The Influence of Women’s Self-Esteem on Mating Decision Making

Kathleen D. Golterman

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The Influence of Women’s Self-Esteem on Mating Decision Making

Honors Thesis
Kathleen D. Golterman
Department: Psychology
Advisor: Erin O’Mara, Ph.D.
April 2017
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Abstract
This research examines the extent to which a woman’s appearance self-esteem influences her mating decisions. Recent research finds that, at peak fertility, women erroneously perceive attractive, genetically fit men as more willing to commit to them and be better fathers to their potential offspring, but not to another woman or her offspring (Durante, Griskevicius, Simpson, Cantu, & Li, 2012). However, vast amounts of research find that attractive, genetically fit men adopt a short-term mating strategy where they seek to mate with many women but provide for none. The present study extends this research by examining the influence of women’s appearance self-esteem on their perceptions of attractive, genetically fit (i.e., short-term) men. Research finds that self-esteem influences women’s perceptions of their relative mate value and their attractiveness to potential mates (Brase & Guy, 2004); therefore, this study proposes that women’s appearance self-esteem may influence the extent to which women perceive short-term mates (i.e., sexy cads) as more highly-invested long-term mates (i.e., good dads) to the self and to another woman. Participants (women who were not on hormonal birth control) completed a measure of appearance self-esteem, and then they were shown a photo of an attractive man (sexy cad) and an average-looking man (good dad) in a randomized order. After viewing each photo, women evaluated the estimated paternal contribution and commitment level of each man to the self and to another woman. Results showed no significant effects of fertility level on mate preference. However, results showed that appearance self-esteem levels are positively associated with estimated paternal contribution and commitment level of an attractive man for both the self and for the other woman, but more so for the self (i.e., at a higher magnitude).

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Introduction

When it comes to selecting a mate, decision-making is critical, yet complex. From an evolutionary perspective, the primary goal for mating is gene transmission, and such a goal has implications for the patterns of attraction of heterosexual men and women. The most advantageous approach to mating for men is to adopt a short-term strategy, which entails trying to mate with many women in an effort to increase gene transmission. To facilitate this process, men have evolved to be attracted to cues of health and fertility in order to increase the likelihood that they are able to reproduce often and with women who will deliver healthy offspring. Women, on the other hand, tend to adopt a long-term mating strategy due to their greater required investment in offspring. To facilitate this process, women have evolved to be attracted to cues that suggest a mate will provide resources for her and any potential offspring. Recent research, however, finds that women are often attracted to men who adopt a short-term mating strategy, even though these men are unlikely to commit to them and provide for offspring (e.g., Durante, Griskevicius, Simpson, Cantu, & Li, 2012; Gangestad, Simpson, Cousins, Garver-Apgar, & Christensen, 2004).

Why might women be attracted to men who are not going to commit to them? Research on interpersonal relationships and evolutionary psychology provide several potential explanations. First, men who adopt a short-term mating strategy tend to be men with stronger genes. These men tend to be high in factors suggestive of their genetic fitness, such as high levels of physical attractiveness and sexiness (e.g., Gangestad & Thornhill, 1997). Men who adopt long-term mating strategies, however, tend to be low in factors related to their genetic fitness (less physically attractive and less sexy; Gangestad
et al., 2004), but higher in more long-term traits (stability, faithfulness, and warmth; e.g., Gangestad et al., 2007). The inverse relationship between genetic fitness and willingness to provide creates a challenge for women’s reproductive success; if a woman wants a partner who will provide for her and her offspring, she is potentially compromising genetic strength of her future offspring. One proposed way that women adapt to this challenge is by adopting a dual-mating strategy (Gangestad & Simpson, 2000). The dual-mating strategy proposes that women can maximize genetic benefits best if they can secure a long-term partner who will provide resources but also try to secure short-term, extra-pair sexual opportunities when they are fertile, or when they are ovulating (Pillsworth & Haselton, 2006). Ovulation is the very brief window of time in a woman’s menstrual cycle, usually lasting 24-48 hours, when she is able to get pregnant. Given this brief window and women’s extended investment in offspring, women are motivated to secure the best genes possible at peak fertility while not compromising long-term support.

