

Sexual Double Standards: Bias in Perceptions of Cyber-Infidelity

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Abstract The current study compared the predictions of two socio-cultural theories, shifting standards and intergroup bias, to predict sexual double standards that occur in reactions to computer-mediated infidelity. Shifting standards theory (Biernat In The shifting standards model: Implications of stereotype accuracy for social judgment, APA, Washington DC, 1995) suggests that individuals will judge female targets more harshly than male targets, based on culturally ingrained stereotypes regarding sexual behavior. On the contrary, intergroup bias theory (Brewer In Psychol Bull 86:307–324, 1979) predicts that individuals will judge outgroup targets, or members of the opposite sex, more harshly than ingroup targets, or members of the same sex. Participants were shown a hard copy of presumable evidence that extradyadic computer-mediated behavior had occurred, engaged in by one of two members of a couple. The two groups differed only by the sex of the target, the female “Colleen” or the male “Bill”. Then participants reported their attitudes toward the target’s behavior, resulting distress, and likelihood to terminate the relationship. Results showed support for the intergroup bias theory, suggesting that individuals altered their attitudes toward the behavior based on whether the target was an ingroup or outgroup member.

Keywords Cyber-infidelity · Sexual double standards · Shifting standards · Intergroup bias

Introduction

Computer-mediated sexual behavior, or cyber-sex, is an increasingly popular, trend in which people use interactive computer-mediated content for sexual simulation

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(Maheu and Subotnik 2001). While the numbers do vary, studies suggest that online topics concerning human sexuality are the most commonly searched topics on the Internet (Dew et al. 2006), as 30% or more of the on-line population visit sexual web sites (Drudis 1999) and at least 12 million people use the web for sexual pleasures that range from viewing sexy pictures to masturbating while chatting (Collins 1999).

Although a large portion of the online population is engaging in sexual online behaviors there is still much discrepancy regarding attitudes and perceptions of these behaviors. Specifically, studies have found that because online sexual behaviors lack physical contact, it is often difficult to determine if sex has even occurred (Collins 1999). This discrepancy becomes specifically important when the computer-mediated sexual behavior is extradyadic in nature. While some suggest that cybersex is not 'real sex' due to the absence of a physical body in cyberspace, others feel that as it pertains to infidelity, perception is reality. Some argue that cyber-sex is actually a mental exercise because one separates disclosing intimate details with another individual online while engaging in sexual activities with a tangible individual (Argyle and Shields 1996). Cooper and colleagues (2002) found that over 60% of participants did not believe that cyber-sex violates an individual's vows for exclusivity. The authors argued that this is because cyber-sex does not involve physical contact from another person, nor does it involve contact that is any more intimate than the act of viewing adult or pornographic magazines (Cooper et al. 2002).

Conversely, others argue that although there is no physical body present online, the extradyadic sexual acts are real due to their lasting consequences. As long as one individual in a relationship perceives online sexual acts as infidelity, the infidelity is as real as any offline sexual behavior. Engaging in extradyadic computer-mediated relationships poses a real threat to couples and has very real consequences, ranging from trauma to even divorce (Whitty 2003). Thus, Maheu and Subotnik (2001) suggest that cyber-infidelity occurs when a partner in a committed relationship uses the computer and the Internet to violate any promises, vows, or agreements concerning exclusivity within their relationship.

In an attempt to detangle some of the controversy, many studies have attempted to define the parameters for extradyadic cyber-behaviors. For example, Whitty (2003) had over 1,000 respondents rate whether 15 predetermined behaviors were infidelity. Factor analysis determined that there were three separate types of online infidelity behavior including sexual infidelity, emotional infidelity, and pornography use. In a more recent study, Henline et al. (2007) asked participants to describe various behaviors that constitute online infidelity. Behaviors ranging from overt cyber-sexual relations to engaging in more ambiguous online sexual interactions, such as cyber-flirting, were all frequently nominated as unfaithful behaviors when engaged in extradyadically. Moreover, participants identified that certain parts of online infidelity could be sexual (e.g. online sex, flirting, chatting sexually) and others were emotional (e.g. talking about deeply personal issues and saying "I love you.").

