

# Evolutionary Behavioral Sciences

## **The Reproductive Priming Effect Revisited: Mate Poaching, Mate Copying, or Both?**

Rebecca L. Burch, James B. Moran, and T. Joel Wade

Online First Publication, June 29, 2020. <http://dx.doi.org/10.1037/ebs0000232>

### CITATION

Burch, R. L., Moran, J. B., & Wade, T. J. (2020, June 29). The Reproductive Priming Effect Revisited: Mate Poaching, Mate Copying, or Both?. *Evolutionary Behavioral Sciences*. Advance online publication. <http://dx.doi.org/10.1037/ebs0000232>

# The Reproductive Priming Effect Revisited: Mate Poaching, Mate Copying, or Both?

Rebecca L. Burch

State University of New York at Oswego

James B. Moran

Tulane University

T. Joel Wade

Bucknell University

According to the reproductive priming effect, an individual who enters into a romantic relationship tends to see an increase in admirers. To further understand the mechanisms underlying this effect and its relationship with mate poaching and copying, 560 undergraduates were asked to report their experiences of being a romantic target (i.e., experiencing more admirers when in a new relationship) or an admirer (having greater attraction for someone in a relationship). Over two thirds of respondents noticed this increase in admirers, and approximately half reported being more attracted to a person who recently entered a new relationship. Many of the responses indicated that this increased interest was a result of “jealousy” and reported that they wanted what they couldn’t have. Behavioral changes were varied and correlated only weakly with the effect (both as admirer and target), which suggests that the attraction is mainly due to the target’s relationship status. Men were found to be seeking out other opportunities when in a new relationship, indicating a unique mating strategy.


## **Public Significance Statement**

This study found that just being in a new relationship, without any discernible behavioral changes, can trigger more romantic admirers. It also found that even though people may not have strong romantic feelings for someone, when that person enters a new relationship, they may report feeling strongly for that person. These findings have many implications for relationships, attraction, and infidelity.

**Keywords:** reproductive priming effect, attraction, mate copying, mate poaching, error management theory

Is it just me or am I getting hit on a lot because people think I am taken?!

—Gene Belcher, *Bob’s Burgers*

 Rebecca L. Burch, Department of Human Development, State University of New York at Oswego; James B. Moran, Department of Psychology, Tulane University; T. Joel Wade, Department of Psychology, Bucknell University.

Correspondence concerning this article should be addressed to Rebecca L. Burch, Department of Human Development, State University of New York at Oswego, 404 Mahar Hall, 7060 State Route 104, Oswego, NY 13126. E-mail: [Rebecca.burch@oswego.edu](mailto:Rebecca.burch@oswego.edu)

In 2001, Platek and colleagues reported the increased romantic interest noticed by those in new relationships and the complementary phenomenon of finding someone in a new relationship more attractive than when they were single (Platek, Burch, & Gallup, 2001). They dubbed this the “reproductive priming effect” as the authors hypothesized physiological or behavioral changes in those who had begun a new sexual relationship appeared to be priming others to be attracted to them. In their sample of over 300 undergraduate college students, most (83.7%) reported noticing an increase in dating opportunities when in a newly formed romantic

relationship, and the majority (95.3%) reported this increase in attraction had occurred more than once (Platek et al., 2001). This was likened to “when it rains, it pours” or romantic suitors “coming out of the woodwork.”

For those who noticed increased romantic attention when they started a new romantic relationship, the frequency of this effect was correlated with frequency of heterosexual intercourse. Positive correlations were found whether the subject reported the heterosexual activity to be with their partner or someone else (Platek et al., 2001). The authors concluded that it was unclear whether the reproductive priming effect was the result of physiological effects of intercourse or whether behavioral changes that occur in response to increased sexual behavior were playing a role in this phenomenon. However, given the correlation with sexual activity, behavior changes might trigger increased attraction.

Concomitantly, most participants (62.5%) reported being attracted to someone who entered a new relationship and that it had occurred more than once (85.9%). The results suggest that dating opportunities sometimes seem to paradoxically increase when in a new dating relationship and decrease when not in a relationship. Those who reported increased romantic interest in newly coupled individuals stated several reasons for this increased interest, in many cases reporting that they did not know why this happened or that they just felt differently. This may be a result of psychological mechanisms (increased confidence), behavioral changes (going out more, appearance change), or physiological changes (hormone/pheromone production) that take place during the development of new relationships or sexual activity.

Another explanation is that individuals consistently seek out partners who are evolutionarily optimal and therefore use the judgments of conspecifics as indicators, also known as mate copying. It is also possible that this increased interest has always existed, but a new relationship spurs the admirer into action, with the intention of mate poaching. Thus, this increase in attraction may be a function of mate copying or mate poaching.

### Mate Copying

One way in which an individual decides if a potential mate is a suitable mate is to gather information from other individuals. This form

of nonindependent mating strategy is known as mate copying (Waynforth, 2007). This social transmission has been observed for decades in females (in various species) that use other females as a model to make their own mate choice decisions (see, e.g., Höglund, Alatalo, Gibson, & Lundberg, 1995). That is, if a male is accepted by another female, that suggests (to the observer female) that the man may possess qualities that are beneficial for a mate. Therefore, the observer female should copy the model female’s behavior and find a mate similar to that male (Pruett-Jones, 1992). Hill and Buss (2008) reported that when a man is paired with a woman, other women tend to rate that man higher in attractiveness, also known as the “desirability enhancement” effect. Specifically, this effect only occurs when the woman the man is observed to be with is someone that he could be romantically connected to (Rodeheffer, Proffitt Leyva, & Hill, 2016). The desirability enhancement effect can be demonstrated even when men are not seen with their partners. Furthermore, when women were instructed to rate the attractiveness of men in various relationships (e.g., the man is married or single), women reported that the men who were labeled as “married” were more attractive (Eva & Wood, 2006). The authors suggested that the label of “married” provided the women raters with information regarding mate value, even if the photo only showed his face. This is sometimes referred to as the “wedding ring effect.”

