Self-Perceived Mate Value, Facial Attractiveness, and Mate Preferences: Do Desirable Men Want It All?

Evolutionary Psychology January-March 2018: 1–8 © The Author(s) 2018 Reprints and permissions: sagepub.com/journalsPermissions.nav DOI: 10.1177/1474704918763271 journals.sagepub.com/home/evp



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Abstract

Ten years ago, Buss and Shackelford demonstrated that high mate value (i.e., physically attractive) women held more discerning mate preferences relative to lower mate value women. Since then, researchers have begun to consider the equally important role of men's sexual selectivity in human mate choice. Yet, little research has focused on whether high mate value men are similarly choosy in their mate preferences. In a sample of 139 undergraduate men, relationships between self-perceived mate value as well as female-rated facial attractiveness were examined in relation to men's expressed mate preferences. Results showed that self-perceived mate value was unrelated to men's facial attractiveness as rated by women. Men who believed they were of high mate value were more likely than lower mate value men to prefer to marry at a younger age; to have a spouse who was younger than them; and to have a partner who was sociable, ambitious, high in social status, with good financial prospects, a desire for children, health, good looks, and mutual attraction. Objective male facial attractiveness was generally unrelated to heightened mate preferences, with the exception of heightened preference for similar religious background and good physical health. Findings suggest that men who perceive themselves as high in overall mate value are selective in their mate choice in a manner similar to high mate value women.

Keywords

mate value, mate preferences, facial attractiveness, individual differences, long-term mating

Date received: December 26, 2017. Revision Submitted: January 25, 2018; Accepted: February 7, 2018

Humans have been shown to alter their mating strategies and tactics according to a host of contextual factors (e.g., Arnocky, Ribout, Mirza, & Knack, 2014; Arnocky, Woodruff, & Schmitt, 2016). Individuals' mate value, or the extent to which they exhibit the qualities desired in a mate by the opposite sex, may be one such factor relevant to individuals' mating decisions. Indeed, some researchers have argued that psychological mechanisms, such as the tendency to make social comparisons (i.e., to compare oneself to [often same sex] others on important characteristics) and self-esteem (ostensibly a gauge of where one stands on important mate value characteristics; Brase & Guy, 2004), may have been selected for in part because they allow for the assessment of one's own relative mate value. In turn, one's relative mate value would then guide the use of specific mating strategies or tactics in a variety of ways. For example, women who perceive themselves to be of lower mate value (e.g., less physically attractive) relative to intrasexual rivals have been found to hold more positive

attitudes toward enhancing their own physical appearance, even if it entails health risk (Arnocky, Perilloux, Cloud, Bird, & Thomas, 2016; Hill & Durante, 2011), to exhibit more romantic jealousy, and to engage in more aggression toward both other women and romantic partners (Arnocky, Sunderani, Miller, & Vaillancourt, 2012).

Buss and Shackelford (2008) suggested that mate value is one important individual difference factor that should also guide women's mate preferences. Because few men exhibit all of the qualities that would be optimally desired in a mate, there must exist a fundamental trade-off in which of these qualities

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we prioritize in a partner (Gangestad, Garver-Apgar, & Simpson, 2007; Gangestad & Simpson, 2000). In long-term mating, women prefer indices of investment and parenting proclivities, whereas short-term mating typically entails greater prioritization of good-gene indicators, such as physical attractiveness and masculinity. However, Buss and Shackelford (2008) reasoned that due to assortative mating (10's tendency to mate with 10's and 5's tendency to mate with 5's), some particularly high mate value women ought to be able to attract men who exhibit both good-gene and good investment/parenting characteristics. Women's physical attractiveness, derived from face and body ratings made by interviewers, is an important component of female mate value (Li, Kenrick, Bailey, & Linsenmeier, 2002). In the Buss and Shackelford study, attractiveness was positively correlated with heightened mate preferences across multiple domains, including good-gene indicators such as preferring a more masculinized, sexy, and physically fit man; investment ability indicators including having good earning potential, having a college education, and being older; and good parenting indicators such as desire for home and children, fondness for children, and emotional stability. Attractiveness was also related to the good partner indicator of being loving. Similarly, Wincenciak and colleagues (2015) showed that women with healthier looking faces showed stronger concordance between their preference for men's healthy-looking faces and their actual romantic partner's rated facial health; a pattern that was not observed among men. This finding suggests that high mate value women (but perhaps not men) might not only hold more discerning mate preferences (i.e., such as for healthy male faces) but might also be better able to express those mate preferences in their actual mating relations (i.e., actually having a mate with a healthier looking face) relative to lower mate value women.

Importantly, the role of one's own mate value in guiding mating-relevant behavior is not limited to women. Bird, Carré, Knack, and Arnocky (2016) primed men with either low or high self-perceived mate value using a bogus online-dating task that purported to analyze facial attractiveness in conjunction with self-reported mate value traits (e.g., income, education, personality, and social status). In two studies, men primed with low mate value were subsequently more willing to aggressively guard their partner from an attractive mate poacher (Study 1) and to engage in more in vivo aggression against a same-sex rival (Study 2). In another priming study, Yong and Li (2012) exposed males and females to either large quantities of either money or paper, and subsequently examined their mate preferences. Results showed that men, but not women, exhibited more discerning preferences for a date when handling a large sum of money. To the extent that monetary resource availability may serve as one index of a male's mate value, it is hypothesized that men's mate value should also influence their mate preferences.

