

4-2013

# Effects of Mate Value Difference on Relationship Length and Satisfaction

Sarah DeLuliis

Follow this and additional works at: <http://repository.cmu.edu/hsshonors>

 Part of the [Psychology Commons](#)

---

This Thesis is brought to you for free and open access by the Dietrich College of Humanities and Social Sciences at Research Showcase @ CMU. It has been accepted for inclusion in Dietrich College Honors Theses by an authorized administrator of Research Showcase @ CMU. For more information, please contact [research-showcase@andrew.cmu.edu](mailto:research-showcase@andrew.cmu.edu).

Effects of Mate Value Difference on Relationship Length and Satisfaction

Sarah DeJuliis

Carnegie Mellon University

The field of evolutionary psychology emphasizes the specialized psychological mechanisms that are present in humans that developed under the adaptive pressures of evolution faced by our ancestors. One major adaptive pressure that has been studied extensively involves mating and mate selection. Many studies have been performed which identified, and subsequently confirmed, that humans have a preference for certain traits and that these mate preferences are seen across the world, regardless of culture (e.g.: Buss & Barnes, 1986; Buss, 1989; Shackelford, Schmitt, & Buss, 2005; Stone, Shackelford, & Buss, 2007). Research has also been conducted on “mate value,” the extent to which a person possessed these preferred traits and, consequently, how desirable they are as a mate (e.g.: Kenrick, Neuberg, Zierk, & Krones, 1994; Gutierrez, Kenrick, & Partch, 1999; Buston & Emlen, 2003). Mate value is, for instance, one determining factor in mate choice because one’s options may be broadened or narrowed as a result of one’s mate value—highly desirable individuals can afford to be more choosy regarding a potential mate because they are valued highly by many, whereas individuals with low mate value are perceived as having less to offer and will likely have to settle when choosing a mate. Although much is known and has been studied concerning mate preferences and mate value, such as the above studies, research concerning differences in mate value between partners is lacking. The goal of the experiments reported here was to investigate if the difference in mate value of a couple has an effect on the predicted length of their relationship.

Evolutionary psychology maintains that in the environment of evolutionary adaptedness (EEA)—the theoretical time period when selection pressures in the environment elicited change in the form of adaptations—our ancestors developed mutations in their DNA, some of which were advantageous. These advantageous mutations benefited those who possessed them and were passed on to their offspring who out-survived those without the beneficial mutations or

those with maladaptive mutations. These changes were able to occur across populations because our ancestors were not nearly as numerous as the world population of today. Due to these ancient mutations which produced differing people—some of whom were better equipped for the challenges of life—and the inability for genes to spread adequately across the large population of the world today, humans still maintain many, if not all, of these same adaptations. While the field of biology deals with the physical implications of these adaptations, not all of these adaptations were physical—the study of evolutionary psychology is concerned with the psychological mechanisms developed during our past.

One major selection pressure in the EEA that continues today is related to mating and mate selection. Humans, as well as other living organisms, are driven to pass on their genes so that this genetic material outlives them in succeeding generations. But, to do this, one requires a partner. So how does one know whom to choose? What variables factor into this decision? Which traits are to be considered most desirable and take precedence in choice and which are essentially irrelevant and able to be overlooked? These “decisions” are made with assistance in the form of preferences and drives motivated by psychological mechanisms. To investigate these questions and mechanisms, many studies have been conducted in the field of evolutionary psychology to examine mate selection and mate preferences.

David Buss (1989), for instance, conducted a well-known study on mate preferences that spanned 37 cultures. His study revealed that regardless of location and culture, men and women, respectively, have similar mate preferences. The similarity in preferences, because it is not dictated by culture, indicates that preferences are likely biologically rather than socially driven and thus providing more support for evolutionary psychology. In questionnaire responses, men

and women were found to agree on many attributes that both deemed most valuable such as wanting a mate who is kind and understanding, intelligent, healthy, emotionally stable and mature, as well as dependable. Sex differences in preference were also found, however; men, more so than women, desire a mate who is young and attractive and women, more so than men, value good earning capacity, financial prospects, ambition, industriousness, and social status in a mate (Buss, 1989).

