My, but we are Impressive! Mate Value Enhancement in Romantic Relationships

Jason E. Piccone and Glenn J. Scheyd, Jr.

Nova Southeastern University

Key words: mate value, romantic relationships, enhancement, error management theory, sociometer, social perception

Abstract

Self and close other enhancement is a pervasive phenomenon. The current studies apply the enhancement motive to self and romantic partner perceptions of mate value. Forty romantic couples (study 1) reported perceptions of self and partner on several mate value relevant traits. In addition, raters gauged participants' mate values based on video interviews. Raters demonstrated strong agreement on all observed traits. Participants rated themselves and their partners significantly more positively than the raters on all measured traits. In addition, participants rated themselves and their romantic partners as far above average on all mate value qualities. In study 2, participants placed more importance on traits for which they perceive their romantic partners highly on. No evidence was found, however, that people expect the opposite sex to place more importance on traits on which they perceive themselves to rate highly. We conclude that the enhancement motive applies strongly to perceptions of self and partner mate value. The self-enhancement of mate value is explained in accordance to error management theory, where the error of overestimating the self is asymmetrical to the error of failing to pursue optimal mates.

My, but we are Impressive! Mate Value Enhancement in Romantic Relationships

Men and women reliably pair up with romantic partners of a mate value similar to their own (Buss, 2003; Buss & Barnes, 1986). This phenomenon of assortative mating is a logical result of the balance between finding a partner possessing desirable qualities and mitigating the risks of wasted courtship efforts and partner defection (Penke, Todd, Lenton, & Fasolo, 2007). The manner in which people view their mate value is an important step in this process and can be explained in part according to the sociometer theory (Kirkpatrick & Ellis, 2004; Leary & Baumeister, 2000). The sociometer theory, as applied to mate value, suggests that people tune their mate value self-perceptions as they experience success and failure in their romantic lives. The processes of self and intimate other perception, however, are often imbued with bias. In particular, people tend to see themselves and their intimate partners in a positive light, where their strengths are highlighted and their deficiencies are minimized (Sedikides & Gregg, 2008; Taylor & Brown, 1988). The current studies explore the accuracy of people's self and partner mate value perceptions, in comparison with third-party raters and shed insight upon the interplay between coupling and biased perceptions. In accordance with the principles of error management theory (Haselton & Buss. 2000), we argue that these perceptual biases serve an adaptive purpose in facilitating reproductive success.

Mate Value and Assortative Mating

Mate value is "the total sum of characteristics an individual possesses at a given moment and within a particular context that impacts on their ability to successfully find, attract, and retain a mate" (Fisher, Cox, Bennett & Gavric, 2008, p. 14). This value is a composite of qualities related to reproductive success, such as physical attractiveness, material resources, and perceived parenting ability (Waynforth, 2001). Some qualities universally indicate potential for

reproductive success – such as a desirable personality (e.g. kind, intelligent, emotionally stable) and preferred physical traits (e.g. attractiveness, youth) (Buss, 1989). Other qualities vary by sex. For instance, financial success, earning potential, and traits related to relationship commitment are more valued by women (Buss & Barnes, 1986), and physical attractiveness and youth are more valued by men (Feingold, 1992; Waynforth & Dunbar, 1995).

Individuals' mate value determines the breadth of available mating options. For example, a person with a relatively high mate value should be able to secure a mate of high value. Given stable conditions, people are quite good at finding partners who possess a similar mate value (Johnstone, 1997). Mating with partners who differ significantly in mate value is a less effective reproductive strategy. For instance, pursuing a partner with a superior mate value increases the risk of wasted effort and defection (Buss, 2003). For men, this means investing time and resources securing a mate who does not reciprocate this interest or who ends up leaving and an increased risk of unknowingly investing resources in raising children who are not their own genetic offspring (Buss, 2002). Women who partner with men of superior mate value experience increased risk of being abandoned and shouldering the burden of child rearing alone. Thus, individuals with lower mate value tend to display more mate retention strategies – such as displays of possession (Buss & Shackelford, 1997), insecurity (Phillips, 2010) and partner directed insults (Miner, Shackelford, & Starratt, 2009). Men and women who partner with individuals below their mate value invest time and resources in a partner who lacks qualities that they could obtain if they paired with their mate value equal (Back, Penke, Schmukle, & Asendorpf, 2011). Individuals with a greater mate value, relative to their romantic partners, tend to display fewer mate retention strategies (Buss & Shackelford, 1997), more indignation

(Phillips, 2010), and are more likely to become dissatisfied with their partner and end the relationship (Hill, Rubin, & Peplau, 1976).

Assortative mating is important to successful long term romantic relationships. One major complexity to the study of this process, however, is that perceptions of mate value can vary widely. For instance, people often engage in self-enhancement, where perceptions of the self are positively skewed. In addition, people also engage in close-other enhancement, such as the positively skewed perceptions of romantic partners. This study seeks to gain further insight in the interplay between self and close other enhancement among romantic couples.

Mate Value Perceptions

The mate value sociometer. According to sociometer theory (Leary & Baumeister, 2000; Leary, Haupt, Strausser, & Chokel, 1998) self-esteem serves as a monitor for social inclusion and exclusion. It is proposed that the sociometer is an evolved mechanism that helps people to calibrate their social status and successfully maintain interpersonal relationships. The sociometer can be applied to many aspects of the self-esteem system (Kirkpatrick & Ellis, 2004), including intelligence and athletic skill (Leary, Tambor, Terdal, & Downs, 1995), and relevantly for our current purposes, mate value (Bale, 2013; Kirkpatrick & Ellis, 2001). The mate value sociometer is calibrated through mating-related experiences, such as the success and failures in mating attempts and interactions with the opposite sex. It serves to facilitate the maintenance of one's romantic relationships. For example, an individual who is repeatedly refused by members of the opposite sex may calibrate his mate value lower, and thus pursue relationships with appropriately valued individuals. Kavanagh, Fletcher, and Ellis (2014) manipulated acceptance vs. rejection from attractive opposite sex confederates and found the expected result of increased state self-esteem in the case of acceptance compared with rejection. Similarly, Pass, Lindenberg

and Park (2010) found that while a rejection decreased state self-esteem, it had no effect on participant perceptions about their qualities as mates. This suggests that while a romantic rejection has a clear and negative short term effect on self-esteem, negative changes in self-perceived traits are not evident, at least in the short term.

The mate value sociometer is an important element in human mating since, as we discussed, pairing with an appropriately valued mate is important to optimal reproductive success. How one views him or herself is a key component in determining whom they attempt to partner with. People who experience success with the opposite sex tend to increase their aspiration level (Kavanagh et al., 2014), thus seeking out higher valued mates (Kenrick, Groth, Trost, & Sadalla, 1993; Penke & Denissen, 2008; Kirsner, Figueredo, & Jacobs, 2003). While the mate value sociometer is tuned to the romantic experiences of acceptance and failure, like most self-perceptions, it is subject to self-enhancement (Leary et al., 1998; Leary et al., 2000).

Enhancement of mate value perceptions. In some contexts people are motivated towards verifying their existing self-concepts (Swann, Pelham, & Krull, 1989) or an accurate self-assessment (Trope & Bassok, 1982); however, people, at least in most Western cultures, are particularly motivated toward illusory positive self-views (Kurt & Paulhus, 2008; Sedikides & Gregg, 2008; Taylor & Brown, 1988). People emphasize the importance of their strengths while they de-emphasize the importance of their weaknesses (Campbell, 1986). Most people also rate themselves as better than the average person on positive traits (Alicke, 1985). The motive to self-enhance also applies to qualities relevant to mate value. For instance, people enhance important elements of mate value, such as being virtuous and compassionate (Brown, 2007), attractive (Epley & Whitchurch, 2008) and intelligent (Hansford & Hattie, 1982) (see Dunning, Heath, & Suls, 2004 for a review). People also perceive themselves as more desirable than the

opposite sex actually finds them. Back et al. (2011) measured mate value perception accuracy by having each participant rate how often they thought they would be selected by a member of the opposite sex (expected mate value) in a speed dating paradigm, compared with how often they actually were selected (actual mate value). Both men and women demonstrated relatively low accuracy in their perceived mate value accuracy ($r = .16$ and $r = .12$, respectively).

Adaptive mechanisms of mate value enhancement. Error management theory (EMT) proposes that natural selection favors a particular set of judgments in conditions of uncertainty, such as when the benefits of cognitive biases can outweigh the costs (Haselton & Buss, 2000). Haselton and Buss (2000) and Haselton (2003) explore this, for instance, in the context of men over-perceiving women's actions as demonstrating sexual interest. EMT proposes that the cost of a false-positive, for example in men interpreting that a woman is showing interest when in fact she is not, is low compared with the cost of failing to detect a true-positive, or not noticing when a woman is in fact showing interest. The costs of these two potential errors are asymmetrical, therefore predicting a bias towards the first error. Haselton and Nettle (2006) apply this theory to several well-established perceptual biases, including unrealistically positive self-views, the illusion of control, and unrealistic optimism.

In a similar vein, self-perceptions of mate value are subject to an adaptive bias. The potential costs of a false positive, or inflating perceptions of your mate value, may result in "aiming too high" and thus being rejected by a potential mate. On the other hand, the potential true positive of having an inflated view of your mate value and thus securing a high value mate, is a considerable benefit. As discussed above, aiming too high is not adaptive as the chance of success would be far too small and the resultant cost of reduced self-esteem and wasted effort would be detrimental to reproductive success. The optimal outcome is to secure many mates (for

men engaged in short-term mating strategies) or to secure a mate who is at least equal to, or slightly superior to oneself (for men and women in long term mating strategies). Indeed, people are typically interested in potential romantic partners who are at least equal to, or slightly higher than the self in perceived mate value (e.g., Lee, Loewenstein, Ariely, Hong & Young, 2008). We argue that this is adaptive because the discrepancy in mate value between romantic partners is not so great as to predict dissatisfaction on the part of the higher-valued mate, yet the lower-valued mate benefits from securing a mate with maximal reproductive qualities. Due to the variability in mate preferences (Botwin, Buss, & Shackelford, 1997), it is possible that a mate who is objectively above one's own mate value will perceive the match as equal, and thus the chance of a defection is mitigated.

Maintaining a positive or enhanced mate value perception should be adaptive because it increases the chance of securing an optimally favorable mate. This enhancement should not be so great, however, as to lead an individual to expend efforts trying to secure (or retain) mates who are likely to reject them.

Perceptions of Romantic Partner Mate Value

In many ways accurately assessing a romantic partner appears to be a logical aim. As discussed above, partnering with others of similar mate value is important in successful mating – as discrepancies in mate value among romantic partners increase the likelihood of defection for the lower valued mate or a failure to maximize genetic/parental quality for the higher valued mate. Additionally, if potential mates are attempting to secure a mate of equal or greater mate value, people should be particularly wary of settling on an inferior mate.

Initially, people are quite accurate in assessing each other, especially for physical qualities such as attractiveness. Lee et al. (2008) used data from hotornot.com to determine if

people's own attractiveness level affected their choice in dates (based on the dates' attractiveness). They found that people of similar attractiveness tended to agree to dates with each other, but also that people who are less attractive (such as those who were below average) tended to see their dates' attractiveness levels accurately (in accordance with other raters) – thus people were accurate in their self-assessments, regardless of their actual attractiveness level. But most romantic partnerships occur after people have known each other for some time (Afifi & Faulkner, 2000; Manning, Giordano & Longmore, 2006). It is possible, then, that matches are formed by people who happen to value each other's unique qualities, and as people get to know each other, they engage in a mutual other-enhancement where they come to hold each other in higher regard.