Should We Expect Men to Be Choosy?

Mammalian mate choice is widely considered to revolve around female selectivity coupled with male competition for

those choosy females. However, recent theoretical reformulations have highlighted the important roles of both male selectivity and of female intrasexual competition for mates. This is particularly relevant to human mate choice, which is somewhat unique among sexually reproducing species in that humans normally mate with some degree of monogamy and males often provide substantial parental investment of resources and care toward offspring at a cost of total reproductive effort directed toward accessing additional mates. Such "long-term" mating strategies compel males to be more selective in their mate choice and females to compete intrasexually for access to the most desirable males (see Arnocky & Vaillancourt, 2017, for review). Unsurprisingly then, research has demonstrated that men's mate preferences differ when considering a long-term versus short-term partner. For example, Regan, Levin, Sprecher, Christopher, and Gate (2000) found that whereas both men and women focused on sexual desirability (e.g., attractiveness, health, sex drive, and athleticism) when evaluating a short-term sexual partner (see also Confer, Perilloux, & Buss, 2010), both sexes were more likely to emphasize characteristics such as similarity and socially appealing personality when considering long-term mate preferences. Nevertheless, to date, little research has examined whether men's own mate value might correlate positively with their long-term mate preferences in a manner similar to what has been observed in women.

Are High Mate Value Men Choosy?

There is some evidence that men who *perceive* themselves to be high in mate value (or traits associated with mate value) are more selective with respect to desired traits in their long-term partners relative to men who view themselves as lower in mate value. Buston and Emlen (2003) had 978 heterosexual participants rate the importance of 10 attributes (across the categories of wealth and status, family commitment, physical appearance, and sexual fidelity) in a long-term partner. The participants also rated themselves on those same attributes. The authors found evidence of homophily between self-ratings and partner preferences across the categories, such that both women and men who rated themselves higher across these traits were more likely to prefer a partner who was also high on those same traits.

Similarly, Edlund and Sagarin (2010) found that in an unbudgeted mate-preference task, high self-perceived mate value corresponded with more discriminating mate preferences in a sample of men and women. However, this effect was observed only when using a single-item measure of mate value. Using a more comprehensive measure (a five-factor mate value inventory tapping various dimensions of mate value) revealed that only one of the five factors (status) related meaningfully to holding more discerning mate preferences averaged across 13 traits such as creativity, kindness, intelligence, physical attractiveness, humor, and income. Moreover, imposition of a mating "budget" largely eliminated these links. However, the relevance of such an artificial budget in and of itself appears contradictory to the hypothesis being tested, given that (1) in realworld mating scenarios not everyone is subject to the same mating "budget," in that (2) one's own mate value would presumably affect the type of mate one can "afford," such that high mate value individuals can likely obtain a mate with more overall desirable characteristics. More importantly, the Edlund and Sagarin (2010) study also involved a relatively small sample of 59 men, with another 20 participants being dropped from the analyses for various reasons (the number of those who were men was not reported). Whereas Buss and Shackelford (2008) examined a potentially more objective (other-rated) index of mate value, both the Buston and Emlin (2003) and Edlund and Sagarin (2010) studies relied solely on *self-perceived* own mate value.

The Present Study

The goal of the present study was to build upon these earlier findings by examining whether men's objective (other-rated) facial attractiveness (following Buss & Shackelford, 2008, and Wincenciak et al., 2015) or their self-perceived total mate value (following Edlund & Sagarin, 2010) correspond with heightened unbudgeted mate preferences in a sample of young men. Facial attractiveness ratings were used as an index of men's physical attractiveness because this variable (along with body and total attractiveness ratings) reliably predicted women's mate preferences in the Buss and Shackelford (2008) study. Although research has shown that women are willing to trade-off men's attractiveness for resources in the context of long-term mating, women are not averse to forming long-term relationships with attractive men (Waynforth, 2000) and will prefer to mate with attractive men if they are themselves of high mate value (Buss & Shackelford, 2008).

