Original Article

Mate-Choice Copying in Single and Coupled Women: The Influence of Mate Acceptance and Mate Rejection Decisions of Other Women

Yan Deng, Faculty of Psychological Science, Southwest University, Chongqing, PR China.

Yong Zheng, Faculty of Psychological Science, Southwest University, Chongqing, PR China. Email: zhengy@swu.edu.cn (Corresponding author).

Abstract: Studies of humans and non-human animals indicate that females tend to change the likelihood of choosing a potential mate based on the decisions of other females; this is known as mate-choice copying. In a sample of both single and coupled women, we examined the influence of other women’s (model) mate-choice decisions, including mate acceptance and mate rejection, on participants’ attractiveness ratings of men (target) and willingness of mate selection. We also examined whether different types of relationships between the target men and the model women affected mate-choice copying. We found that both the single and coupled women showed mate-choice copying, but their response patterns differed. The significant effects for single women were dependent on a decrease in attractiveness ratings when they perceived the models’ mate rejection. However, the significant findings for coupled women relied on an increase in attractiveness ratings when they observed the models’ mate acceptance. Furthermore, the relationship status between the target men and the model women affected the magnitude of mate-choice copying effects for the single women. Specifically, they showed less mate-choice copying when the targets and models were in a committed romantic relationship than when in a temporary relationship.

Keywords: mate-choice copying, attractiveness ratings, willingness of mate selection, relationship status

Introduction

It has been hypothesized that female mate choice is a genetically determined trait since Fisher (1958) put forward models of sexual selection (see Dugatkin and Godin, 1992). Theoretical models of sexual selection assume that females are independent of other females when choosing male partners. However, some researchers have suggested that mate preferences can be highly variable within and between populations (Andersson, 1994;
Jennions and Petrie, 1997). It has been suggested that the environment, including the social environment, can explain variation in mating preferences (Westneat, Walters, McCarthy, Hatch, and Hein, 2000). Furthermore, studies in humans have also concluded that an imprinting-like mechanism influences human mate choice in facial traits (Marcinkowska and Rantala, 2012); the “imprinting-like” is analogous to social learning (Little, Penton-Voak, Burt, and Perrett, 2003). Indeed, numerous studies have shown that females do not always choose their own mates independently, and that they use social information about potential mates from conspecifics (e.g., Bowers, Place, Todd, Penke, and Asendorpf, 2012; Dugatkin, 1992; Galef and White, 1998; Godin, Herdman, and Dugatkin, 2005; Graziano, Jensen-Campbell, Shebilske, and Lundgren, 1993; Jones, DeBruine, Little, Burriss, and Feinberg, 2007; Little, Burriss, Jones, DeBruine, and Caldwell, 2008; Little, Caldwell, Jones, and DeBruine, 2011; Pruett-Jones, 1992; White, 2004; White and Galef, 1999, 2000).

Mate-choice copying occurs when a female increases the likelihood of accepting (or rejecting) a particular male based on a history of acceptance (or rejection) by other females (Dugatkin, 1996; Pruett-Jones, 1992; Vakirtzis and Roberts, 2009; Westneat et al., 2000; Witte and Godin, 2010; Witte and Ueding, 2003). Mate-choice copying benefits females by allowing them to avoid the costs associated with assessing potential mates, including time, energy, the risk of predation, and other sacrifices (e.g., Andersson, 1994; Pomiankowski, 1987; Reynolds and Gross, 1990; Wade and Pruett-Jones, 1990). In addition, mate-choice copying also reduces the uncertainty of the mate assessment process and improves females’ discrimination of mates (e.g., Gibson and Höglund, 1992; Nordell and Valone, 1998). Most researchers now believe that an individual can gain social information about potential mates from conspecifics and use this information in subsequent mate choice (Witte and Godin, 2010). Therefore, mate-choice copying is a form of non-independent mate choice (Dugatkin 1992, 1996; Pruett-Jones 1992; Wade and Pruett-Jones, 1990; Westneat et al., 2000; Witte and Godin, 2010).