Hill and Buss (2008) found the reverse effect for men. In their study, men rated a woman less desirable when she was shown surrounded by men compared to when she was alone. This effect is labeled as the “desirability diminution” effect. However, this effect is only present when the woman is paired with multiple men, and recent work suggests that men do mate copy and find women who are paired with attractive men as desirable (Moran & Wade, 2019a; Yorzinski & Platt, 2010). In a ranking paradigm, men were asked to rank photos of a woman who was “in a relationship” with three men who varied in attractiveness. The results revealed that when the men were asked to report which woman (although the women were the same) they would want to date long term, they chose the woman that was paired with the more attractive man (Moran & Wade, 2019a). This suggests

that men are also using social information to choose mates.

Physiological work suggests that both men and women gaze longer at potential partners when they are told that the potential partner is already with an attractive mate (Yorzinski & Platt, 2010). Platek et al. (2001) found no sex differences in reporting the reproductive priming effect in real-life experiences, and as such, their methodology could have touched on other variables that have not been fully explored, such as attractiveness, behavioral changes, or even pheromonal changes.

Given that, in this study, we asked participants about their own experiences, it was not necessary to manipulate attractiveness. Participants, by their own report, found the romantic targets attractive. The question remains whether participants in Platek et al. (2001) found newly partnered people more attractive because of accompanying behavioral changes. It may also be possible that these types of experiences led them to make assumptions about behavioral or other changes (e.g., they assumed the new relationship has resulted in greater confidence and that this is what they found attractive). This assumption may be the reason why women rate the attractiveness of a man in who is labeled as “married” as more attractive (Eva & Wood, 2006).

### Mate Poaching

Another mating strategy that men and women decide is the best mating strategy for them is mate poaching—to infiltrate a relationship and try to steal the woman away from her mated partner (Schmitt & Buss, 2001). Buss (2006) hypothesized that mate poaching occurs because desirable mates attract many suitors and end up in many mating relationships. When a person decides to mate poach, there are various factors that must be taken into consideration. For example, if the man is less attractive than his female partner, men believe that it will be easier to infiltrate and steal the woman away from the man (Moran & Wade, 2019a, 2019b). A couple’s relationship duration is also considered when poachers decide if mate poaching is a suitable strategy; couples who are in newly formed relationships tend to be perceived as easier to poach from compared to married couples (Schmitt & Buss, 2001). This was of par-

ticular interest to this study as we examined new relationships, and the milestones in those relationships, as triggers for this increased interest.

The aforementioned mating strategies (mate poaching and mate copying) have been studied extensively and could be possible mechanisms for people being attracted to someone who is no longer available. Yet this unavailability, or wanting what one cannot have, has not been the focus of much research. Likewise, research has mostly focused on relationship status, usually presented in a lab setting, and real-life behavioral changes have not been measured. Therefore, the current study set out to further understand this reproductive priming effect and examine behavioral versus relationship status changes. Since there are several studies that have investigated why someone is attracted to a person in a committed relationship, this study’s main focus was on situations where the person has transitioned from single to partnered, with a goal of determining which mechanisms trigger an increase in romantic interest by examining changes in behavior (appearance, socialization, confidence, friendliness, etc.) and timing or the possibility of physiological changes.

## Method

### Participants

Participants consisted of 560 undergraduate students from a public university in the Northeast United States (women = 415, men = 145;  $M_{\text{age}} = 20.92$ ,  $SD_{\text{age}} = 4.25$ ). The effect, if experienced, would have been experienced recently, providing better recall and detail. This study was approved by the institutional Human Subjects Committee.

Most of the sample consisted of heterosexuals (93.2%; 89.0% men, 94.7% women), and about half reported being in a relationship (53.2%). Most of the participants also reported that they had engaged in sexual intercourse (82.6%; 79.3% men, 83.3% women) and lost their virginity around 17.35 years old ( $SD = 9.40$ ). Roughly half (49.3% of men and 56.8% of women) were currently in a sexual relationship. Participants also reported using some type of contraceptive (e.g., the pill [26.8%], condoms [37.1%]).

## Materials and Procedures

Participants were first provided with an informed consent statement. Once they agreed to participate, they answered a demographic questionnaire that asked them to report their age, sex, sexual orientation, sexual experience, contraceptive use, and relationship status. They were then asked to respond to two connected questionnaires that aimed to assess their perspective on being the target of attraction or the admirer of someone who was in a romantic relationship.

**Participant as the target of attraction.** Participants were asked "Have you ever found yourself in a new relationship and having more dating opportunities than you did when you were single (did people express romantic interest after you started dating someone else)?" They were then asked to indicate how often this had happened (never, once, a few times, sometimes, or many times), how many people this happened with, if the change was subtle or obvious, how drastic the change in behavior was (not at all, a little, moderate, quite a bit, or extremely), whether the other person knew they were in a relationship, the timing of the effect (in days, weeks, or months), whether it happened after any particular milestone ("after telling them I was dating someone else," "after our first date," "after our first kiss," "well after our first kiss but before our first sexual encounter," "after our first sexual encounter," "after we became a 'serious' couple"), or if the admirer stated the reason. The participants were asked (using 20 items) how their own behavior changed when they started dating someone. These changes included "overall improving appearance" and individual items such as wearing "sexy clothes," "nicer clothes," or "more fash-

ionable clothes," "working out," "shaving," "wearing makeup," "wearing perfume or cologne," or "taking better care of hair"; behavioral changes such as "having self-esteem" or being "confident," "self-assured," "happy," or "depressed"; and being more social such as being "friendly" or "sociable," "going out often," "spending time with friends," or "being interested in people outside the relationship." Participants were also asked the magnitude of these changes (from *much less* to *much more*), whether they experienced weight changes (from *lost a lot of weight* to *gained a lot of weight*), and why they believed the romantic interest increased.

**Participant as the admirer.** Participants were also asked if they were the romantic admirer of a person in a new relationship. The items that followed mirrored the target items but were reworded to focus on the admirer, including timing, relationship milestones, perceived appearance, behavioral and social changes in the target, and why they thought their romantic interest increased. Survey materials are available upon request.

## Results

### Participant as the Romantic Target

**Incidence.** Table 1 shows that over half of the sample stated that they had noticed being the target of interest when forming a new relationship (66.9%) and that it had happened more than once to them in their lifetime (92.6%). This new admiration was also notable during different stages of the relationship. For example, 32.6% reported it within a week of forming a new relationship, 57.6% reported it being within 2 weeks, and 66.8% within 3 weeks.