As with most types of infidelity, gender differences do emerge. Women do tend to report online infidelity as more upsetting (Hackathorn 2009) and tend to view a

wider range of online behaviors as infidelity, than men (Henline et al. 2007; Whitty 2003). Specifically, cyber-flirting behaviors, ranging from talking about sexual behavior to talking about one's appearance were more likely to be considered infidelity, by women than men (Whitty 2003). However, studies have also found that while females do tend to be more upset than males by online infidelity, males also report severe negative reactions to computer-mediated infidelity (Dew et al. 2006; Hackathorn 2009; Henline et al. 2007). Henline and colleagues (2007) posited that the reactions that men have toward online infidelity may actually be due to a fear that the relationship will eventually become physical. However, there still remains an inability to adequately predict reactions and a lack of consensus regarding explanations of gender differences in attitudes toward online infidelity.

Many socio-cultural based theories suggest that views regarding sex are the result of experiences and rules that are learned through the culture of a particular society. Individuals are taught and then reinforced to follow traditional gender scripts and roles (Pines and Friedman 1998). Theories based in these premises often are able to predict variations in gender differences because social scripts often imply a sense of imbalance. Specifically, a double standard exists in perceptions of and reactions to sexual practices across many cultures. Traditional roles allow men to initiate sexual intercourse, but not women.

According to most socio-cultural theories, women are expected to refuse sex or set the sexual limits within the relationship, acting like a sexual gatekeeper (Crawford and Popp 2003; Lips 1981; Safilios-Rothschild 1977). Men, in general, are taught to be aggressive, both physically and sexually. Often, sexual permissiveness is reinforced in men. In fact, many societies exploit or degrade a man for any emotional weaknesses or outbursts they might show (Pines and Friedman 1998). Conversely, women are often chastised for allowing themselves to become sexually involved in a relationship, and rewarded for being sexually restrictive and discriminate, especially without first being emotionally tied to the partner (Pines and Friedman 1998). For example, Fiske and Stevens (1993) found that people tend to believe women should conform to their gender's stereotypes. Thus, judgments of female anti-stereotypical behavior are often deemed unacceptable. Furthermore, fidelity is more valued in women than men, and women are more severely reprimanded for instances of infidelity. A stigma, associated with adultery, lends itself to socially punish women for engaging in sexual proclivities. This same sexual double standard also tells females to expect a male partner's sexual infidelity, and not to be upset about it when it happens (Paul et al. 1996).

The current study chose two socio-cultural based theories, the shifting standards model (Biernat 1995) and intergroup bias theory (Brewer 1979), to examine gender based variations in attitudes toward online infidelity because they both predict gender-related double standards that individuals may hold regarding perceptions of sexual behavior. However, based on their assumptions, they should predict different results.

First, the shifting standards model, a socio-cultural based theory, suggests that societal rules and even double standards help to create stereotypes that direct and ease our ability to make judgments (Biernat 1995). These stereotypes help an individual set a perceptual anchor in which shifts in judgment are adjusted. In

general, the shifting standards model suggests that when perceivers make judgments about members of social categories on these stereotype-relevant dimensions, they do so by calling to mind a within-group standard of comparison. Shifting or adjusting one's judgments based on stereotypical standards means that the targets are judged within their different social groups and are not directly comparable to outside social groups. For example, male targets are judged relative to male standards, and female targets are judged relative to female standards (Biernat 1995).

The shifting standards model suggests that stereotypes lead the perceiver to shift or adjust his or her standards of judgment depending on the target of the social category (Biernat 1995). In the capacity of this research domain, men are expected to be sexually aggressive, while women are taught to be sexually restrictive. Furthermore, men are expected to be more physically sexual, while women are thought to be more emotionally sexual (Pines and Friedman 1998).

