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Christina M. Brown Arcadia University, browncm@arcadia.edu

Emily R. Daniels Arcadia University

Christopher J.N. Lustgraaf University of Southern Mississippi, christopher.lustgraaf@usm.edu

Donald F. Sacco University of Southern Mississippi, Donald.Sacco@usm.edu

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Original Article

Verbal Compliments as a Differential Source of Mate Poaching Threat for Men and Women

Christina M. Brown, Psychology, Arcadia University, Glenside, PA, USA. Email: <u>browncm@arcadia.edu</u> (Corresponding author).

Emily R. Daniels, Psychology, Arcadia University, Glenside, PA, USA.

Christopher J. N. Lustgraaf, Psychology, The University of Southern Mississippi, Hattiesburg, MS, USA.

Donald F. Sacco, Psychology, The University of Southern Mississippi, Hattiesburg, MS, USA.

Abstract: Two studies tested whether people feel threatened by another individual verbally complimenting their romantic partner. Such compliments may indicate that the other person is a potential rival who will try to "poach" their mate. Across two studies, women were more threatened than men when imagining another person complimenting their partner's physical appearance. There were no sex differences in response to imagining another person complimenting their partner's sense of humor. When another person compliments one's partner's physical appearance, this indicates that they may be sexually attracted to the partner. Mediation analyses revealed that the sex difference occurs because women believe men are more open to casual sex, and therefore more vulnerable to mate poaching when another person expresses sexual interest in them.

Keywords: mate poaching, compliments, sex differences, jealousy

Introduction

Mate poaching is the process of trying to secure a mating opportunity with an individual who is already in a committed relationship (Schmitt and Buss, 2001). Although it can be an uncomfortable issue in contemporary society, this form of infidelity is relatively ubiquitous. It has been observed across a multitude of nations and cultures, although its frequency varies by region (e.g., mate poaching is less common in countries with fewer economic resources; Schmitt et al., 2004) and by personality (e.g., mate poachers tend to be more extraverted, less agreeable, and less conscientious; Schmitt et al., 2004; Schmitt and Buss, 2001). In the current research, we explore individuals' responses

to various third-party compliments that may differentially suggest that party's desire to poach their partner. We predicted that men and women would experience different feelings of threat depending on the content of the potential rival's compliment. It should be noted that we restrict our theory and discussion to heterosexual relationships. Our predictions are based on the differential reproductive pressures men and women faced over evolutionary history (e.g., Buss and Schmitt, 1993), which have consequently shaped mating psychology in heterosexual relationships. Because homosexual relationships have not been shaped by the same reproductive concerns, our predictions cannot be generalized to these relationships.

We are specifically interested in how people react to compliments about their partner's physical attractiveness. Because physical attractiveness is more essential to women's desirability as a mate than men's (Buss, 1989; Schmitt, 2014), it has primarily been studied in women's intrasexual rivalry. Not only do women guard against attractive potential poachers (Buss, 2002), but they derogate potential rivals' physical appearance in order to enhance their own attractiveness (Buss, 1988; Buss and Dedden, 1990; Walters and Crawford, 1994). Nonetheless, this does not mean that men's physical attractiveness does not play a role when women compete for mates. Across both sexes, physically attractive individuals, relative to less attractive individuals, are more likely to report that third parties try to woo them away from their mates (Schmitt et al., 2004). In addition, although men and women differ in some of their long-term mate preferences, both men and women prioritize physical attractiveness when pursuing a partner for a short-term sexual relationship (Li and Kenrick, 2006). Evolutionarily, this is sensible; physical attractiveness is an indicator of genetic quality, and the primary fitness benefit obtained from a short-term sexual encounter is the partner's genetic contribution to mutual offspring (Gangestad and Simpson, 2000).

Based on this underlying evolutionary framework, we predicted that women would be more upset and threatened than men by a mating rival who compliments their partner's physical appearance. At first blush, this may seem counterintuitive given that physical attractiveness is more important to women's mate value than men's (Buss, 1989; Schmitt, 2014). However, we believe that a physical appearance compliment conveys the rival's interest in a sexual relationship with the mated complimentee. If such a compliment is perceived as indicating *short-term sexual interest*, then the rival should be more threatening to women than men.

We believe this will occur because women are more likely than men to see their partner as vulnerable to short-term poaching (i.e., sexual infidelity). Although men tend to be more upset by sexual infidelity than women (e.g., Buss et al., 1999; Buunk, Angleitner, Oubaid, and Buss, 1996; see Sagarin et al., 2012, for a recent meta-analysis), women should be more likely than men to expect their partner to *actually commit* sexual infidelity due to men's greater sex drive and desire for sexual variety, as well as men's lower threshold for experiencing sexual attraction and consenting to sex (Baumeister, Catanese, and Vohs, 2001; Petersen and Hyde, 2010; Schmitt, Shackelford, and Buss, 2001). In addition, from a parental investment perspective, men have a greater incentive to behave promiscuously; their minimum contribution to offspring production is sperm, so mating with a large number of partners can directly increase their fitness (which is not equally true of women; Trivers, 1972).

Verbal compliments and mate poaching threat

Indeed, men report being sexually unfaithful more often than women (Petersen and Hyde, 2010), and men succumb to sexual temptations more than women do as a result of experiencing those temptations more intensely (Tidwell and Eastwick, 2013). Men are also more likely than women to report experiencing sexual arousal in response to the attention of an attractive individual (e.g., they indicate greater agreement with statements such as, "When I think someone sexually attractive wants to have sex with me, I quickly become sexually aroused," and "When an attractive person flirts with me, I easily become sexually aroused"; Carpenter, Janssen, Graham, Vorst, and Wicherts, 2008; Janssen, Vorst, Finn, and Bancroft, 2002). Assuming that men and women are aware of this difference, women should be more concerned than men about losing their partner to a rival who indicates sexual interest in their partner. In other words, even though men are more upset by the thought of sexual infidelity, we believe they recognize that women are more sexually restricted than themselves. As a result, men do not expect their partners to consent when a poacher approaches them for sex. Women, on the other hand, should believe their partners are more vulnerable to being poached for a short-term sexual relationship, a belief that reflects actual base rates of sexual infidelity (e.g., Peterson and Hyde, 2010). For example, Hald and Høgh-Olesen (2010) replicated Clark and Hatfield's (1989) classic study in which participants were approached by a stranger and asked to engage in sex, but Hald and Høgh-Olesen also identified participants' relationship status. They found that among participants who were already in a relationship, 18% of men and 0% of women agreed to have sex with a stranger. Thus, the risk of one's partner committing infidelity when approached by a mate poacher is indeed greater for women than for men.