The traits for which preferences are expressed were relevant to our ancestors because men needed to procure a mate who was fertile and could bear his children for him to pass on his genes. Because the “purpose” of life according to evolution consists of passing on one's genes, for a man the fertility of a mate is crucial. Women, on the other hand, were apt to choose a mate who had status and access to resources to ensure her future children could be provided for; if she reproduced with a man who was not a good hunter, for instance, her children may not be provided enough sustenance to keep them healthy and strong or even to survive. Parental investment theory also suggests that women are more selective or “choosier” than men due to their greater minimal obligatory investment (Trivers, 1972). A woman has greater obligation because, if pregnancy occurs, a woman must use her bodily resources to sustain and carry the fetus, whereas men's minimal investment is merely the time and effort required to copulate—and that men should compete among each other for access to females (Trivers, 1972). Because of parental investment theory and the work load associated with survival, such as food procurement, was divided by sex—women gathered and men hunted—these sex difference in mate selection preferences were obviously advantageous for our ancestors. Human mate preferences, therefore, exist due to these ancient pressures and still exist as such in humans today.

Buss's (1989) study illuminated which attributes are relevant to mate preference and selection, but because so many characteristics must be taken into account, one cannot judge a potential mate's value based on the consideration of a single trait at a time. Thus, the notion and term "mate value" conveys and simplifies a person's value as a mate by representing an aggregate assessment. Mate value represents the culminate "score" which, taking many traits into account, conveys one's overall desirability as a mate. Mate value is not an absolute, however. Not only can one's mate value change because important traits that comprise that value change, such as loss of social status or increased age, but mate value is also subject to context effects. For instance, men who were exposed to photographs of highly attractive women afterward judged their current partner to be less attractive than did the men who viewed pictures of women of average attractiveness (Kenrick, Neuberg, Zierk, & Krones, 1994). Moreover, the men who viewed photographs of highly attractive women rated themselves to be less committed to, less satisfied with, and less close to their actual partners. Similarly, women evaluated their relationships less favorably after being exposed to male targets who were high in dominance, as opposed to women exposed to low dominance targets (Kenrick, et al., 1994).

Not only can one's judgment of others' mate value change based on context effects— one's self-perceived mate value can also be altered. Gutierrez, Kenrick, and Partch (1999) revealed that self-assessed judgments of desirability were negatively affected when women were exposed to female targets who were highly physically attractive and when men were exposed to male targets who were highly socially dominant. Other studies concerning self-perceived mate value indicate that self-perception positively correlates to selectivity of mate preference. For instance, Waynforth and Dunbar (1995) reviewed "Lonely Hearts" advertisements which confirmed findings that men prefer young attractive women and women prefer slightly older men

with resources. Their study also found that these preferences are likely to be contingent on what that person has to offer—women tend to become less demanding as they age (presumably because their mate value based on youth and attractiveness declines) and men tend to be more demanding as they age (presumably because their mate value based on resource acquisition increases).

Bereczkei, Voros, Gal and Bernath (1997) conducted a similar experiment and found that mate value corresponded to choosiness. In this study, “lonely heart” advertisements were once again analyzed and it was revealed that females preferred mates with resources and that females offering cues of physical attractiveness were more demanding. In fact, the better physical conditions women offered, the higher financial and occupational status they demanded in a potential mate. Similar results were found for men: men preferred women of high reproductive value and higher demands were placed on a female partner’s physical attractiveness if the men possessed more resources.