If a perceiver uses the stereotype that men are more promiscuous and sexually aggressive than women, the perceiver might be expected to set a different threshold to diagnose promiscuity and sexuality in male and female targets. Furthermore, if the reference standard for a group is relatively low, it can more readily be surpassed by members of that group (Biernat and Manis 1994). Theoretically, one would set a lower threshold for women than men when judging whether a specific instance is sexual because it is not within the predetermined standards of the sexual stereotypes. As a consequence, a behavior that is considered moderately sexual for a man may be perceived as very sexual for a woman. A behavior that might be regarded as normal or average for a man, like physical sexual behaviors, might thus be considered an indication of abnormal sexual behavior when engaged in by a woman. For example, Spreadbury (1982) found that individuals labeled certain male behaviors as appropriate, while labeling similar behavior engaged in by a female as promiscuous. This too may be a reason that the long time double standard exists, in which men are deemed 'studs' and women are deemed 'sluts' by sleeping with multiple people (Milhausen and Herold 1999). Thus, the behavior is almost perceived in an exaggerated sense for the female, because exists outside the parameters of the socially set stereotypes.

Perhaps, this perspective could provide an explanation for some of the discrepancies seen in the attitudes of what is perceived as online infidelity, how distressing it is, and the consequences of those behaviors. As it pertains to online infidelity, judges may perceive a behavior as more or less negative in reference to the group the target belongs to. That is, males may be judged less harshly for engaging in online sexual behavior because the expectation that men are sexually aggressive exists. Female online behaviors, on the other hand, may be judged more harshly because there is an expectation of sexual restriction.

The theory, intergroup bias, may prove useful in examinations of online infidelity attitudes because it suggests that an individual's attitudes regarding specific behaviors could shift depending on the group membership of the target, compared to the judge. That is, evaluations of outgroup members tend to differ from evaluations of ingroup members (see Tajfel 1982 for a review). Generally, this perspective shift is in such a way that evaluations of ingroup members are more favorable than evaluations of outgroup members. This evaluative preference is commonly referred

to as intergroup bias (Brewer 1979; Brewer and Kramer 1985; Vonk and Olde-Monnikhof 1998; Wilder 1981).

According to intergroup bias, individuals are motivated to maintain a positive self-concept, and this can be achieved by seeing oneself as a member of a valuable and positive social group (Brewer 1979). A favorable view of one's self results from a favorable view of one's ingroup (Hewstone et al. 2002). The resulting tendency toward ingroup favoritism is based on the need to protect, preserve, or enhance the positive social impressions of one's group and its members (Allport 1954; Tajfel 1982).

This tendency is so prevalent that one's perceptions of the social environment can be based on one's self-categorization with a salient group. Identification with any one group is a self-categorization process that allows individuals to understand the core values of what it means to be in that group, and informs them of what is expected of them as a group member (Rutchik and Eccleston 2010). Importantly, that self-categorization occurs based on the current social context and on dimensions that are important in a given intergroup context (Hewstone et al. 2002; Turner et al. 1994). As the ingroup becomes increasingly salient, the tendency for ingroup favoritism increases (Tajfel 1982) thus impacting one's perception of the social context. Additionally, gender provides an extra opportunity for in-group/out-group bias, in that the opposite sex is an out-group for which we are biologically fated to intertwine (Fiske and Stevens 1993). Thus, the behavior of a gender based outgroup member could be judged especially harsh, as a function of vulnerability (Navarrete et al. 2009).

The underlying mechanisms and premises of intergroup bias perspective may provide an explanation for discrepancies in online infidelity attitudes. That is, as it pertains to online infidelity, judges may perceive a behavior differently (i.e. more or less negative) depending on one's ingroup. Specifically, females may judge behaviors engaged in by males more harshly than behaviors engaged in by other females, and males may judge behaviors engaged in by females more harshly than behaviors engaged in by other males.

The current study was designed to test two theories concerning how participants might differentially judge the sexualized online behavior of male and female targets. The shifting standards model suggests a lower threshold for judging the inappropriateness and potential damage of female target behavior. Thus, with respect to perceiving behavior as infidelity, reporting distress over the behavior, and expressing a desire to terminate the relationship, the shifting standards model yields the following hypotheses:

The behavior of female targets will be rated more harshly than the behavior of male targets, regardless of the sex of the judge:

- a. Female target behavior will receive higher ratings of perceived infidelity.
- b. Female target behavior will receive higher distress ratings.
- c. Female target behavior will receive higher desire to terminate the relationship ratings.