We tested our prediction in two studies. In Study 1, participants were asked to imagine a scenario in which a same-sex individual complimented their romantic partner. We varied whether the partner's appearance or sense of humor was complimented, and we predicted that women would be more upset by a physical appearance compliment than men. In Study 2, we sought to replicate this finding while establishing evidence of mechanism. First, we assessed whether physical appearance compliments, relative to sense of humor compliments, were perceived as indicating more sexual interest. Second, we tested whether beliefs about the opposite sex's vulnerability to mate poaching and extrapair desires (i.e., sexual infidelity) mediated the effect of participant sex on emotional reactions to the physical appearance compliments than men because they believe men are more easily poached for a short-term sexual encounter.

Although we hypothesized that participant sex and compliment type would be the most important predictors of emotional reactions to the compliment, we explored two potential moderators of this effect in Study 1. To our knowledge, no other researchers have tested compliments as a source of jealousy and threat, so it seemed prudent to assess potential moderators when studying the existence of this phenomenon for the first time. First, we measured participants' state self-esteem at the beginning of the study to test if only individuals who have a low self-evaluation are bothered by another person complimenting their romantic partner. Across cultures, self-esteem is related to one's value as a mate (Goodwin et al., 2012), and one's own mate value influences the standards they set for acceptable mates (e.g., Gladden, Figueredo, and Snyder, 2010; Little, Burt, Penton-Voak, and Perrett, 2001; Regan, 1998). It is possible that only people with low self-

evaluation will react negatively to the compliment because they face a greater probability that the rival's mate value exceeds their own, and therefore their partner may find the rival more appealing. Second, we manipulated whether the complimenter (the potential rival or poacher) was described as attractive. It is possible that a compliment is only perceived as threatening when it comes from an attractive complimenter, since physical attractiveness is the primary feature that motivates selection of short-term mates (Li and Kenrick, 2006).

Study 1

Overview

Participants were randomly assigned to read a hypothetical scenario in which they overheard a member of the opposite sex complimenting their partner. We manipulated whether the partner's physical appearance or sense of humor was complimented, as well as whether the complimenter was described as attractive. We also measured participants' state self-esteem at the beginning of the study. After reading the hypothetical scenario, participants indicated the emotional reactions (e.g., jealous, upset) they would have if they were in that situation.

Materials and Methods

Participants

A total of 242 participants (151 men, 90 women, 1 undisclosed) were recruited through Amazon's Mechanical Turk (MTurk), which is an online survey distribution tool (see Buhrmester, Kwang, and Gosling, 2011). Due to the nature of our hypothesis, several participants were excluded based on their answers regarding their sex and sexual orientation. First, we excluded one participant who did not disclose his or her sex. Second, we excluded non-heterosexual participants. In the latter case, we used two inclusion criteria: Participants had to self-report being heterosexual at the end of the study (n = 212) and the sex they indicated being most attracted to at the beginning of the study had to be opposite of their own self-reported sex (n = 224). We used both criteria because some participants reported (in a comments box at the end of the study) having accidentally clicked their own sex instead of the sex they were attracted to. Therefore, some self-reported heterosexual participants read a scenario that did not match their sexual orientation. After applying the exclusion criteria, our final sample included 208 participants (134 men, 74 womer; $M_{age} = 30.40$, $SD_{age} = 11.59$).

Measures

Hypothetical emotions. Our primary dependent measure was how participants thought they would feel if they were actually experiencing the scenario presented to them. Participants were asked to indicate on a scale of 1 (*not at all*) to 7 (*very*) the extent to which they would feel the following emotions: jealous, distressed or upset, angry, threatened, and insecure. This five-item hypothetical emotion scale displayed adequate reliability ($\alpha = .93$).

State self-esteem. We explored whether participants' current self-evaluation would moderate their reaction to the scenario. We used a 16-item state self-esteem scale created by Leary, Tambor, Terdal, and Downs (1995) and revised by Kavanagh, Robins, and Ellis

(2010). The scale contains pairs of bipolar adjectives (e.g., good-bad, competentincompetent, proud-ashamed) on either end of a 7-point continuum. Participants were instructed, "For each pair of words, please select a button indicating how you feel right now." Responses were scored such that higher scores represent more positive state selfesteem. The measure was reliable ($\alpha = .97$).

Procedure

The study was administered as an online survey, with a statement of informed consent on the first page. The first task in the survey was the state self-esteem scale. Participants were next asked to indicate whether they were more attracted to men or women. Their choice triggered the survey to display a scenario in which the sex of the hypothetical partner matched participants' reported sexual attraction. In the scenario, the participant is described as overhearing an acquaintance directly complimenting his or her partner. We manipulated the compliment (hot vs. funny) and whether the complimenter was described as attractive. (In both studies, participants were randomly assigned to one condition on a between-subjects basis.) The scenario female participants read is presented below (pronouns were switched for male participants), with the bracketed text indicating content that varied by condition:

Imagine that you are in a serious relationship. You and your partner have been dating for 6 months and things are going well. The two of you are at a bar one Friday evening. Other people you know are there, and you and your boyfriend end up in separate conversations for a while. As you're walking back to him, you overhear an acquaintance of yours [, who is quite attractive,] say to your boyfriend, "You know, you're really [good-looking/funny]."