Table 1  
*Participants' Responses of Being the Target of Interest*

Percentages and frequencies from sample	Both	Men	Women	Significance
Notice increased interest	66.90%	64.30%	67.80%	
More than once	92.60%	94.50%	91.90%	
How often	2.53	2.79 (1.10)	2.44 (0.98)	$p < .005$
Number of new admirers	3.30	3.79 (2.58)	3.15 (2.06)	$p < .05$
Knew you were in relationship		81.70%	86.60%	

*Note.* The data above represent the reproductive priming effect. Values for "how often" and "number of new admirers" are means (standard deviations).

Men noticed this happened more often,  $t(374) = 2.94, p = .003, 95\% \text{ CI } [12, 60]$ , and men reported more admirers,  $t(374) = 2.46, p = .014, 95\% \text{ CI } [.130, 1.15]$ . Most participants could not recall if this change in the admirer's behavior corresponded to any milestone that took place in their relationship (see Table 2).

**Behavioral changes in admirer.** Participants also reported that the change in their admirer's behavior was generally noticeable (see Table 3 for percentages of men and women who noticed a change in behavior). Furthermore, participants were also asked what kind of changes their admirer exhibited (see Table 4 for the behaviors that were nominated), and the results revealed that both men and women perceived that their admirer flirted more with them when they were in a new relationship.

**Behavioral changes in target.** A 2 (Sex)  $\times$  20 (Behavior Changes) multivariate analysis of variance (MANOVA) was performed to observe the difference between men's and women's changes in behavior when a new romantic relationship was initiated. We first adjusted our alpha .05/20 to .0025. The MANOVA revealed a significant sex difference,  $F(20, 339) = 2.53, p < .0001, \eta^2 = .13, \Lambda = .87$ . Of the 20 items, compared to women, men engaged in the following behaviors more than usual: working out,  $F(1, 359) = 11.03, p = .001, \eta^2 = .030$ , and being friendly,  $F(1, 359) = 10.29, p = .001, \eta^2 = .028$ . For means and standard deviations, see Table 5. Additionally, only one change in behavior correlated with noticing admirers, and that behavior was "being interested in someone outside your relationship,"  $r(382) = .15, p = .004$ . There was also a correlation for men who reported noticing

Table 3  
*Change in Admirer's Behavior*

Percentages from sample	Both %	Men %	Women %
Very subtle	5.7	2.13	6.86
Subtle but noticeable	39.9	35.11	41.52
Noticeable	43.4	48.94	41.52
Obvious	10.8	12.77	10.11

*Note.* High percent scores mean more people chose that corresponding answer.

a decrease in wearing cologne,  $r(96) = -.20, p = .049$ , and feeling self-assured,  $r(96) = -.23, p = .027$ . Men also reported that more people were interested in them when they were in a relationship, and this was positively correlated with their own interest in dating someone outside their relationship,  $r(96) = .27, p = .015$ .

Women reported that an increase in attention from admirers was correlated with their overall appearance improvement,  $r(292) = .12, p = .04$ , and being interested in others outside their relationship,  $r(292) = .14, p = .019$ . The number of admirers also correlated with five changes in participant's behavior: wearing more fashionable clothes,  $r(259) = -.14, p = .024$ ; wearing nicer clothes,  $r(258) = -.14, p = .026$ ; wearing perfume,  $r(257) = -.12, p = .049$ ; being more social,  $r(258) = .13, p = .04$ ; and going out more,  $r(259) = -.15, p = .014$ .

**Perceived reasons from targets.** An act nomination was conducted to further understand why targets believed this happened (see Table 6 for the nominated reasons). The results suggest that both men and women believed that the admirer was jealous of their new relationship.

### Participant as the Admirer

**Incidence.** Participants were then asked to report if they ever found themselves more attracted to someone who was in a new relationship than when that person was single. Table 7 shows that about half the sample stated that they were more attracted to someone they knew was in a new relationship (50.6%). For example, 19.5% reported it happening once, 60.6% reported it happening a few times, 4.7% some times, and 4.3% many times. Only 10.8% reported that they never admired someone in a new relationship. A comparison of the means

Table 2  
*Relationship Milestones*

Percentages from sample	Both %	Men %	Women %
Didn't notice	53.63	50.00	54.85
After informed of relationship	19.83	17.78	20.52
After sex	15.08	21.11	13.06
After first kiss, before sex	3.91	5.56	3.36
First kiss	2.79	2.22	2.99
First date	1.96	2.22	1.87

*Note.* High percent scores mean more people chose that corresponding answer.

Table 4  
*Admirer's Change in Behavior*

Percentages from sample	Both %	Men %	Women %
Increased flirting with participant	83.53	85.05	83.00
Both flirting and aggression toward partner	4.71	3.45	6.32
Becoming distant, avoiding participant	3.24	2.29	3.56
Increased aggression toward partner	2.94	4.59	1.19

*Note.* High percent scores mean more people chose that corresponding answer.

between the number of admirers that men and women had revealed there was no difference,  $t(275) = .059, p = .55, 95\% \text{ CI} [-2.11, 3.95]$ .

**Timing.** Furthermore, when asked to report how long into the new relationship the participant's new admiration occurred, 50.3% reported it occurred within a week of forming a new relationship, 75.9% reported it being within 2 weeks, and 83.6% within 3 weeks. Men reported an average of 15.57 days, while women reported 23.79 days, which were not significantly different from one another,  $t(193) = -.76, p = .43$ . Additionally, this new desire did not seem to correspond with any of the target's relationship milestones (see Table 8, which shows that men and women both seemed

to not notice or know if their admiration for this person corresponded with any milestones).

**Behavioral changes in admirer.** Participants responded that their feelings were somewhat noticeable, and 57.14% of men and 47.15% of women said their new attraction was subtle. A smaller percentage (16.07% of men and 14.51% of women) reported noticeable increases in attraction, and 8.83% of men and 2.07% of women said it was obvious. Only 17.86% of men but 36.27% of women reported a very subtle change. Both men and women reported that they changed their behavior in order to be recognized by their new target. These changes in behavior were also somewhat drastic; 52.46% of men and 51.63% of women reported drastic changes.