Previous work has shown concordance between men's facial attractiveness and other physical markers of mate value, such as vocal attractiveness as judged by female adults and adolescents, but not by female children (Saxton, Carlyle, & Roberts, 2006), as well as semen quality (Soler et al., 2003). These results suggest that men's facial attractiveness is a mate value trait detectable by, and particularly relevant to, reproductiveaged women. Moreover, Jokela (2009) has demonstrated that men's facial attractiveness (from yearbook photos) related to reproductive success such that men with low facial attractiveness were less likely to be married and had fewer children than more attractive men. Similarly, Prokop and Fedor (2011) found that in a sample of Slovakian men, facial attractiveness predicted likelihood of being married (i.e., being selected for longterm mating) and in turn, married men had higher reproductive success. Even when controlling for marriage status, facially attractive men had higher reproductive success. Rhodes, Simmons, and Peters (2005) found that men's facial attractiveness also predicted having more short-term sex partners than men with less attractive faces, suggesting that men's facial attractiveness may be one important biological indicator of men's mate value that impacts female mate choice. Following Buston and Emlen (2003) and Edlund and Sagarin (2010), we also assessed self-perceived mate value across multiple dimensions to address the possibility that self-perceived mate value may be more important than one singular physical indicator of actual mate value in driving our mate preferences. Both female-rated facial attractiveness and self-perceived mate value were examined in relation to 21 mate preferences derived from Buss (1989) which have been shown cross-culturally to serve as universal dimensions of long-term mate preference across categories of love versus status/resources, dependable/stable versus good looks/health, education/intelligence versus desire for home/children, and sociability versus similar religion (Shackelford, Schmitt, & Buss, 2005). It was hypothesized that both self-perceived mate value (Hypothesis 1) and female-rated facial attractiveness (Hypothesis 2) would each correlate positively with increased mate preferences across desirable partner characteristics, examined both individually and as an average mate-preference score. The potential influence of current relationship status upon these relationships was also examined.

Method

Participants

As part of a larger study on male and female mating psychology (see Davis, Dufort, Desrochers, Vaillancourt, & Arnocky, 2017), 139 undergraduate men aged 17–29 years (M = 20.75, SD = 2.37) were recruited from a university and college in Northern Ontario using the campus online research participation system and recruitment stations in common areas. Participants were primarily Caucasian (93.5%), followed by Black (2%), Asian (1.5%), Arab, South Asian, Native/Aboriginal, and Latin American (<1% each). Men currently in romantic relationships constituted 49% of the sample.

Materials and Procedure

Participants were led to a private and quiet testing room where they completed a counterbalanced survey package (paper and pencil) as part of a larger study on mating behavior. Following completion of the study, participants were debriefed and were remunerated with partial course credit or CAN\$5.

Self-perceived mate value. Self-perceived mate value was assessed using the Components of Mate Value Survey (CMVS; Fisher, Cox, Bennett, & Gavric, 2008). The measure consists of 22 items with response options ranging along a 7-point Likerttype scale. The CMVS incorporates items from a diverse set of mate value dimensions including sociality (e.g., "I run into friends wherever I go"), how the respondent is viewed by members of the opposite sex (e.g., "Members of the opposite sex are attracted to me"), parenting (e.g., "I would make a good parent"), wealth (e.g., "I want people to think that I am wealthy"), physical attractiveness (e.g., "I would like members of the opposite sex to consider me sexy"), relationship history (e.g., "After I date someone they often want to date me again"), and fear of romantic failure ("I often worry about not having a date"). In the present study, the measure showed good internal consistency ($\alpha = .85$).

Facial attractiveness. Facial photographs were taken using a 16 megapixel Nikon Cool Pix L830 digital camera using standardized distance and lighting and against a neutral backdrop. The photos were then rated on physical attractiveness using a 10point Likert-type scale (1 = very unattractive, 10 = very attractive) by five undergraduate women who were naive to the goal of the study. The five raters demonstrated acceptable agreement in their ratings ($\alpha = .73$).

Mate preferences. Participants completed the measure of factors involved in choosing a mate (Buss, 1989). Specifically, participants completed 3 items in which they indicated "At what age would you prefer to marry?" "What age difference would you prefer between you and your spouse?" and "Whom would you prefer to be older (self or spouse)." For the first 2 items, the age response was treated as a continuous variable, and the age preference item (self or spouse) was coded as follows: 1 =preferring self to be older than spouse and 2 = preferringspouse to be older than self. Participants then rated 18 partner traits on a 4-point Likert-type scale coded as follows: 0 =irrelevant or unimportant; 1 = desirable, but not very important; 2 = important, but not indispensable; and 3 = indispensablesable, give it. Each item was treated and examined independently as a unique trait or characteristic found in a mate. The 18 mate-preference traits were also averaged to create a total mate-preference score which demonstrated acceptable reliability in their ratings ($\alpha = .68$).

Results

First, the potential influence of relationship status upon study variables was examined using a series of independent-samples t tests. Results showed that men currently in relationships preferred to marry approximately 2 years younger (M = 27.7, SD = 7.19) than men who were not in relationships (M =29.7, SD = 2.61), t(126) = 2.10, p = .038, d = .37, and preferred less of an age difference between them and their partner (M = 1.95, SD = 1.40) compared to men who were not in relationships (M = 2.57, SD = 1.65), t(123) = 2.24, p =.027, d = .40. Men in relationships also preferred partners with higher desire for home and children (M = 2.12, SD = 0.96) relative to men who were not in relationships (M = 1.77, SD =1.10), t(134) = -1.98, p = .050, d = .34. Men in relationships desired chastity in a partner (M = 0.64, SD = 0.84) relative to men who were not in relationships (M = 0.32, SD = 0.61), t(123) = -2.34, p = .012, d = .44. Finally, men in relationships had less desire for a partner high in social status (M = 1.06, SD = 0.87) relative to men not in relationships (M = 1.45, SD = 0.81, t(134) = 2.64, p = .008, d = .46.