We selected 6 months as the duration of the hypothetical relationship because it needed to be long enough for participants to see the relationship as a committed one, but also short enough for participants to retain concerns about the relationship's future. Six and seven months are common intervals used in relationship research to assess the stability of a romantic relationship (e.g., Rusbult, 1983; Sacher and Fine, 1996; Simpson, 1990).

On the same page as the scenario, participants were asked to rate the emotions they would experience if they were in the scenario. The remaining pages contained demographic questions. Each participant was asked to indicate their sexual orientation (heterosexual, homosexual, bisexual, other, and prefer not to answer), sex, age, race, current relationship status (single, casual dating, committed relationship, engaged, married, widowed, or divorced), past experience with infidelity (whether they had cheated or been cheated on in any past or current relationships), and their anonymous MTurk ID for payment. The study was approved by an Institutional Review Board (IRB).

Results

Hypothetical emotions

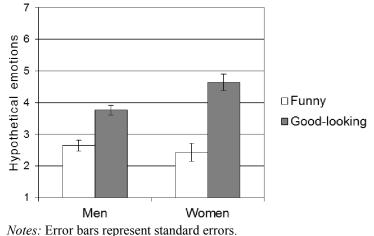
We conducted a 2 (participant sex: male, female) \times 2 (compliment: good-looking, funny) \times 2 (complimenter: attractive, no mention) ANOVA on hypothetical emotions to

test our hypothesis.

There was a significant main effect of compliment, such that the "good-looking" compliment evoked more negative emotions (M = 4.06, SD = 1.48) than the "funny" compliment (M = 2.57, SD = 1.51), F(1,200) = 59.25, p < .001, $\eta_p^2 = .229$.

There was also a significant interaction between sex and compliment, F(1,200) = 6.28, p = .013, $\eta_p^2 = .03$, depicted in Figure 1. Simple effects revealed that both men and women reported more negative emotions in response to the good-looking compliment compared to the funny compliment (men: F(1,200) = 19.03, p < .001, $\eta_p^2 = .087$; women: F(1,200) = 40.30, p < .001, $\eta_p^2 = .168$), but the good-looking compliment evoked more negative emotions in women (M = 4.64, SD = 1.59) relative to men (M = 3.76, SD = 1.33), F(1,200) = 7.96, p = .005, $\eta_p^2 = .038$. Men (M = 2.65, SD = 1.38) and women (M = 2.43, SD = 1.71) did not differ in reaction to the funny compliment, F(1,200) = .54, p = .464, $\eta_p^2 = .003$. There was no main effect of (p = .631) nor interactions with (ps > .142) the complimenter attractiveness variable.

Figure 1. Mean hypothetical negative emotions score by participant sex and compliment condition in Study 1



Our hypothesis concerned how compliments would affect participants' overall emotions; we expected the threat of mate poaching to affect participants globally, evoking multiple negative emotions. Although our hypothetical emotions measure was reliable ($\alpha = .93$), readers may be interested in whether the specific emotion items constituting the scale produced different results. As an exploratory analysis, we conducted the 2 (sex) × 2 (compliment) × 2 (compliment) ANOVA separately for each of the five emotion items. The critical 2 (sex) × 2 (compliment) interaction was significant for "jealous" (p = .006), "distressed/upset" (p = .049), and "threatened" (p = .006), and marginally significant for "insecure" (p = .065). Anger was the only item that did not reveal a significant interaction (p = .153). However, the pattern of means for anger was in the same direction as for the other emotions, and the simple effects revealed that women were marginally (p = .056) more angered than men by the good-looking compliment, whereas men and women did not differ for the funny compliment (p = .906). Collectively, these results show that women are more bothered by a rival complimenting their partner's physical appearance than are men,

and this represents a global feeling of upset rather than change in one specific negative emotion. For this reason (and because the overall scale was reliable), we continued to use the composite hypothetical emotions measure.

Analyses with self-esteem

We conducted a linear regression to test if participants' state self-esteem (assessed at the beginning of the study) interacted with the other variables to influence their responses. State self-esteem was centered and each of the independent variables was effects coded (-1, 1). We regressed hypothetical emotions on all 4 main effects, all 6 two-way interactions, all 4 three-way interactions, and the four-way interaction. With all variables included in the model, there was a significant main effect of compliment, b = .89, SE = .11, t = 7.87, p < .001, and a significant interaction between compliment and participant sex, b = ..34, SE = .11, t = -3.04, p = .003. These two effects replicate the two significant effects obtained in the ANOVA. In addition, there was a significant interaction between state self-esteem and compliment, b = -.25, SE = .09, t = -2.62, p = .009, a marginal sex × compliment × state self-esteem interaction, b = .17, SE = .09, t = 1.83, p = .069, and a marginal main effect of sex, b = ..19, SE = ..11, t = -1.67, p = .097.

The state self-esteem × compliment interaction was such that higher self-esteem predicted fewer negative emotions in response to the good-looking compliment, r(107) = -.22, p = .021, whereas self-esteem was unrelated to emotions in the funny compliment condition, r(101) = .06, p = .568. The marginal state self-esteem × compliment × sex interaction was such that both men and women tended to exhibit more negative emotions in response to the good-looking compliment if they had lower state self-esteem (men: r(70) = -.26, p = .033; women: r(37) = -.27, p = .100), and men also tended to feel worse in response to the funny compliment if they had lower self-esteem (r(64) = -.13, p = .320). However, women felt marginally more negative due to the funny compliment if they had high self-esteem (r(37) = .30, p = .069). Lastly, the negative beta for the marginal main effect of sex represents higher levels of negative emotions for women relative to men.