Recent research provides a second explanation for women’s attraction to men who adopt a short-term mating strategy: their perceptions of these men change at peak fertility (Durante, Griskevicius, Simpson, Cantu, & Li, 2012). Durante et al. (2012) found that when fertile, women overestimate the long-term relationship potential of men who typically adopt a short-term mating strategy. When women were fertile, they rated physically attractive, genetically fit men higher in willingness to commit to them and to be devoted to their own offspring (but not offspring with other women). These findings suggest that, at peak fertility, women may be attracted to men who typically adopt a short-term mating strategy not only because they are good-looking and have strong
genes, but because women erroneously perceive these men to be good long-term relationship partners—to them, but not to another woman. In other words, while ovulating, women do not pursue mates with good genes strictly for their reproductive benefits; they truly believe these mates are committed, long-term partners who will be devoted, supportive fathers to them (Durante et al., 2009).

The present study extends this line of research by examining the extent to which women’s self-esteem, in particular their appearance self-esteem, influences their mating decisions. Self-esteem is an overall assessment of self-worth or self-evaluation (see Leary, 1999), and from an evolutionary standpoint, fluctuations in self-esteem are predicted to reflect a person’s ability to achieve goals correlated with survival and reproductive success (Hill & Buss, 2006). Further, self-esteem influences women’s perceptions of their relative mate value and their attractiveness to potential mates (Brase & Guy, 2004). These findings suggest that women should experience an increase in self-esteem during ovulation, when they have the greatest chance for reproductive success. Thus far, only one paper has examined self-esteem across the menstrual cycle and it found that women experience a decrease in self-esteem nearest to ovulation, when women tend to be more attractive to men (Hill & Durante, 2009) and more attracted to men who adopt a short-term mating strategy (Durante et al., 2012). Although the Hill and Durante (2009) findings are contrary to what is predicted from evolutionary theory, they illuminate self-esteem as an important factor in understanding why women perceive men who adopt a short-term mating strategy as better long-term partners at peak fertility.

The present research aimed to better define the role of self-esteem in women’s reproductive decision-making at high and low fertility. Appearance self-esteem, or one’s
self-assessment of his or her physical appearance, is a subscale of global state self-esteem (Heatherton & Polivy, 1991), and it may have a particular influence on women’s mating decisions. Pelham & Swann (1989) suggest that people’s self-assessments of physical appearance strongly predict their overall levels of self-esteem. Further, recent research suggests that feeling good about one’s physical attractiveness may be an especially important asset when trying to attract a mate (Bale & Archer, 2013). These findings support the examination of appearance self-esteem, rather than global self-esteem, when assessing women’s perceptions of potential mates for them. The present work examined women’s appearance self-esteem (Heatherton & Polivy, 1991), as well as their fertility status, and examined whether appearance self-esteem moderated the association between fertility and perceptions of short-term mating partners. Because this work is quite novel, with only a few studies examining self-esteem and the menstrual cycle, several explanations were derived to account for how appearance self-esteem may influence, or moderate, the association between fertility and evaluations of short-term mates. Women with high appearance self-esteem at peak fertility may adopt a more positive perception of the likelihood that short-term mates will contribute, commit, and be a good father. Women’s high ratings of her own physical appearance may increase the perception that highly sought after, attractive men would want to commit to them as partners and fathers of their offspring, only. Women with low appearance self-esteem at peak fertility may adopt a less positive (but more realistic) perception of the likelihood that short-term mates will commit and be a good father.
Method

Participants

The participants were 405 heterosexual (91.56%) or bisexual women between the ages of 18-35 ($M = 30.54, SD = 5.58$). The majority of participants were single (40.99%), or married (31.85%), and the remaining participants were engaged (2.96%), in a serious relationship (18.27%), or in a casual relationship (5.93%). The majority of participants were Caucasian (75.80%). Participants were recruited from Amazon’s Mechanical Turk (MTurk) data collection system, and they were each paid $1.50 in exchange for participation.

Procedure

Participants were screened for inclusion criteria, and only women between the ages of 18-35 who were also not pregnant, not currently on hormonal birth control, had not given birth or been on hormonal birth control in the last 3 months, and were not post-menopausal were invited to participate. Participants were first asked to complete a measure of appearance self-esteem. The State Self-Esteem Scale (Heatherton, & Polivy, 1991) measured self-esteem in the context of physical appearance (i.e., appearance self-esteem).