In fact, evidence that female mate choice is influenced by other conspecifics emerged in research with non-human animals in the 1970s. Specifically, researchers found that mating among sage grouse was non-random, and females used information from other females to locate mating centers (Wiley, 1973). Similar findings were reported in a study of White-bearded Manakin; specifically, it was demonstrated that the behavior of conspecifics affected female mate selection in these birds (Lill, 1974). During the same period, some studies with humans also provided evidence that female mate choice is not independent. For instance, Sigall and Landy (1973) found that women’s perception of a specific man was significantly influenced by the man’s romantic partner. This finding indicates that mate-choice copying may also exist in human females.

Despite emerging evidence supporting mate-choice copying, systematic studies in this area did not begin until the 1990s; moreover, the literature has largely focused on mate-choice copying in non-human animals, including birds (e.g., Höglund, Alatalo, Gibson, and Lundberg, 1995; White, 2004; White and Galef, 1999, 2000), fish (e.g., Dugatkin and Godin, 1992, 1993; Godin et al., 2005; Witte and Ryan, 1998; Witte and Ueding, 2003), and invertebrates (e.g., Drosophila: Mery et al., 2009). Indeed, it was not until later that systematic studies in mate-choice copying were conducted with humans. Specifically, Dugatkin (2000) suggested mate-choice copying could be an important part of human mate selection; subsequently, studies of human mate-choice copying emerged (e.g., Eva and
In one of the early studies of human mate-choice copying, Uller and Johansson (2003) reported a result opposite of their original expectations: Women did not show the wedding ring effect (i.e., they did not prefer men who wore a ring). Uller and Johansson suggested that human mate-choice copying could be a more complicated phenomenon than originally conceived. Thus, compared to simply having a partner, who your partner is (i.e., the mate value of a man’s partner) may be a more important influence on women’s evaluation of these men (Uller and Johansson, 2003); however, it is important to note that investment consideration (i.e., an evaluation of how likely a potential mate will remain invested in the relationship and produce offspring) may also influence women’s selection of an unattached mate over an attached mate (Vakirtzis and Roberts, 2010). Subsequent studies have shown that humans demonstrate mate-choice copying. For instance, Eva and Wood (2006) reported that women rated men labeled as married as more attractive than single men. Furthermore, a separate study also confirmed that women rated men more desirable when they were depicted with other women than men who were presented alone or depicted with same-sex peers (Hill and Buss, 2008).

Certainly, the actual mate value of one’s partner could affect mate-choice copying as Uller and Johansson (2003) had hypothesized. Indeed, it was found that women’s mate-choice copying was influenced by the physical attractiveness of men’s romantic partners. Specifically, the men (target) who had a more attractive female partner (model) would be considered more attractive by the women observers; conversely, those with a less attractive partner would be rated as less attractive (Waynforth, 2007). In another study, researchers showed that women’s judgment of target men was affected by attractive model women, but only when choosing a long-term partner (Little et al., 2008). In sum, the results of these studies indicate that the attractiveness of the models affects an individual’s evaluation of targets. Other studies have shown similar results (e.g., Vakirtzis and Roberts, 2012; Yorzinski and Platt, 2010).

Although there is evidence supporting mate-choice copying in humans, the literature appears to be mixed. For instance, studies have reported that female observers’ relationship status influences mate-choice copying. Women in a relationship favored attached men when these women had a low fertility level; however, single women did not show the same preference (Bressan and Stranieri, 2008). Moreover, in a study published more recently, it was proposed that single women demonstrated mate-choice copying (i.e., they were more interested in pursuing an attached man), whereas coupled women who were in a romantic relationship did not (Parker and Burkley, 2009). However, in another study, it was reported that women’s relationship status did not affect the strength of mate-choice copying effects; indeed, all female observers (single women and coupled women) in this study exhibited prominent mate copying behaviors (Place et al., 2010). Furthermore, in a recent study, both single women and coupled women were more interested in dating the ex-boyfriends of women who were more attractive and had positive expressions (Vakirtzis and Roberts, 2012). Given the inconsistent findings in this area of study, the first objective of this study was to investigate whether the relationship status of female observers would impact their mate-choice copying effects.
There is also literature that has directly examined the influence of the relationship status of target men on the emergence of mate-choice copying (e.g., Eva and Wood, 2006; Uller and Johansson, 2003). In addition, studies have investigated the factors that may affect mate-choice copying in some established form of relationship status (e.g., romantic relationship and dating relationship) (e.g., Little et al., 2008; Parker and Burkley, 2009; Waynforth, 2007). These factors included the quality of the models (e.g., appeal, age, expression, and character) and the characteristics of the observers (e.g., age, relationship status, and sexual experience). However, no studies have investigated the influence of different types of relationships between targets and models on mate-choice copying effects. Therefore, the second goal of this study was to explore the influence of relationship status between target men and model women on mate-choice copying effects.

