0.01). Using the aforementioned logic, we inferred that there was no significant impact of commitment, as measured by the RCS; the correlation between the RCS and the residuals was  $r = -.07$ ,  $p = .63$ , for photographs of female faces; and  $r = -.08$ ,  $p = .59$ , for photographs of male faces.

Compared with the results for all 65 photographs, the results for only the attractive images indicated the main effect of participant sex was slightly

diminished, but reduced enough so that it was no longer a significant factor at an accepted level of  $\alpha = .05$ . The sex of the person in the photograph exerted a stable effect on the mean ratings, with its impact slightly enlarged: Controlling for covariates, we found that the difference in estimated marginal means of ratings of female faces in photographs versus male faces in photographs amounted to 1.05 (95%-CI = 0.84–1.25,  $d = .98$ ), in favor of female faces in photographs. The interaction between participant sex and the sex of the person in the photograph was no longer statistically significant, and none of the other interactions proved influential. Thus, the findings indicated that the results for using the full set of photographs versus using only attractive faces were at least somewhat comparable to, and almost identical for, relationship status, which is the key variable under scrutiny.

### Discussion

This study failed to replicate earlier work demonstrating derogation of threats, and the present study was unable to expand this research to encompass competition toward same-sex rivals. Relationship status had a negligible impact on the attractiveness ratings of same- or opposite-sex individuals, as romantically involved and uninvolved participants rated the faces relatively equally, controlling for viewing durations and sociosexual orientation. According to the theory of intrasexual competition, we hypothesized that individuals, especially women, in romantic relationships would provide lower attractiveness ratings of same-sex faces than would uninvolved individuals, because the individuals likely rely on competitor derogation for relationship maintenance. We found no evidence to support this hypothesis. Likewise, previous research suggests that people involved in romantic relationships may derogate the attractiveness of opposite-sex others to maintain their relationships, but the present study did not support that idea.

There are at least three possible explanations for the lack of a significant effect of relationship status. First, researchers must concede that relationship status may influence judgments of attractiveness, but we did not observe that in the present study because of sample characteristics. Due to our use of a convenience sample, the present study included only students who were relatively young adults. Although young individuals may establish romantic relationships and feel committed to their mates, the sample may not accurately represent the diversity of the general population or the diversity of feelings of commitment. However, we must note that responses to the relationship commitment measure did indicate that participants felt a range of emotion about their existing relationships. Thus, although the present study does not rule out the possibility that romantic relationship status or feelings of commitment influence competition, it could indicate that other variables may be important. For example, people who have been monogamously involved with someone for several years may be more

inclined to pursue extradyadic relations than individuals in newly created relationships, because of factors such as sexual boredom or geographic separation. Thus, age and relationship duration may remain significant factors and are worthy of future examination. Researchers should note that much of the past research in this area, which led to the hypotheses, relied on university samples, and hence this explanation is unable to completely account for the discrepancies with respect to the predicted—but not found—derogation of opposite-sex threats.

Second, although prior researchers have used this procedure to explore intrasexual competition (see Fisher, 2004), perhaps participants in the present study did not perceive the same-sex faces as representing competitive rivals. It is possible that providing more explicit directions to participants would be advantageous for exploring the role of romantic relationship status on derogation. For example, researchers could prime participants to think about rivals whom they have encountered in the past when trying to win the attention of a potential mate and to further imagine that the faces that they are viewing represent such rivals.

Third, perhaps competitor derogation is only a weak phenomenon, and the real story lies in an alternative strategy, self-promotion. *Self-promotion* is when an individual promotes her or his positive attributes relative to those of a rival (Buss, 1988). The technique that we used in this study only allowed us to explore one strategy: competitor derogation. Future researchers need to create alternative measures to investigate self-promotion. However, to the date of this publication, there has been minimal, if any, research using empirical techniques for examining self-promotion because of the multitude of confounds that such an idea presents to the researcher.

The other factors that we included in the present study deserve a brief discussion. Numerous researchers on attractiveness have found sex differences in ratings of faces, such that participants have rated female faces consistently as more attractive than male faces (e.g., Bernstein, Lin, & McClellan, 1982; Geldart et al., 1999; Jackson, 1992). We obtained this robust finding in the present study, suggesting that female attractiveness is an enduring trait that has adaptive merit. Additionally, viewing duration proved to be positively correlated with attractiveness ratings, and that finding is congruent with earlier research showing that people view attractive faces for longer durations than they view unattractive faces (Quinsey et al., 1996).