Given that current relationship status related to some of the mate preferences described above, the relationship between mate value indices (self-report and rated facial attractiveness) were examined both with and without controlling for relationship status. Controlling for relationship status did not yield any meaningful differences in the findings; therefore, following Buss and Shackelford (2008), only the bivariate relationships are presented. This yielded a comparison of 21 mate preferences in relation to two indices of men's mate value (i.e., 42 planned comparisons). Accordingly, multiple comparisons were corrected for using the Benjamini and Hochberg (1995) procedure with the critical value for a false discovery rate set at 0.15. This procedure did not alter the interpretation of conventional p values of less than .05 being interpreted as statistically significant. Thus, for ease of interpretation the uncorrected pvalues are reported herein.

Results showed that objective (female-rated) facial attractiveness was unrelated to men's overall perception of their total self-perceived mate value, r = -.03, p = .76, nor did it relate to CMVS subscales of men's own ratings of how good-looking they were, r = .04, p = .63, or how attractive they were to the opposite sex, r = -.05, p = .57, suggesting that the female facial ratings provided unique information about the participants' attractiveness that was potentially distinct from men's own self-perceptions. Table 1 provides bivariate correlations between the measures of mate value and men's mate preferences.

Female-rated facial attractiveness was largely unrelated to mate preferences, with the exception of similar religious background and good health-both of which were preferred more strongly by men with attractive versus less attractive faces. Facial attractiveness also correlated modestly (p < .10) with preferring a more ambitious and industrious partner. Men with high facial attractiveness also exhibited a modestly greater preference for partners who are high in ambition and industriousness. However, men with higher overall self-perceived mate value held stronger preferences for marrying younger, preferred a younger partner, as well as sociable partners with good financial prospects, desire for home and children, social status, good looks, ambition, and mutual attraction and love relative to men with lower self-perceived mate value. High self-perceived mate value among men also correlated modestly with an overall larger age difference between partners and with a preference for having a partner in good health. Both facial attractiveness and self-perceived mate value were then entered into a regression equation with total mate-preference score entered as the dependent variable. Results showed that selfperceived mate value ($\beta = .37, p = .001$) but not facial attractiveness ($\beta = .11, p = .20$) predicted higher overall matepreference score, $R_{adi}^2 = .12$ (Figure 1).

Discussion

The present study built upon established links between *women's* mate value and heightened mate preferences across broad dimensions (Buss & Shackelford, 2008) by extending preliminary findings linking *men's* mate value to their mate preferences (Buston & Emlin, 2003; Edlund & Sagarin, 2010). Specifically, both other-rated facial attractiveness (Buss & Shackelford, 2008) and self-reported mate value (Fisher et al., 2008) were examined in relation to 21 mate preferences (Buss, 1989).

	Facial Attractiveness	Self-Perceived Mate Value
Preferred age of marriage	r = .13, p = .14	r = −.32, p < .001
Preferred age difference	<i>r</i> = −.09, <i>p</i> = .30	r = .16, p = .07
Preference for younger partner	r = −.07, p = .44	<i>r</i> = −.25, <i>p</i> = .006
Good cook and housekeeper	r = .06, p = .49	r = .07, p = .45
Pleasing disposition	r = .03, p = .73	r = .07, p = .44
Sociability	r =13, p = .14	r = .37, p < .001
Similar education	r =09, p = .30	r = .08, p = .38
Refinement and neatness	r = .01, p = .96	r =08, p = .36
Good financial prospect	<i>r</i> = −.02, <i>p</i> = .79	r = .19, p = .03
Chastity (virginity)	r = .14, p = .12	<i>r</i> = −.04, <i>p</i> = .65
Dependable character	<i>r</i> = −.08, <i>p</i> = .36	r =12, p = .17
Emotional stability and maturity	r = .01, p = .94	r = .00, p = .99
Desire for home and children	r = .11, p = .22	r = .33, p < .001
Favorable social status	r =03, p = .72	r = .33, p < .001
Good looks	r = .07, p = .45	r = .36, p < .001
Similar religious background	r = .25, p = .004	r = .13, p = .14
Ambition and industriousness	r = .16, p = .07	r = .28, p = .001
Similar political background	r = .07, p = .45	<i>r</i> = −.04, <i>p</i> = .62
Mutual attraction—love	r =04, p = .65	r = .43, p ≤ .001
Good health	r = .19, p = .03	r = .15, p = .08
Education and intelligence	r =03, p = .72	r = .04, p = .64

 Table I. Correlation Coefficients Between Facial Attractiveness and

 Mate Value in Relation to Men's Mate Preferences.

Note. Bivariate correlations were all two-tailed.

Results showed a clear pattern of relations between selfperceived mate value and expressed mate preferences. First, men who believed themselves as higher in mate value reported stronger preferences for a partner who desired home and children and for marrying at an earlier age. Buss and Shackelford (2008) suggested that men who married younger would have historically been among the most reproductively successful (Symons, 1979). Following this logic, high mate value men would be most able to express this preference. To the author's knowledge, this is the first study to link perceived mate value to a desire to marry at a younger age, and thus this potentially important finding bears replication attempt in future research.