It was recently reported that women tended to perceive men who were in a romantic relationship as unavailable to them; thus, they subsequently inhibited the formation of positive evaluations of these potential partners via self-regulatory processes (Koranyi, Gast, and Rothermund, 2013). This finding is contrary to the majority of mate-choice copying studies; however, there is one exception. In a study by Uller and Johansson (2003), women did not rate married men more attractive or report a higher willingness to engage in a relationship with them. In addition, it was also previously reported that women’s preference for attached men decreased when men were depicted as married, but the same effect did not hold for men who were depicted as temporarily attached (e.g., having a girlfriend) (Bressan and Stranieri, 2008). Therefore, we speculated that the relationship status between target men and model women would have an effect on female observers’ mate-choice copying. Specifically, we expected that women would show less mate-choice copying when the targets and models were in a more committed and long-term relationship than when in a temporary relationship.

In addition, we also investigated whether females would copy the model women’s rejection of target men. Previous research has largely focused on models’ positive interest in and acceptance of targets (e.g., Eva and Wood, 2006; Hill and Buss, 2008; Little et al., 2008; Waynforth, 2007; Yorzinski and Platt, 2010); moreover, few studies have examined models’ negative interest and rejection (Jones et al., 2007; Place et al., 2010). Indeed, the process of choosing a mate involves not only accepting a member of the opposite sex as a partner, but also involves the rejection of specific members of the opposite sex. Some researchers have suggested that the rejection of the “wrong” mates is as important as the acceptance of the “right” mates in the mate choice process (Witte and Ueding, 2003). Indeed, it was reported in a study with sailfin mollies that females copied the model females’ rejection of males (Witte and Ueding, 2003); moreover, in a study with humans, women tended to reduce their preference for men who were looked at by other women with a relatively negative expression (Jones et al., 2007). In addition, model women’s negative ratings of a man had a greater impact on women observers’ evaluations of the same man (Graziano et al., 1993). Furthermore, a recent study indicated that female observers’ mate-choice copying effects relied upon fewer ratings of targets during negative interactions (target men and model women showed mutual disinterest) (Place et al., 2010). Therefore, we believe that female observers will copy the models’ mate rejection decisions. In other words, women may decrease ratings for the target men when they perceive the model women’s rejection of the targets.
Therefore, we examined mate-choice copying in Chinese women, given the research state and our cultural background. The majority of research in the area of mate-choice copying has examined this process in Western populations. Indeed, few studies have investigated mate copying in Eastern cultures; thus, our research aimed to provide evidence of this phenomenon in an Eastern culture. In addition, we examined whether females would copy models’ mate rejection decisions. Moreover, the present study investigated the relevant factors that may affect mate-choice copying (i.e., the relationship status of observers and the relationship status between targets and models). Specifically, in the current study, we examined three primary objectives:

Hypothesis 1. We tested whether the relationship status of female observers would impact their mate-choice copying. Given the adaptive benefits of copying, we speculated that both coupled and single women would copy the models’ choices.

Hypothesis 2. We explored the influence of relationship status between the target men and model women on mate-choice copying effects. We speculated that women would show less mate-choice copying when the targets and models were in a committed and long-term relationship than when they were in a temporary relationship.