While it is advantageous to accurately assess a potential mate before engaging in romantic pursuits, once a long term mating strategy is adopted, then positive partner perceptual biases are adaptive. When in a committed relationship, one should be less interested in finding a superior mate and more interested in developing/maintaining a successful relationship (Finkel & Eastwick, 2015). Partner enhancement is consistently found and it is associated with a myriad of beneficial outcomes, including: relationship satisfaction (Lemay & Clark, 2008; Murray, Holmes, & Griffin, 1996a), relationship quality (Barelds & Dijkstra, 2011), happiness, and security in the relationship (Van Lange & Rusbult, 1995), as well as relationship longevity (Murray & Holmes, 1997) (see Vazire & Solomon, 2014 for a review, and Swann, De La Ronde, & Hixon, 1994 for an exception).

People tend to engage in partner enhancing cognitions. This enhancement is associated with many positive outcomes and seems to benefit the health of the relationship. Most measures of partner enhancement, however, consist of ratings of an individual compared to the ratings by

their romantic partner. This study provides additional insight by comparing partner evaluations with the evaluations of third-party raters.

The Current Research

The present research further explores the nature in which individuals enhance their own and their romantic partners' mate value. In study 1, enhancement is observed through a comparison of perceptions from romantic couples and the perceptions of third-party raters. We also test whether partner enhancement increases along with the duration of the relationship. Further, we test the degree of importance that participants and raters place on several mate value relevant traits. Study 2 examines whether participants weight qualities on which they and their romantic partners are strong as more important, which could be one explanation for how people come to self and partner enhance their sense of overall mate value.

Study 1

Most studies that explore the accuracy of self and close other mate value perceptions also note the methodological limitation of self-report reliance. Mate value is typically examined from a participant's own self-perception (e.g., Brase & Guy, 2004; Campbell & Wilbur, 2009; Ellis, Simpson & Campbell, 2002; Kenrick et al., 1993; Regan, 1998). Some studies have examined congruency between self-perceptions of mate value and perceptions by others. Eastwick and Hunt (2014, study 2) had participants rate themselves and opposite sex peers at the beginning and the end of a semester on various mate value qualities and they had (study 3) several close acquaintances of targets report their mate value perceptions of a target individual. Results in both studies indicated a modest correlation between participants' self-perceptions and others' views of them. Relationship variance accounted for a significant portion of opposite sex mate value perceptions. In other words, a great deal of the variability in mate value perceptions is dependent

upon the relationship between target and perceiver. Hunt, Eastwick and Finkel (2015) had raters judge each member of a couple separately for physical attractiveness and sexiness (combined to a single score) and found a moderate relationship among couples (r = .38).

To our knowledge, no studies have compared a broad set of perceptions related to mate value from the perspectives of the self, romantic partner, and third-party raters. The current study does this with the intentions of examining the degree of self and partner enhancement that people in romantic relationships engage in. Specifically, we set forth the following hypotheses:

H1: Participants will inflate mate value perceptions of themselves and their romantic partners relative to the third-party raters.

H2: Participants will enhance their partners' overall mate-value more in relation to the raters the longer they have been in the relationship.

H3: In accordance with assortative mating, raters will indicate a close overall mate value match among romantic partners.

H4: Raters and male participants will indicate greater weight for physical attractiveness for women; raters and female participants will indicate greater weight for wealth/income potential variables (intelligence, ambition, financial prospects) and attributes related to relationship commitment and willingness to invest in offspring (such as kindness and responsibility) for men.

Method

Participants

Forty-four heterosexual romantic couples were recruited from undergraduate psychology courses. Any couple who was involved in a committed romantic relationship was qualified to participate. Two homosexual couples as well as two couples that we suspected were not

romantically involved were excluded from all analyses, resulting in a final sample of 40 couples. At least one member of each couple was an undergraduate student seeking credit for a psychology course. Participant ages ranged from 18 to 52 with a mean of 22.08 (*SD* = 7.02). The average relationship length was 25.28 months (*SD* = 30.82) ranging from 1 to 204 months. Participants identified as Caucasian (35.4%), Hispanic (34.1), Black/African American (12.2%), Asian (11.0%) and other or unidentified (7.3%).

Materials

Biographical questionnaire. Participants were asked to complete questions regarding their age, sex, ethnicity, weight, and height.

The Big-5 (short). The ten-item, shortened version of the Big-5 assessment measures agreeableness, conscientiousness, openness to experience, neuroticism, and extraversion on a five (1 = strongly disagree, 5 = strongly agree) point scale (Rammstedt & John, 2007).

Romantic experiences and options. The revised Sociosexual Orientation Inventory (SOI-R) (Penke & Asendorpf, 2008; Simpson & Gangestad, 1991) is a 9-item scale that assesses sexual history (e.g. "With how many different partners have you had sex within the past 12 months?") and the willingness to engage in sexual relationships (e.g. "Sex without love is okay").

Mate value perceptions. Participants responded to 17-items from the scale developed by Kirsner et al. (2003) to measure perceptions of mate value. Participants completed this scale for their own and of their partners' mate value. Traits that participants rated included: ambitious, attractive face, attractive body, desires children, enthusiastic about sex, faithful to partners, financially secure, generous, good sense of humor, healthy, independent, intelligent, kind and understanding, loyal, responsible, sociable, and emotionally stable. Participants responded on a 7-point scale. In addition, participants rated themselves and their partners' overall mate value.

They were instructed to rate themselves (and their partner) on a 10-point scale (1 = not very desirable, 10 = very desirable) in relation to students of similar age and sex from this school.

Sense of humor. We adopted a humor creation method, as proposed by Edwards and Martin (2010). Participants were asked to write as many funny captions in ten minutes to five illustrations chosen from the New Yorker's caption contest, to be rated by at least three experimenters on a 10-point Likert-type scale. Prior to writing their own captions, participants viewed an example photo with captions drawn from the winning submissions to the New Yorker.

Empathy. Empathy was measured on an 8-item short form (Loewen, Lyle & Nachshen, n.d.; Wakabayashi et al., 2006) with a 4-point response scale. Example items include, "I am good at predicting how someone will feel" and "I am quick to spot someone feeling awkward".

Video Recording Device:

Apple iPads were used to record the interview portion of the session.

Interview Questions and Prompts:

1. "Do you think you and your romantic partner are a good match? In what ways?"
2. "What are your career and future plans?"
3. "How would you describe your family background?" (e.g. middle class, open, strict, loving, raised by two parents)
4. "Are you creative or artistic? How so (e.g. paint, music, etc.)?"
5. "Do you have a lot of friends? Close friends? Invitations for social engagements? Do you find it easy to get along with people/comfortable in social situations?"

Procedure

Romantic couples were recruited via an online participant tracking system. Romantic couples were defined as those having a committed romantic relationship of any duration. Upon

arrival to the laboratory, the premise of the study was explained to the participants as an attempt to further understand factors that contribute to relationship perceptions and satisfaction. Participants were offered course credit for their participation.

After completing and returning the written consent form, participants were separated and led to private rooms to complete the questionnaire and interview. Participants were reassured that their data would not be shared with their romantic partners. The questionnaire took approximately 30 minutes to complete while the video-recorded interview was typically less than 10 minutes. Video cameras were focused to capture the face and torso of each participant. The interview portion of the study was meant to code elements of the participants' mate value that could reasonably be assessed in a short interview. These impressions constituted the third source of perceptions (in addition to self and partner) and included ambitious, responsible, financial prospects, physical attractiveness (face and body), sociable and overall mate value. Interview questions were designed to encourage participants speaking freely and prompts were used when necessary when participants failed to provide adequate information. Upon completion, participants were debriefed and thanked for their time. Videos were later coded by three or more members of the research team. Interrater correlations for these attributes ranged from a low of .886 (attractive face) to a high of .958 (overall mate value). Observer ratings were averaged to form a single value for each of the seven scores for each participant. In addition, a composite score was generated based on the raters' evaluations of participants' humor responses.

Results

Missing Data

Fifteen percent of the participants did not report ratings of their own overall mate value, whereas only 2.5% failed to report their partners' overall mate value. The participants who did

not provide ratings (n = 12) of their own overall mate value differed significantly from participants providing these values (n = 68) in that they reported having more sexual partners, foreseeing having more sexual partners in their lifetime, they self-reported lower faithfulness, kindness/understanding, and sociability, and they scored lower on self-reported empathy (see Table 1). These participants did not differ on any other self-reported measures, including conscientiousness. This differential reporting is a concern as overall mate value perception is a primary outcome; however, these individuals did not differ significantly on any attribute as assessed by their partners or the raters.

Table 1

Differences between Participants Missing vs. Not Missing Data for Self-Perceived Mate Value

	Missing Data	Not Missing Data
	M (SD)	*M (SD)*
How many sexual partner in your life?	7.25 (6.00)	3.74 (3.57)*
How many sexual partners do you foresee having?	9.58 (10.56)	4.81 (4.48)*
Self-perceived "faithful"	6.00 (1.25)	6.68 (0.87)*
Self-perceived "kind and understanding"	5.60 (0.97)	6.47 (0.82)**
Self-perceived "sociable"	4.80 (1.40)	5.80 (1.07)**
Empathy summary score[a]	17.17 (4.41)	14.46 (3.24)*

*$p < .05$ **$p < .005$

[a] Lower scores correspond with greater empathy

Mate Value Ratings by Perceiver

We hypothesized that participants' ratings of their own and their romantic partners' mate value would be significantly higher than perceptions by the raters (H1). A mixed multivariate analysis of variance (MANOVA) was computed with couple as the unit of analysis, perceiver (self, partner, raters) as a between subject variable, and sex (male or female partner) as a within subjects variable. Dependent measures consisted of the eight attributes for which all three rater sources provided scores: ambitious, attractive face, attractive body, financial prospects, sense of humor, responsible, sociable, and overall mate value. Levine's test for homogeneity of variance was violated in the following dependent variables: female ambitiousness, financial prospects, and responsibility as well as male sociability, financial prospects, humor, and responsibility. Brown-Forsythe F and Welch's F adjustments indicate that this did not affect the observed outcome. Nevertheless, with moderate concerns about the test assumptions being met, we adjusted the critical alpha level for the omnibus MANOVA test to .01.

A significant multivariate effect was found by perceiver, Wilks $\Lambda = .174$, F (16, 198) = 17.311, $p < .001$, $\eta_\rho^2 = .583$. Univariate tests by perceiver indicate significant differences on all eight attributes. The raters scored participants significantly lower than how individuals saw themselves on all of the qualities; in addition, raters scored participants' partners significantly lower on all attributes in comparison with how participants viewed their partners. Table 2 presents means and standard deviations for these attributes by sex and perceiver. The multivariate effect for sex was not statistically significant, Pillai's V = .143, F (8, 99) = 2.059, $p > .01$, $\eta_\rho^2 = .143$, indicating no differences in perceptions on the eight traits by men and women. Finally, a significant interaction between rater and sex was found, Wilks $\Lambda = .683$, F (16, 198) = 2.60, $p < .01$, $\eta_\rho^2 = .174$. Univariate analyses indicate that men saw their romantic partners as lower on sociability than these women saw themselves, whereas women tended to see their

romantic partners as more sociable than these men saw themselves, F (2, 106) = 5.00, $p < .01$, $\eta_\rho^2 = .086$. In addition, women saw themselves as more responsible than their partners, and men saw their partners as more responsible than they (the men) saw themselves, F (2, 106) = 4.50, $p < .01$, $\eta_\rho^2 = .090$.