It is also unsurprising that perceivably high mate value men also desired a larger age difference between them and their partner, and more specifically to marry a partner younger than them, given that youth is a marker of fertility in women. Previous research on the Hadza (Tanzanian hunter–gatherers) has shown that men who prefer youth in a partner also prefer good looks in a partner (Marlowe, 2004). In this study, high mate value men also preferred both mutual attraction/love and a partner who was good-looking, given that physical appearance can also serve as a marker of health and/or fertility (see Arnocky et al., 2014, for review). Mutual attraction/love may



Figure 1. Scatterplot depicting the bivariate relationship between mean self-perceived mate value scores and mean mate-preference scores.

also serve to indicate likelihood or propensity of sexual access, positive treatment within the relationship, or perhaps likelihood of partner infidelity or defection.

High mate value men also desired a partner who was more sociable and had good social status. Some recent research on the Agta and the BaYaka demonstrated that women's indirect social centrality (i.e., second- and third-degree ties) correlated with them producing significantly more living offspring (Page et al., 2017). High mate value men were also more likely to prefer partners who were ambitious with good financial prospects relative to lower mate value men. Although past research has demonstrated that women on the whole prefer these traits in men, it may not be surprising that men who can afford to also express preference for these traits would do so, especially in contemporary Western society. In Canada, the number of dualincome families with children has doubled since 1976 (Statistics Canada, 2016). This trend was reported to be due in part by changes in cultural attitudes coupled with growth in women's attained education, but also necessitated by general labor market conditions (Statistics Canada, 2016). Other research on rural Caribbean villagers has shown that individuals with more resources (i.e., land) generally had better reproductive success (Flinn, 1986), and some past research has linked wealth to reproductive success (Essock-Vitale, 1984; Hopcroft, 2006), whereas other studies have not (Kanazawa, 2003). Nevertheless, it is unclear to what extent family (as opposed to individual) income might factor in to contemporary indices of reproductive success. Some quasi-experimental research has shown that increases in total household income can lead to ostensible indices of offspring quality, such as higher levels of education and lower criminality (Akee, Copeland, Keeler, Angold, & Costello, 2010). Future researchers may thus seek to identify the factors or motivations underlying men's preferences for a partner with good earning capacity.

Finally, self-perceived mate value showed a modest correlation with preference for a healthy mate. Given the importance of partner's (and particularly female) health in pathogen avoidance, providing disease resistance to offspring, and in the capacity to survive in order to rear offspring to reproductive age (see Arnocky, Pearson, & Vaillancourt, 2015; Tybur & Gangestad, 2011 for review), it is sensible that high mate value men would also express this preference more strongly than lower mate value men. Together, it appears that men's perceived mate value aligns with their mate preferences in a domain-general manner.

Conversely, female-rated physical attractiveness correlated only with preferring a similar religious background and a partner in good health, and modestly with ambition. Why would facial attractiveness, which has previously been established as a reliable mate value characteristic in men, nevertheless be relatively uncorrelated with men's mate preferences, especially given previously reported links between this variable and women's mate preferences? One possibility is that men's facial attractiveness is a much more restricted and potentially less important indicator of mate value relative to both women's facial attractiveness (Buss & Shackelford, 2008) and the diverse range of traits measured by self-report. For instance, recent evidence has demonstrated that the relationship between attractiveness and desirability as a mate likely relies on additional factors affecting an individual's mate value, such as altruism and prosociality (Ehlebracht, Stavrova, Fetchenhauer, & Farrelly, 2017). Because attractiveness, on the whole, may be less important for men relative to women being chosen as a mate (i.e., objective mate value; Todd, Penke, Fasolo, & Lenton, 2007), the fact that men's facial attractiveness related to fewer mate-preference traits may not be surprising.

One other possibility is that men's facial attractiveness is in and of itself a complex of diverse indicators such as facial symmetry, averageness, masculinity, or perhaps even femininity (see Arnocky et al., 2014; Johnston, Hagel, Franklin, Fink, & Grammer, 2001). Although attractiveness ratings were consistent across raters in the present study, it is possible that examination of the individual markers comprising male facial attractiveness might elucidate more specific links to mate preferences.

An additional explanation may be that individuals vary considerably in their ability to accurately judge their own mate value. For example, in a speed-dating paradigm, Back, Penke, Schmukle, and Asendorpf (2011) asked participants to record who they would choose as mates and who they believed would choose them as mates. The authors found that sociosexually unrestricted men, who require less emotional intimacy and love prior to entering into a sexual relationship, showed greater own mate value assessment accuracy compared to more sociosexually restricted men. Other research has also identified variability in the ability to judge specific components of own mate value, such as one's own physical attractiveness, and sex differences (females may be more accurate than males; Rand & Hall, 1983) and contextual cues (such as making social comparisons to attractive others; Cash, Cash, & Butlers, 1983) can influence such self-assessments.