Hypothesis 3. Most studies of mate-choice copying have focused on the effect of models’ mate acceptance decisions; however, models’ rejection decisions also influence women’s mate selection. Therefore, we examined whether female observers would copy the models’ mate rejection decisions. We expected that women would decrease ratings of the target men when they perceived that the model women rejected the targets.

Materials and Methods

Participants

Ninety undergraduate and graduate female students participated in this study at Southwest University in China. They were recruited via an internet advertisement on the campus BBS (bulletin board system); the BBS is our school’s campus forum. Fourteen subjects were eliminated from analysis for certain reasons (e.g., homosexual or bisexual, recognizing people in the photograph, or not serious during experiments), resulting in a sample of valid data comprising 76 people. All participants were heterosexual, unmarried, and between the ages of 18 and 25. Forty-three participants were single (mean age = 21.21, SD = 1.70) whereas 33 of them were currently in a romantic relationship (mean age = 21.24, SD = 1.30). There was no significant difference in age between the single and coupled women, t(74) = 0.09, p = .93. Each participant signed a written informed consent before experiment and received 10RMB (approximately US $1.60) as compensation afterward.

Materials

Original materials were photos of 229 men and 283 women that were either of Southwest university students taken by experimenters under permission or obtained online. All photos were standardized for color, size, and background with Photoshop CS4. Specifically, all photos are black-and-white depicting only the head and shoulders, and of the same size (400 × 400 pixels) with a white background. In order to make men look taller than women, we also controlled the distance between the chin and the bottom of photos (about 2.6 cm in photos of women and about 4.6 cm in photos of men).
Subsequently, the standardized photos of 229 men were rated for attractiveness and emotional valence by 40 heterosexual students (35 women and 5 men) between the ages of 19 and 26 (M ± SD = 21.40 ± 1.61). The photos of 283 women were also evaluated by 31 heterosexual students (19 women and 12 men) between the ages of 19 and 25 (M ± SD = 21.65 ± 1.76). Participants were asked to rate the attractiveness of the person in photos on a 9-point scale ranging from 1 (not attractive at all) to 9 (very attractive) and indicate on a scale from 1 to 3 (1 = Negative, 2 = Neutral, 3 = Positive) the emotional valence.

We calculated the mean attractiveness of each person in the photos based on participants’ evaluations. According their mean attractiveness, a total of 120 images of men (target) and 120 images of women (model) were selected for the formal experiment (240 images total). Specifically, all target men were rated as moderately attractive with a neutral expression (attractiveness: M ± SD = 3.62 ± 0.98) and were within one standard deviation above and below the overall mean; however, 120 model women had moderate to above average attractiveness, 50 of which were shown with a positive expression (attractiveness: M ± SD = 4.86 ± 1.06) and 70 of which were shown with a neutral expression (attractiveness: M ± SD = 4.69 ± 1.06).

Images of target men and model women were then randomly paired together to produce compound stimuli (male + female; 120 total), which were also used in the formal experiment. For each compound stimulus, the images of target and model were combined using Photoshop CS4; the model woman was always placed on the right and the target man on the left, and the distance between model woman and target man was the same in all picture stimuli (10.6 cm between the edge of the female facial contour and the adjacent edge of the male facial contour). All compound photographs have a uniform size (800 × 400 pixels).

In compound stimuli, if the emotional valence of model women was positive, we marked the word “Yes” at the bottom of model women when the compound images were presented to participants (“Yes” implies that the model woman with a positive expression is interested in the target man). As a result, one experimental condition was produced: (1) “YES” condition: models’ acceptance of targets (50 compound photos total). Conversely, we randomly selected 50 compound stimuli in which the emotional valence of model women was neutral and marked the word “No” at the bottom of model women when the compound images were presented to participants (“No” implies that the model woman with a neutral expression is not interested in the target man). Thus, the second experimental condition was created: (2) “NO” condition: models’ rejection of targets. The remaining 20 compound stimuli constituted the third condition: (3) Control condition: without any information about models’ mate choice decisions. In the control condition, we did not present models’ interests (Yes / No) to participants; indeed, the model women were processed with mosaic and participants could not distinguish models’ expressions. In fact, these models have a neutral expression. Figure 1 shows an example of the compound stimuli from these three conditions.
**Figure 1.** Example of target and model photos presented for the three experimental conditions