If high mate value individuals are more demanding about their potential partner’s traits, then it follows that individuals possessing high mate value tend to mate with other high mate value individuals and that those of slightly less mate value tend to mate with others of slightly less mate value and so on, sometimes referred to as the “potentials attract” hypothesis (Buston & Emlen, 2003). Actual evolutionary theory, however, predicts something similar but slightly different: that people attempt to maximize their mate value potential—that is, aim for the highest mate value possible. Although not everyone can attain a mate of the absolute highest quality, individuals still wish to achieve this level and settle only for the absolute best they can get. This means that, although couples tend to more or less match on mate value, this is not always the case. If individuals aim for the highest they can achieve, there is a chance that eventually they

will succeed in procuring a mate that is higher in mate value than the seeker. It could also be possible, for instance, that partners were of similar mate value when they entered a relationship but, over the course of this relationship, one partner loses or gains mate value (such as the acquisition or loss of a job) so that their mate values are no longer similar.

Although these relationship scenarios are possible and do, in fact, occur, little to no research in the field of evolutionary psychology has been performed on the effect of differences in mate value between partners. It would be beneficial to this body of knowledge of evolutionary perspectives on mating behavior if more were known about such scenarios. For instance, it is currently unknown whether or not there is a psychological mechanism that allows humans to assess the duration of relationships based on the compatibility, as relevant to the comparative mate values, between partners. Evolutionary psychology theory would seem to predict that it would be beneficial for people to be able to assess relationships in this way because it promotes the likelihood of attaining the best suited mate. The goal of this study was to investigate whether people perceive difference in mate value of couple members and how it affects the perceived length of their relationship.

In this study, participants saw a number of simulated dating advertisements similar to write-ups found on actual dating websites or pages where people are seeking potential romantic partners. The advertisements had descriptions about the fictitious target that include cues to mate value (as taken from the MVI-7, a published inventory meant to assess mate value). The target areas of interest concerning mate value present in the advertisements include: ambition, (physical) attractiveness, financial security, and age (youth). Participants read through two such advertisements (one male and one female) at a time. They then rated the mate value of each target on a scale from 0 to 100 and were asked how long they predict this “couple” would last



together in a relationship. The purpose of this study was to investigate if the measures of mate value chosen are related or could be used to predict length of relationship. Presumably, if a difference in mate value between couple members exists, then one partner benefits more from the couple than the other, which could create tension. The investigators predict, because mate value represents an important facet of mate choice, that when a difference in mate value is detected between partners in a relationship, those partners will be perceived as ill-matched and the relationship will be perceived to endure for a shorter amount of time than relationships where the partners are more equally matched on mate value.

*Predictions:*

Difference in mate value will be negatively correlated with relationship length, well-matched scores, and overall relationship satisfaction.

## Methods

### Participants

Twenty nine male students participated in the study with an average age of 20.07 years ( $SD = 1.05$ ). Of these male participants, 28 identified themselves as primarily heterosexual, none identified as primarily bisexual, and one identified as primarily homosexual. Twenty were single, eight were in an “exclusive” relationship, and one was in an “open-relationship.” Twenty seven female students also participated (age,  $M = 19.37$ ,  $SD = 1.16$ ), of whom all twenty seven identified as primarily heterosexual. Sixteen of the women were single, 11 were in an “exclusive” relationship, and none were in an “open relationship.” The study was open to participation to Carnegie Mellon University students, age 18 to 23, who were previously entered into a participant pool based on a research requirement. Participants were tested in small groups and received one research participation credit upon completion of the study.

### Materials and Procedure

#### *Demographics Sheet*

A demographics sheet was created that surveyed age, sex, college class, ethnicity, race, country of birth, sexual orientation, and relationship status. Participants were asked to write in their country of birth, age, and, if they indicated that they were in a relationship, the nature of that relationship (e.g., exclusive to you and your partner, open relationship). All other questions provided answers for participants to circle, such as “Male” and “Female,” and included an “Other” option when appropriate for participants to circle and write in their response when no other provided response was considered accurate.