In comparison to the shifting standards model, the intergroup bias model suggests that target evaluations will depend upon the ingroup/outgroup status of the target relative to the participant. Thus, the predictions of the shifting standards model

would only be true for male participants. However, under the intergroup bias model, female targets would be “outgroup” members relative to the male participants. In the case where female targets would be “ingroup” members (i.e., when the participants are also female), the intergroup bias model would predict the opposite: male targets should be rated more harshly than female targets. Thus, the following hypotheses are derived from the intergroup bias model:

The behavior of ingroup targets will be rated more favorably than the behavior of outgroup targets, for both male and female participants:

- a. Ingroup target behavior will receive lower ratings of perceived infidelity.
- b. Ingroup target behavior will receive lower distress ratings.
- c. Ingroup target behavior will receive lower desire to terminate the relationship ratings.

Finally, as some of the measures might be dependent upon one another, (e.g. distress might be dependent upon perceived infidelity) two separate mediational hypotheses will be examined. First, it stands to reason that whether an individual perceives the situation as infidelity will influence whether distress even exists. Thus, it was hypothesized that perceptions of infidelity would mediate the relationship between the double standard effects, regardless of which theory holds constant, and distress. Additionally, whether an individual perceives a situation to be infidelity and consequently experiences distress should influence the likelihood that he or she would terminate the relationship. Thus, a second hypothesis was created, in that a multiple mediational model exists indicating that perceptions of infidelity and distress would mediate the relationship between the double standard effects and the likelihood of terminating the relationship.

Methods

Participants

A total of 115 undergraduate psychology students (53 males and 62 females) participated in this study. The age of the participants ranged from 18 to 42 ($M = 19.97$, $SD = 3.08$). Participants self-reported their race as Caucasian (67%), Asian (17%), African-American (7%), Hispanic (1%), Native American (1%), Biracial (1%), and Other (7%). Most of the participants self-reported their sexual orientation as heterosexual ($n = 113$); one participant reported being homosexual, and one refrained from answering the question. As most of the hypotheses are based on stereotypes regarding each of the sexes, and should not vary due to the sexuality preference of the participants, all of the participants were kept in the sample.

Procedure

The same methodology used in Hackathorn (2009) was used in this study. Participants, were randomly divided to read a description and stimulus depicting possible cheating behaviors engaged in by one of two members of a couple.

Participants were either presented with a stimulus in which “Bill” was engaging in possible cyber-cheating, or “Colleen” was engaging in possible cyber-cheating. Other than the sex of the target, the stimulus was the same for both groups. The female target (“Colleen”) condition consisted of a brief scenario explaining that Bill and Colleen are in a committed relationship and that Bill recently found an email from Colleen to another man. The participants were then shown a hardcopy of the ‘evidence’ in the form of the email which read as follows:

Thank you so much. I had a really great time chatting with you last night. I didn’t know that talking dirty on the computer could be so much fun. I went to bed totally satisfied and I slept so good. You are truly seductive.

Colleen

Participants were then instructed to “imagine that you are Bill and your significant other is Colleen” while completing measures on perceptions of infidelity, distress, desire to terminate the relationship, and views on computer-mediated communications. Finally, a variety of demographic variables such as gender, age, race, and prior experiences with computer technology were collected.

Measures

Perceived Infidelity

Perceptions of infidelity were measured via three Likert items on a 10 point scale, ranging from “Not at all” to “Definitely”: “Would you consider Bill’s/Colleen’s behavior to be cheating?”, “Do you think that Bill’s/Colleen’s on-line behavior is a betrayal to your relationship?”, and “How similar to traditional infidelity is Bill’s/Colleen’s behavior?” For the comparison to traditional infidelity item, the scale ranged from 1 = Different to 10 = Same Thing. Responses were then averaged to yield a perception of infidelity construct, in which higher scores represent perceptions of the current situation as close to traditional infidelity. Internal consistency measures ($\alpha = .72$) indicated a reliable measure of perceptions of infidelity.