(i) “YES” condition

(ii) “NO” condition

(iii) Control condition

**Procedure**

First, participants were shown 120 photos of the opposite sex (target) in a random order and were instructed to rate the attractiveness of the men in the photographs on a 9-point scale ("How attractive do you find this person in the photograph?" 1 = “not attractive at all,” 9 = “very attractive”).
Next, 120 compound photographs (target man + model woman) were presented to participants after a short rest. Participants were told that both the man and the woman in each picture took part in a fellowship activity and had a real interaction to get to know each other. In addition, we also told participants that the fellowship activity was organized by some researchers in a college aiming at exploring individual mate selection, the people in all photos were college students, and the word “Yes” or “No” at the bottom of photos was the interest of women (“Yes” implies that the woman is interested in the man; “No” implies that the woman is not interested in the man). Participants were asked to indicate their willingness to choose the man in the picture as a partner on a scale from 1 to 9 (“how willing are you to choose the man in the photograph as a partner?” 1 = “very unwilling,” 9 = “very willing”). This part had two experimental blocks, each of which consisted of 25 compound photos randomly selected from “YES” condition, 25 randomly selected from “NO” condition, and 10 randomly selected from control condition (60 total). In each block, the compound stimuli were presented in a randomized order and the block order was balanced among participants. Between the two experimental blocks, participants were allowed to have a 30-second break.

After this, participants were shown 120 compound photos in the same way as above but performing different tasks. Participants were asked to rate the attractiveness of the men in the compound photos again on a 9-point scale (“How attractive do you find this man in the photograph?” 1 = “not attractive at all,” 9 = “very attractive”).

Finally, we randomly selected 20 compound photos from the “YES” condition. These 20 compound photos and another 20 compound photos from the control condition were shown to our participants at random with the following instructions:

It was found that the man and woman in each photo had been in a committed romantic relationship during the 6-month follow-up investigation by the organizers of the fellowship activity. Please indicate your willingness to choose the man in the picture as a partner again. Use a 9-point scale, where 1 is very unwilling, and 9 is very willing.

We did not give any statements about the compound photos from the control condition where the models’ faces were obscured.

After the experiment was over, participants completed a short written survey to assess their age, sexual orientation, current relationship status, and reported whether there was someone in the pictures she knew. Participants who were homosexual, bisexual, or recognized someone in the pictures were eliminated from analysis.

Results

The study involved a two-factor mixed design. The between-subjects factor was participants’ relationship status (single versus coupled) and the within-subjects factor was experimental condition (i.e., “YES” condition, “NO” condition, and Control condition). The responses were analyzed with repeated measures analysis of variance in SPSS.
Attractiveness ratings

The initial attractiveness ratings. The initial attractiveness ratings of target men were collected when their photos were presented alone to subjects and analyzed with a 2 (relationship status) × 3 (experimental condition) analysis of variance (ANOVA). It revealed that the initial attractiveness ratings that single women assigned to the targets were not significantly different from coupled women’s initial ratings, $F(1, 74) = 3.34, p = .07$, partial $\eta^2 = .04$. There was also no significant difference in the initial attractiveness ratings of target men among the various experimental conditions, $F(2, 148) = 1.18, p = .31$, partial $\eta^2 = .02$. This result was in accordance with our preset condition that all target men were moderately attractive. The interaction between relationship status and experimental condition was not significant, $F(2, 148) = 0.22, p = .77$, partial $\eta^2 = .003$.