Table 2

Mean Attribute Ratings by Perceiver and Sex of Target

	Women	Men	Total
	M (SD)	*M (SD)*	*M (SD)*
Ambitious*			
Self	6.23 (0.97)	5.97 (0.96)	6.09 (0.98)
Partner	5.88 (1.38)	6.18 (1.04)	6.01 (1.23)
Raters	4.71 (0.90)	4.57 (0.91)	4.66 (0.91)
Attractive Body*			
Self	4.90 (1.45)	5.17 (1.39)	5.13 (1.41)
Partner	6.03 (1.10)	6.18 (1.15)	6.09 (1.13)
Raters	4.08 (1.34)	4.21 (1.22)	4.11 (1.26)
Attractive Face*			
Self	5.37 (1.27)	5.53 (0.82)	5.47 (1.05)
Partner	5.98 (1.14)	6.43 (0.78)	6.19 (1.01)
Raters	4.17 (1.38)	4.03 (1.03)	4.08 (1.02)
Financial prospects*			
Self	5.40 (1.32)	4.67 (1.58)	5.12 (1.46)
Partner	5.33 (1.85)	5.43 (1.36)	5.31 (1.61)

Raters	4.60 (1.02)	4.25 (0.92)	4.43 (0.99)
Humor*			
Self	5.97 (1.25)	6.57 (0.63)	6.26 (0.96)
Partner	6.35 (1.08)	6.13 (0.91)	6.16 (1.05)
Raters	3.65 (1.27)	3.80 (1.29)	3.67 (1.29)
Responsible*			
Self	6.50 (0.63)	6.00 (1.34)	6.22 (1.08)
Partner	6.08 (1.46)	6.58 (0.55)	6.32 (1.13)
Raters	4.59 (0.96)	4.48 (0.88)	4.56 (0.93)
Sociable*			
Self	5.87 (1.11)	6.03 (0.89)	5.74 (1.17)
Partner	6.38 (0.98)	5.50 (1.34)	5.92 (1.26)
Raters	4.66 (1.04)	4.58 (1.07)	4.61 (1.04)
Overall Mate value*			
Self	7.97 (1.35)	8.03 (1.22)	8.00 (1.23)
Partner	8.53 (1.11)	8.20 (1.51)	8.37 (1.34)
Raters	6.12 (1.61)	5.96 (1.58)	6.00 (1.59)

Notes. Attributes are scored on a 1-7 scale except for overall mate value (1-10).

* $p < .001$.

Men and women inflated their overall mate value perceptions relative to the raters to similar degrees. For men, 77.1% viewed themselves higher, 14.3% viewed themselves equal to, and 8.6% viewed themselves less than the perceptions of the raters compared with 75%, 15.6%

and 9.4% of women, amounting to an average increase (relative to the raters) of 30.23% and 34.73% for women and men, respectively.

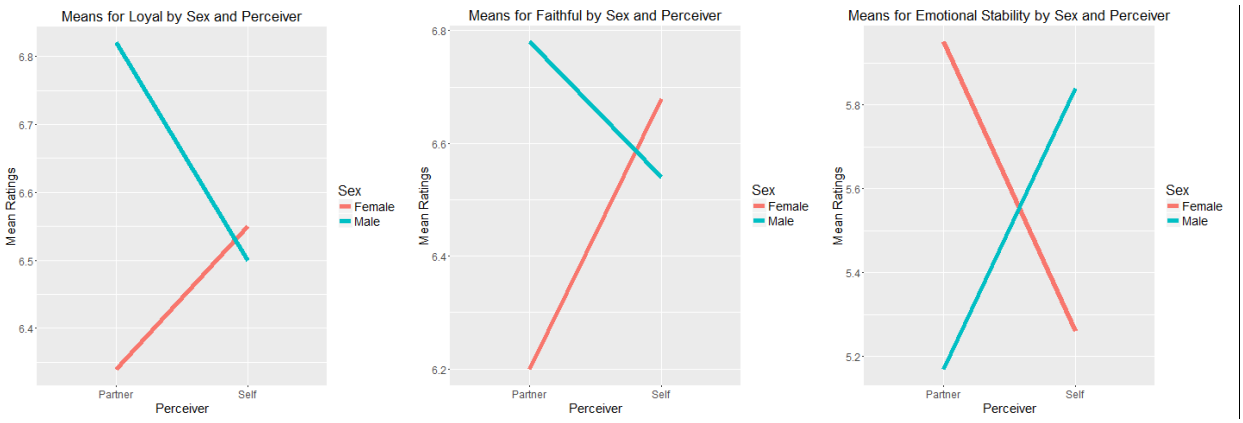
These analyses support the hypothesis that participants will inflate their own and their partners' mate value, relative to the raters. Indeed, raters perceived participants significantly lower than participants and their partners across all eight of the dimensions tested. According to the raters, the average of the 7 traits was 4.30 (on a 7-point scale), with a low of 3.67 for humor and a high of 4.66 for ambitious, and the overall mate value mean was 6.00 (on a 10-point scale). On the other hand, participants viewed themselves quite favorably. For the overall 10-point scale (M = 8.00), no participant rated him- or herself below a 5, and 97.1% rated themselves as above a 5. Similarly, the lowest score assigned for one's partner was 5 (n = 2), with the other 97.4% scoring above 5 (M = 8.37). A comparable pattern was present for all of the individual mate value qualities.

For the qualities for which raters did not provide responses, a 2 (self-partner) X 2 (male-female) mixed MANOVA was computed. The dependent variables included kind, loyal, intelligent, desires kids, faithful, generous, healthy, independent, and emotionally stable. Results indicate no multivariate effect of rater source (self vs. partner), Pillai's V = .177, F (9, 70) = 1.68, $p > .01$, $\eta_\rho^2 = .177$, or sex: Pillai's V = .090, F (9, 70) = .768, p > .05. $\eta_\rho^2 = .090$. A significant interaction between the source of the ratings and the sex of the participant was found, Pillai's V = .308, F (9, 70) = 3.47, $p < .001$, $\eta_\rho^2 = .308$. Univariate effects indicate significant differences among the traits of loyal: F (1, 78) = 4.14, $p < .05$, $\eta_\rho^2 = .050$, faithful: F (1, 78) = 4.91, $p < .05$, $\eta_\rho^2 = .059$, and emotionally stable, F (1, 78) = 12.11, $p < .001$, $\eta_\rho^2 = .134$. Men rated themselves and their partners significantly lower in faithfulness and loyalty than the

women. In addition, women saw themselves and their partners significantly lower in emotional stability than men (Figure 1).

Figure 1

Perceptions of Loyal, Faithful and Emotional Stability by Self and Partner



Partner Enhancement by Relationship Length

A linear mixed effects model (Barr, Levy, Scheepers & Tily, 2013; Gelman & Hill, 2007) was computed in the lme4 package (Bates, Machler, Bolker, & Walker, 2015) of R (2013) to determine if relationship length predicts the difference score between participants' perceptions of their partner and the raters' perceptions of their partners. The range of values on the difference variable was from -2.00 to 7.25, with a mean of 2.41, with six participants rating their partner lower than the raters, five equal to the raters, and 67 above the raters. Inspection of the bivariate scatterplot indicated a linear relationship between relationship length and the mate value discrepancy score. Some couples had greater leverage in the analysis as their relationship length was far longer than the average. These extreme scores were closely in line with the regression line, however, so they did not exert high influence on the model. Each member of a couple is considered nested, so couples are included as the random effect. Relationship length was

included as the only fixed effect. The significance level is generated by likelihood ratio tests of the full model against the null model where the fixed effect is withheld. No other models were compared due to the simplicity of the hypothesis and the limited sample size. Residual plots indicated no clear deviations from normality or homoscedasticity. Relationship length was associated with increased partner inflated mate value ($\varkappa^2$ (1) = 4.89, p < .05). The random effect for couple had an intercept and residual variance of 1.27 and 2.32, respectively (r^2 = .354). The fixed effect (relationship length) had an intercept of 1.87 (SE = 0.35) and slope of .022 (SE = .01, r^2 = .080), indicating that for every month the couple have been together, the partner's overall mate value is inflated by an additional .022 points, relative to the raters.

Assortative Mating as Assessed by the Raters

Hypothesis 3 predicted that raters would find a close match in mate value among romantic couples. A within subjects MANOVA was computed with the male and the female of each couple as the independent variable and the eight dependent variables, as assessed by the raters only, of ambitious, attractive face, attractive body, financial prospects, sense of humor, responsible, sociable, and overall mate value. The results were not-significant, Pillai's V = .249, F (8, 31) = 1.29, p > .05, η_ρ^2 = .249, indicating that raters indeed viewed members of the couples comparably on the eight mate value dimensions. Correlation analyses indicated that couples were rated similarly across six of the eight traits measured (see Table 3).

Table 3

Trait Similarity within Romantic Couples as Assessed by the Raters

Trait	*r*
Ambitious*	0.36
Attractive Face*	0.31

Attractive Body*	0.32
Financial Prospects**	0.42
Humor	0.12
Responsible**	0.41
Sociable	0.20
Overall**	0.47

* $p < .05$ ** $p < .01$

Trait Importance According to Self, Partner, and Raters

It was further predicted (H4) that raters and men would indicate greater weight for the physical attractiveness of women and that raters and women would indicate a greater weight for wealth/income potential (intelligence, ambition, financial prospects) and attributes related to relationship commitment and willingness to invest in offspring (faithful, generous, emotionally stable and responsible) for men. Random forests were computed as an exploratory analysis to determine which variables contributed most to overall mate value assessments. Random forests involve creating a series of bootstrapped classification or regression trees where a random sample of potential predictors is chosen at each split and the individual trees are combined for an overall model (Breiman, 2001; James, Witten, Hastie, & Tibshirani, 2013). The random sampling of predictors at each split of the trees is a serious advantage because it removes biases involved in the order in which predictors are normally entered into an analysis. Random forests are additionally ideal with the current data because they handle cases where the number of predictor variables is high and the sample is small. Random forests are also effective in determining the importance of each predictor variable. Variable importance is determined by the

relative increase in prediction error from the exclusion of each predictor (Strobl, Malley, & Tutz, 2009).

The number of trees included in each of the following random forest analyses is 500, while the number of predictors considered at each split is optimized to generate the strongest model. Analyses are computed in R (2013), utilizing the random forest package (Liaw & Wiener, 2002).