Distress

Distress was measured via two Likert items on a 10 point scale, ranging from “Not at all” to “Extremely”: “How upset would you be if you found this email?”, and “How hurtful do you feel Bill’s/Colleen’s on-line behavior is?” Responses were combined and averaged to yield a distress construct, with higher scores representing more distress. Internal consistency measures ($\alpha = .77$) indicated a reliable measure of distress.

Termination

Desire to terminate the relationship was measured via three Likert items on a 10 point scale, ranging from “Not at all” to “Definitely”: “How likely is it that you

would ‘break-up’ with Bill/Colleen, due to the on-line behavior?”, “Would finding this email cause you and Bill/Colleen to fight?”, and “Do you believe that Bill’s/Colleen’s behavior will bring about an inevitable end to the relationship?” Responses were combined and averaged to yield a termination construct, with higher scores indicating a higher desire to terminate the relationship. Internal consistency measures ($\alpha = .67$) indicated a reliable measure of the termination construct.

Results

The sample size, means, and standard deviations for all three of the main dependent variables (i.e., perceived infidelity, perceived stress, and desire to terminate the relationship) are presented for each cell in Table 1. Our first hypothesis (i.e., the shifting standards model) suggested that the behavior of female targets would be scrutinized more harshly relative to male targets across all dependent variables. Our second hypothesis (i.e., the intergroup bias model) suggested that participants would demonstrate intergroup differences in their ratings such that ingroup members would receive more favorable ratings than outgroup members. This study employed a 2 (sex of the participant) \times 2 (sex of the target) between-subjects design to test both of our competing hypotheses. Thus, three-two-way ANOVAs were computed, one for each of the dependent measures used in this study. Furthermore, simple effects tests were then subsequently used to explore the nature of interactions.

With respect to perceptions of infidelity the Shifting Standards model suggested that female targets would be judged with a lower threshold for declaring their behavior as infidelity. Thus, the Shifting Standards hypothesis suggested that female target would receive higher ratings of perceived infidelity relative to male targets, regardless of the sex of participants. In contrast, the intergroup bias hypothesis proposed that the perceived infidelity ratings for targets would depend upon the ingroup/outgroup status of the target relative to the participant, with ingroup targets receiving more favorable ratings (i.e., lower perceived infidelity ratings).

Table 1 Perceived infidelity, distress, and desire to terminate relationship ratings by sex of participant and sex of target

Sex of participant	Sex of target	N	Infidelity	Distress	Termination
Male	Male (Bill)	27	7.72 (2.35)	8.61 (1.32)	7.05 (1.85)
	Female (Colleen)	26	8.85 (1.07)	9.01 (.84)	7.61 (1.21)
Female	Male (Bill)	29	9.21 (1.32)	9.71 (.51)	8.46 (.92)
	Female (Colleen)	33	8.83 (1.14)	9.14 (.80)	7.81 (1.45)

Standard deviations are presented within parentheses

The results of a two-way ANOVA on perceived infidelity did not reveal a significant main effect for sex of target, $F_{(1,114)} = 1.70, p = .20$. Thus, there was no significant difference between male and female target perceived infidelity ratings. However, there was a significant main effect for sex of participant, $F_{(1, 114)} = 6.54, p = .01, \text{Partial Eta Squared} = .06$. Nevertheless, this main effect was qualified by a significant interaction between sex of participant and sex of target, $F_{(1, 114)} = 6.77, p = .01, \text{Partial Eta Squared} = .06$. Simple effects tests using separate MS error terms suggested an intergroup bias effect for Male participants, $F_{(1, 52)} = 6.54, p = .01, \text{Partial Eta Squared} = .06$. Male participants reported a lower tendency to judge the male target's (ingroup) behavior as infidelity ($M = 7.72$) than the female target's (outgroup) behavior ($M = 8.84$). While a similar pattern emerged among female participant's judgments of the female target's (ingroup) behavior ($M = 8.83$) and the male target's behavior ($M = 9.21$), this effect failed to reach significance, $F_{(1, 61)} = 1.42, p = .24$. Thus, with respect to perceptions of infidelity, the results provided more support for the intergroup bias hypothesis, particularly among male participants.