The ultimate attractiveness ratings. The ultimate attractiveness ratings for target men were obtained when the compound photos (the photos in which target men were paired with model women) were presented to participants. The results of the ANOVA showed that the only significant main effect was experimental condition, $F(2, 148) = 6.47, p < .005$, partial $\eta^2 = .08$. Post-hoc testing (LSD) revealed that women rated targets accepted by models (in “YES” condition) significantly more attractive than those rejected by models (in “NO” condition), $p < .01$. However, there was no significant difference in attractiveness ratings for targets between the “NO” condition and control condition (i.e., there was no information about the models’ mate choice decisions), $p = .95$. Combined with the result from previous analysis (i.e., there was no difference in the initial attractiveness ratings for targets among the three conditions), these findings indicated that the ultimate attractiveness ratings for targets were influenced by the models’ mate choice decisions. Furthermore, both the main effect of participants’ relationship status ($F[1, 74] = 0.25, p = .62$, partial $\eta^2 = .003$) and the interaction of relationship status and experimental condition ($F[2, 148] = 1.07, p = .34$, partial $\eta^2 = .01$) did not reach the significant level.

The change in attractiveness ratings for targets between initial and ultimate ratings. Analysis of variance revealed a significant main effect of experimental condition, $F(2, 148) = 6.61, p < .005$, partial $\eta^2 = .08$. Post-hoc testing (LSD) revealed that ratings of target men shown in the “YES” condition increased more than did ratings of those shown in the “NO” condition ($p < .01$) and control condition ($p < .01$). However, there was no significant difference in rating changes between the “NO” condition and control condition, $p = .41$. One possible reason for this was that the model women in the control condition were processed with mosaic, which might lead female observers to consider that these mosaic models were not interested in the targets. As a result, female observers did not give the discrepant attractiveness ratings to the targets shown in the “NO” condition and control conditions.

The analysis also revealed a significant main effect of relationship status, $F(2, 148) = 9.19, p < .005$, partial $\eta^2 = .11$. The change in coupled women’s attractiveness ratings tended to increase and was significantly greater than the change in single women’s ratings, which tended to decrease (coupled: $M = 0.41, SE = 0.14$; Single: $M = -0.15; SE = 0.12$). Moreover, we noticed that the coupled women exhibited an increase in all experimental conditions, whereas the single women showed a decrease in the “NO” condition and control condition. As predicted in Hypothesis 1, these results indicated that both single and coupled women showed mate-choice copying; however, their pattern of responses differed, and this was unexpected (see Figure 2). Furthermore, when observing the models’ rejection,
the attractiveness ratings for the targets decreased only in the single participants; thus, Hypothesis 3 was partially supported. In addition, subjects’ relationship status did not interact with experimental condition, $F(1, 74) = 0.73, p = .48$, partial $\eta^2 = .01$.

**Figure 2.** The change in attractiveness ratings made by single and coupled women of the target men between the initial and ultimate ratings

![Graph showing change in attractiveness ratings](image)

**Note.** Error bars are +/- 1 S.E.M

**Willingness of mate selection**

*The willingness to choose targets as partners when targets were not involved in a romantic relationship with models.* Analysis of variance showed a significant main effect of experimental condition, $F(2, 148) = 13.01, p < .001$, partial $\eta^2 = .15$, but beyond that, both the main effect of subjects’ relationship status ($F[1, 74] = 0.05, p = .82$, partial $\eta^2 = .001$) and the interaction effect ($F[2, 148] = 1.19, p = .31$, partial $\eta^2 = .02$) were not significant. These results indicated that across relationship status, participants were more willing to choose the targets accepted by model women as their partners than those targets rejected by models and those in the control condition. In other words, both coupled and single women copied models’ mate choice decisions when models only showed a positive interest in targets but were not involved in a romantic relationship with them.