Table 5  
*Sex Differences Between Behavior*

Participant's behavior change	Men <i>M</i> ( <i>SD</i> )	Women <i>M</i> ( <i>SD</i> )
Wearing sexy clothes	2.37 (0.66)	2.26 (0.84)
Wearing fashionable clothes	2.61 (0.76)	2.33 (0.62)
Wearing nicer clothes	2.56 (0.75)	2.41 (0.69)
Overall improving appearance	2.67 (0.81)	2.62 (0.79)
Started working out	2.43 (0.81)*	2.13 (0.70)
Being shy	1.84 (0.99)	1.63 (0.74)
Shaving	2.63 (0.82)	2.70 (0.92)
Having self-esteem	2.89 (0.92)	2.64 (0.77)
Wearing makeup	2.02 (0.84)	2.26 (0.74)
Being confident	2.86 (0.87)	2.62 (0.78)
Being friendly	2.78 (0.87)*	2.48 (0.68)
Wearing perfume/cologne	2.56 (0.75)	2.49 (0.85)
Taking better care of your hair	2.48 (0.84)	2.39 (0.67)
Being sociable	2.59 (0.94)	2.33 (0.75)
Being happy	3.01 (0.93)	3.01 (0.93)
Going out often	2.56 (1.01)	2.30 (0.99)
Being interested in people outside the relationship	2.03 (1.26)*	1.64 (1.02)
Spending time with friends	1.83 (1.01)	1.54 (0.76)
Being self-assured	2.63 (0.81)	2.41 (0.72)
Being depressed	1.06 (1.02)	1.15 (0.89)

*Note.* Higher means indicate that the participants had a more drastic change in their own behavior. The Likert scale was assessed with a scale of 0 (*much less*) to 4 (*much more*). A score of 2 indicates their behavior stayed the same.

\*  $p < .0025$ .

Table 6  
*Why the Reproductive Priming Effect Occurred*

Reason	Both %	Men %	Women %
Want what can't have/jealousy	56.41	49.40	58.95
Don't know	17.31	16.87	17.47
Saw participant in new role	6.73	13.25	4.37
They were attracted to participant	6.41	8.43	5.68
Participant was more confident	4.49	4.82	4.37
Person now felt safe in expressing feelings	3.21	3.61	3.06
To take participant from their current partner	1.28	0.00	1.75
Bad timing	1.28	2.41	0.87
"Would be hard to get attached"	1.28	0.00	1.75
Didn't know participant was in relationship	0.96	1.20	0.87
"Be there if current relationship went bad"	0.64	0.00	0.87

*Note.* High percent scores indicate more people reported why they thought they were the target of an admiration.

A 2 (Sex)  $\times$  20 (Behavior Changes) MANOVA was performed to examine sex differences in perceptions of the target's behavioral change when in a relationship. We first adjusted our alpha .05/20 to .0025. The MANOVA revealed a significant sex difference,  $F(15, 360) = 2.22, p < .001, \eta^2 = .16, \Lambda = .83$ . Of the 20 items, only two items were significantly different: wearing sexy clothes,  $F(1, 360) = 20.50, p = .001, \eta^2 = .07$ , and wearing makeup,  $F(1, 360) = 13.45, p = .001, \eta^2 = .05$ . In both situations, women decreased their behavior—that is, men perceived their targets as not wearing as much sexy clothing or makeup as they normally would. Additionally (as seen in Table 9), all rated target behavioral changes, whether the participant was male or female, hovered around 2, or *no change*.

**Perceived reasons from admirers.** To further understand why this new admiration occurred, participants were asked reasons for their interest. The options were "none," "they looked good," "they smelled good," "there was some-

thing different about them," "I was jealous," or participants could submit reasons. Although "envious" would be the more accurate term, participants volunteered the term "jealousy" and selected items mentioning jealousy. Table 10 shows that most people indicated that jealousy was a main contributor to this change in admiration. An act nomination was performed to further investigate if the participants could articulate why they experienced this change. Table 11 displays the reasons that were given. Generally, participants indicated that they experienced this change in attraction because they were jealous.

**Other factors.** For those participants who were not in relationships, 64.3% were more likely to be more attracted to someone newly in a relationship than those who had partners (39.5%;  $\chi^2 = 29.51, p < .001$ ). Those who were in relationships reported experiencing the effect less frequently ( $M = 1.48$ ) than those who were single ( $M = 1.92, t(374) = 4.27, p < .001$ ). Among the individuals who experienced

Table 7  
*Reproductive Priming Effect as the Admirer*

Percentages and means from samples	Both	Men	Women	Significance
Noticed increased interest	50.6%	44.50%	52.70%	
More than once	60.6%	61.50%	72.10%	
Number of people you admired	3.53 (10.86)	4.24 (13.11)	3.32 (10.12)	NS
Knew they were in relationship		80.30%	79.90%	

*Note.* The data above represent the reproductive priming effect. Values for "number of people you admired" are means (standard deviations). NS = nonsignificant.



Table 8  
*Milestones of the Target's Relationship*

Milestone	Both %	Men %	Women %
Didn't notice	66.28	61.02	67.82
After they told me they were dating someone else	11.11	10.17	11.39
First date	7.66	10.17	6.93
When it became "serious"	6.51	8.47	5.94
After sex	2.68	3.39	2.48
After first kiss, before sex	2.30	3.39	1.98
First kiss	1.15	3.39	0.50

*Note.* Higher numbers indicate that more participants chose that milestone.

the effect, the less often they engaged in intercourse, the more frequently they became attracted to newly coupled acquaintances,  $r = -.144$ ,  $p < .005$ . Those who knew the person was in a relationship reported a much more drastic change in behavior ( $M = 1.11$ ) than those who didn't know ( $M = 0.76$ ;  $p < .005$ ).