As with perceptions of infidelity, the shifting standards model proposed that the female target's behavior would elicit higher ratings of distress than the male target's behavior, regardless of the sex of the participant. On the other hand, the intergroup bias model proposed that the distress ratings for targets would depend upon the ingroup/outgroup status of the target, with the behavior of ingroup targets being rated as less stressful. As with perceived infidelity ratings, the results of the two-way ANOVA on distress ratings did not reveal a significant main effect for sex of target, $F_{(1,114)} = .20, p = .63$. Nevertheless, there was a significant effect of sex of participant, $F_{(1, 114)} = 12.75, p = .001, \text{Partial Eta Squared} = .10$, which was then qualified by a significant interaction between sex of participant and sex of target, $F_{(1, 114)} = 8.30, p = .005, \text{Partial Eta Squared} = .07$. Simple effects tests suggested an intergroup bias effect for female participants, $F_{(1, 61)} = 10.81, p = .002, \text{Partial Eta Squared} = .15$. Female participants reported a lower tendency to judge the female target's (ingroup) behavior as distressing ($M = 9.13$) than the male target's (outgroup) behavior ($M = 9.71$). While a similar pattern emerged among male participant's judgments of the male target's (ingroup) behavior ($M = 8.61$) and the female target's behavior ($M = 9.02$), this effect failed to reach significance, $F_{(1, 52)} = 1.77, p = .19$. Thus, with respect to ratings of distress, the results provided more support for the intergroup bias hypothesis, particularly among female participants.

The shifting standards hypothesis also predicted that participants would express a greater desire to terminate the relationship when the target was female rather than male. In comparison, the intergroup bias model predicted that participants would express a greater desire to terminate the relationship when the target was an outgroup member relative to an ingroup member. The pattern of results for desire to terminate the relationship ratings was virtually identical to the results presented above for distress ratings. In brief, there was no main effect for sex of target. Instead a main effect for sex of participant, $F_{(1, 114)} = 9.43, p = .003, \text{Partial Eta Squared} = .08$, was qualified by a significant interaction between sex of participant and sex of target, $F_{(1, 114)} = 5.29, p = .023, \text{Partial Eta Squared} = .05$. Simple effects tests also revealed an intergroup bias effect for female participants, $F_{(1, 61)} = 4.15, p = .046$,

Partial Eta Squared = .07. Female participants reported a lower desire to terminate the relationship following the female target's (ingroup) behavior ($M = 7.81$) than the male target's (outgroup) behavior ($M = 8.46$). While a similar pattern emerged among male participant's termination ratings of the male target's (ingroup) behavior ($M = 7.04$) and the female target's behavior ($M = 7.62$), this effect failed to reach significance, $F_{(1, 52)} = 1.71, p = .20$. Thus, consistent with the ratings of perceived infidelity and distress, the results on the desire for termination ratings also provided more support for the intergroup bias hypothesis than the shifting standards hypothesis, particularly among female participants.

While the pattern of results was consistent across all three dependent measures, it stands to reason that there might be some important associations between these dependent measures. More specifically, ratings of distress should depend upon the degree to which participants perceived the behavior as infidelity. Likewise, desires to terminate the relationship should depend initially upon perceiving the behavior as infidelity and then upon the amount of distress experienced as a result of it. To explore these potential relationships, we tested two mediational models.