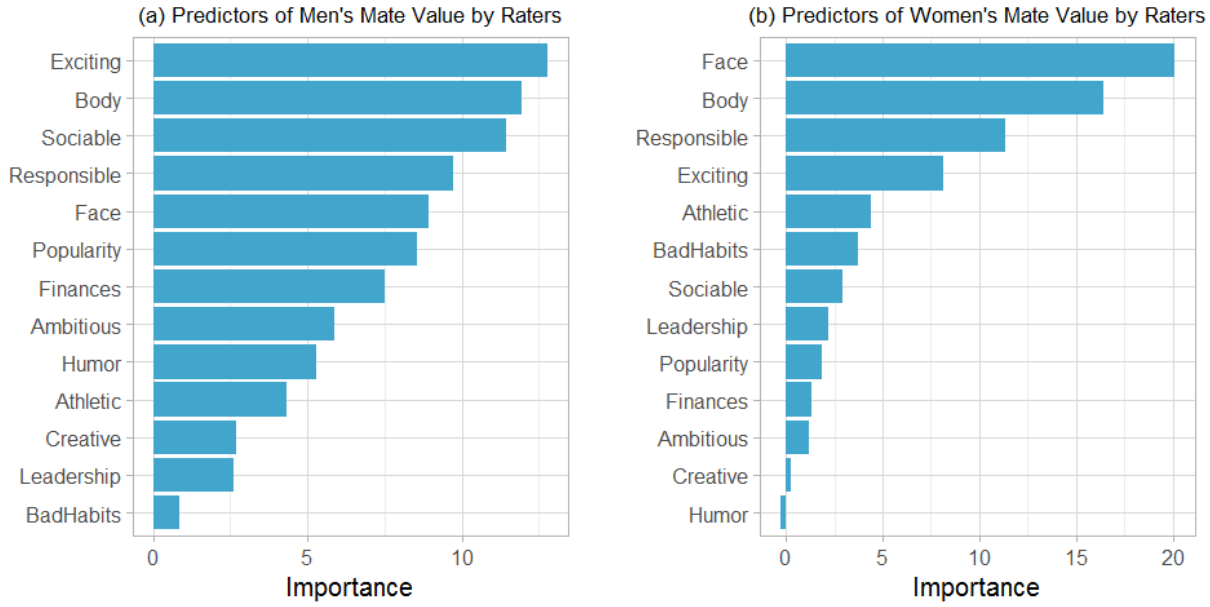
The following predictors were included in predicting overall mate value by the raters: ambitious, athletic, attractive body, attractive face, creative, exciting personality, financial prospects, popularity, sense of humor, responsibility, and sociable. The model based on the male participants produced a pseudo R^2 (1 – mse/var(y)) = 78.90. With the exception of athletic, creative, leadership, and bad habits, all of the variables contributed meaningfully (we are using values of five or over as a cutoff for meaningful variables) to the model (Figure 2a). For female targets, the model produced a pseudo R^2 = 79.83, where the variables of face, body, responsible, and exciting contributed meaningfully to the model (Figure 2b). Note that some variable importance measures are negative, indicating variables that detract from the effective prediction of the outcome variable.

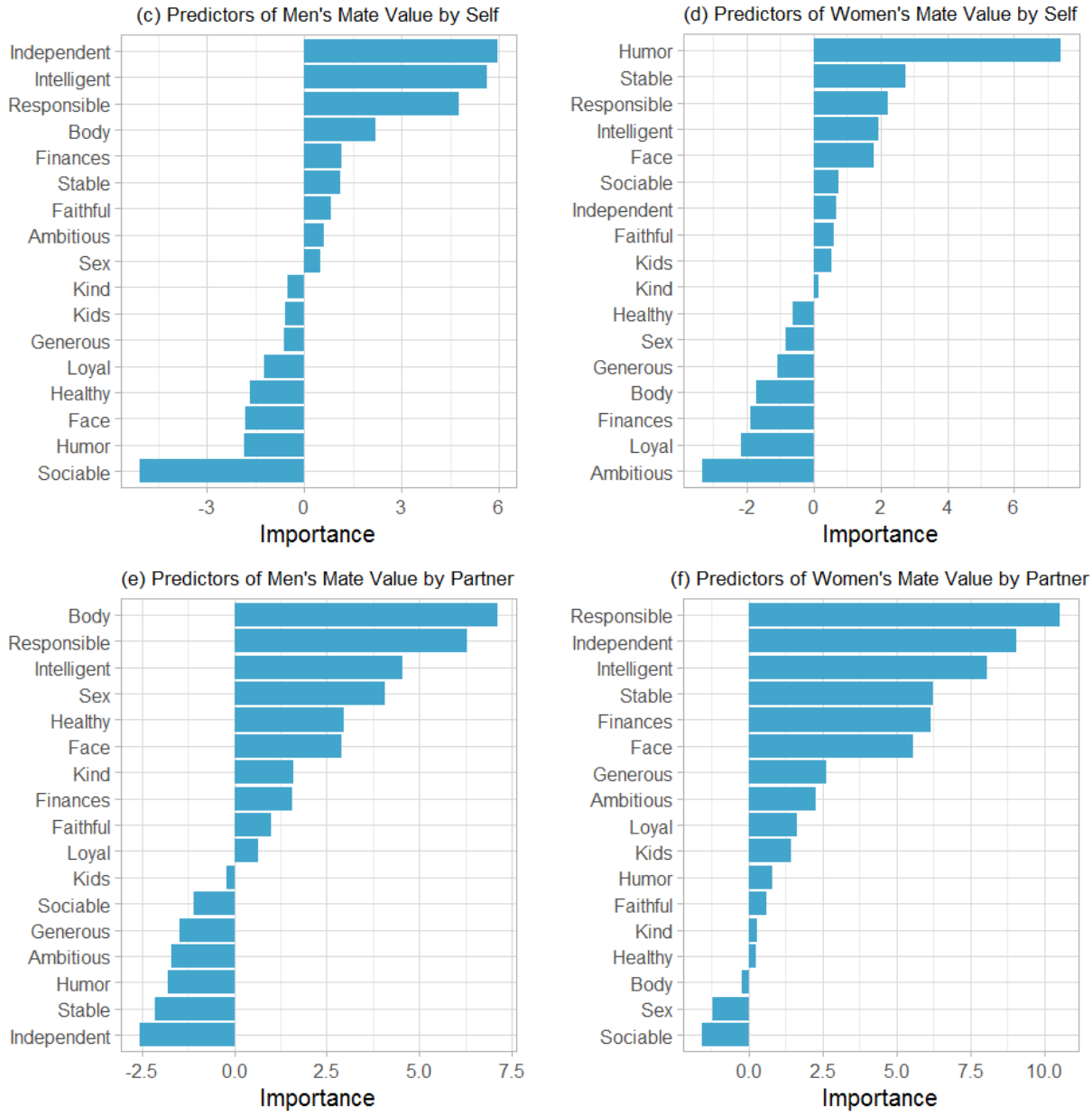
For the next four random forest analyses where participants rated themselves and their partners, the following variables were included in predicting overall mate value: ambitious, attractive body, attractive face, desires kids, emotionally stable, enthusiastic about sex, faithful, financial prospects, generous, good sense of humor, healthy, independent, intelligent, kind/understanding, loyal, responsible, and sociable. Men, as rated by themselves, produced a pseudo R^2 = .20. As can be seen in Figure 2c, only independent and intelligent emerged as marginally meaningful predictors. Similarly for women rating themselves, the overall model produced a pseudo R^2 = - 4.9, with only humor emerging as a meaningful predictor (Figure 2d).

The model of men as rated by their significant others produced a pseudo $R^2 = 7.51$, where only body and responsible emerged as meaningful predictors (Figure 1e). Finally, the model of women as rated by their significant others produced a pseudo $R^2 = 41.54$, where responsible, independent, intelligent, emotionally stable, financial prospects, and attractive face were meaningfully predictive (Figure 2f).

Figure 2

Importance of Variables Predicting Overall Mate Value by Raters (a-b), Self (c-d), and Partner (e-f)





Judgments by the raters are highly in line with H4. Attractive face and body was weighted heavily for women, and a broad range of variables were selected for men, centering on financial prospects, attractiveness, and personality qualities related to ability and willingness to parent. Models involving self-ratings or ratings of romantic partners are weak and fail to demonstrate clear trends.

Exploratory Analyses

People are generally more motivated to avoid negative self-definitions than they are to enhance positive ones (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001), thus we expected that the self-enhancement motive is especially strong for individuals who possess a low mate value. A regression analysis with raters' overall mate value scores predicting the discrepancy between the raters and self-reports of overall mate value indicate a negative linear relationship such that the lower the raters' scores, the greater the discrepancy between raters and self-perceptions, F (1, 65) = 84.71, $p < .001$, $\eta_\rho^2 = .56$. The other 7-traits (ambitious, attractive face, attractive body, financial prospects, humor, responsible and sociable) demonstrated similar and significant ($p < .001$) results, but are omitted for brevity. Table 4 groups participants according to the quartile in which raters perceived their overall mate value with the associated mean rater and self-perceived values. This demonstrates a large enhancement effect, especially for participants who were ranked in the lower quartiles. This effect must to some extent result from a ceiling effect – that is, the participants in the upper quartile only had, on average, 2.87 points to "enhance", or to reach a perfect "10". Nevertheless, they still had room to enhance significantly and yet hardly did so.

Table 4

Self-perceived Mate Value Enhancement by Raters' Overall Mate Value Quartiles

Quartile	Mean Rater Mate Value	Mean Self Mate Value	% Score Increase
1st	3.72	7.93	113.17
2nd	4.88	8.00	63.93
3rd	5.75	7.55	31.30
4th	7.13	7.75	8.70

We computed similar analyses to determine if people coupled with individuals of low mate value will engage in a greater degree of partner-enhancement. A regression analysis was computed with raters' overall mate value scores of individuals' partners predicting the discrepancy between the raters and the individuals' perceptions of their partners, F (1, 75) = 80.72, $p < .001$, $\eta_\rho^2 = .51$. Again, the other 7-traits demonstrated similar and significant ($p < .001$) results. The degree of partner enhancement closely matched that of self-enhancement.

While the raters generally perceived similarities within each couple (overall mate value within couples $r = .468$, $p < .01$), deviations from assortative mating did occur. We computed a difference score within each couple for overall mate value as determined by the raters (see Table 5). Correlational analyses indicate that the more the male possesses mate value over the female, the more likely they are currently in a sexual relationship ($r = .376$, $p < .05$), the more women are likely to have sexual fantasies about people they just met ($r = .358$, $p < .05$), the less easy women believe it would be to find a short term sex partner ($r = -.334$, $p < .05$), the more men have had one-night stands ($r = .449$, $p < .01$), and the more likely men would report a willingness to cheat on their current partner, if their partner was not very exciting ($r = .365$, $p < .05$).

Table 5

Couple Mate Value Discrepancy by Raters

Mate value Discrepancy	Frequency	%
Female +3	1	2.5
Female +2	9	22.5

Female +1	5	15.0
None	10	25.0
Male +1	8	20.0
Male +2	3	7.5
Male +3	2	5.0
Male +4	1	2.5

Study 1 Discussion

This study is consistent with past research (e.g. Buss & Barnes, 1986; Keller, Thiessen, & Young, 1996) that people partner with others of similar mate value. This was supported both by the equivalence among romantic couples as indicated by the raters' observations, and by the congruence between perceptions of self and of one's romantic partner. It was also found that people tended to engage in substantial self and partner enhancement, relative to the raters. This enhancement occurred across all of the measured traits and the overall mate value index. Additionally, this enhancement was greater in magnitude for individuals and individuals' partners who possessed lower mate value scores by the raters. The fact that not one of the 80 participants rated themselves or their partners as below average is consistent with Baumeister, Tice, and Hutton (1989), who showed that self-esteem scores tend to be distributed from medium to very high, with hardly any participants scoring below the conceptual mid-point. We also found that as an extension of the work of Eastwick and Hunt (2014), relationship length is positively correlated with partner enhancement.