To collect a within-subjects measure of potential mate ratings, we asked participants to view a photograph and read a profile of a short-term mate (i.e., sexy cad) and a long-term mate (i.e., good dad), presented in a random order. The written descriptions of the potential mates were adapted from descriptions included in Durante et al. (2012), and photographs were selected based on the attractiveness ratings and matched regarding the predicted age of the men in the photos. The men in the photos were rated by
an independent group of raters regarding their physical attractiveness on a 1 (not at all) to 10 (extremely) scale. The attractive male received an average rating of 7.86, while the unattractive male received an average rating of 2.61. The man in the attractive photo was estimated to be 31.54 years old, and the unattractive man was estimated to be 31.14 years old. The short-term profile included the attractive photo, and the profile described him as adventurous, socially dominant, and charismatic. The long-term profile included the unattractive photo, and the profile described him as dependable, stable, and a good provider.

After viewing each profile, participants answered questions related to their perceptions of the man’s (1) expected paternal contribution to you and to your offspring (if you had a child together), (2) expected paternal contribution to another woman and her offspring with the man in the photo (if they had a child together), (3) expected relationship commitment levels of the man to you, and (4) expected relationship commitment levels to another woman (Durante et al. 2012). Finally, participants were asked questions about their menstrual cycle in order to calculate their fertility status, as well as demographic questions (race, age, sexual orientation, relationship status) before being debriefed and thanked for their participation.

Measures

State Self-Esteem. Appearance self-esteem was measured by asking participants to respond to items on the State Self-Esteem Scale (Heatherton & Polivy, 1991), a valid and widely used measure of state self-esteem. Participants were asked to respond to each item (e.g., I feel satisfied with the way my body looks right now, and I am pleased with my
appearance right now) on a 5-point scale (1=not at all, 5=extremely) based on what they felt was true of themselves in the present moment.

Fertility. To assess fertility status (i.e., whether the participant was ovulating at the time of the study), we asked participants information regarding their typical menstrual cycle length and the start date of their most recent period in order to calculate a conception risk score (Wilcox et al., 2001). Specifically, participants were asked to report: (1) the typical length of their menstrual cycles, based on number of days between the first day of a given menstrual cycle to the first day of the next cycle, (2) the first day of their most recent menstrual period, and (3) the anticipated date of their next menstrual period. Following procedures used in Durante et al. (2012), we used the reverse cycle day (RCD) method, a reliable measure of fertility status (see Durante et al., 2012; Durante, Griskevicius, Hill, Perillooux, & Li, 2011; Gangestad & Thornhill, 1998; Haselton & Gangestad, 2006), to predict the day of ovulation for each participant based on their cycle length and date of most recent period. Women have the highest conception risk, or chance of becoming pregnant from an act of sexual intercourse, within the 24-48 hour window during which they are ovulating. Following this logic, using their reported day-of-cycle data, participants were assigned a conception risk score using actuarial data (Wilcox et al., 2001). Fertility scores ranged from 0.00 (low) to 0.094 (high). Highest fertility scores correspond to predicted day of ovulation for each participant.

Expected Paternal Contribution. To assess expected paternal contribution, participants answered several questions about the perceived paternal contributions of the attractive and unattractive men to both the self and to another woman (Durante et al.,
2012). After viewing each photo, to assess expected contributions to self, participants were given the scenario, “If you and the man had a baby…” and then asked to respond on a 9-point scale (1=not at all, 9=extremely) how much she believed the man would contribute to her, based on these items: (1) “How much do you think he would invest in helping with childcare?” (2) “How much do you think he would invest with daily childcare chores like changing diapers and giving the baby baths?” and (3) How much do you think he would help prepare food for and feed the baby?” Then, to assess expected contributions to another woman, participants were given the scenario, “The man you just saw also introduced himself to another woman in the study. Imagine that the other woman and the man had a baby together. If the other woman and the man had a baby…” and then asked to respond on the same 9-point scale to the same items, i.e., (1) “How much do you think he would invest in helping with childcare?” (2) “How much do you think he would invest in helping with daily childcare chores like changing diapers and giving the baby baths?” and (3) How much do you think he would help prepare food for and feed the baby?”