In the present study, there was no link between objective (female-rated) facial attractiveness and either total selfperceived mate value or self-perceived mate value subscales relating to own attractiveness or desirability to the opposite sex. This suggests that men's self-rated desirability may vary from their actual desirability (at least in terms of physical attractiveness) to females. This is consistent with some previous research on females which has demonstrated that self-perceptions of attractiveness do not always align with objective and otherperceived evaluations (e.g., Nestor, Stillman, & Frisina, 2010). Past research has shown that ratings of attractiveness among members of the opposite sex are somewhat flexible, and can vary according to the raters' own relationship status, whereby single-relative to pair-bonded raters evaluate members of the opposite sex as more attractive (Simpson, Gangestad, & Lerma, 1990), and whether the individual being rated is known to the rater, whereby raters in leadership roles evaluate in-group subordinates as more attractive relative to other out-group leaders (Kniffin, Wansink, Griskevicius, & Wilson, 2014). Future research might benefit from considering how such individual differences and contextual variabilities in others' ratings of attractiveness might influence concordance with own ratings of attractiveness and overall mate value.

Importantly, it appears that self-perception matters more than objective reality in terms of the mate preferences men hold. This finding aligns with previous studies on the importance of self-perceived mate value in guiding both men's and women's mating-relevant behavior, such as intra- and intersexual aggression (Arnocky et al., 2012; Bird, Carré, Knack, & Arnocky, 2016). Women's self-rated attractiveness has also been linked to more discerning mate preferences, such as increased preference for masculinized male voices (Vukovic et al., 2008). Accordingly, we would expect both objective indices and other-perceptions of important mate value characteristics to potentially exert weaker influences upon mate value contingent psychological and behavioral processes relative to self-perceptions of those same characteristics. Future research examining the predictive value of self-versus other-ratings is warranted.

One additional limitation is that the present study focused only on self-rated mate preferences, rather than on overt mating decisions (i.e., the levels of mate value characteristics in individuals' actual partners). It would be worthwhile to examine whether self- versus other-rated measures of mate value correspond more strongly to these actual mating outcomes surrounding partner quality.

Conclusion

The present study demonstrated that, similar to women, men with higher self-perceived mate value exhibit more selective mate preferences across diverse characteristics in their female partners. Conversely, one other-rated indicator of men's mate value, facial attractiveness, showed fewer links to mate preferences, although it is noteworthy that of the few emergent relationships, all were in the direction of higher value men expressing more selective preferences. Future researchers should build on this work, and earlier studies (Buston & Emlin, 2003; Edlund & Sagarin, 2010) to determine (1) whether other objective markers of mate value (social status, intelligence, and income) are effective predictors of men's mate preferences and (2) whether contextual changes in self-perceived mate value can alter individuals' expectations in the realm of mate preferences.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

References

- Akee, R. K. Q., Copeland, W. E., Keeler, G., Angold, A., & Costello, E. J. (2010). Parents' incomes and children's outcomes: A quasiexperiment. *American Journal of Applied Economics*, 2, 86–115. doi:10.1257/app.2.1.86
- Arnocky, S., Pearson, M., & Vaillancourt, T. (2015). Health, anticipated partner infidelity, and jealousy in men and women. *Evolu*tionary Psychology, 13, 1–10. doi:10.1177/1474704915593666
- Arnocky, S., Perilloux, C., Cloud, J. M., Bird, B. M., & Thomas, K. (2016). Envy mediates the link between social comparison and appearance enhancement in women. *Evolutionary Psychological Science*, 2, 71–83. doi:10.1007/s40806-015-0037-1
- Arnocky, S., Ribout, A., Mirza, R., & Knack, J. M. (2014). Perceived mate availability influences intrasexual competition, jealousy and mate guarding behavior. *Journal of Evolutionary Psychology*, 12, 45–64. doi:10.1556/JEP.12.2014.1.3
- Arnocky, S., Sunderani, S., Miller, J., & Vaillancourt, T. (2012). Jealousy mediates the relationship between attractiveness comparison and females' indirect aggression. *Personal Relationships*, 19, 290–303. doi:10.1111/j.1475-6811.2011.01362.x
- Arnocky, S., & Vaillancourt, T. (2017). Sexual competition among women: A review of the theory and supporting evidence. In M. L. Fisher (Ed.), *The Oxford handbook of women and competition* (pp. 25–39). New York, NY: Oxford University Press. doi:10.1093/ oxfordhb/9780199376377.013.3
- Arnocky, S., Woodruff, N. W., & Schmitt, D. P. (2016). Men's sociosexuality is sensitive to changes in mate-availability. *Personal Relationships*, 23, 172–181. doi:10.1111/pere.12118
- Back, M. D., Penke, L., Schmukle, S. C., & Asendorpf, J. B. (2011). Knowing your own mate value: Sex-specific personality effects on the accuracy of expected mate choices. *Psychological Science*, 22, 984–989. doi:10.1177/0956797611414725
- Benjamini, Y., & Hochberg, Y. (1995). Controlling the false discovery rate: A practical and powerful approach to multiple testing. *Jour*nal of the Royal Statistical Society B, 57, 289–300. doi:10.2307/ 2346101