It is interesting that, although self-monitoring had no significant influence on the results of this study, sociosexual orientation did have an effect. This effect was driven by the interaction between the participant's sex, the sex of the model in the photograph, and the participant's SOI score. Men had higher SOI scores than did women, and men provided higher ratings of photographs of male faces, regardless of the participating man's relationship status. Past researchers have documented that men have higher SOI scores than do women (e.g., Sprecher, Regan, McKinney, Maxwell, & Wazienski, 1997). Van Anders, Hamilton, and Watson (2007) recently showed that men's—but not women's—SOI scores are stable across

a variety of romantic and sexual relationship types. As we mentioned earlier, individuals with high SOI scores (indicating an unrestricted sociosexual orientation) value attractiveness in others and are comfortable with short-term, low-commitment relationships (Simpson & Gangestad, 1992), and that set of tendencies is more congruent with male mating strategies (e.g., Buss, 1989). Furthermore, because men do not compete in terms of attractiveness—or at least not to the same extent as do women—men may not be efficient or accurate when assessing male facial attractiveness, and that possibility would explain why their ratings were significantly higher than women's ratings. That is, women presumably evaluate male faces as if they represent potential mates and rate female faces as if they represent potential rivals. Men presumably evaluate women's faces as if they represent potential mates, but men do not have a framework for evaluating male facial attractiveness, thus providing more average or less discriminating assessments than do women. Peripherally, we should note that in the present study, reliability was only moderate, perhaps indicating incongruity between the behavioral measures and the attitudinal measures, or perhaps indicating that participants were slightly distracted by the first phase of the study. Assessing the attractiveness of the faces prior to completing the SOI could have caused participants to answer less reliably. This explanation could also be true for the self-monitoring survey.

We found self-monitoring to have no effect on attractiveness ratings. Although a small number of studies have reported that high self-monitors prefer partners who are physically attractive (Glick, 1985; Jones, 1993; Snyder, Berscheid, & Glick, 1985), researchers in the field have not unanimously accepted that proposition. For example, Shaffer and Bazzini (1997) found that self-monitoring does not influence preferences for attractiveness or personality traits. In fact, when asked to choose between two alternatives—an attractive date with an undesirable personality and an unattractive date with a desirable personality—all individuals selected the attractive date regardless of their self-monitoring score (Rowatt, Cunningham, & Druen, 1998). Rowatt, DeLue, Strickhouser, and Gonzalez (2001) offered another potential explanation for the lack of an association between self-monitoring and attractiveness judgments. They argued that participant sex is such a strong mediator of the linear relationship between self-monitoring and preference for attractiveness that, when researchers remove it, the relationship becomes nonexistent. Men are typically higher on self-monitoring scales than are women (Frazier & Fatis, 1980), and thus preferences for attractiveness may be due to the cloaked variable of participant sex. Expected relationship duration (Rowatt et al., 2001) may also account for the present finding. People have different preferences for short-term mates versus long-term mates (Kenrick, Groth, Trost, & Sadalla, 1993; Kruger, Fisher, & Jobling, 2003; Urbaniak & Kilmann, 2003). Self-monitoring may be related to expected relationship duration in such a way that high self-monitors prefer attractive mates for short-term relations more than do low self-monitors, but this difference is insignificant for long-term

relations. In the present study, we did not advise participants about whether they were rating attractiveness for short- or long-term situations, and it is interesting that not one participant raised the issue. This possibility should also be a topic of future research.

The hypothesis regarding mate seeking also deserves comment. We found no evidence of competitor derogation when considering whether someone was seeking a mate. Although the effects of mate seeking were limited, there was a trend for men seeking mates to provide higher attractiveness ratings for female faces than did men not seeking mates, which is a potential reason for future researchers to examine mate seeking. There has been minimal, if any, investigation pertaining to people's decision about whether to seek a mate, the circumstances under which people decide to seek a mate, or the consequences of their decision. From an evolutionary perspective, this new line of inquiry could prove to be very useful in elucidating the interaction between biological and environmental factors in conscious decision-making processes that have a direct impact on reproductive success.