*Simulated Dating Advertisements*

Nine male and nine female dating advertisements were created. Each male and female advertisement included information on “filler” attributes and attributes of interest. Filler attributes were determined by selecting attributes that are valued equally by both men and women and that are likely preferred in a mate, but not necessarily required—“luxuries” as opposed to “necessities” as referred to in studies conducted by Li and colleagues (Li, Bailey, Kenrick, & Linsenmeier, 2002). Attributes of interest were those attributes considered highly important by men or women when considering a mate.

Each advertisement contained one of two sets of filler attributes. Advertisements either had filler attributes from set one: kind and understanding, neat, easy-going, and healthy or attributes from set two: social, sense of humor, independent, and creative and artistic. The two sets of filler attributes were alternated so that the advertisements had a number of varying attributes that made the advertisements more realistic without affecting mate value. All male advertisements, in addition to one set of filler attributes, also included a description of their ambition and financial security—the attributes of interest in male advertisements. All the female advertisements described one set of filler attributes as well as cues to their physical attractiveness and age—the attributes of interest in the female advertisements. Attributes were designed to have three possible levels: low, medium, and high. Levels were conveyed in the ads by ordinal language: very, somewhat, not very; extremely, moderately, not at all; very, somewhat, not very; great, mediocre, terrible (note that the last set of ordinal words were used only for sense of humor and, because this only included two levels, “terrible” was never included in any advertisement). Filler attributes, however, only appeared as medium or high levels so as not to conspicuously detract from a target’s mate value and thereby influence the participants’

perception of that target. Refer to Figure 1 for an example of a dating advertisement featuring a high mate value man and woman and refer to Figure 2 for an example of a dating advertisement featuring a low mate value man and woman.

The simulated dating ads were presented to participants in pairs that represented a romantic couple between a male target and a female target. All possible combination of partners, based on levels of attributes of interest, were created and participants each saw twelve such couples and answered questions about them—with the exception of participants in pilot testing who each saw only nine target couples. See Figure 1 for an example of the dating advertisement couple sets seen by participants. The attributes of interest—ambition, financial security, physical attractiveness, and age—and their corresponding levels represent the independent variables. Participant responses, such as ratings of targets and predictions of length of targets' relationship, represent the dependent variables.

### *Questionnaire*

Participants also completed a questionnaire packet concerning the target couples. Participants answered the same set of questions about each ad couple they were presented with. These questions included queries as to the overall satisfaction of the couple, the man's satisfaction, the woman's satisfaction, how long their relationship was predicted to last, how "well-matched" the couple was, the "desirability" (or mate value) of the man, and the "desirability" of the woman. Answers were to be given on a scale ranging from 1=not at all to 7=very. The question regarding relationship length ("How long do you think their relationship will last?") was asked in an open response form. Assessments of the desirability targets were

given on a scale from 0 to 100 where 0=extremely undesirable and 100=extremely desirable.

Participants were asked to use whole numbers rather than fractions or decimals.

## Results

Correlations with Pearson's  $r$  were run across all variables and the variables of interest—those directly relating to hypothesis and predictions made—as well as other correlations of interest were further investigated. To further investigate significant correlations, one-way ANOVAs were run with Bonferroni Post Hoc and descriptive statistics. The scores of predicted relationship length are reported in days.

### Male traits

#### *Ambition*

Ambition was positively correlated with overall relationship satisfaction, Pearson's  $r(660)=.13$ ,  $p=.001$ , with female relationship satisfaction,  $r(659)=.17$ ,  $p<.001$ , with how well-matched couples were perceived to be,  $r(659)=.11$ ,  $p=.007$ , with male desirability (participant designation of mate value),  $r(659)=.35$ ,  $p<.001$ , and with participant predicted length of relationship,  $r(639)=.11$ ,  $p=.006$ . Refer to Table 1 for a complete list of all correlations.