*Expected Paternal Commitment.* Participants evaluated each man’s photo by answering questions about the perceived commitment levels of the attractive and unattractive men to both the self and to another woman (Durante et al., 2012). After viewing each photo, participants were asked to respond on a 9-point scale (1=not at all, 9=extremely) how committed she believed the man would be to her, by answering the question, “If you and this man were in a romantic relationship, how committed do you think he would be to you?” Then, participants were asked to respond on the same 9-point
scale to the question, “If this other woman and this man were in a romantic relationship, how committed do you think he would be to her?”

Results

Contributions to the self and the other woman from the attractive and unattractive men were regressed onto mean-centered conception risk, appearance self-esteem, and the interaction term. There was a significant main effect for: target man, $F(1, 401) = 197.14, p < 0.0001$, the target woman by conception risk interaction, $F(1, 401) = 4.64, p = .0318$, the target woman by appearance self-esteem interaction, $F(1, 401) = 8.55, p = .0037$, and the target man by appearance self-esteem interaction $F(1, 401) = 6.36, p = .0121$. However, these effects were qualified by a significant 4-way interaction of target woman, target man, conception risk, and appearance self-esteem, $F(1, 401) = 4.18, p = .0414$. To decompose the interaction, the simple effects of target woman, conception risk, and appearance self-esteem were examined for the attractive and unattractive men. For the attractive man, there was a significant target woman by appearance self-esteem interaction, $F(1, 401) = 4.46, p = .0354$. When evaluating the extent to which the attractive man would contribute to the other woman, appearance self-esteem was positively associated with estimated contribution, $B = 0.2595, SE = .0969, F(1, 401) = 7.17, p = .0077$. When evaluating the extent to which the attractive man would contribute to the self, appearance self-esteem was more positively associated with estimated contribution, $B = 0.3333, SE = 0.0956, F(1, 401) = 12.15, p = .0005$. That is, appearance self-esteem was associated with estimated contribution for both the self and the other woman, but the magnitude of the positive association was stronger for the self (see Figure 1). For the unattractive man, there was a trend for a target woman by conception risk
effect, $F(1, 401) = 3.38, p = .0667$, and a significant target woman by appearance self-esteem effect, $F(1, 401) = 4.61, p = .0323$; however, none of the simple effects were significantly associated with estimated contribution, all $F$’s < 2.49, all $p$’s > .32.

Next, commitment to the self and the other woman from the attractive and unattractive man was regressed onto mean-centered conception risk, appearance self-esteem, and the interaction term. There was a significant main effect for target man, $F(1, 401) = 232.31, p < .0001$, appearance self-esteem $F(1, 401) = 11.95, p = .0006$, the target woman by appearance self-esteem interaction, $F(1, 401) = 31.79, p < .0001$, the target man by appearance self-esteem interaction, $F(1, 401) = 16.68, p < .0001$, and the target man by target woman interaction $F(1, 401) = 5.67, p = .0177$. However, these effects were qualified by a significant 3-way interaction of target woman, target man, and appearance self-esteem, $F(1, 401) = 24.12, p < .0001$. To decompose the interaction, the simple effects of the target woman and appearance self-esteem for the attractive and unattractive man were examined. For the attractive man, there was a significant target woman by appearance self-esteem interaction, $F(1, 401) = 45.03, p < .0001$. When evaluating the extent of the commitment of the attractive man to the other woman, appearance self-esteem was positively associated with commitment, $B = 0.2803, SE = 0.0964, F(1, 401) = 8.46, p = .0038$. When evaluating the extent of the commitment of the man to the self, appearance self-esteem was more positively associated with commitment, $B = 0.7287, SE = 0.0979, F(1, 401) = 55.45, p < .0001$. That is, appearance self-esteem was associated with commitment of the attractive man for both the self and the other woman, but the magnitude of the positive association was stronger for the self (see Figure 2).
Discussion

The present findings suggest that appearance related self-esteem is associated with mating decisions when evaluating the perceived contributions and commitment from a physically attractive, and thus likely to adopt a short-term mating strategy, man. While women with higher appearance self-esteem perceived an attractive man as more willing to contribute and commit to herself and another woman, the association was stronger for the self. This suggests that women who feel better about their appearance are more likely to perceive attractive men as likely to contribute and commit to a relationship with her more so than a relationship with another woman.