*The willingness to choose targets as partners when targets were currently involved in a romantic relationship with models.* The results of the ANOVA showed that females were still more willing to choose the target men in the “YES” condition who were currently involved in a romantic relationship with the model women as their partners, compared to those targets in the control condition, $F(1, 74) = 31.33, p < .001$, partial $\eta^2 = .30$. This indicated that women copied models’ mate choice decisions regardless of whether the targets were involved in a romantic relationship with the models. In addition, both the main
The change in willingness before and after the establishment of the romantic relationship between targets and models. The results revealed a main effect of experimental condition, $F(1, 74) = 6.42, p < .05$, partial $\eta^2 = .08$, and a marginal significant interaction between relationship status and experimental condition, $F(1, 74) = 3.90, p = .052$, partial $\eta^2 = .05$, but participants’ relationship status did not exert a significant effect, $F(1, 74) = 0.72, p = .40$, partial $\eta^2 = .01$. The interaction was examined further through a one-way repeated measures ANOVA comparing the changes in the willingness of mate selection between the “YES” and control conditions separately by participants’ relationship status. The results indicated that for coupled women, there was no significant difference in the changes in the willingness of mate selection between the “YES” and control condition, $F(1, 32) = 0.25, p = .62$, partial $\eta^2 = .01$. However, for single women, they significantly decreased the willingness level to choose the targets in the “YES” condition (i.e., where targets were currently involved in a romantic relationship with models) as their partners, compared to the change in the control condition, $F(1, 42) = 8.67, p < .01$, partial $\eta^2 = .17$ (see Figure 3). These findings indicate that, compared to before the establishment of the romantic relationship (i.e., models only show a positive interest for targets but were not involved in a romantic relationship with them), the mate copying effects in single women was significantly weakened when targets were engaged in a romantic relationship with models. Single women showed less mate-choice copying, but coupled women did not demonstrate the same pattern of results; thus, Hypothesis 2 was partially supported.

Figure 3. The change in coupled and single women’s willingness of mate selection made before and after the establishment of a romantic relationship between the targets and models.

Note. Error bars are $±/− 1$ S.E.M.
Discussion

In the present study, mate-choice copying appeared to exist in Chinese women. Specifically, mate-choice copying was demonstrated via indirect inferences based on attractiveness ratings and direct measurement through willingness of mate selection. Overall, we found that the attractiveness ratings and willingness of mate selection made by female observers were significantly influenced by social information from other women. However, a difference in mate-choice copying between single women and coupled women did emerge. In addition, the relationship status between target men and model women impacted the magnitude of the mate-choice copying effects.

Consistent with previous research, our results indicated that both single and coupled females showed mate-choice copying effects (Place et al., 2010; Vakirtzis and Roberts, 2012). Specifically, females were more willing to choose men who were chosen by other women as their partners and rated these men more attractive. On the contrary, they were less willing to choose men who were rejected by other women as their partners and rated these men less attractive. Thus, single and coupled female observers attended to the mate-choice decisions of the model women and copied their decisions. These findings indicated that the relationship status of observers had no impact on mate-choice copying effects; in fact, female observers were more interested in men who were selected by other women, regardless if they were single or in a relationship.

However, a previous study demonstrated that women with a partner preferred attached men, while single women did not (Bressan and Stranieri, 2008). Researchers have indicated that there appear to be two possible reasons why single women are not attracted to attached men: the low availability of attached men and the risk of mating with a man that might not invest in her children. In contrast, another study showed that single women were more interested in attached men than single men, but the same preference was not shown in coupled women (Parker and Burkley, 2009). The authors of this study speculated that women in a relationship are already coupled with a mate who is willing to commit; therefore, the appeal of commitment from an attached man does not attract them. Given that the existing literature is inconsistent, more research is needed using different research methods to arrive at a comprehensive understanding of this phenomenon.

Interestingly, our study also revealed that there was a difference in the reaction pattern of females in mate-choice copying effects. Specifically, the significant effects for coupled women relied on a greater increase in attractiveness ratings when they observed the models’ mate acceptance. However, the significant findings for single women were dependent on a decrease in attractiveness ratings when they perceived the models’ mate rejection (see Figure 2). It seems to be that single females are more sensitive to rejection information; thus, they copied models’ mate rejection more than coupled females. Previous research has also demonstrated that women are influenced by their same-sex peers’ ratings in assessing men’s physical attractiveness, especially negative ratings (Graziano et al., 1993). Moreover, Place and colleagues reported that females’ significant mate copying effects depended on a decrease in ratings of target attractiveness for short- and long-term relationships when they were presented with a negative interaction (Place et al., 2010). Importantly, in both of these studies, researchers did not take the observers’ relationship status into account. Therefore, based on the current literature, we cannot provide an appropriate explanation for this finding. It may be that the cost of accepting a
mate for single women is higher than rejecting an adaptive mate; thus, single women were more sensitive to the models’ mate rejection decisions. Future studies are required to confirm this result.