A follow up one-way between subjects ANOVA was conducted to examine whether each of the above variables was affected by level of ambition. The analysis revealed that the highest level of ambition ( $M=4.91$ ,  $SD=1.29$ ) generated significantly higher overall relationship satisfaction scores than did the lowest level of ambition ( $M=4.49$ ,  $SD=1.30$ ),  $F(2, 657)= 5.76$ ,  $p=.003$ . Female relationship satisfaction was affected by ambition in that high levels of ambition in males, both moderate ( $M=4.84$ ,  $SD=1.27$ ) and high ( $M=5.48$ ,  $SD=3.66$ ), elicited higher female relationship satisfaction ratings than the lowest level of ambition ( $M=4.51$ ,  $SD=1.36$ ),  $F(2, 656)= 9.73$ ,  $p<.001$ . The extent to which couples were well-matched also was affected by ambition: the highest level of ambition ( $M=4.56$ ,  $SD=1.53$ ) elicited significantly higher ratings for how well-

matched couples were than did the lowest level of ambition ( $M=4.16$ ,  $SD=1.53$ ),  $F(2, 656)= 3.92$ ,  $p=.020$ . The ANOVA also revealed that ratings of male desirability increased significantly with each increasing level of ambition: least ambitious ( $M=61.31$ ,  $SD=18.70$ ), moderately ambitious, ( $M=66.54$ ,  $SD=16.79$ ), and highly ambitious ( $M=76.67$ ,  $SD=14.09$ ),  $F(2, 656)= 47.46$ ,  $p<.001$ . In terms of effect of ambition on participant predicted length of relationship, the highest level of ambition ( $M=996.84$ ,  $SD=2118.60$ ) yielded higher length of relationship than the middle level ( $M=657.95$ ,  $SD=872.68$ ) and the lowest level ( $M=619.89$ ,  $SD=905.27$ ) of ambition,  $F(2, 636)= 4.56$ ,  $p=.011$ .

**Summary:** These findings indicate that as the levels of manipulated ambition increased, overall relationship satisfaction, female relationship satisfaction, how well-matched the couples were, male desirability, and length of relationship also increased.

#### *Financial Security*

Financial Security was positively correlated with overall relationship satisfaction, Pearson's  $r(660)=.17$ ,  $p<.001$ , female relationship satisfaction,  $r(659)=.13$ ,  $p=.001$ , how well-matched couples were,  $r(659)=.15$ ,  $p<.001$ , male desirability,  $r(659)=.44$ ,  $p<.001$ , and length of relationship,  $r(639)=.08$ ,  $p=.034$ .

A follow up one-way between subjects ANOVA was conducted to examine whether each of the above variables was affected by level of financial security. The analysis revealed that, relationship satisfaction increased as level of financial security increased past the lowest level ( $M=4.40$ ,  $SD=1.24$ ) to moderate ( $M=4.75$ ,  $SD=1.32$ ) and high ( $M=4.94$ ,  $SD=1.29$ ) levels of financial security,  $F(2, 657)= 9.68$ ,  $p<.001$ . Female relationship satisfaction was effected by financial security in that the highest level of financial security ( $M=5.27$ ,  $SD=1.17$ ) elicited higher

female relationship satisfaction ratings than the lowest level of financial security ( $M=4.53$ ,  $SD=3.76$ ),  $F(2, 656)= 5.49$ ,  $p=.004$ . The extent to which couples were well-matched also was affected by financial security: the highest level of financial security ( $M=4.55$ ,  $SD=1.55$ ) and the moderate level ( $M=4.56$ ,  $SD=1.45$ ) both generated significantly higher well-matched scores than the lowest level ( $M=4.00$ ,  $SD=1.54$ ) of financial security,  $F(2, 656)= 9.87$ ,  $p<.001$ . The analysis also revealed that ratings of male desirability increased significantly with each increasing level of financial security: least financially secure ( $M=57.04$ ,  $SD=18.33$ ), moderately financially secure, ( $M=69.49$ ,  $SD=16.12$ ), and highly financially secure ( $M=76.30$ ,  $SD=13.45$ ),  $F(2, 656)= 81.00$ ,  $p<.001$ . In addition, the ANOVA revealed that length of relationship was affected by financial security in that the highest level ( $M=827.09$ ,  $SD=1172.31$ ) and the middle level ( $M=886.39$ ,  $SD=1947.97$ ) of financial security generated significantly higher relationship length scores than did the lowest level of financial security ( $M=532.92$ ,  $SD=853.57$ ),  $F(2, 636)= 3.79$ ,  $p=.023$ .