Analysis with past experience of infidelity

Because past experience with infidelity has been found to moderate sex differences in reactions to emotional versus sexual infidelity (Tagler, 2010), we conducted an exploratory analysis with this variable for interested readers. Our participants were shown a list of possible infidelity experiences (e.g., "I have cheated in my current romantic relationship," "I have been cheated on in a past romantic relationship") and they could check any that applied. There were too few participants in each response category to analyze them separately (*ns* for the individual categories ranged from 5 to 65), so we split participants into two groups based on whether they selected the option "None of the above" when asked about infidelity (any experience with infidelity: n = 111; no experience: n =97). We then performed a 2 (participant sex) × 2 (compliment) × 2 (complimenter: attractive, no mention) × 2 (experience with infidelity: yes, no) ANOVA on hypothetical emotions. There was a main effect of past experience with infidelity, F(1,192) = 9.56, p =.002, $\eta_p^2 = .047$, such that people who had past experience were more upset by the compliment (M = 3.66, SD = 1.74) than those who did not (M = 3.06, SD = 1.55). The critical participant sex × compliment interaction was still significant (p = .035) with this variable in the model. However, because past experience with infidelity did not significantly interact with the other variables (ps > .110), we excluded it from all other analyses.

Discussion

As predicted, women indicated that they would feel more negative emotions as a result of a same-sex individual complimenting their partner's physical appearance than did men. There was no effect of sex on reactions to the sense of humor compliment. People whose current self-evaluation was somewhat negative (i.e., low state self-esteem) imagined feeling worse in response to the physical appearance compliment, but the three-way interaction with participant sex did not reach conventional levels of significance. Therefore, we did not continue exploring individual difference moderators in Study 2.

Surprisingly, whether the complimenter was described as physically attractive did not produce a significant main effect or any interactions. The compliment itself was considerably more influential in shaping participants' reactions. However, the complimenter attractiveness manipulation was very subtle. It remains possible that a vivid image of an attractive rival could amplify reactions to the scenario, particularly in the physical attractiveness compliment condition.

Study 2

Purpose and overview

The purpose of Study 2 was to replicate the interaction between participant sex and type of compliment while also testing our theorized mechanism of the effect. First, we suspect that people perceive a physical appearance compliment as indicating the complimenter's sexual attraction to the target of the compliment. Complimenting a person's sense of humor, on the other hand, does not require seeing that person in a sexual or romantic way. Second, we believe women know that men's interest in casual sex exceeds their own—an awareness that correctly reflects both contemporary data on sex differences in infidelity (Petersen and Hyde, 2010) as well as biological tendencies toward promiscuity shaped by differential parental investment (Trivers, 1972)—and therefore they see men as more vulnerable to being poached for a short-term sexual relationship. To put it another way, we expect people to assume that a woman is more likely to successfully poach a mated man by presenting herself as sexually interested in and available to him, relative to if the sex roles were reversed.

To test our theorized mechanism, we first measured whether people perceive a physical appearance compliment as a sign of sexual interest and availability. We also assessed men and women's beliefs about the opposite sex's vulnerability to mate poaching, which we tested as a mediator of the effect of sex on hypothetical emotions in response to a physical appearance compliment. Specifically, we measured beliefs about the opposite sex's attitude toward casual sex (i.e., their sociosexual orientation; Penke and Asendorpf, 2008) and extrapair proclivities (i.e., feelings of attraction toward people other than one's mate). These were combined into a single measure of beliefs about the opposite sex's vulnerability to mate poaching for our test of mediation.

Study 2 also differs from Study 1 with the inclusion of a second physical appearance compliment condition. In Study 1, the complimenter said the participant's partner was "good-looking." In Study 2, we added a second physical appearance compliment: "hot." It's possible that "good-looking" simply isn't threatening enough to evoke a reaction from men, whereas the word "hot" more clearly indicates that the complimenter is sexually attracted to the partner. We expected women to imagine feeling more negative in response to both the "good-looking" and "hot" compliments than men (with no sex difference for the "funny" compliment) because of their greater concerns about men's vulnerability to mate poaching. However, it remains possible that more clearly suggests the threat of mate poaching. The inclusion of the "hot" compliment allowed us to more directly test this possibility.

Materials and Methods

Participants

Participants were 164 students (58 women, 106 men) from University of Southern Mississippi. As in the previous study, we only included participants who both self-reported a heterosexual orientation (n = 140) and selected the opposite sex as the target of their attraction at the beginning of the study (n = 140). Because some participants' responses were inconsistent across these two criteria, our final sample contained 135 participants (83 men, 52 women; $M_{age} = 20.73$, $SD_{age} = 4.95$).

Measures

Hypothetical emotions. We included additional items beyond those in Study 1 to form a more comprehensive measure. Specifically, participants indicated on a scale of 1 (*not at all*) to 7 (*very*) the extent to which each of the following adjectives described how they would feel in the situation presented to them: jealous, distressed, upset, angry, threatened, insecure, unhappy, anxious, tense, and concerned ($\alpha = .94$).

Perceived threat from the complimenter. Participants responded to 12 questions measuring the degree to which they felt threatened by the complimenter. They responded to the questions on a scale of 1 (*not at all*) to 7 (*definitely*). The version of the 12 questions for female participants is presented here (the sex was switched for male participants):

Is the woman attracted to your partner?

Do you think the woman would "make a move" on your partner if they were alone together?

Do you think the woman desires casual sex (without a relationship) with your partner?

Do you think the woman desires a committed relationship with your partner?

Do you think your partner would interpret the woman's compliment as flirting?

Do you think your partner would believe the woman was "coming on" to him? Would you be concerned that your partner might find the woman attractive? Would you be concerned that your partner might be aroused by the woman? Do you think the compliment would make your partner evaluate his relationship with you?

Do you think your partner would wonder what it'd be like to be in a relationship with the woman instead of you?

Would you feel insecure about whether your partner finds you attractive?

Would you compare yourself to the woman (e.g., in physical appearance)?

Participants were instructed to answer these questions based on the scenario they had just read. The measure was reliable ($\alpha = .91$).