One strength of this study is that we compared self and partner perceptions with raters on multiple traits. Most studies focus on the traits for which consensus is more easily attained, such as physical attractiveness. Personality qualities are usually avoided because making judgments on such qualities requires more intimate knowledge of an individual and these judgments are more subject to interpretation. We are confident in the raters' perceptions of participants on these less overt traits since the interviews were rich enough in detail for the raters to make fair assessments. Further, the patterns of ratings were consistent across all of the domains measured. For instance, the degree of self and partner enhancement for physical attractiveness mirrored the degree of enhancement for the non-physical attributes such as ambition and financial prospects.

The couple ratings by the raters followed the hypothesized directions. Raters perceived couples in accordance with assortative mating, where (with the exception of humor and sociable), they viewed individuals within relationships similarly. Raters also weighted the importance of individuals' traits in accordance with past research. That is, they found fertility-relevant traits (attractive face and body) as particularly important for women's overall mate value and they found qualities related to genetic health (attractive face and body), financial prospects/ambition, and parental quality (responsible) important for men. On the contrary, no meaningful trends were discovered for importance ratings for participants rating themselves or their partners. We suspect that people tend to weight qualities that they and their partners are strong on as more important while downplaying the importance of qualities in which they and their partners are not as strong. This would be in line with other research regarding self-serving processing, indicating, for example, that people develop theories that their unique qualities are predictive of positive outcomes while also believing that their negative qualities are less relevant (Dunning, 2015; Kunda, 1987).

Study 2

While study 1 was able to show that people engage in significant self and partner mate value enhancement, it was unable to fully address how people weight the various elements of mate-value in considering their overall mate value. For example, people tend to place greater weight on attributes for which they personally excel and devalue attributes on which they are weak (Campbell, 1986; Harackiewicz, Sansone, & Manderlink, 1985). In close-other enhancement, people also tend to emphasize the importance of their partners' strengths while de-emphasizing the importance of their weaknesses. If that is the case, then it would explain why we found no meaningful patterns in the analyses predicting overall mate value self-perceptions from self-perceptions of the individual traits and for the same analyses regarding perceptions of romantic partners. That is, participants may have weighted traits which they and their partners were strong on, which resulted in null findings since these perceptions varied within our sample. Study 2 assesses whether people in fact do weight their strengths and their partners' strengths as more important to their overall mate value. In addition, since study 1 only assessed mate value perceptions of romantically involved couples, study 2 explores whether single people report similar levels of mate value as people in committed romantic relationships. According to the sociometer theory (Leary, 1999; Leary et al., 1995), we would expect that people in relationships generally receive more positive feedback from the opposite sex (from their romantic partners) and would thus rate their mate value higher than single people. Study 2 addresses the following hypotheses:

H1: Participants will predict that members of the opposite sex will rate traits the participants see themselves highly on as important in a potential long-term mate.

H2: Participants will rate their romantic partners highly on traits that they (the participants) rated as important in a long-term mate.

H3: Participants in romantic relationships will rate themselves more positively than single participants.

Method

Participants

Seventy seven undergraduate students taking psychology courses were recruited to participate in exchange for course credit. Four participants were removed for excessive missing data, resulting in a total sample of seventy two (fifty five women and seventeen men). Participant ages ranged from 18 to 36 with a mean of 21.25 (*SD* = 3.67). Participants identified as Caucasian (30.6%), Hispanic (33.3), Black/African American (20.8%), Asian (8.3%) and other or unidentified (7.0%). Three participants identified as bi-sexual (4.2%), two as homosexual (2.8%), sixty-six as hetereosexual (91.7%), and one (1.3%) did not provide a response. Thirty two participants (44.4%) were in committed romantic relationships.

Materials

Biographical questionnaire. Participants were asked to complete questions regarding their age, sex, ethnicity, relationship status, and sexual orientation.

Mate value perceptions. Participants responded to the Kirsner et al. (2003) scale, which measured perceptions of their mate value for the following traits on a 7-point scale: ambitious, attractive body, attractive face, desires children, enthusiastic about sex, financially secure, generous, good sense of humor, healthy, independent, intelligent, kind and understanding, loyal, responsible, sociable, and emotionally stable. In addition, participants again answered a single

item regarding their perception of their overall mate value compared to students of similar age and sex from this school, from 1 (lowest) to 10 (highest). Participants who indicated being in a committed romantic relationship also answered these questions in relation to their perceptions of their romantic partner.

Mate value importance. Participants rated the degree to which they found the traits (as measured in the Kirsner scale) as important to themselves, when looking for a long-term romantic partner, and the degree to which they thought these traits were important to someone of the opposite sex looking for a long-term partner. Importance was assessed for each of the traits on a scale from 1 (not at all important) to 9 (extremely important).

Procedure

This study was approved by the university institutional review board for research with human subjects. Students signed up for this study via an online participation recruitment system. The study was advertised as a self-perception questionnaire and students were offered course credit for their participation. Participants completed the questionnaire online through SurveyMonkey. After consenting to participate, participants were presented with materials in the following order: (a) biographical questions, (b) importance of traits to the opposite sex looking for a long-term mate, (c) importance for traits to you in looking for a long-term mate, (d) self-perceived mate value, and for participants who indicated they were currently in a committed relationship, (e) mate value perceptions of one's romantic partner. The total time to complete the study averaged approximately ten minutes.

Results

Weighting of Mate Value Traits for Self and Partner

Table 1 presents the mean responses for self-perceptions in addition to the importance that participants expected the opposite sex to place on each of the traits. Note that for ease of interpretation, the importance ratings were converted from 9 to 7 point scale for this table and Table 2 only. The overall mate value perceptions remain on a 1-10 scale. The hypothesis (H1) that participants weight their self-perceived traits according to what they expect is important to the opposite sex was tested via a random forest analysis. Each self-perceived trait was multiplied by the importance rating (how important participants predicted each trait was to the opposite sex) to generate an interaction term that was then input into the random forest analysis, predicting self-perceived overall mate value. This analysis was carried out on the entire sample since we did not predict sex-based differences. The model failed to effectively predict overall mate value based on the self-perceived trait-trait importance interaction terms, pseudo R^2 = - 0.54, with none of the predictor variables contributing meaningfully to the model. To test the hypothesis (H2) that participants weighted traits as important for which they viewed their romantic partners positively, we again computed a random forest with the interaction terms of perceptions for each partner trait by the importance that participants rated each trait for a potential mate predicting partners' overall mate value. The analysis indicated a pseudo R^2 = 42.71 with body, face, emotionally stable, healthy, and ambitious emerging as meaningful predictors (see Figure 1a and 1b for variable importance).

Table 1

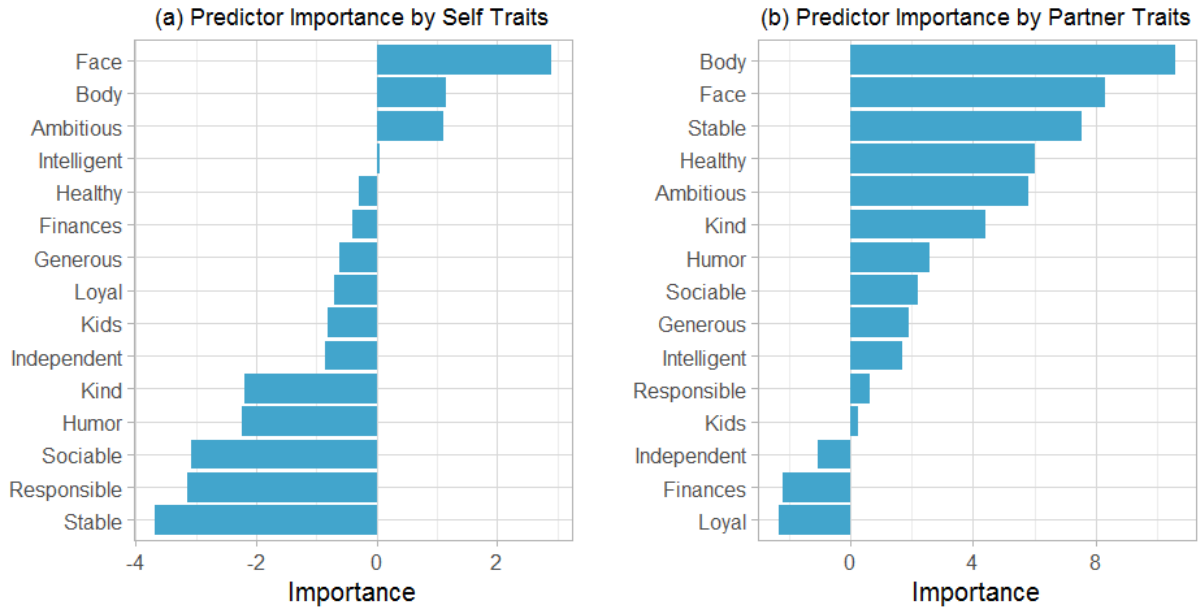
Mean Ratings of Trait Perceptions and Importance by Sex

	Self-Ratings		Important for Opposite Sex	
	Men	Women	Men	Women
Trait	*M (SD)*	*M (SD)*	*M (SD)*	*M (SD)*

Ambitious	5.29 (0.92)	5.64 (1.28)	5.71 (1.21)	5.98 (1.26)
Attractive Body	4.41 (1.37)	4.91 (1.06)	5.62 (0.85)	5.81 (1.07)
Attractive Face	5.06 (1.25)	5.22 (1.00)	6.12 (0.96)	5.95 (1.00)
Desires children	5.12 (1.41)	4.85 (2.04)	5.67 (1.53)	5.12 (1.76)
Emotionally Stable	5.29 (1.10)	5.25 (1.42)	5.58 (1.26)	6.46 (0.85)
Enthusiastic about sex	4.29 (1.57)	4.80 (1.66)	5.03 (1.44)	5.74 (1.48)
Financially secure	4.71 (1.53)	4.47 (1.57)	5.21 (1.70)	6.22 (1.18)
Generous	5.41 (0.94)	5.51 (1.32)	5.62 (1.15)	5.98 (1.24)
Good sense of humor	5.53 (1.42)	5.74 (1.15)	6.03 (0.78)	6.40 (0.88)
Healthy	5.25 (1.53)	5.64 (1.21)	5.85 (1.31)	6.36 (0.94)
Independent	5.24 (1.39)	5.67 (1.48)	5.16 (1.45)	6.19 (1.13)
Intelligent	5.59 (0.94)	5.67 (1.20)	5.67 (1.03)	6.38 (0.92)
Kind and understanding	6.12 (1.22)	6.07 (1.12)	6.17 (0.99)	6.47 (0.99)
Loyal	5.94 (1.25)	6.40 (0.85)	6.63 (0.83)	6.95 (0.60)
Responsible	5.53 (1.50)	6.07 (1.20)	6.26 (0.89)	6.64 (0.90)
Sociable	5.12 (1.73)	5.18 (1.56)	5.67 (1.13)	6.01 (1.10)

Figure 1

Importance of Variables Predicting Overall Mate Value for Self (a) and Partner (b)



Self-perceptions and Relationship Status

We predicted (H3) that individuals in romantic relationships would rate themselves as possessing higher mate value than single participants. While the current study lacks third-party raters' perceptions, it can at least determine if self-perceptions differ between single and committed individuals. A MANOVA was computed with the Kirsner scale traits as the dependent variables and whether the individual was in a committed relationship or not as the independent variable. The test was statistically significant, Pillai's V = .627, F (16, 67) = 1.94, $p < .05$, $\eta_\rho^2 = .373$. Univariate tests indicate a significant difference only on the traits of emotionally stable and responsible (see Table 2).