### General Overview

The primary goal of the current study was to further investigate the reproductive priming effect: that entering into a new relationship increases

attraction from other individuals in the environment (Platek et al., 2001). The current data replicate previous work that suggests both men and women report a higher number of admirers when in a new romantic relationship and being attracted to those who have just begun a new romantic relationship (Platek et al., 2001). Furthermore, the current research found a lower percentage of individuals noticing new admirers (66.9%) than Platek et al. (2001) did (83.7%), as well as a lower percentage of individuals reporting being a romantic admirer of someone in a relationship

Table 9  
*Sex Differences Between Perception of the Target's Behavior*

Target's behavior change	Men $M$ ( $SD$ )	Women $M$ ( $SD$ )
Wearing sexy clothes	2.59 (0.82)*	2.15 (0.56)
Wearing fashionable clothes	2.37 (0.76)	2.34 (0.62)
Overall improving appearance	2.61 (0.76)	2.52 (0.69)
Started working out	2.31 (0.77)	2.26 (0.61)
Being shy	1.84 (0.99)	1.63 (0.74)
Shaving	2.22 (0.85)	2.20 (0.60)
Have self-esteem	2.59 (0.89)	2.60 (0.72)
Wearing nice clothes	2.47 (0.79)	2.35 (0.68)
Wearing makeup	2.46 (0.81)*	2.10 (0.57)
Being confident	2.62 (0.87)	2.61 (0.73)
Being friendly	2.49 (1.01)	2.45 (0.84)
Wearing perfume/cologne	2.52 (0.84)	2.41 (0.69)
Taking better care of hair	2.45 (0.86)	2.33 (0.66)
Being sociable	2.36 (1.20)	2.33 (0.89)
Being happy	2.74 (0.96)	2.62 (0.88)
Going out often	2.53 (1.02)	2.31 (0.94)
Being interested in people outside the relationship	2.10 (0.78)	1.99 (0.83)
Spending time with friends	1.86 (1.11)	1.72 (0.84)
Being self-assured	2.50 (0.90)	2.45 (0.73)
Being depressed	1.52 (1.11)	1.46 (0.89)

*Note.* Higher means indicate that the participants had a more drastic change in their own behavior. The Likert scale was assessed with a scale of 0 (*much less*) to 4 (*much more*). A score of 2 indicates their behavior stayed the same.

\*  $p < .00025$ .

Table 10  
*Reasons for the Increase in Admiration*

Reason	Both %	Men %	Women %
Jealousy	31.52	18.03	35.71
None	21.40	18.03	22.45
There was something different about them	17.90	24.59	15.82
They looked good	11.67	16.39	10.20
They looked good and jealousy	4.67	9.84	3.06
Something different and jealousy	3.89	1.64	4.59
Looked and smelled good, something different	2.33	3.28	2.04
Realized greater attraction	1.17	1.64	1.02
Saw them in new role as partner	1.17	0.00	1.52
They smelled good	0.78	1.64	0.51
Competition with others	0.78	0.00	1.02
Looked good, something different, jealousy	0.78	1.64	0.51
“It was safe, had nothing to lose if person was willing”	0.39	1.64	0.00
Wanted to have sex with them	0.39	1.64	0.00

*Note.* Higher percentages indicate more nominated reasons.

(50.6% vs. 62.5%). As the Platek and colleagues' data was published almost 20 years ago, we are not sure if this is the result of generational effects or shifts in dating culture. For example, there has been a recent trend in delaying labeling a relationship as such in young couples or labeling sexual encounters as something other than a relationship (Bisson & Levine, 2009). It is also possible that as both studies were done at northeastern U.S. public universities with similar demographics, differences are merely the result of random fluctuations or small untested differences in the samples.

## Discussion

### Participant as the Target Sex Differences

**Mate copying and switching.** Men noticed the effect more often and reported having more

admirers when they entered a new relationship, but there were no differences between men and women in becoming attracted to someone who had just entered a relationship. This may indicate more mate copying on the part of women (Hill & Buss, 2008). Some women may show more interest in mate copying due to desires for mate switching since they have more at stake biologically. If a woman feels she is not getting what she needs in her current relationship, she may have a greater desire to mate switch, as Buss, Goetz, Duntley, Asao, and Conroy-Beam (2017) reported.

**Social desirability and error management theory.** However, it may also be the result of men exaggerating the effect (social desirability bias) or overreporting the effect because they perceive female friendliness as sexual attrac-

Table 11  
*Reasons Nominated for This New Admiration*

Reason for an increase	Both %	Men %	Women %
Want what can't have/jealousy	58.71	57.14	59.12
Don't know	9.45	11.90	8.81
They were attracted to person in relationship	9.45	11.90	8.81
To take participant from their current partner	6.47	2.38	7.55
Noticed them once relationship started	4.98	7.14	4.40
Missed person once relationship started	4.48	2.38	5.03
Saw participant in new role	2.99	2.38	3.14
Person in relationship was more confident	1.99	2.38	1.89
Person now felt safe in expressing feelings	1.49	2.38	1.26

*Note.* High numbers indicate more people reported that answer.

tion. Given the large amount of research on this topic (Haselton & Buss, 2000; Murray, Murphy, von Hippel, Trivers, & Haselton, 2017), it would not be surprising that men overestimate any perceived romantic interest on the part of women. Such behavior would be consistent with error management theory (Haselton & Buss, 2000) where men seek to make sure that they do not miss out on a potential sexual access opportunity. While there was a correlation between the reproductive priming effect and looking for other partners when in a relationship for both sexes, this correlation was twice as high for men as for women, and it was the only male behavioral change that correlated with the effect (women reported several other correlated behaviors). Therefore, men may be noticing more romantic interest because it is part of their reproductive strategy: to have a partner and also extrapair partners (Buss & Schmitt, 1993). Given that both men and women report that their behavioral changes to attract targets in relationships are “drastic,” men may realize the effect of relationship status on dating opportunities and use their romantic status as a mechanism to have more opportunities.

**Back-burner relationships.** There has been recent work on “back-burner” relationships—the “lining up” of future romantic partners or putting potential partners “on hold” until the current relationship is over or extrapair copulations become feasible (Dibble, Drouin, Aune, & Boller, 2015). This may be the case with the men in this study, and this could be the focus of future research by examining how men and women differ in the response to potential mates when they are in a committed relationship. Anderson (2010) found that some men thought of infidelity and lining up potential and concurrent partners as an optimal way to have a partner and sexual variety, and they justified it as choosing to maintain their primary relationships instead of terminating them—“at least there is an attempt at monogamy.” The current project may be touching upon the phenomenon of men noticing admirers and wanting to catalog who could be a potential or concurrent mate. This may also only apply to those with high scores in sociosexuality (Simpson, 1998). The overall effect, however, seems to increase in people reporting a lower frequency of sex.