Beliefs about the opposite sex. To measure beliefs about the opposite sex's sociosexual orientation and extrapair proclivities, we began with Penke and Asendorpf's (2008) Sociosexual Orientation Inventory-Revised (SOI-R). The original SOI-R asks participants to answer questions about their own willingness to engage in casual sex. We modified the questions so they assessed beliefs about a typical member of the opposite sex in one's own age group. For example, the item "I can imagine myself being comfortable and enjoying 'casual sex' with different partners" was changed to "The typical [man/woman] can imagine [himself/herself] being comfortable and enjoying casual sex with different partners." This item and the following four items formed a "belief about the opposite sex's sociosexual orientation" subscale: "The typical man thinks sex without love is ok," "The typical man would have a difficult time turning down a woman who approaches him for sex," "The typical man would not want to have sex with a woman until he is sure they will have a long-term, serious relationship," and "How often do you think the typical man has spontaneous fantasies about having sex with someone he has just met?" The first four items are responded to on a scale of 1 (strongly disagree) to 9 (strongly agree). The last item is measured on a 9-point scale with the following response options: Never, very seldom, about once every two or three months, about once a month, about once every two weeks, about once a week, several times per week, nearly every day, at least once a day. Both response options are the same used by the original SOI-R.

In addition to the modified SOI-R items, we created new items to assess beliefs about the opposite sex's extrapair proclivities (i.e., sexual interest in people other than one's partner). They were: "The typical man would be aroused by an attractive woman even if he is in a committed relationship," "How often do you think the typical man in a committed relationship fantasizes about having sex with someone who isn't his partner?" and "How often do you think the typical man in a committed relationship experiences sexual arousal when in contact with someone who isn't his partner?" The first item was responded to on a 1 (*strongly disagree*) to 9 (*strongly agree*) scale, and the last two were responded to on the same 9-point temporal scale as the modified SOI-R items described above.

The sociosexual orientation beliefs subscale was reliable ($\alpha = .79$), as was the extrapair proclivity beliefs subscale ($\alpha = .69$). The measure is also reliable ($\alpha = .83$) when treating it as a single overall measure of beliefs about the opposite sex's interest in casual sex and, therefore, vulnerability to mate poaching.

Procedure

After reading and agreeing to an online consent form, participants read a scenario in

which they overheard a member of the opposite-sex complimenting their partner directly. The scenario women saw is presented below, with the bracketed text representing content that differed by condition:

Imagine that you are in a serious relationship. You and your boyfriend have been dating for 6 months and things are going well. The two of you are at a bar one Friday evening. Other people you know are there, and you and your boyfriend end up in separate conversations for a while. As you're walking back to him, you overhear an acquaintance of yours say to your boyfriend, "You know, you're really [good-looking/hot/funny]."

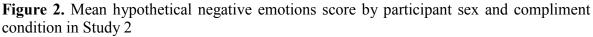
After reading the scenario, participants completed the hypothetical emotion measure followed by the measure of perceived threat and beliefs about the opposite sex. The survey concluded with questions about participants' sexual orientation, relationship status, age, sex, and race. The study was approved by an Institutional Review Board (IRB).

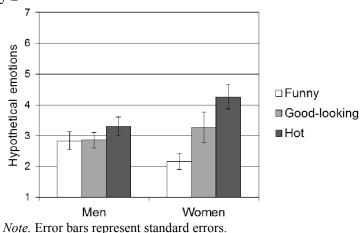
Results

Hypothetical emotions

We conducted a 2 (sex: male, female) × 3 (compliment: good-looking, hot, funny) ANOVA on hypothetical emotions in response to the scenario. There was a significant main effect of compliment, F(2,129) = 7.26, p = .001, $\eta_p^2 = .101$, which was qualified by a marginal interaction between compliment and sex, F(2,129) = 3.00, p = .054, $\eta_p^2 = .044$ (see Figure 2). The main effect of sex was not significant, p = .391, $\eta_p^2 = .006$.

The main effect of compliment was such that the hot compliment evoked more negative emotions (M = 3.66, SD = 1.70) than the good-looking (M = 3.02, SD = 1.61) and funny (M = 2.57, SD = 1.41) compliments. LSD post hoc analyses revealed that the hot compliment bothered participants marginally more than the good-looking compliment (p = .056) and significantly more than the funny compliment (p = .001). The good-looking and funny conditions did not significantly differ (p = .174).





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We conducted simple effects to test our *a priori* predictions represented by the marginal (p = .054) interaction between sex and compliment. The simple effect of sex was significant in the hot compliment condition, F(1,129) = 4.06, p = .046, $\eta_p^2 = .031$, with women reporting more negative emotions (M = 4.26, SD = 1.67) than men (M = 3.30, SD = 1.64). In contrast, men and women did not significantly differ in the good-looking, F(1,129) = .73, p = .396, $\eta_p^2 = .006$ (women: M = 3.27, SD = 2.06; men: M = 2.86, SD = 1.29), or funny, F(1,129) = 1.92, p = .168, $\eta_p^2 = .015$ (women: M = 2.17, SD = 1.11; men: M = 2.83; SD = 1.55), compliment conditions.

Analyzing the simple effects another way, women's emotions were marginally more negative after imagining the hot compliment than the good-looking compliment (p = .067), but both the hot (p < .001) and good-looking (p = .039) compliments were significantly more unpleasant for women than the funny compliment. Men, in contrast, showed no significant differences in emotion by compliment conditions (ps > .261). To summarize, women's emotions were more unsettled by the hot compliment than men. Although women were not more bothered by the good-looking compliment than men, the two physical appearance compliments were more troubling to women than the sense of humor compliment, whereas men's emotional reactions showed no distinction between the physical appearance and sense of humor compliments.