The first mediational model was designed to test the idea that perceived infidelity would mediate the relationship between the intergroup effect (ingroup vs. outgroup contrast) and ratings of distress. We utilized Preacher and Hayes (2004) bootstrapping technique for testing mediational models. This technique estimates the indirect effect of the mediator and a 95% confidence interval. We utilized a bootstrapping procedure with 5,000 resamples of 115 participants. We found adequate support for our hypothesis. The path coefficient reflecting the (total) effect of the intergroup contrast on distress ratings was $-.24, p = .008$. Furthermore, the path coefficient reflecting the (direct) effect of perceived infidelity on distress ratings was $.35, p = .02$. In the bootstrapping procedure, the difference between the total and direct effects is called the *point estimate* (i.e., the total indirect effect through the mediator). The point estimate of the indirect effect for this study was significant, $-.1392, z = 2.29, p = .02$. Furthermore, The 95% bootstrap confidence interval was $-.2530$ to $-.0236$. Because zero is not contained within the confidence interval, this further supports the significance of the point estimate. Thus, the bootstrapping procedure suggests adequate support for the predicted mediational effect of perceived infidelity ratings on the relationship between intergroup contrast and distress ratings.

A second bootstrapping procedure was computed to examine multiple mediational effects of both perceived infidelity and distress ratings on the relationship between the intergroup contrast and desire to terminate the relationship ratings. In this analysis, we tested the simultaneous and combined mediational effects of both perceived infidelity and distress ratings. Once again, we found adequate support for our hypothesis. The path coefficient reflecting the (total) effect of the intergroup contrast on termination ratings was $-.30, p = .03$. Furthermore, the path coefficients reflecting the direct effects of both perceived infidelity ($.49, p < .001$) and distress ($.32, p = .03$) on termination ratings were significant. More important, their combined indirect effect ($-.25, p = .01$) was significant, and the 95% confidence interval did not include zero, $-.47$ to $-.08$. Thus, this analysis provided evidence of the multiple mediation effect of perceived infidelity and

distress ratings on the relationship between the intergroup contrast and desire to terminate the relationship.

Discussion

This study should add to the existing literature by combining much of the theoretical perspectives regarding gender roles, sexuality, and double standards. The current study investigated whether perceptions of and reactions to cyber-infidelity behaviors could change based on double standards in sexual scripts and gender roles. Specifically, perceptions of infidelity, levels of distress, and perceived destructiveness to the relationship, via both the sex of the judge and the sex of the target, were examined. While it was expected that females would judge other female targets more harshly on each of the constructs, this was not the case. However, when the interaction of sex of the judge by sex of target was examined, it was found that males were more likely to perceive infidelity when the target was female, and females were more likely to perceive infidelity when the target was male. This provides evidence that an ingroup bias is occurring in perceptions of infidelity. Perhaps this in-group bias is directing the flow of the shifting standards, under the guise of same-sex protection. Persons might find it easier to empathize, make excuses, or justify behavior engaged in by their own sex. While, behaviors engaged in by the opposite sex may actually incur feelings of jealousy and defensiveness (Brewer 1979).

The same interaction was found when examining levels of distress reported by participants. Male judges reported instances of sexual indiscretion by female targets as more upsetting than when the target was male. While this is in accordance with the shifting standard perspective, in that females are not usually seen as highly sexual, and therefore any form of sexual behavior might be seen as overtly sexualized, the reverse relationship was true providing more evidence for the intergroup bias theory. That is, when a female judge rated a male target it was rated as more upsetting than when the target, was female, indicating that a same-sex bias may be more to blame for the double standards than the originally proposed socio-cultural based predictions.

Moreover, attitudes were biased in the same way regarding the consequential impact of extradyadic computer-mediated sexual behavior. Male judges reported the stimuli as more destructive when the target was female, and females judged the stimuli as more destructive when the target was male. Once again, the double standard seems to occur, but not from the promiscuity based stereotypes one would expect, but from an in-group bias that protects members of one's same sex.

According to the shifting standards theory, due to social norms regarding sexual practices, both sexes would be more forgiving toward males, and less forgiving toward females regarding the impacts of sexual behaviors (Biernat 1995). Specifically, it was expected that judges would judge females more harshly for sexual indiscretions than males. In fact, this expectation was expected to hold constant for female judges, as well as males. However, this pattern did not hold true for females. Instead, it appears that females were actually more forgiving toward the

sexual behaviors of other females, and judged males more harshly. The findings of this study may actually imply that each sex is protecting the other members of their group. These findings suggest less of a double standard that victimizes women, and reflects more of an in-group bias for both sexes. Furthermore, it might also indicate a polarization of the out-group, or an opportunity to differentiate one's in-group from the out-group, by increasing the impact by the opposite sex, and lessening the impact of the same sex. However, this notion was not investigated in this study. Future research should look more closely at these findings.