Our findings did not replicate Durante et al.’s (2012) finding that women at high fertility perceive attractive men, or sexy cads, as reliable dads. In the present study, unlike previous research, conception risk was not associated with contributions or commitment. One possible explanation for the lack of fertility effects in the present study is that in the Durante et al. (2012) studies, participants took luteinizing hormone (LH) tests prior to the high-fertility session to validate ovulation. The LH tests pinpointed each participant’s day of ovulation, and this data was used to determine when participants came to the lab for their high- and low-fertility sessions. A benefit to using LH tests to validate ovulation is having the ability to ensure that participants are indeed ovulating during high-fertility sessions. Research has found that a number of women (9%) do not ovulate in a given month (Gangestad & Thornhill, 1997), and not validating whether ovulation occurred can cause misleading fertility reports from women whose cycle lengths and dates indicate they are ovulating, when in reality they are not ovulating that cycle. For the present study, inviting participants into lab to complete LH tests was not
possible given the online nature of the study. A second possible explanation for the
difference in fertility effects across studies was that conception risk was scored
differently between studies. In their third study, Durante et al. (2012) scored conception
risk categorically, following the conception probability curve. A “high fertility” group
consisted of women with a 5% or greater chance of conception at the time of the study,
and a low fertility group consisted of women with a conception risk lower than 5%. Not
included were women at the very beginning (days 1-8) or very end (days 26-28) of their
menstrual cycles. In the present study, conception risk scores were assigned to
participants using actuarial data (Wilcox et al., 2001), and rather than being placed in one
of two categories (high fertility, low fertility), each participant was given an individual
score, ranging from no risk of conception (0.00) to high risk of conception (0.094). This
difference in conception risk scoring may have contributed to the difference in results
about fertility. A third possible explanation for why the present study did not replicate
Durante et al.’s (2012) previous finding is that in studies 1 and 2, Durante et al. used a
within-subjects design which allows for better assessment of within person changes
across the menstrual cycle, while the present study used a between-subjects design. In
study 3, Durante et al. used a between-subjects design; however the present research used
a continuous measure of conception risk whereas Durante et al. categorized participants
as high or low fertility.

Though fertility levels did not significantly interact with appearance self-esteem
in women, our findings suggest appearance self-esteem influences women’s perceptions
about the attractive mate. The results show that with respect to expected contributions of
the attractive man to the self, as a woman’s appearance self-esteem increases, she
believes the attractive man will contribute more to her. Contrary to expectations, the results also show that with respect to expected contributions of the attractive man to the other woman, as a woman’s appearance self-esteem increases, she believes the attractive man will contribute more to the other woman, relative to lower appearance self-esteem.

There were similar findings with respect to expected commitment of the attractive man to the self, and to the other woman. As a woman’s self-esteem about her appearance increases, her belief that the attractive man will be committed to her and her potential offspring also increases. In addition, as appearance self-esteem increases in a woman, her belief that the attractive man will be committed to another woman also increases.

However, in both the cases of estimated contribution and estimated commitment level of the attractive man, the magnitude of the positive association is stronger for the self than for the other woman. In other words, the positive effects of appearance self-esteem on perceptions of the attractive man’s contributions and commitment are stronger for the self than for the other woman.

The finding that appearance self-esteem increases perceptions about contributions and commitments for the other woman suggests that women with high appearance self-esteem, i.e., women who feel good about their bodies, are in general more willing to rate a man’s contributions to another woman, in addition to the self, more positively, because they do not need to compensate for a negative appearance self-esteem by rating another woman on an even playing field.

The finding that women with high appearance self-esteem rate the attractive man as contributing and committing more to another woman warrants future research. A larger sample of women and a larger variety of survey items related to self-esteem about
one’s appearance may deduce what drives women’s positive reactions to the attractive man. In addition, a future study should include the validation of fertility, i.e., a study that utilizes LH testing and uses a within-subjects design to test fertility.

Increased self-esteem did not have a significant effect on the extent to which a woman believed the average-looking man would contribute or commit to either her or the other woman. In other words, higher levels of self-esteem in women only influence their perceptions about the sexy cad’s paternal investment, but not the good dad’s. This finding suggests that women who rate their appearance higher believe they have the ability to procure stronger genes for their offspring than what the average-looking man can offer them. It ultimately suggests that, regardless of fertility levels, women will pursue men with stronger genes (i.e., sexy cads) if they feel good about their appearances.
References


Figure 1. Association between appearance self-esteem and estimated paternal contributions from the attractive target.
Figure 2. Association between appearance self-esteem and estimated paternal commitment from the attractive target.