## Participant as the Target and the Timing of the Relationship

**Mate poaching.** This timing effect was reported most often at the beginning of a relationship, suggesting that the relationship may not be that strong or serious (66.8% within 3 weeks of beginning a new relationship). These findings support previous work on relationship duration and mate poaching. When participants were asked to report how difficult it would be to mate poach a couple who is newly formed, married, or in a committed relationship, participants stated that the newly formed ones would be the easiest to poach from (Schmitt & Buss, 2001) and that the members of those long-term relationships would be more resistant compared to new relationships (Davies & Shackelford, 2015, 2017). Thus, the timing of a newly formed relationship signifies an easier poaching opportunity, and previous work suggests that mate retention is increased in newly formed relationships (Buss & Shackelford, 1997). The current research aligns with this set of mating strategies.

**Sexual strategies.** The current study found no relationship for possible milestones in the relationships or whether the effect coincided with sexual behaviors in those relationships. Specifically, most participants could not recall if this change in the admirer’s behavior coincided with any relationship milestone. Of those who did notice, the top two milestones were “after the admirer was informed of the new relationship” and “after sex in the new relationship.” Interestingly, a higher percentage of women reported the former, and a higher percentage of men reported the latter. In fact, 50% more men reported the reproductive priming effect after sex than women. It is possible that the effect is more intertwined with sexual behaviors for men and more a result of mate copying for women. The data show that men find more admirers when they are in a relationship because *they are seeking them out* (see below in section on Coolidge Effect and Desirability Enhancement). It may be no coincidence that this is taking place after the target has slept with his most recent partner. What we may be seeing in this instance, particularly for males, is the reproductive priming effect colliding with the Coolidge effect (Dewsbury, 1981). Again, this may be linked to Sociosexual Orientation

Inventory, and future studies should examine that relationship.

**Correlations with behavior.** Although it is possible, and some even state, that this may be the result of increased confidence at the beginning of a new relationship, no behavioral changes corresponded to this effect. The correlations between participant behaviors and the reproductive priming effect showed little substantive differences. While there were correlations between female behaviors and the effect, many of these were weak, and some were negative. This may indicate that some of these behaviors reflect, or are markers of, being in a relationship (e.g., wearing less fashionable clothes, wearing less perfume, and going out less) or that they are attempts to increase one's partner's satisfaction in the relationship (Davis & Oathout, 1987) or retain one's mate (Buss & Shackelford, 1997). However, other behaviors that were in the same category were positive (e.g., "being more social" was positively correlated, and "going out more" was negatively correlated).

**Sexual exploitability.** Men may also find these women (who wear less-fashionable clothes or perfume) less intimidating or perceive them as easier to pursue. Prior research has shown that men are attracted to women they perceive as sexually exploitable (Goetz, Easton, Lewis, & Buss, 2012). Not dressing to attract the opposite sex may imply that there is little male competition for them or that they do not realize their mate value. In total, the results for female behaviors are mixed and may indicate several different factors for male admirers. Moreover, there is little evidence to show that the reproductive priming effect is triggered by any behavioral change whatsoever.

By large margins, both men and women attributed this new romantic interest to jealousy, and this is supported by the fact that those who noticed a difference reported that this new interest coincided with being informed of the new relationship. Other reasons were far less common and were less common than the answer "don't know." All these findings indicate that from this perspective, the reproductive priming effect is spurred by jealousy. Additionally, these findings suggest that there are disposi-

tional differences associated with pursuing a short-term mating strategy.

**Coolidge effect and desirability enhancement.** When the results for men were compiled, men reported this happening more often, from more admirers, after engaging in sex, and when they were looking for relationships outside their current romantic relationships. This combination of behaviors does imply the influence of the Coolidge effect (Dewsbury, 1981). We acknowledge that this also may be a perception issue—that men see their own mate value as greater, perceive more interest, and are actively seeking more partners to act on that increased mate value. This could be the result of the desirability enhancement effect (Hill & Buss, 2008)—that when men are paired with a woman, they tend have more interest from the opposite sex (Parker & Burkley, 2009; Vakirtzis & Roberts, 2012). Men also perceive sexual interest from women when there is none (Murray et al., 2017) and are more likely to encourage female attention when, by their own report, they are looking for extrapair relationships.

### Participant as the Admirer

**Sex differences.** There were no gender differences in being romantically attracted to someone who recently entered a romantic relationship. This is in opposition to men reporting more romantic interest when beginning a new relationship. In short, female reports of admiration do not corroborate male reports of increased interest. The lack of gender difference is in opposition to earlier research on greater female mate copying but does correspond to the work of Moran and Wade (2019a), which found that both men and women reported being attracted to someone who was in a romantic relationship, thus indicating that both sexes may benefit from mate copying and being attracted to someone in a relationship.

**Timing of the relationship.** Timing of the admiration occurred in the first few weeks of the relationship, just as reported by targets. In contrast to romantic targets, admirers, if they noticed an increase in interest after a romantic event or milestone, reported that it was after being told the target was in a relationship. The finding for targets, where this also occurred after sex, was not corroborated. Men reported having an increased interest more quickly than

women, but this was not significantly different. Men and women admirers were relatively accurate (compared to targets) in feeling that their increase in romantic interest was subtle but noticeable. What is interesting about this finding is that admirers rated their new attraction as subtle, but their attempt to attract the target was drastic. This implies that (a) they would not rate their jealousy or attraction as strong, but (b) their courtship behaviors would have to be to break apart this new relationship. This creates an interesting dissonance as the attraction (as the participants rate themselves) may not be strong, but their compulsion to change their target's preferences is very strong. This corroborates many reports in media and social media of individuals wanting romantic targets to be single (or at least more interested in them) even if they do not have strong romantic feelings for them. This may also mirror the behaviors we saw in romantic targets, with men seeking new opportunities even when in a relationship, but we did not find a sex difference in this admirer "dissonance."