Two separate mediational analyses were conducted to explore the underlying processes among the variables in this study. The first analysis indicated that perceptions of infidelity mediated the relationship between intergroup bias and distress from the behavior. This simply affirmed the idea that the distress reported by our participants was in fact due to the perceived infidelity rather than to some obscure intergroup bias effect in and of itself. The second analysis indicated that perception of infidelity and distress mediated the relationship between intergroup bias and likelihood of termination. So, once again, it was the perceived infidelity and subsequent stress from it that was the most proximal cause of the desire to terminate the relationship, rather than a generic intergroup bias effect. Thus, both distress and desire to terminate the relationship were in fact dependent upon the perception of infidelity.

This study attempted to examine the applicability of the shifting standards theory in predicting attitudes toward extradyadic cyber-relationships. However, there appears to be only limited links to the shifting standards perspective, in that males judged female targets more harshly than male targets. However, this same pattern was found in female judges' responses, in that females judged male targets more harshly than female targets. This double standard appears to result from an in-group bias that may be based loosely on same-sex protection. Future research should examine how prolific this double standard is in perceptions and attitudes toward infidelity. Given that heterosexual individuals are likely to date an outgroup member, at least as it pertains to gender, this bias could provide an explanation for the devastating consequences that result from one member of the couple engaging in extradyadic computer-mediated behaviors. Or, is it more likely that when an individual begins dating or marries a gender-based outgroup member that the perceptions of the partner's group is shifted and he or she is recategorized as an ingroup member, specifically the ingroup of family or spouse? In fact, whether an individual recategorizes his or her partner into their ingroup, may determine whether behaviors are seen as constituting infidelity, distressing, or negatively impacting to the relationship (Wilder 1981). That is, heterosexuals are biologically destined to be with members of the opposite sex (Fiske and Stevens 1993). Once we have paired up, the partners' group membership is recategorized as an ingroup member, my family or my spouse. So, do we then judge their behaviors more or less harshly than we would a strict outgroup member? Perhaps examining perceptions of cyber-infidelity in a more personal scenario, as opposed to judgments of strangers would illuminate this issue. Future research may want to include the parameters in which an individual becomes an ingroup member, especially as it relates to romantic relationships.

The current study is beneficial because of its unique addition to the infidelity, as well as the sexual double standard research. However, there were a few limitations in this study. Due to the use of convenience sampling, the perceptions of some groups may have been underrepresented. While it is fortuitous that the sample was almost equally split between males and females, the sample consisted mostly of 19 years old Caucasians. Although, judges were not excluded on the basis of age or racial/ethnic group, it could be beneficial to investigate more diverse populations. Furthermore, future studies may want to investigate the overall views of sexual permissiveness in the population, which could vary across the population by region, and have a direct effect on perceptions of infidelity in general.

Another limitation of the current study is that of self-report. It is not likely that all attempts at reducing respondent errors, bias, and falsities were fruitful and complete. In addition to the traditional problems with self-report, this study attempted to investigate secondary opinions of cyber-infidelity. A person's opinion and reactions to cyber-infidelity may be very different when the person is someone other than themselves. In the future, investigations into perceptions of cyber-infidelity should be investigated in a first person context. Specifically, how would a person react if the extradyadic computer-mediated relationship was being engaged in by his or her significant other? Using an egocentric approach may offer new responses because of the more personal feel, and consequently the more personal threat.

Although it is argued that cyber-infidelity is not conducted in a tangible or physical sense and thus does not constitute physical infidelity, the maintenance of an on-line relationship may have severe effects in the 'real world' as well as in a physical and committed relationship (Collins 1999). While many people find that these on-line activities are a welcome change from the 'ruts' of their mundane and predictable lives, the real-life implications or the results of their actions can be devastating to their relationships (Collins 1999). It is vital that the perceptions, behaviors, and consequences of online infidelity be examined, especially within the confines of the real-world.

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