Table 2

Self-perceptions across Traits and Relationship Status

	Single$_a$	In a Relationship$_b$

Trait	*M (SD)*	*M (SD)*
Ambitious	5.45 (1.30)	5.69 (1.09)
Attractive Body	4.88 (1.07)	4.69 (1.26)
Attractive Face	5.20 (1.09)	5.16 (1.02)
Desires children	4.55 (1.97)	5.38 (1.74)
Emotionally Stable*	4.92 (1.42)	5.69 (1.12)
Enthusiastic about sex	4.28 (1.60)	5.19 (1.58)
Financially secure	4.33 (1.72)	4.78 (1.31)
Generous	5.33 (1.23)	5.69 (1.03)
Good sense of humor	5.80 (1.20)	5.53 (1.22)
Healthy	5.53 (1.30)	5.56 (1.27)
Independent	5.53 (1.43)	5.62 (1.52)
Intelligent	5.67 (1.07)	5.62 (1.24)
Kind and understanding	5.95 (1.28)	6.25 (0.92)
Loyal	6.15 (1.08)	6.47 (0.80)
Responsible*	5.60 (1.37)	6.38 (1.04)
Sociable	5.08 (1.70)	5.28 (1.46)
Overall	7.17 (1.32)	7.06 (1.56)

* $p < .05$

[a] n = 40 [b] n = 32

Study 2 Discussion

Contrary to our predictions, expectations of the opposite sex's trait importance did not interact with participants' self-views in predicting overall mate value self-perceptions. While this

seems to contradict past research (e.g., Campbell, 1986; Harackiewicz, et al., 1985), we suspect alternative explanations. One possibility for this finding is that most people are aware of what the opposite sex desires, but still weight their own strengths as more important (and weaknesses unimportant). Another explanation is that people engage in a blind and somewhat method-less self-enhancement where they simply see themselves as above average without the need for justification. We found support for hypothesis 2, that participants will rate the qualities for which their romantic partners were strong as important. The interaction term between participants' ratings of importance by the traits of attractive body, attractive face, emotionally stable, healthy, and ambitious significantly contributed to predicting partners' overall mate value. While this hypothesis was supported, we are unable to determine if people weight traits on which they view their partners highly as more important, or if people simply secure romantic partners who possess desired qualities.

The third hypothesis, that participants in romantic relationships would view themselves as more desirable was marginally supported. While the omnibus MANOVA test was statistically significant, the only traits for which people in relationships rated themselves higher than single people were emotionally stable and responsible. It is noteworthy that participants in study 1 perceived themselves to be of higher overall mate value ($M = 8.00$) than participants in relationships in study 2 ($M = 7.06$), $t(152) = -4.74$, $p < .001$. There was no significant difference in ratings of one's partner between study 1 ($M = 8.37$) and study 2 ($M = 8.19$). It is possible that a self-selection bias occurred as couples willing to arrive together to answer questions about their relationship differed from those agreeing to participate online where the study was advertised as a survey of their self-perceptions. It is notable that the men in this study didn't report the belief that women preferred potential mates with financial resources (or the capacity to earn). Their

scores for the importance of being financially secure, intelligent and ambitious were near the midpoint across traits. Similarly, women didn't seem to think that physical attraction was particularly important to men, with their ratings of importance for attractive face and attractive body falling below the midpoint. This is in contrast to Campbell and Wilbur (2009, study 1), who had participants rate themselves on 24 dimensions of mate-value. Results demonstrated that men and women both rated qualities of a desirable personality (honest, kind, and warm) as important to their self-concepts; however, men rated qualities associated with status as more important to their self-concept whereas women tended to rate qualities associated with their attractiveness as important.

General Discussion

Overview of Findings

This paper explored the extent to which people engage in self and romantic partner mate value enhancement. To our knowledge, no studies have examined several mate value relevant traits across the perceptions of individuals, their romantic partners, and third party observers. Results indicated that individuals rated themselves and their partners significantly higher than the raters across all of the traits measured. Additionally, no participant rated themselves or their partners as below average on overall mate value, and the average scores that people assigned for themselves and partners on all traits far exceeded the midpoint (i.e. population average) of the scales used. We found little evidence of partner enhancement when comparing a target person's self-perceptions against the perceptions of the target by their romantic partner. It appears that romantic partners engage in comparable self and partner enhancement relative to the raters. These results differ from studies by Murray and colleagues (Murray, et al., 1996a, 1996b) who

found that people did enhance their romantic partners in comparison to how their partners rated themselves. Murray et al. (1996a) found that partner enhancement was linked to the hopes and ideals of the perceiver. The higher the hopes and ideals of the perceiver, the more the perceiver reported enhanced views of the partner. In addition, the more the perceiver (of dating, but not married couples) possessed a positive self-image, the more they enhanced their partner.

The raters in study 1 found a high degree of assortative mating among the romantic couples. Overall mate value among romantic couples was correlated at r = .47. Additionally, participants were rated similarly across all of the measured traits. Attractiveness correlations among couples were .31 and .32 for face and body – lower than the .39 for attractiveness found in a meta-analysis by Feingold (1988). Raters also rated the importance of individual traits along predications made by evolutionary theory (Buss, 1989; Buss & Barnes, 1986; Waynforth & Dunbar, 1995). For instance, the traits of attractive face and attractive body significantly predicted women's overall mate value. The traits of attractive face and body as well exciting personality, sociable, popular, responsible, financial prospects and ambition predicted men's overall mate value.

Study 2 found modest evidence that people weight their romantic partners' strengths as important. The interaction terms between participants' assessment of trait importance in a mate and perceptions of romantic partners on the traits of attractive body, attractive face, emotionally stable, healthy, and ambitious contributed to predicting perceptions of overall partner mate value. It is unclear with the current data, however, whether people actively secure mates with traits that they highly value, or if people come to weight their partners' strengths over time (or the combination of both). We found no support that people weight their own strengths as more important when evaluating their overall mate value.

These studies have implications regarding the sociometer theory (Leary & Baumeister, 2000), as it applies to mate value. If being in a relationship generally counts as positive feedback regarding one's mate value perceptions, such evidence was scarce. We found that individuals in relationships viewed themselves as higher than single participants on the traits of emotional stability and responsible. No difference was found, most notably, on ratings of overall mate value. But it is also possible that people not in committed relationships receive equal degrees of positive feedback from the opposite sex. Some people choose to remain single, enjoy flirting, short-term mating, or simply receive plenty of positive feedback from the opposite sex. We might even predict a bimodal distribution such that single individuals of low mate value receive negative feedback (they are single, have no mate offers and receive little positive feedback from the opposite sex) whereas single individuals of high mate value receive the most positive feedback through interest from the opposite sex in addition to the fact that being single means that their availability as a mate could increase their number of suitors. Participants tended to rate themselves about the same, regardless of their rater-defined overall mate value. That is, people tended to rate themselves in the top 80% percentile, which is at odds with past research that indicates a degree of self-awareness as people tend to approach potential mates who are similarly attractive (Lee et al., 2008).

Why would people, especially those with low mate value, enhance their self-perceptions? Men and women adopt conditional mating strategies, depending upon their individual attributes (Trivers 1972), that may be adopted consciously or unconsciously (Gangstad & Simpson, 2000). Variations in self-perception accuracy could relate to a conditional mating strategy because a complete awareness of one's mate value (particularly for individuals with a below average mate value) does not necessarily facilitate reproductive success. As mentioned above, EMT (Haselton

& Buss, 2000; Haselton & Nettle, 2006) provides a reasonable explanation. EMT argues that when two types of error are asymmetrical, or one is more costly than the other, that there will be a bias to avoid the more costly error. In the current context, erring on the side of self-enhanced mate value perceptions results in pursuing optimally valuable mates. Securing a mate who possesses a slightly greater mate value is beneficial for the obvious reason of obtaining superior reproductive quality. The risk of partner defection can also be mitigated due to both a constraint on the enhancement (this would not be productive if people engaged in massive degrees of self-enhancement) and the variability in perceptions of targets' mate value (Eastwick & Hunt, 2014). A man who seeks a woman who is objectively out of his league might still secure her as a long-term mate because she values his unique qualities (or vice versa).

Limitations and Future Research

While the length of the relationship was measured in this study, understanding how long the couple knew each other before becoming romantically involved is also important. Hunt et al. (2015), for instance, found greater symmetry among couples who knew each other a shorter time before becoming romantically involved. Approximately half of the couples were friends prior to becoming involved. The current study demonstrates a sigmoidal curve with relationship length and symmetry, such that couple asymmetry continues to grow even after partnering, albeit at a small rate. Future research could ascertain the extent of partner enhancement across the lifespan of a relationship. For example, do people engage in large-scale enhancement in the infancy of a relationship and settle into a slight linear enhancement through the remainder of the relationship?

It is a concern that several participants in study 1 failed to report their overall mate value self-perceptions. As indicated, these individuals did differ from those reporting these values. While this is an issue worthy of caution, it also presents a curious question. Why would 15% of

participants fail to present this information (compared with only 2.5% who failed to report their partners' overall mate value)? In addition, all of the study 2 participants reported this value. Perhaps these participants thought highly of themselves but also thought it not acceptable to state such an immodest belief. In addition, since they were viewed by the experimenters, participants' ratings were not a strictly private assessment, which is shown to increase modesty (Brown & Gallagher, 1992).

While we found that people who are in relationships rated themselves higher on some attributes than single people, we were not able to determine if these increased ratings reflected actual qualities of the individuals or if they simply reflect differential rates of self-enhancement. Future research including third party raters' perceptions could determine if observable differences exist between romantically involved and single participants.

Raters assigned particularly poor scores for the trait of humor. We noticed that non-native English speakers, in particular, struggled to come up with funny captions. Humor is highly culture-dependent (Cruthirds, Wang, Wang, & Wei, 2012; Ruch & Forabosco, 1996) and writing witty captions to a New Yorker cartoon requires a high level of cultural sophistication. We chose the caption writing approach because administering a self-report measure of humor, such as the Humor Styles Questionnaire (Martin, Puhlik-Doris, Larsen, Gray, & Weir, 2003), would likely be inflated by the same mechanism that led to an overestimation on all of the other self-reported traits. While potentially flawed, at the least the caption approach allowed a measurement not relying on self-report.

Obviously a larger and more diverse sample would be desirable. This would be especially important in determining differences in self and partner enhancement according to ethnicity and

culture. In a large multi-national study, Schmitt and Allik (2005) found evidence for inflated levels of self-esteem across most cultures. They also found that people in individualistic cultures tend to possess higher levels of self-competence and lower levels of self-liking, compared with collectivistic cultures. It would be interesting to see how this manifests in self and romantic partner mate value perceptions.