In summary, in the present study, relationship status did not influence attractiveness ratings, and interpersonal variation in sociosexual orientation or self-monitoring did not account for this lack of impact. According to the theory of intrasexual competition, individuals who are romantically involved in relationships should provide lower ratings of same-sex attractiveness than do individuals who are not involved in romantic relationships. The present results did not support that hypothesis and did not replicate previous findings that have shown the derogation of potential threats. Also, we found no sex difference in derogation, although the measure involved attractiveness judgments. Furthermore, there was no apparent difference in derogation according to whether an individual was seeking a mate. Future researchers may benefit from exploring mate seeking as an active decision-making process and may further explore its relationship to individuals' use of intrasexually competitive strategies.

#### AUTHOR NOTES

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## REFERENCES

- Bernstein, I. H., Lin, T., & McClellan, P. (1982). Cross- vs. within-racial judgments of attractiveness. *Perception and Psychophysics*, *32*, 495–503.
- Buss, D. M. (1988). The evolution of human intrasexual competition: Tactics of mate attraction. *Journal of Personality and Social Psychology*, *54*, 616–628.
- Buss, D. M. (1989). Sex differences in human mate preferences: Evolutionary hypotheses tested in 37 cultures. *Behavioral and Brain Sciences*, *12*, 1–49.
- Buss, D. M., & Dedden, L. (1990). Derogation of competitors. *Journal of Social and Personal Relationships*, *7*, 395–422.
- Campbell, A. (1995). A few good men: Evolutionary psychology and female adolescent aggression. *Ethology and Sociobiology*, *16*(2), 99–123.
- Dixon, A. F., Halliwell, G., East, R., Wignarajah, P., & Anderson, M. J. (2003). Masculine somatotype and hirsuteness as determinants of sexual attractiveness to women. *Archives of Sexual Behavior*, *32*(1), 29–39.
- Feingold, A. (1990). Gender differences in effects of physical attractiveness on romantic attraction: A comparison across five research paradigms. *Journal of Personality and Social Psychology*, *59*, 981–993.
- Fisher, M. L. (2004). Female intrasexual competition decreases female facial attractiveness. *Proceedings of the Royal Society of London*, *271*, S283–S285.
- Fletcher, G. J. O., Simpson, J. A., Thomas, G., & Giles, L. (1999). Ideals in intimate relationships. *Journal of Personality and Social Psychology*, *76*(1), 72–89.
- Frazier, R. B., & Fatis, M. (1980). Sex differences in self-monitoring. *Psychological Reports*, *47*, 597–598.
- Gagné, F. M., & Lydon, J. E. (2003). Identification and the commitment shift: Accounting for gender differences in relationship illusions. *Personality and Social Psychology Bulletin*, *29*, 907–919.
- Geldart, S., Maurer, D., & Henderson, H. (1999). Effects of the height of the internal features of faces on adults' aesthetic ratings and 5-month-olds' looking times. *Perception*, *28*, 839–850.
- Glick, P. (1985). Orientations towards relationships: Choosing a situation in which to begin a relationship. *Journal of Experimental Social Psychology*, *21*, 544–562.
- Harville, D. A. (1977). Maximum likelihood approaches to variance component estimation and to related problems. *Journal of the American Statistical Association*, *72*, 320–338.
- Jackson, L. A. (1992). *Physical appearance and gender: Sociobiological and sociocultural perspectives*. Albany: State University of New York Press.
- Jones, M. (1993). Influence of self-monitoring on dating motivations. *Journal of Research in Personality*, *27*, 197–206.
- Kenrick, D. T., Groth, G. E., Trost, M. R., & Sadalla, E. K. (1993). Integrating evolutionary and social exchange perspectives on relationships: Effects of gender, self-appraisal, and involvement level on mate selection criteria. *Journal of Personality and Social Psychology*, *64*, 951–969.
- Kruger, D., Fisher, M., & Jobling, I. (2003). Proper and dark heroes as dads and cads: Alternative mating strategies in British Romantic literature. *Human Nature*, *14*, 305–317.
- Lydon, J. E., Meana, M., Sepinwall, D., Richards, N., & Mayman, S. (1999). The commitment calibration hypothesis: When do people devalue attractive alternatives? *Personality and Social Psychology Bulletin*, *25*, 152–161.
- Quinsey, V. L., Ketsetzis, M., Earls, C., & Karamanoukian, A. (1996). Viewing time as a measure of sexual interest. *Ethology and Sociobiology*, *17*, 341–354.
- Rowatt, W. C., Cunningham, M., & Druen, P. (1998). Deception to get a date. *Personality and Social Psychology Bulletin*, *24*, 1228–1244.