Threat

We conducted a 2 (sex: male, female) × 3 (compliment: good-looking, hot, funny) ANOVA on threat in response to the scenario. There was a significant main effect of compliment, F(2,129) = 17.13, p < .001, $\eta_p^2 = .210$, which was qualified by an interaction with sex, F(2,129) = 4.11, p = .019, $\eta_p^2 = .060$.

The interaction was driven by men reporting more threat (M = 3.24, SD = 1.12) than women (M = 2.53, SD = .90) in the funny compliment condition, F(1,129) = 3.67, p = .058, $\eta_p^2 = .028$, whereas in both the hot, F(1,129) = 2.47, p = .119, $\eta_p^2 = .019$, and goodlooking, F(1,129) = 2.60, p = .109, $\eta_p^2 = .020$, conditions, women (hot: M = 4.71, SD =1.00; good-looking: M = 3.89, SD = 1.65) tended to report more threat than men (hot: M =4.12, SD = 1.34; good-looking: M = 3.28, SD = 1.16). However, these sex differences did not reach statistical significance.

One of our goals for including the threat items in the study was to assess whether the physical appearance compliments are perceived as indicating greater sexual interest than the sense of humor compliment. Our theory—that women are more bothered by physical appearance compliments because they see men as more vulnerable to mate poaching—hinges on physical appearance compliments being perceived as indicators of the complimenter's sexual interest. In other words, we hypothesized that physical appearance compliments are seen as reflecting the complimenter's sexual attraction toward the participant's partner, whereas the complimenter does not have to be sexually attracted to the partner to compliment his or her sense of humor.

Three of the threat items specifically assessed beliefs about the rival's sexual interest in the participant's partner. Supporting our assumption, a 2 (sex) × 3 (compliment) ANOVA revealed a significant main effect of compliment condition on each of these three questions: "Is the [man/woman] attracted to your partner?", F(2,129) = 13.02, p < .001, η_p^2

= .168, "Do you think the [man/woman] would try to 'make a move' on your partner if they were alone together?", F(2,129) = 6.36, p = .002, $\eta_p^2 = .090$, and, "Do you think the [man/woman] desires casual sex (without a relationship) with your partner?", F(2,129) = 11.37, p < .001, $\eta_p^2 = .150$. For each question, participants responded affirmatively in the hot condition (question 1: M = 5.43, SD = 1.73; question 2: M = 5.24, SD = 1.83; question 3: M = 5.11, SD = 1.60) more than the good-looking (question 1: M = 4.57, SD = 2.23; question 2: M = 4.32, SD = 2.12; question 3: M = 3.95, SD = 1.98) and funny (question 1: M = 3.53, SD = 1.62; question 2: M = 3.87, SD = 1.71; question 3: M = 3.51, SD = 1.74) conditions. LSD post hoc analyses revealed that responses to the first question significantly differed in all three compliment conditions (ps < .03). For the second and third questions, the hot condition significantly differed from both the good-looking (p = .024; p = .002) and funny (p = .001; p < .001) conditions, which did not significantly differ from each other (p = .266; p = .237).

Having established that physical appearance compliments are seen as indicating the complimenter's sexual interest in the participant's partner, we next tested whether beliefs about the opposite sex's interest in casual sex mediate the effect of sex on hypothetical emotions in the two physical appearance compliment conditions (but not in the funny compliment condition).

Mediation by beliefs about the opposite sex

We predicted that women would be more bothered by the physical appearance compliments (good-looking and hot) than men because women, relative to men, are more likely to believe the opposite sex is interested in casual sex and therefore vulnerable to mate poaching. We first tested whether men and women differed in their beliefs about the opposite sex's sociosexual orientation and extrapair proclivities. Women (M = 6.51, SD = 1.47), relative to men (M = 4.20, SD = 1.23), were significantly more likely to believe the opposite sex is interested in casual sex (i.e., have a less restricted sociosexual orientation), t(133) = 9.82, p < .001, d = 1.70. In addition, women (M = 5.33, SD = 1.64), relative to men (M = 4.53, SD = 1.71), were more likely to believe the opposite sex has extrapair proclivities, t(133) = 2.67, p = .009, d = .48.

We next tested whether these beliefs are related to reactions to the compliment scenario. Collapsed across sex and compliment condition, hypothetical emotions were correlated with beliefs about the opposite sex's sociosexual orientation, r(135) = .23, p = .008, and extrapair proclivities, r(135) = .22, p = .012. Although these significant correlations are small in magnitude, they suggest that people who believed the opposite sex was vulnerable to short-term sexual mate poaching also imagined feeling more negative in response to the compliment.

Because the results were identical for beliefs about the opposite sex's sociosexual orientation and extrapair proclivities, we combined the two to create an overall measure of beliefs about the opposite sex's interest in casual sex (and therefore their vulnerability to mate poaching) to test our mediation hypothesis. Specifically, we predicted that these beliefs would mediate the effect of participant sex on hypothetical emotions in response to the compliment scenario *only* for the physical appearance compliments (hot and good-looking). In other words, we predicted that the indirect effect—beliefs as the mediator between sex and hypothetical emotions—would be moderated by compliment condition.

We tested this using Model 16 of Hayes's (2013) PROCESS macro and set the number of bootstrap samples at 1000 (See Figure 3 for the model and Table 1 for the test statistics).¹ Because our moderator (compliment condition) had three levels, we dummy-coded the variable, with "hot condition" as the comparison group. Applying our variables to Hayes's Model 16, Vector 1 (0 good-looking, 0 hot, 1 funny) was variable V and Vector 2 (1 good-looking, 0 hot, 0 funny) was variable Q. The model tests whether V and Q moderate the indirect effect of X (sex) on Y (hypothetical emotions), with M (beliefs) as the mediator.