As mentioned previously, people did not predict that the opposite sex would favor their uniquely positive traits. We theorize that a reason for this finding is that people understand what the opposite sex desires, but this does not change the fact that they value their own unique qualities. Future research can additionally ask participants to rate how important each of their self-perceptions are to their overall mate value (rather than what they think the opposite sex values). This would more clearly indicate whether participants weight their strengths more heavily than their weaknesses. An additional limitation in study 2 is that we cannot know whether participants selected romantic partners who possessed their ideal traits, or if instead participants weighted their partners' strengths more heavily in formulating their overall mate value. Future research could assess partners in romantic relationships longitudinally to assess the relative importance of these two possible effects.

Conclusions

The tendency to hold enhanced views of self and close others is well documented. This paper provides a clearer view on how this tendency applies to perceptions of self and romantic partner mate value. In particular, it found that the vast majority of individuals enhanced their self and partner mate value perceptions relative to third party raters. We predicted that these self and partner enhancement tendencies would follow a clearer pattern where people emphasize the

importance of their strengths and de-emphasize the importance of their weaknesses. This hypothesis was not supported, raising further questions as to the manner in which people engage in enhancement. Nevertheless, an important issue that requires further examination is how the enhancement of mate value perceptions fits in the larger picture of human mating. We operate under the assumption that such a reliably-found phenomenon as self-enhancement must serve adaptive purposes. We suggest EMT as one explanation and encourage other explanations and empirical research that can provide additional insight.

References

Afifi, W. A., & Faulkner, S. L. (2000). On being "just friends": The frequency and impact of sexual activity in crosssex friendships. *Journal of Social and Personal Relationships, 17*, 205–222. http://dx.doi.org/10.1177/0265407500172003

Alicke, M. D. (1985). Global self-evaluation as determined by the desirability and controllability of trait adjectives. *Journal of Personality and Social Psychology, 49*, 1621–1630. http://dx.doi.org/10.1037/0022-3514.49.6.1621

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*(8), 984-989. http://dx.doi.org/10.1177/0956797611414725

Bale, C. (2013). Self-perceived attractiveness, romantic desirability and self-esteem: A mating sociometer perspective. *Evolutionary Psychology, 11* (1), 68-84. http://dx.doi.org/10.1177/147470491301100107

Barelds, D. P. H., & Dijkstra, P. (2011). Positive illusions about a partner's personality and relationship quality. *Journal of Research in Personality 45*, 37–43. http://dx.doi.org/10.1016/j.jrp.2010.11.009

Barr, D. J., Levy, R., Scheepers, C., & Tily, H. J. (2013). Random effects structure for confirmatory hypothesis testing: Keep it maximal. *Journal of Memory and Language 68*, 255–278. http://dx.doi.org/10.1016/j.jml.2012.11.001

Bates, D., Machler, M., Bolker, B., & Walker, S. (2015). Fitting linear mixed-effects models using lme4. *Journal of Statistical Software, 67*(1), 1-48. http://dx.doi.org/10.18637/jss.v067.i01

Baumeister, R.F., Bratslavsky, E., Finkenauer, C., & Vohs, K.D. (2001). Bad is stronger than

good. *Review of General Psychology, 5*, 323-370. http://dx.doi.org/10.1037/e413792005-154

Baumeister, R. F., Tice, D. M., & Hutton, D. G. (1989). Self-presentational motivations and personality differences in self-esteem. *Journal of Personality, 57* (3), 547-579. http://dx.doi.org/10.1111/j.1467-6494.1989.tb02384.x

Botwin, M. D., Buss, D. M., & Shackelford, T. K. (1997). Personality and mate preferences: Five factors in mate selection and marital satisfaction. *Journal of Personality, 65* (1), 107-136. http://dx.doi.org/10.1111/j.1467-6494.1997.tb00531.x

Brase, G. L., & Guy, E. C. (2004). The demographics of mate value and self-esteem. *Personality and Individual Differences, 36,* 471–484. http://dx.doi.org/10.1016/s0191-8869(03)00117-x

Breiman L. (2001). Random forests. *Machine Learning, 45*(1):5–32.

Brown, J. D. (2007). *The self.* New York, NY: Psychology Press.

Brown, J. D., & Gallagher, F. M. (1992). Coming to terms with failure: Private self-enhancement and public self-effacement. *Journal of Experimental Social Psychology, 28* (1), 3-22. http://dx.doi.org/10.1016/0022-1031(92)90029-j

Buss, D. (1989). Sex differences in human mate preferences: Evolutionary hypotheses tested in 37 cultures. *Behavioral and Brain Sciences, 12*, 1-49. http://dx.doi.org/10.1017/s0140525x00023992

Buss, D. M. (2002). Human Mate Guarding. *Neuroendocrinology Letters Special Issue, 23*:23-29.

Buss, D.M. (2003). *The Evolution of Desire* (2nd ed.). New York: Basic Books.

Buss, D. M., & Barnes, M. (1986). Preferences in human mate selection. *Journal of Personality*

and Social Psychology, 50, 559-570. http://dx.doi.org/10.1037/0022-3514.50.3.559

Buss, D. M., & Shackelford, T. K. (1997). From vigilance to violence: mate retention tactics in married couples. *Journal of Personality and Social Psychology, 72* (2), 346-361. http://dx.doi.org/10.1037/0022-3514.72.2.346

Campbell, J. D. (1986). Similarity and uniqueness: The effects of attribute type, relevance, and individual differences in self-esteem and depression. *Journal of Personality and Social Psychology, 50*, 281–294. http://dx.doi.org/10.1037/0022-3514.50.2.281

Campbell, L., & Wilbur, C. J. (2009). Are the traits we prefer in potential mates the traits they value in themselves? An analysis of sex differences in the self-concept. *Self and Identity, 8*, 418 – 446. http://dx.doi.org/10.1080/15298860802505434

Cruthirds, K.W., Wang, V.L., Wang, Y.L., & Wei, J. (2012). A comparison of humor styles in US and Mexican television commercials. *Marketing Intelligence and Planning, 30*, 384-401. http://dx.doi.org/10.1108/02634501211231856

Dunning, D. (2015). Motivated cognition in self and social thought. In APA handbook of personal and social psychology, Volume 1: Attitudes and social cognition (Mikulincer, M, Shaver, P. R., Borgida, E., Bargh, J. A. (Eds), 777-803. Washington DC: American Psychological Association. http://dx.doi.org/10.1037/14341-025

Dunning, D., Heath, C., & Suls, J. M. (2004). Flawed selfassessment: Implications for health, education, and the workplace. *Psychological Science in the Public Interest, 5*, 69-106. http://dx.doi.org/10.1111/j.1529-1006.2004.00018.x

Eastwick, P. W., & Hunt, L. L. (2014). Relational Mate Value: Consensus and Uniqueness in Romantic Evaluations. *Journal of Personality and Social Psychology, 106* (5), 728-751. http://dx.doi.org/10.1037/a0035884

Edwards, K. R., & Martin, R. A. (2010). Humor creation ability and mental health: Are funny people more psychologically healthy? *Europe's Journal of Psychology, 6* (3), 196-212. http://dx.doi.org/10.1037/e676422011-010

Ellis, B. J., Simpson, J. A., & Campbell, L. (2002). Trait-specific dependence in romantic relationships. *Journal of Personality, 70,* 611–659. http://dx.doi.org/10.1111/1467-6494.05019

Epley, N., & Whitchurch, E. (2008). Mirror, mirror on the wall: Enhancement in self-recognition. *Personality and Social Psychological Bulletin, 34* (9), 1159-1170. http://dx.doi.org/10.1177/0146167208318601

Feingold, A. (1988). Matching for attractiveness in romantic partners and same-sex friends: A meta-analysis and theoretical critique. *Psychological Bulletin, 104,* 226–235. http://dx.doi.org/10.1037/0033-2909.104.2.226

Feingold, A. (1992). Gender differences in mate selection preferences: A test of the parental investment model. *Psychological Bulletin, 112,* 125-139. http://dx.doi.org/10.1037//0033-2909.112.1.125

Finkel, E. J., & Eastwick, P. W. (2015). Attachment and pairbonding. *Current Opinion in Behavioral Sciences, 3,* 7-11. http://dx.doi.org/10.1016/j.cobeha.2014.12.006

Fisher, M., Cox, A., Bennett, S., & Gavric, D. (2008). Components of self-perceived mate value. *Journal of Social, Evolutionary, and Cultural Psychology, 2*(4), Special Issue: 156-168. http://dx.doi.org/10.1037/h0099347

Gangestad, S. W., & Simpson, J. A. (2000). The evolution of human mating: Trade-offs and strategic pluralism. *Behavioral & Brain Sciences, 23,* 573-644. http://dx.doi.org/10.1017/s0140525x0000337x

Gelman, A., & Hill, J. (2007). *Data analysis using regression and multilevel/hierarchical models*. Cambridge, MA: Cambridge University Press. http://dx.doi.org/10.1017/cbo9780511790942.014

Hansford, B.C., & Hattie, J.A. (1982). The relationship between self and achievement/performance measures. *Review of Educational Research, 52*, 123–142. http://dx.doi.org/10.3102/00346543052001123

Harackiewicz, J. M., Sansone, C., & Manderlink, G. (1985). Competence, achievement orientation, and intrinsic motivation: A process analysis. *Journal of Personality and Social Psychology, 48*, 493–508. http://dx.doi.org/10.1037//0022-3514.48.2.493

Haselton, M. G. (2003). The sexual overperception bias: Evidence of a systematic bias in men from a survey of naturally occurring events. *Journal of Research in Personality, 37*, 34–47. http://dx.doi.org/10.1016/s0092-6566(02)00529-9

Haselton, M. G., & Buss, D. M. (2000). Error management theory: A new perspective on biases in cross-sex mind reading. *Journal of Personality and Social Psychology, 78* (1), 81-91. http://dx.doi.org/10.1037/0022-3514.78.1.81

Haselton, M. G., & Nettle, D. (2006). The Paranoid Optimist: An Integrative Evolutionary Model of Cognitive Biases. *Personality and Social Psychology Review, 10* (1), 47–66. http://dx.doi.org/10.1207/s15327957pspr1001_3

Hill, C. T., Rubin, Z., & Peplau, L. A. (1976). Breakups before marriage: the end of 103 affairs. *Journal of Social Issues, 32*(1), 147-168. http://dx.doi.org/10.1111/j.1540-4560.1976.tb02485.x

Hunt, L. L. Eastwick, P. W., & Finkel, E. J. (2015). Leveling the playing field: Acquaintance length predicts assortative mating on attractiveness. *Psychological Science, 26* (7), 1046-1053. http://dx.doi.org/10.1177/0956797615579273

James, G., Witten, D., Hastie, T., & Tibshirani, R. (2013). *An introduction to statistical learning: With applications in R*. New York: Springer.