- Bird, B. M., Carré, J. M., Knack, J. M., & Arnocky, S. (2016). Threatening men's mate value influences aggression towards an intrasexual rival: The moderating role of narcissism. *American Journal of Psychology*, *129*, 169–183. doi:10.5406/amerjpsyc. 129.2.0169
- Brase, G. L., & Guy, E. C. (2004). The demographics of mate value and self-esteem. *Personality and Individual Differences*, 36, 471–484. doi:10.1016/S0191-8869(03)00117-X
- Buss, D. M. (1989). Sex differences in human mate preferences: Evolutionary hypotheses tested in 37 cultures. *Behavioral and Brain Sciences*, 12, 1–49. doi:10.1017/S0140525X00023992
- Buss, D. M., & Shackelford, T. K. (2008). Attractive women want it all: Good genes, economic investment, parenting proclivities, and emotional commitment. *Evolutionary Psychology*, 6, 134–146. doi:10.1177/147470490800600116
- Buston, P. M., & Emlen, S. T. (2003). Cognitive processes underlying human mate choice: The relationship between self-perception and mate preference in Western society. *Proceedings of the National Academy of Sciences of the United States of America*, 100, 8805–8810. doi:10.1073/pnas.1533220100
- Cash, T. F., Cash, D. W., & Butlers, J. W. (1983). "Mirror, mirror, on the wall...?" Contrast effects and self-evaluations of physical attractiveness. *Personality and Social Psychology Bulletin*, 9, 351–358. doi:10.1177/0146167283093004
- Confer, J. C., Perilloux, C., & Buss, D. M. (2010). More than just a pretty face: Men's priority shifts toward bodily attractiveness in short-term versus long-term mating contexts. *Evolution and Human Behavior*, 31, 348–353. doi:10.1016/j.evolhumbehav. 2010.04.002
- Davis, A., Dufort, C., Desrochers, J., Vaillancourt, T., & Arnocky, S. (2017). Gossip as an intrasexual competition strategy: Sex differences in gossip frequency, content, and attitudes. *Evolutionary Psychological Science*. doi:10.1007/s40806-017-0121-9
- Edlund, J. E., & Sagarin, B. J. (2010). Mate value and mate preferences: An investigation into decisions made with and without constraints. *Personality and Individual Differences*, 49, 835–839. doi: 10.1016/j.paid.2010.07.004
- Ehlebracht, D., Stavrova, O., Fetchenhauer, D., & Farrelly, D. (2017). The synergistic effect of prosociality and physical attractiveness on mate desirability. *British Journal of Psychology*. doi:10.1111/bjop. 12285
- Essock-Vitale, S. M. (1984). The reproductive success of wealthy Americans. *Ethology and Sociobiology*, 5, 45–49. doi:10.1016/ 0162-3095(84)90034-7
- Fisher, M., Cox, A., Bennett, S., & Gavric, D. (2008). Components of self-perceived mate value. *Journal of Social, Evolutionary, and Cultural Psychology*, 2, 156–168. doi:10.1037/h0099347
- Flinn, M. V. (1986). Correlates of reproductive success in a Caribbean village. *Human Ecology*, 14, 225–243. doi:10.1007/BF00889239
- Gangestad, S. W., Garver-Apgar, C. E., & Simpson, J. A. (2007). Changes in women's mate preferences across the ovulatory cycle. *Journal of Personality and Social Psychology*, 92, 151–163. doi: 10.1037/0022-3514.92.1.151
- Gangestad, S. W., & Simpson, J. A. (2000). The evolution of mating: Trade-offs and strategic pluralism. *Behavioral and Brain Sciences*, 23, 675–687. doi:10.1017/S0140525X0000337X