Figure 3. The predicted model, in which the indirect effect of sex is moderated by compliment condition

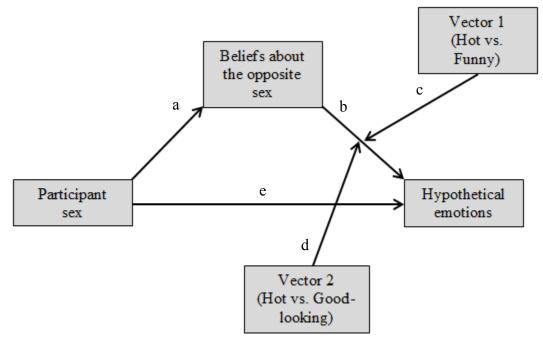


Table 1. Summary statistics for the model testing moderation of an indirect effect

	5		U		
Path	b	SE	t	р	95% CI
a	87	.11	-7.66	<.001	-1.10,65
b	.56	.17	3.35	.001	.23, .89
с	51	.22	-2.38	.019	94,09
d	24	.21	-1.12	.266	65, .18
e	.15	.16	.90	.369	17, .47

¹ To view Hayes's Model 16, access the following URL: <u>http://www.afhayes.com/public/templates.pdf</u> Evolutionary Psychology – ISSN 1474-7049 – Volume 12(4). 2014. -749-

First, sex was a significant predictor of the hypothesized mediator, beliefs about the opposite sex, b = -.87, SE = .11, t = -7.66, p < .001, 95% CI [-1.10, -.65]. As expected, Vector 1 (hot vs. funny) significantly moderated the effect of beliefs on hypothetical emotions, b = -.51, SE = .22, t = -2.38, p = .019, 95% CI [-.94, -.09]. Vector 2 (hot vs. good looking) did not moderate the effect of beliefs on hypothetical emotions, b = -.24, SE = .21, t = -1.12, p = .266, 95% CI [-.65, .18], which is consistent with our prediction because hot and good-looking are both physical appearance compliments and therefore should not differ.

The conditional indirect effects of sex on hypothetical emotions (i.e., mediation at each level of the compliment variable) were also consistent with predictions. First, in the hot condition, mediation by beliefs was significant, b = -.49, SE = .19, 95% CI [-.86, -.13]. Mediation by beliefs was also significant in the good-looking condition, b = -.28, SE = .14, 95% CI [-.59, -.05]. However, mediation by beliefs was not significant in the funny condition, b = -.04, SE = .14, 95% CI [-.27, .31].

Readers may be interested in the simple bivariate correlations between beliefs and hypothetical emotions within each compliment condition. Believing the opposite sex is vulnerable to mate poaching predicts more negative emotions in response to the two physical appearance compliments (hot: r(46) = .43, p = .003; good-looking: r(44) = .28, p = .065), but not in response to the sense of humor compliment (funny: r(45) = -.01, p = .963).

Discussion

The purpose of Study 2 was twofold. First, we wanted to replicate Study 1's finding that women would imagine being more bothered than men by a potential rival complimenting their partner's physical appearance. Second, we sought to provide evidence that this sex difference occurs because women believe men are more vulnerable to being poached for an extrapair sexual relationship.

Our first objective was partially met. When the rival was described as calling their partner "hot," women reported more negative hypothetical emotions relative to men and relative to when the rival called their partner "funny." Contrary to prediction, women did not report more negative emotions than men when the rival called their partner "good-looking," which was the same physical appearance compliment used in Study 1. This means we only replicated Study 1's effect with the new compliment, "hot," but not with the good-looking compliment. However, it's important to note that the three different compliment conditions had no effect on men's hypothetical emotions, whereas both physical appearance compliment. Therefore, although men and women did not differ in the good-looking condition, there is still evidence that this particular physical appearance compliment evoked a meaningful reaction in women (as seen when comparing it to the sense of humor compliment) that it did not produce in men.

One possible reason men and women did not differ in the good-looking condition in Study 2 is the specific terminology we used. Our Study 2 sample contained only college students, whereas Study 1 was comprised of a more diverse and relatively older sample. It's possible that the term "good-looking" is used infrequently by the current generation of college students, so their reactions to this compliment may have been muted by having a weak schema for it.

More importantly, we found strong evidence of our theorized mechanism. We predicted that women are more bothered than men by physical appearance compliments (but not other compliments) because a physical appearance compliment indicates the complimenter's sexual interest, and women see the opposite sex as more vulnerable to sexual infidelity than men do. A rival complimenting one's partner's physical appearance creates a greater threat of mate poaching because women, relative to men, are more likely to believe their partner will succumb to the temptation created by a sexually available rival. Critically, it is the difference in *beliefs* about the opposite sex that is directly responsible for women's differential negativity in reaction to physical appearance compliments. Our mediation analysis revealed that the conditional indirect effect was significant in both the hot and good-looking conditions, but not the funny condition. So, although men and women's hypothetical emotions did not significantly differ in the good-looking condition, the variation in emotions attributable to sex was still explained by sex differences in beliefs.

Therefore, men and women's different reactions to a rival complimenting their partner's physical appearance can be explained by their different beliefs about the opposite sex's sociosexual orientation and extrapair proclivities. These beliefs are more important than the individual's actual sex. In other words, a man who believes his partner is open to casual sex should be more bothered by a physical appearance compliment than a woman who believes her partner is sexually restricted.

Despite this conjecture, it is important to note that our mediator was participants' beliefs about the sociosexual orientation of the opposite sex in general, not their specific partner. We intentionally chose not to measure beliefs about their specific partner for multiple reasons. First, self-presentation concerns may make participants hesitant to admit that they believe (or fear) their partner has extrapair proclivities. It is easier-and less threatening to one's self-image-to state that a "typical" member of the opposite sex is vulnerable to cheating on his or her partner. Second, even if participants explicitly believe their partner will not pursue casual sex with strangers, they may still possess implicit fears to this effect, which could guide their emotional responses. Women's fears about their specific partner's extrapair proclivities should originate in their beliefs about men more generally, which develop slowly over time through exposure and experience. As a result, women may have a strong implicit association between men and casual sex. Even if a woman believes her partner is trustworthy and faithful, if she also believes men in general are unrestricted, those implicit associations may result in fears about her partner committing infidelity. The general-beliefs measure we used would capture such an indirect effect better than a measure about one's specific partner. However, at this time, these are simply conjectures. An interesting question for future research would be to explore whether explicit and implicit cognitions, both about one's specific partner and the opposite sex, function as differential mediators of the phenomenon observed in the current research.