**Sexual strategies.** Once again, jealousy was the most common reason for this increased interest from admirers, reiterating the reasons given by targets. Although there were reports of "something different about them," the majority reported jealousy or related reasons ("wanted to take them from partner," "wanted them once relationship started"). The fact that those who knew the person was in a relationship reported a much more drastic change in behavior could align with mate-poaching strategies. When men and women are experimentally induced to think about a world where there are limited mates, they tend to get more aggressive toward potential competitors and are jealous of potential mate poachers (Arnocky, Ribout, Mirza, & Knack, 2014). Moreover, those who reported this increased interest were more likely to be single; those who were already in relationships did not covet those who were also in relationships to nearly the same extent. However, reasons given for expressed interest, behaviors of new suitor, and participant explanations of the increased interest did not appear to differ by whether the suitor was aware of the new relationship.

Because knowing the person was in a relationship played a role in the increased attraction, but no behaviors were correlated with the

increase in attraction, it is possible that just being in a relationship is sufficient for increased attention. Future studies should elaborate on strength of attraction, limits of behaviors to attract that newly coupled person, and whether this attraction wanes when the person becomes single again. This could be done by following men and women when they are single and assessing how they perceive themselves while on the dating market.

**Behavior changes.** Interestingly, the reports from male admirers corroborate the reports from female targets that the decrease in wearing sexy or nice clothes and makeup correlated with increased interest from men. While it is possible that men in the sample found "less attractive" women more appealing, it is more likely that this decrease in behaviors was a reflection of being in a relationship. Men may perceive these women as less likely to be promiscuous, experiencing less male attention, or not aware of or maximizing their mate value. These findings are particularly interesting and should be investigated in future research. It is also important to mention that while many anecdotal observations or hypotheses discuss changes in pheromones triggering attraction, there is no evidence in this study to suggest a pheromonal component. Very few respondents mentioned differences in how the target smelled or that this triggered any increased attraction. This is another area that may warrant more investigation.

## Limitations

The present research used the term jealousy in the questions asked of participants and consequently in the article. Envy may be the more appropriate term for what was experienced by participants since envy is an emotion that is evoked when someone has something that one wants but does not have (see Buss, 2000). Future research should use the term envy in the research materials and subsequent articles. Additionally, our results suggest that design features of a short-term mating strategy play a role in the reproductive priming effect. Thus, future work should begin to investigate if those with more short-term mating orientations experience the reproductive priming effect more often. Furthermore, this study did not investigate participants' individual differences, which may medi-

ate the experience of this effect. For example, a participant who possesses an unrestricted sociosexual orientation tends to engage in a variety of different sexual behaviors (e.g., sexting, cheating, and poaching; Mattingly et al., 2011; Moran, Salerno, & Wade, 2018; Schmitt, 2005). Thus, future research examining the reproductive priming effect should include sociosexual-ity measures. Lastly, as is the case with many studies, it is possible that the differences obtained between the present research and Platek et al.'s (2001) findings are due to having different sample populations.

### Conclusion

Overall, these data do not support possible sexual or olfactory mechanisms for the reproductive priming effect: Few admirers reported the effect coinciding with sexual intercourse or differences in how the target smelled. Decreases in appearance in women increased the effect, and the widely assumed effect of confidence or self-esteem showed no difference.

Furthermore, mate-poaching and mate-copying research has investigated how men and women interpret potential mates when they are seeking a mate. However, our data suggest that jealousy (envy) may be an important aspect in wanting to poach from, or copy, a relationship. Future research should focus on how this may be a different pattern for men and women; men report increased interest and may be seeking out that interest. For men, the reproductive priming effect may be the result of a perceived increase in mate value—a perception that women do not appear to corroborate. For women, they report more interest even when decreasing effort on their appearance, and male reports agree. The fact that male admirers notice this and report increased interest is intriguing. Future research should examine why decreased beautification triggers increased interest in men. Ultimately, the reproductive priming effect is a period of time in a newly formed relationship where members of the couple experience an increase in attraction from people outside their relationship, and people in the relationship and outside of the relationship are able to perceive this. The reproductive priming effect is a viable area for future work.

### References

- Anderson, E. (2010). "At least with cheating there is an attempt at monogamy": Cheating and monogamism among undergraduate heterosexual men. *Journal of Social and Personal Relationships*, *27*, 851–872. <http://dx.doi.org/10.1177/0265407510373908>
- Arnocky, S., Ribout, A., Mirza, R. S., & Knack, J. M. (2014). Perceived mate availability influences intrasexual competition, jealousy and mate-guarding behavior. *Journal of Evolutionary Psychology*, *12*, 45–64. <http://dx.doi.org/10.1556/JEP.12.2014.1.3>
- Bisson, M. A., & Levine, T. R. (2009). Negotiating a friends with benefits relationship. *Archives of Sexual Behavior*, *38*, 66–73. <http://dx.doi.org/10.1007/s10508-007-9211-2>
- Buss, D. M. (2000). *The dangerous passion: Why jealousy is as essential as love and sex*. New York, NY: Simon & Schuster.
- Buss, D. M. (2006). Strategies of human mating. *Psihologijske Teme*, *15*, 239–260. Retrieved from <https://psycnet.apa.org/record/2008-04636-003>
- Buss, D. M., Goetz, C., Duntley, J. D., Asao, K., & Conroy-Beam, D. (2017). The mate switching hypothesis. *Personality and Individual Differences*, *104*, 143–149. <http://dx.doi.org/10.1016/j.paid.2016.07.022>
- Buss, D. M., & Schmitt, D. P. (1993). Sexual strategies theory: An evolutionary perspective on human mating. *Psychological Review*, *100*, 204–232.
- Buss, D. M., & Shackelford, T. K. (1997). From vigilance to violence: Mate retention tactics in married couples. *Journal of Personality and Social Psychology*, *72*, 346–361. <http://dx.doi.org/10.1037/0022-3514.72.2.346>
- Davies, A. P., & Shackelford, T. K. (2015). Comparisons of the effectiveness of mate-attraction tactics across mate poaching and general attraction and across types of romantic relationships. *Personality and Individual Differences*, *85*, 140–144. <http://dx.doi.org/10.1016/j.paid.2015.05.001>
- Davies, A. P., & Shackelford, T. K. (2017). Don't you wish your partner was hot like me? The effectiveness of mate poaching across relationship types considering the relative mate values of the poacher and the partner of the poached. *Personality and Individual Differences*, *106*, 32–35. <http://dx.doi.org/10.1016/j.paid.2016.10.029>
- Davis, M. H., & Oathout, H. A. (1987). Maintenance of satisfaction in romantic relationships: Empathy and relational competence. *Journal of Personality and Social Psychology*, *53*, 397–410. <http://dx.doi.org/10.1037/0022-3514.53.2.397>
- Dewsbury, D. A. (1981). Effects of novelty of copulatory behavior: The Coolidge effect and related phenomena. *Psychological Bulletin*, *89*, 464–482. <http://dx.doi.org/10.1037/0033-2909.89.3.464>