Our results also demonstrated that female observers copied the mate-choice decisions of models regardless of whether the target men and model women were in a romantic relationship; thus, relationship status between the targets and models did not appear to influence the occurrence of mate-choice copying. However, as we had predicted, mate-choice copying effects decreased when the targets and models were in a more committed and long-term relationship (i.e., a romantic relationship) compared to in a temporary relationship (i.e., models showed a positive interest in the targets but were not in a committed romantic relationship with them). Specifically, females decreased their willingness to choose targets as partners when targets were romantically linked to the models. This finding suggests that the strength of mate-choice copying effects varies when targets are in a committed romantic relationship. It may be that women tended to perceive men who were currently in a romantic relationship as unavailable and this perception inhibited the formation of positive evaluations via self-regulatory processes (Koranyi et al., 2013). Indeed, previous work has indicated that women showed less preference for attached men when men were described as married compared to men depicted as temporarily attached (e.g., with a girlfriend or in love) (Bressan and Stranieri, 2008). Moreover, a similar finding was reported in an earlier study where women did not consider engaged men more attractive than single men or report that they were more willing to engage in a relationship with the attached men (Uller and Johansson, 2003). Uller and Johansson believed that this finding may be the result of a lack of information about the mate value of the model women. Moreover, they speculated that human mate-choice copying was a more complex phenomenon. However, our findings and the findings of Koranyi et al. (2013) provide evidence leading to an alternative interpretation for this pattern of results. Specifically, it is likely that the women did not show mate-choice copying because they realized that the attached men would not establish a relationship with them easily; indeed, Vakirtzis and Roberts (2010) suggested that “males in successful breeding pairs will have no reason to dissolve them” (p. 899).

Moreover, our findings showed that the weakened copying effects existed only in single women; however, coupled women were not significantly influenced by the romantic relationship between the targets and models. This difference may be due to the fact that the preference for men in a committed relationship would require a sacrifice, such as decreased paternal care for their offspring, competition with the male’s current mate (Vakirtzis and Roberts, 2010), and a period of waiting since these men were not immediately available. However, when compared to single women, coupled women could afford to wait (Simão and Todd, 2002) and for them, the higher mate value of attached men (e.g., high social status) and their lower availability did not counteract each other (Bressan and Stranieri, 2008); thus, coupled women were not significantly influenced. As a result, the coupled women did not show the weakened mate-choice copying effects. Moreover, mating with an attached man would increase the risk of raising a baby on one’s own; therefore, single women would be more cautious in making mate decisions than coupled women, thereby decreasing their willingness to choose an attached man as a partner. In sum, the results presented herein provide the first evidence for the effect of relationship status between target men and model women on mate-choice copying effects; however, this effect was
only found for single women. This is a new discovery in the field of mate-choice copying; future research in this area is required in order to further explore these issues and to provide more detailed explanations for these effects.

Conclusion

In conclusion, the results indicate that mate-choice copying exists in Chinese women. Moreover, it is evident from these findings that single and coupled women show a preference for the men accepted by other women and give lower ratings to the men rejected by other women. However, it was also revealed that the pattern of mate-choice copying responses differed between the single and coupled women. Specifically, the single women were more sensitive to rejection information and copied model women’s mate rejection more than coupled women. However, the coupled women’s mate-choice copying effects depended on an increase in attractiveness ratings when they perceived the model’s acceptance of the targets. In addition, the findings in the present study demonstrated that the relationship status between target men and model women did not influence the occurrence of mate-choice copying but did affect the magnitude of mate-choice copying effects. Specifically, mate-choice copying effects were attenuated for women when the targets and models were in a more committed and long-term relationship compared to in a temporary relationship; this effect was only evident for the single women. This is the first evidence for the influence of relationship status between targets and models on the magnitude of mate-choice copying effects.

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