General Discussion

The current research provides evidence of a previously unstudied source of mate

poaching threat: third-party compliments about one's romantic partner. Importantly, the type of compliment determines the intensity of one's response to the threat, and it does so differently for men and women. Physical appearance compliments indicate that the rival is considering the partner in a sexual manner, and this affects women more strongly than men because women believe the opposite sex is more interested in casual, extrapair sex, and therefore more vulnerable to being poached by the rival.

We only tested three specific compliments: good-looking, hot, and funny. It is possible that men and women might also react differently to compliments about other attributes of their partner, such as intelligence, economic resources, social status, strength, and ability. Whether these compliments will evoke jealousy and upset should depend on what they suggest about the complimenter's feelings toward the partner. If the compliment is perceived as a sign of romantic or sexual interest, it should evoke threat. In addition, beliefs about how one's partner will interpret the compliment should also matter. If the perceiver interprets the compliment as a sign of attempted mate poaching but believes his or her partner is oblivious to the rival's attempt, the perceiver might feel less threatened. Alternatively, if the perceiver believes his or her partner already has a strong "flight risk," any sign of positive attention from a potential rival may heighten jealousy and threat. In our research, the physical appearance compliment bothered women more than men because of what it conveyed about the rival (sexual interest) and because of beliefs about how their partner might respond (with extrapair desires). Because the effect of sex was indirect, we recommend future studies on compliments always test beliefs as the direct mechanism.

In our research, the compliment scenario was such that the participant imagined overhearing the rival directly complimenting his or her partner. It would be interesting to manipulate how the compliment is delivered as well. If the rival compliments the partner to the perceiver (e.g., "Your boyfriend is really hot"), this may evoke less threat than the scenario we used. In our scenario where the rival privately and directly complimented the partner, this could easily be construed as that rival trying to court the partner bycomplimenting him or her. In contrast, the same compliment delivered to the perceiver may actually boost the perceiver's sense of status (e.g., "Other people recognize that I was able to secure a high-quality mate, which means I must have high status and be of high quality myself"). In a situation like this, personality may be an important moderator of whether people react to such compliments with a feeling of flattery or threat. For example, a person who is high in intrasexual competitiveness, low in self-esteem, or low in self-perceived attractiveness may feel more threatened when a same-sex individual mentions a desirable quality of their partner. Indeed, self-perceived mate value has been found to be an important moderator of behavior and preferences in the context of mating (e.g., Edlund and Sagarin, 2010, 2014).

Another potential moderator is the relationship between the complimenter and the perceiver. Our subtle manipulation of the complimenter's attractiveness did not affect reactions to the compliment in Study 1, but it's possible that perceivers will be more upset when the complimenter is a close friend (compared to a stranger or acquaintance). Friends are a very real source of mate poaching threat because they have more access to the partner, tend to have more shared interests with the partner, and are aware of when the relationship between the partner and perceiver is at its most vulnerable (Bleske and Shackelford, 2001). Therefore, a friend who compliments the partner in a way that suggests romantic interest

may evoke more threat than if the same compliment came from a stranger or acquaintance.

Limitations

We hope our research will advance work on mate poaching and jealousy, but it is not without limitations. Participants read a hypothetical scenario and indicated the emotions they believed they would feel in that scenario. It is possible that their actual reactions when experiencing such a scenario would differ. However, given that past research on jealousy has found a correspondence between imagined reactions and actual physiological changes (albeit also in response to a hypothetical scenario; Pietrzak, Laird, Stevens, and Thompson, 2002), and Sagarin et al.'s (2012) meta-analysis observed similar sex differences in response to both imagined infidelity and recollections of actual infidelity, we feel optimistic that these results would generalize to more ecologically valid situations.

However, a limitation we believe could reflect a moderating variable is participant's age and circumstance. Both of our samples were relatively young, and the sex difference we observed may not exist in older samples or among people in committed relationships for whom compliments are less of a threat (because they are more secure about their partner's faithfulness and commitment to them). Although the basic sex difference may not be replicated in older samples with more relationship experience, we predict that the basic mechanism of the effect—beliefs about one's partner's vulnerability to mate poaching—should still operate in all samples.

Lastly, we would like to address the origin of the sex difference observed in this research. We strongly believe that men's greater unrestricted sociosexual orientation is the result of natural selection. However, we do not propose that the reaction observed by women in our research represents a specific psychological adaptation. A parsimonious explanation, and the one that we adopt, is that women's awareness of men's greater sex drive and willingness to engage in casual sex develops through social experience and observation. This awareness leads women to develop a logical concern that men are at greater risk of being poached by a sexually available rival than they themselves are. Thus, when such a risk is present—as when a rival compliments their partner's physical appearance—women react more strongly than men. To summarize, we believe men's relatively more unrestricted sociosexual orientation (and therefore their greater infidelity risk) has its origins in natural selection, but women's awareness of this behavior and their logical concern about infidelity develop through experience and observation (i.e., social learning). As mentioned previously, we suspect any person who fears their partner is vulnerable to mate poaching will feel threatened and upset by a rival complimenting their partner's physical appearance; but importantly, women, on average, will fall into this category more often than men.

Conclusion

Imagining a potential mating rival delivering a compliment to one's romantic partner is a source of mate poaching threat. However, the type of compliment evokes different negative emotions in men and women based on what it implies about the complimenter and beliefs about the partner's vulnerability to poaching. Because women recognize men's greater interest in casual sex, they are more threatened by a compliment that suggests the complimenter is sexually attracted to their partner.

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