- Dibble, J. L., Drouin, M., Aune, K. S., & Boller, R. R. (2015). Simmering on the back burner: Communication with and disclosure of relationship alternatives. *Communication Quarterly*, *63*, 329–344. <http://dx.doi.org/10.1080/01463373.2015.1039719>
- Eva, K. W., & Wood, T. J. (2006). Are all the taken men good? An indirect examination of mate-choice copying in humans. *Canadian Medical Association Journal*, *175*, 1573–1574. <http://dx.doi.org/10.1503/cmaj.061367>
- Goetz, C. D., Easton, J. A., Lewis, D. M., & Buss, D. M. (2012). Sexual exploitability: Observable cues and their link to sexual attraction. *Evolution and Human Behavior*, *33*, 417–426. <http://dx.doi.org/10.1016/j.evolhumbehav.2011.12.004>
- Haselton, M. G., & Buss, D. M. (2000). Error management theory: A new perspective on biases in cross-sex mind reading. *Journal of Personality and Social Psychology*, *78*, 81–91. <http://dx.doi.org/10.1037/0022-3514.78.1.81>
- Hill, S. E., & Buss, D. M. (2008). The mere presence of opposite-sex others on judgments of sexual and romantic desirability: Opposite effects for men and women. *Personality and Social Psychology Bulletin*, *34*, 635–647. <http://dx.doi.org/10.1177/0146167207313728>
- Höglund, J., Alatalo, R. V., Gibson, R. M., & Lundberg, A. (1995). Mate-choice copying in black grouse. *Animal Behaviour*, *49*, 1627–1633. [http://dx.doi.org/10.1016/0003-3472\(95\)90085-3](http://dx.doi.org/10.1016/0003-3472(95)90085-3)
- Mattingly, B. A., Clark, E. M., Weidler, D. J., Bullcock, M., Hackathorn, J., & Blankmeyer, K. (2011). Sociosexual orientation, commitment, and infidelity: A mediation analysis. *The Journal of Social Psychology*, *151*, 222–226. <http://dx.doi.org/10.1080/00224540903536162>
- Moran, J. B., Salerno, K. J., & Wade, T. J. (2018). Snapchat as a new tool for sexual access: Are there sex differences? *Personality and Individual Differences*, *129*, 12–16. <http://dx.doi.org/10.1016/j.paid.2018.02.040>
- Moran, J. B., & Wade, T. J. (2019a). Perceptions of a mismatched couple: The role of attractiveness on mate poaching and copying. *Evolutionary Behavioral Sciences*. Advance online publication. <http://dx.doi.org/10.1037/ebc0000187>
- Moran, J. B., & Wade, T. J. (2019b). Self-perceived success in mate poaching: How a couple's attractiveness and relationship duration impact men's short-term poaching intentions. *Human Ethology*, *34*, 26–40. <http://dx.doi.org/10.22330/he/34/026-040>
- Murray, D. R., Murphy, S. C., von Hippel, W., Trivers, R., & Haselton, M. G. (2017). A preregistered study of competing predictions suggests that men do overestimate women's sexual intent. *Psychological Science*, *28*, 253–255. <http://dx.doi.org/10.1177/0956797616675474>
- Parker, J., & Burkley, M. (2009). Who's chasing whom? The impact of gender and relationship status on mate poaching. *Journal of Experimental Social Psychology*, *45*, 1016–1019. <http://dx.doi.org/10.1016/j.jesp.2009.04.022>
- Platek, S. M., Burch, R. L., & Gallup, G. G. (2001). The reproductive priming effect. *Social Behavior and Personality: An International Journal*, *29*, 245–248. <http://dx.doi.org/10.2224/sbp.2001.29.3.245>
- Pruett-Jones, S. (1992). Independent versus nonindependent mate choice: Do females copy each other? *American Naturalist*, *140*, 1000–1009. <http://dx.doi.org/10.1086/285452>
- Rodeheffer, C. D., Proffitt Leyva, R. P., & Hill, S. E. (2016). Attractive female romantic partners provide a proxy for unobservable male qualities: The when and why behind human female mate choice copying. *Evolutionary Psychology*, *14*, 1474704916652144. <http://dx.doi.org/10.1177/1474704916652144>
- Schmitt, D. P. (2005). Sociosexuality from Argentina to Zimbabwe: A 48-nation study of sex, culture, and strategies of human mating. *Behavioral and Brain Sciences*, *28*, 247–275. <http://dx.doi.org/10.1017/S0140525X05000051>
- Schmitt, D. P., & Buss, D. M. (2001). Human mate poaching: Tactics and temptations for infiltrating existing mateships. *Journal of Personality and Social Psychology*, *80*, 894–917. <http://dx.doi.org/10.1037/0022-3514.80.6.894>
- Simpson, J. A. (1998). Sociosexual Orientation Inventory. In C. M. Davis, W. L. Yarber, R. Bauserman, G. Scheer, & S. L. Davis (Eds.), *Handbook of sexuality-related measures* (pp. 565–567). Thousand Oaks, CA: Sage.
- Vakirtzis, A., & Roberts, S. C. (2012). Do women really like taken men? Results from a large questionnaire study. *Journal of Social, Evolutionary, and Cultural Psychology*, *6*, 50–65. <http://dx.doi.org/10.1037/h0099225>
- Waynforth, D. (2007). Mate choice copying in humans. *Human Nature*, *18*, 264–271. <http://dx.doi.org/10.1007/s12110-007-9004-2>
- Yorzinski, J. L., & Platt, M. L. (2010). Same-sex gaze attraction influences mate-choice copying in humans. *PLoS ONE*, *5*(2), e9115. <http://dx.doi.org/10.1371/journal.pone.0009115>

Received January 4, 2020

Revision received May 11, 2020

Accepted May 12, 2020 ■