- Hill, S. E., & Durante, K. M. (2011). Courtship, competition, and the pursuit of attractiveness: Mating goals facilitate health-related risk taking and strategic risk suppression in women. *Personality and Social Psychology Bulletin*, 37, 383–394. doi:10.1177/ 0146167210395603
- Hopcroft, R. L. (2006). Sex, status, and reproductive success in the contemporary United States. *Evolution and Human Behavior*, 27, 104–120. doi:10.1016/j.evolhumbehav.2005.07.004
- Johnston, V. S., Hagel, R., Franklin, M., Fink, B., & Grammer, K. (2001). Male facial attractiveness: Evidence for hormone-mediated adaptive design. *Evolution and Human Behavior*, 22, 251–267. doi:10.1016/S1090-5138(01)00066-6
- Jokela, M. (2009). Physical attractiveness and reproductive success in humans: Evidence from the late 20th century United States. *Evolution and Human Behavior*, 30, 342–350. doi:10.1016/j.evolhumbehav.2009.03.006
- Kanazawa, S. (2003). Can evolutionary psychology explain reproductive behavior in the contemporary United States? *The Sociological Quarterly*, 44, 291–302. doi:10.1111/j.1533-8525.2003.tb00559.x
- Kniffin, K. M., Wansink, B., Griskevicius, V., & Wilson, D. S. (2014). Beauty is in the in-group of the beholded: Intergroup differences in the perceived attractiveness of leaders. *The Leadership Quarterly*, 25, 1143–1153. doi:10.1016/j.leaqua.2014.09.001
- Li, N. P., Kenrick, D. T., Bailey, M., & Linsenmeier, J. A. W. (2002). The necessities and luxuries of mate preferences: Testing the tradeoffs. *Journal of Personality and Social Psychology*, 82, 947–955. doi:10.1037//0022-3514.82.6.947
- Marlowe, F. W. (2004). Mate preferences among Hadza huntergatherers. *Human Nature*, 15, 365–376. doi:10.1007/s12110-004-1014-8
- Nestor, M. S., Stillman, M. A., & Frisina, A. C. (2010). Subjective and objective facial attractiveness: Ratings and gender differences in objective appraisals of female faces. *Journal of Clinical and Aesthetic Dermatology*, *3*, 31–36. Retrieved from https://www.ncbi. nlm.nih.gov/pmc/articles/PMC3013552/
- Page, A. E., Chaudhary, N., Viguier, S., Dyble, M., Thompson, J., Smith, D., . . . Migliano, A. B. (2017). Hunter-gatherer social networks and reproductive success. *Scientific Reports*, 7. doi:10.1038/ s41598-017-01310-5
- Prokop, P., & Fedor, P. J. (2011). Physical attractiveness influences reproductive success of modern men. *Journal of Ethology*, 29, 453–458. doi:10.1007/s10164-011-0274-0
- Rand, C. S., & Hall, J. A. (1983). Sex differences in the accuracy of self-perceived attractiveness. *Social Psychology Quarterly*, 46, 359–363. doi:10.2307/3033724
- Regan, P. C., Levin, L., Sprecher, S., Christopher, F. S., & Gate, R. (2000). Partner preferences: What characteristics do men and women desire in their short-term sexual and long-term romantic partners? *Journal of Psychology & Human Sexuality*, 12, 1–21. doi:10.1300/J056v12n03_01
- Rhodes, G., Simmons, L. W., & Peters, M. (2005). Attractiveness and sexual behavior: Does attractiveness enhance mating success?

Evolution and Human Behavior, 26, 186–201. doi:10.1016/j.evolhumbehav.2004.08.014

- Saxton, T. K., Carlyle, P. G., & Roberts, S. C. (2006). Vocal and facial attractiveness judgments of children, adolescents and adults: The ontogeny of mate choice. *Ethology*, *112*, 1179–1185. doi:10.1111/ j.1439-0310.2006.01278.x
- Shackelford, T. K., Schmitt, D. P., & Buss, D. M. (2005). Universal dimensions of human mate preferences. *Personality and Individual Differences*, 39, 447–458. doi:10.1016/j.paid.2005.01.023
- Simpson, J. A., Gangestad, S. W., & Lerma, M. (1990). Perception of physical attractiveness: Mechanisms involved in the maintenance of romantic relationships. *Journal of Personality and Social Psychology*, 59, 1192–1201. doi:10.1037/0022-3514.59.6.1192
- Soler, C., Núñez, M., Gutiérrez, R., Núñez, J., Medina, P., Sancho, M., ... Núñez, A. (2003). Facial attractiveness in men provides clues to semen quality. *Evolution and Human Behavior*, 24, 199–207. doi:10.1016/S1090-5138(03)00013-8
- Statistics Canada. (2016). The rise of the dual-earner family with children. *Statistics Canada Labour Force Survey: 1976 to 2015*. Retrieved December 23, 2017, from http://www.statcan.gc.ca/pub/ 11-630-x/11-630-x2016005-eng.htm
- Symons, D. (1979). The evolution of human sexuality. New York, NY: Oxford University Press.
- Todd, P. M., Penke, L., Fasolo, B., & Lenton, A. P. (2007). Different cognitive processes underlie human mate choices and mate preferences. *Proceedings of the National Academy of Sciences of the United States of America*, 104, 15011–15016. doi:10.1073/pnas. 0705290104
- Tybur, J. M., & Gangestad, S. W. (2011). Mate preferences and infectious disease: Theoretical considerations and evidence in humans. *Philosophical Transactions of the Royal Society of London, Series B: Biological Sciences*, 366, 3375–3388. doi:10.1098/rstb.2011. 0136
- Vukovic, J., Feinberg, D. R., Jones, B. C., DeBruine, L. M., Welling, L. L. M., Little, A. C., & Smith, F. G. (2008). Self-rated attractiveness predicts individual differences in women's preferences for masculine men's voices. *Personality and Individual Differences*, 45, 451–456. doi:10.1016/j.paid.2008.05.013
- Waynforth, D. (2000). Mate choice trade-offs and women's preference for physically attractive men. *Human Nature*, 12, 207–219. doi:10.1007/s12110-001-1007-9
- Wincenciak, J., Fincher, C. L., Fisher, C. I., Hahn, A. C., Jones, B. C., & DeBruine, L. M. (2015). Mate choice, mate preference, and biological markets: The relationship between partner choice and health preference is modulated by women's own attractiveness. *Evolution and Human Behavior*, 36, 274–278. doi:10.1016/j.evolhumbehav.2014.12. 004
- Yong, J. C., & Li, N. P. (2012). Cash in hand, want better looking mate: Significant resource cues raise men's mating standards. *Personality and Individual Differences*, 53, 55–58. doi:10.1016/j.paid. 2012.02.018