- Rowatt, W. C., DeLue, S., Strickhouser, L., & Gonzalez, T. (2001). The limited influence of self-monitoring on romantic partner preferences. *Personality and Individual Differences, 31*, 943–954.
- Rusbult, C. E. (1983). A longitudinal test of the investment model: The development (and deterioration) of satisfaction and commitment in heterosexual involvements. *Journal of Personality and Social Psychology, 45*(1), 101–117.
- Shaffer, D., & Bazzini, D. (1997). What do you look for in a prospective date? Re-examining the preferences of men and women who differ in self-monitoring propensities. *Personality and Social Psychology Bulletin, 23*, 605–616.
- Simpson, J. A., & Gangestad, S. W. (1991). Individual differences in sociosexuality: Evidence for convergent and discriminant validity. *Journal of Personality and Social Psychology, 60*, 870–883.
- Simpson, J. A., & Gangestad, S. W. (1992). Sociosexuality and romantic partner choice. *Journal of Personality, 60*, 605–616.
- Simpson, J. A., Gangestad, S. W., & Lerma, M. (1990). Perception of physical attractiveness: Mechanisms involved in the maintenance of romantic relationships. *Journal of Personality and Social Psychology, 59*, 1192–1201.
- Snyder, M., Berscheid, E., & Glick, P. (1985). Focusing on the exterior and the interior: Two investigations of the initiation of personal relationships. *Journal of Personality and Social Psychology, 48*, 1427–1439.
- Snyder, M., & Gangestad, S. (1986). On the nature of self-monitoring: Matters of assessment, matters of validity. *Journal of Personality and Social Psychology, 51*, 125–139.
- Snyder, M., Simpson, J. A., & Gangestad, S. (1986). Personality and sexual relations. *Journal of Personality and Social Psychology, 51*, 181–190.
- Sprecher, S., Regan, P. C., McKinney, K., Maxwell, K., & Wazienski, R. (1997). Preferred level of sexual experience in a date or mate: The merger of two methodologies. *Journal of Sex Research, 34*, 327–337.
- SPSS. (2007). *SPSS Advanced Models*. Retrieved October 12, 2006, from [www.spss.com/advanced\\_models/data\\_analysis.htm](http://www.spss.com/advanced_models/data_analysis.htm)
- Symons, D. (1979). *Evolution of human sexuality*. New York: Oxford University Press.
- Thornhill, R., & Gangestad, S. W. (1993). Human facial beauty: Averageness, symmetry, and parasite resistance. *Human Nature, 4*, 237–269.
- Trivers, R. L. (1972). Parental investment and sexual selection. In B. Campbell (Ed.), *Sexual selection and the descent of man: 1871–1971* (pp. 136–179). Chicago: Aldine.
- Urbaniak, G. C., & Kilmann, P. R. (2003). Physical attractiveness and the “Nice guy paradox”: Do nice guys really finish last? *Sex Roles, 49*, 413–426.
- van Anders, S., Hamilton, L. D., & Watson, N. V. (2007). Multiple partners are associated with higher testosterone in North American men and women. *Hormones and Behavior, 51*, 454–459.
- Wilson, M. I., Daly, M., & Weghorst, S. J. (1980). Household competition and the risk of child abuse and neglect. *Journal of Biosocial Science, 12*, 333–340.

Received January 25, 2007

Accepted August 13, 2007

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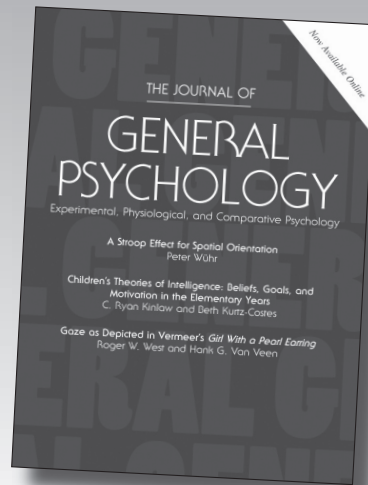
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