Johnstone, R. A. (1997). The tactics of mutual mate choice and competitive search. *Behavioral Ecology and Sociobiology, 40* (1), 51-59. http://dx.doi.org/10.1007/s002650050315

Kavanagh, P. S., Fletcher, G. J. O., & Ellis, B. J. (2014). The mating sociometer and attractive others: A double-edged sword in romantic relationships. *The Journal of Social Psychology, 154,* 126-141. http://dx.doi.org/10.1080/00224545.2013.872594

Keller, M. C., Thiessen, D., & Young, R. K. (1996). Mate assortment in dating and married couples. *Personality and Individual Differences, 21* (2), 217-221. http://dx.doi.org/10.1016/0191-8869(96)00066-9

Kenrick, D. T., Groth, G. E., Trost, M. R., & Sadalla, E. K. (1993). Integrating evolutionary and social exchange perspectives on relationships: Effects of gender, self-appraisal, and involvement level on mate selection criteria. *Journal of Personality and Social Psychology, 64,* 951–969. http://dx.doi.org/10.1037/0022-3514.64.6.951

Kirkpatrick, L. A., & Ellis, B. J. (2001). An evolutionary-psychological approach to self esteem: Multiple domains and multiple functions. In G. Fletcher & M. Clark (Eds.). The Blackwell handbook of social psychology (Vol. 2, pp. 411–436). Oxford: Blackwell.

Kirkpatrick, L.A., & Ellis, B. J. (2004). An evolutionary-psychological approach to self esteem: multiple domains and multiple sociometers. In M. B. Brewer and M. Hewstone (Eds.), *Self and Social Identity*. Oxford: Blackwell.

Kirsner, B. R., Figueredo, A. J., & Jacobs, W. J. (2003). Self, friends, and lovers: Structural relations among Beck depression inventory scores and perceived mate values. *Journal of Affective Disorders, 75*, 131–148. http://dx.doi.org/10.1016/s0165-0327(02)00048-4

Kunda, Z. (1987). Motivated inference: Self-serving generation and evaluation of causal theories. *Journal of Personality and Social Psychology, 53*, 636-647. http://dx.doi.org/10.1037/0022-3514.53.4.636

Kurt, A., & Paulhus, D. L. (2008). Moderators of the adaptive value of self enhancement: Operationalization, domain, and form of adjustment. *Journal of Research in Personality, 42*, 839–853. http://dx.doi.org/10.1016/j.jrp.2007.11.005

Leary, M. R. (1999). Make sense of self-esteem. Current Directions in Psychological Science, 8, 32–35. http://dx.doi.org/10.1111/1467-8721.00008

Leary, M. R., & Baumeister, R. F. (2000). The nature and function of self-esteem: sociometer theory. In M. Zanna (Ed.), *Advances in Experimental Social Psychology* (Vol. 32, pp. 1-62). San Diego, CA: Academic Press. http://dx.doi.org/10.1016/s0065-2601(00)80003-9

Leary, M. R., Haupt, A. L., Strausser, K. S., & Chokel, J. T. (1998). Calibrating the sociometer: The relationship between interpersonal appraisals and state self-esteem. *Journal of Personality and Social Psychology, 74* (5), 1290-1299. http://dx.doi.org/10.1037/0022-3514.74.5.1290

Leary, M. R., Tambor, E. S., Terdal, S. K., & Downs, D. L. (1995). Self-esteem as an interpersonal monitor: The sociometer hypothesis. *Journal of Personality and Social Psychology, 68* (3), 518-530. http://dx.doi.org/10.1037/0022-3514.68.3.518

Lee, L., Loewenstein, G., Ariely, D., Hong, J., & Young, J. (2008). If I'm not hot, are you hot or not? Physical-attractiveness evluations and dating preferences as a function of one's own

attractiveness. *Psychological Science, 19* (7), 669-677. http://dx.doi.org/10.1111/j.1467-9280.2008.02141.x

Lemay, E. P., Jr., & Clark, M. S. (2008). How the head liberates the heart: Projection of communal responsiveness guides relationship promotion. *Journal of Personality and Social Psychology, 94*, 647–671. http://dx.doi.org/10.1037/0022-3514.94.4.647

Liaw, A., & Wiener, M. (2002). Classification and Regression by randomForest. R News 2(3), 18-22.

Loewen, P. J., Lyle, G., & Nachshen, J. S. "An eight-item form of the Empathy Quotient (EQ) and an application to charitable giving." Unpublished manuscript.

Manning, W. D., Giordano, P. C., & Longmore, M. A. (2006). Hooking up: The relationship contexts of "nonrelationship" sex. *Journal of Adolescent Research, 21*, 459 – 483. http://dx.doi.org/10.1177/0743558406291692

Martin, R. A., Puhlik-Doris, P., Larsen, G., Gray, J., & Weir, K. (2003). Individual differences in uses of humor and their relation to psychological well-being: Development of the Humor Styles Questionnaire. *Journal of Research in Personality, 37*, 48-75. http://dx.doi.org/10.1016/s0092-6566(02)00534-2

Miner, E. J., Shackelford, T. K., & Starratt, V. G. (2009). Mate value of romantic partners predicts men's partner-directed verbal insults. *Personality and Individual Differences, 46*, 135-139. http://dx.doi.org/10.1016/j.paid.2008.09.015

Murray, S. L., & Holmes, J. G. (1997). A leap of faith? Positive illusions in romantic relationships. *Personality and Social Psychology Bulletin, 23*(6), 586–604. http://dx.doi.org/10.1177/0146167297236003

Murray, S. L., Holmes, J. G., & Griffin, D. W. (1996a). The benefits of positive illusions:

Idealization and the construction of satisfaction in close relationships. *Journal of Personality and Social Psychology, 70*, 79–98. http://dx.doi.org/10.1037/0022-3514.70.1.79

Murray, S. L., Holmes, J. G., & Griffin, D. W. (1996b). The self-fulfilling nature of positive illusions in romantic relationships: Love is not blind, but prescient. *Journal of Personality and Social Psychology, 71*, 1155–1180. http://dx.doi.org/10.1037/0022-3514.71.6.1155

Pass, J. A., Lindenberg, S. M., & Park, J. H. (2010). All you need is love: Is the sociometer especially sensitive to one's mating capacity? *European Journal of Social Psychology, 40*, 221-234. http://dx.doi.org/10.1002/ejsp.619

Penke, L., & Asendorpf, J. B. (2008). Beyond global sociosexual orientations: A more differentiated look at sociosexuality and its effects on courtship and romantic relationships. *Journal of Personality and Social Psychology, 95*, 1113-1135. http://dx.doi.org/10.1037/0022-3514.95.5.1113

Penke, L., & Denissen, J. J. (2008). Sex differences and lifestyle-dependent shifts in the attunement of self-esteem to self-perceived mate value: Hints to an adaptive mechanism? *Journal of Research in Personality, 42*, 1123–1129. http://dx.doi.org/10.1016/j.jrp.2008.02.003

Penke, L., Todd, P. M., Lenton, A. P., & Fasolo, B. (2007). How selfassessments can guide human mating decisions. In G. Geher & G. F. Miller (Eds.), *Mating intelligence: Sex, relationships, and the mind's reproductive system* (pp. 37–75). Mahwah, NJ: Erlbaum.

Phillips, A. (2010). Indignation or insecurity: the influence of mate value on distress in response to infidelity. *Evolutionary Psychology, 8*(4), 736-750. http://dx.doi.org/10.1177/147470491000800413

R Core Team (2013). R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria. http://www.R-project.org/

Rammstedt, B., & John, O. P. (2007). Measuring personality in one minute or less: A 10-item short version of the Big Five Inventory in English and German. *Journal of Research in Personality, 41*, 203-212. http://dx.doi.org/10.1016/j.jrp.2006.02.001

Regan, P. C. (1998). What if you can't get what you want? Willingness to compromise ideal mate selection standards as a function of sex, mate value, and relationship context. P*ersonality and Social Psychology Bulletin, 24*, 1294 –1303. http://dx.doi.org/10.1177/01461672982412004

Ruch, W., & Forabosco, G. (1996). A cross-cultural study of humor appreciation- Italy and Germany. *Humor-International Journal of Humor Research, 9*, 1- 18. http://dx.doi.org/10.1515/humr.1996.9.1.1

Schmitt, D.P., & Allik, J. (2005). Simultaneous administration of the Rosenberg self-esteem scale in 53 nations: Exploring the universal and culture-specific features of global self-esteem. *Journal of Personality and Social Psychology, 89*, 623-642. http://dx.doi.org/10.1037/0022-3514.89.4.623

Sedikides, C., & Gregg, A.P. (2008). Self-enhancement: Food for thought. *Perspectives on Psychological Science, 3*, 102–116. http://dx.doi.org/10.1111/j.1745-6916.2008.00068.x

Simpson, J. A., & Gangestad, S. W. (1991) Individual differences in sociosexuality: Evidence for convergent and discriminant validity. *Journal of Personality and Social Psychology*

60: 870–83. http://dx.doi.org/10.1037/0022-3514.60.6.870

Strobl, C., Malley, J., & Tutz, G. (2009). An introduction to recursive partitioning: Rationale, application and characteristics of classification and regression trees, bagging and random forests. *Psychological Methods, 14*(4): 323–348. http://dx.doi.org/10.1037/a0016973

Swann, W. B., Jr., De La Ronde, C., & Hixon, J. G. (1994). Authenticity and positivity judgments of a relationship partner strivings in marriage and courtship. *Journal of Personality and Social Psychology, 66*, 857–869. http://dx.doi.org/10.1037/0022-3514.66.5.857

Swann, W. B., Jr., Pelham, B. W., & Krull, D. S. (1989). Agreeable fancy or disagreeable truth? Reconciling self-enhancement and self-verification. *Journal of Personality and Social Psychology, 57*, 782-791. http://dx.doi.org/10.1037/0022-3514.57.5.782

Taylor, S. E., & Brown, J. D. (1988). Illusion and well-being: A social psychological perspective on mental health. *Psychological Bulletin, 103* (2), 193-210. http://dx.doi.org/10.1037//0033-2909.103.2.193

Trivers, R. (1972) Parental investment and sexual selection. In: Sexual selection and the descent of man, 1871–1971, ed. B. Campbell. Aldine-Atherton.

Trope, Y., & Bassok, M. (1982). Confirmatory and diagnosing strategies in social information gathering. *Journal of Personality and Social Psychology, 43*, 22-34. http://dx.doi.org/10.1037//0022-3514.43.1.22

Van Lange, P. A. M., & Rusbult, C. E. (1995). My relationship is better than-and not as bad as-yours is: The perception of superiority in close relationships. Personality and Social Psychology Bulletin, 21 (1), 32-44. http://dx.doi.org/10.1177/0146167295211005

Vazire, S., & Solomon, B. C. (2015). Self-and other knowledge of personality. *APA Handbook*

of Personality and Social Psychology, Vol. 4: Personality Processes and Individual Differences. In M. Mikulincer, P. R. Shaver, L. M. Cooper & R. J. Larsen (Editors) APA handbooks in psychology (pp. 261-281). Washington, DC, US: American Psychological Association. http://dx.doi.org/10.1037/14343-012

Wakabayashi, A., Baron-Cohen, S., Wheelwright, S., Goldenfeld, N., Delaney, J., Fine, D., … & Weil, L. (2006). Development of short forms of the empathy quotient (eq-short) and the systemizing quotient (sq-short). *Personality and Individual Differences, 41*:929–940. http://dx.doi.org/10.1016/j.paid.2006.03.017

Waynforth, D. (2001). Mate choice trade-offs and women's preference for physically attractive men. *Human Nature, 12*, 207-219. http://dx.doi.org/10.1007/s12110-001-1007-9

Waynforth, D., & Dunbar, R. I. M. (1995). Conditional mate choice strategies in humans: Evidence from lonely hearts advertisements. *Behaviour, 132*:755-779. http://dx.doi.org/10.1163/156853995x00135