**Summary:** These findings indicate that as the levels of manipulated financial security increased, overall relationship satisfaction, female relationship satisfaction, how well-matched the couples were, male desirability, and length of relationship also increased.

#### *Overall Male Mate Value*

Overall male mate value (sum of ambition and financial security level) was positively correlated with overall relationship satisfaction, Pearson's  $r(660)=.21$ ,  $p<.001$ , female relationship satisfaction,  $r(659)=.21$ ,  $p<.001$ , how well-matched couples were,  $r(659)=.18$ ,  $p<.001$ , male desirability,  $r(659)=.55$ ,  $p<.001$ , and length of relationship,  $r(639)=.14$ ,  $p=.001$ .



A follow up one-way between subjects ANOVA was conducted to examine whether each of the above variables was affected by level of overall male mate value. The analysis revealed that the highest level of male mate value ( $M=4.91$ ,  $SD=1.30$ ) generated significantly higher overall relationship satisfaction scores than did the lowest level ( $M=4.23$ ,  $SD=1.20$ ) and the lower level ( $M=4.39$ ,  $SD=1.36$ ) of male mate value. The higher level ( $M=5.12$ ,  $SD=1.35$ ) of male mate value also yielded significantly higher relationship satisfaction than the middle level ( $M=4.74$ ,  $SD=1.16$ ), the lower level ( $M=4.39$ ,  $SD=1.36$ ), and the lowest level ( $M=4.23$ ,  $SD=1.20$ ). In addition, the middle level yielded significantly higher relationship satisfaction than the lowest level,  $F(4, 655)= 9.30$ ,  $p<.001$ . The ANOVA also indicated that the highest level ( $M=5.53$ ,  $SD=1.20$ ) and the higher level ( $M=5.40$ ,  $SD=1.16$ ) of mate value produced significantly higher female relationship satisfaction than did the lowest level ( $M=3.96$ ,  $SD=1.39$ ) and lower level ( $M=4.44$ ,  $SD=1.37$ ) of male mate value. The middle level of male mate value ( $M=5.06$ ,  $SD=3.57$ ) also produced significantly higher female relationship satisfaction than did the lowest level of male mate value,  $F(4, 654)= 7.83$ ,  $p<.001$ . In terms of how well-matched couples were, the highest level of male mate value ( $M=4.45$ ,  $SD=1.61$ ) yielded significantly higher well-matched scores than did the lowest level ( $M=3.77$ ,  $SD=1.54$ ). The higher level of male mate value ( $M=4.86$ ,  $SD=1.54$ ) yielded significantly higher well-matched scores than both the lowest level and the lower level ( $M=4.13$ ,  $SD=1.63$ ). The middle level ( $M=4.41$ ,  $SD=1.34$ ) also produced significantly higher well-matched scores than the lowest level of male mate value,  $F(4, 654)= 7.79$ ,  $p<.001$ . Male desirability was also affected by overall male mate value; the ANOVA indicated that ratings of male desirability increased significantly with each increasing level of male mate value: lowest level ( $M=49.23$ ,  $SD=18.40$ ), lower level ( $M=59.82$ ,  $SD=17.42$ ), middle level ( $M=68.15$ ,  $SD=14.21$ ), higher level ( $M=77.94$ ,  $SD=12.33$ ), and highest level

( $M=82.16$ ,  $SD=11.33$ ), all of which were statistically significant from one another except the highest level and the higher level,  $F(4, 654)= 74.25$ ,  $p<.001$ . In terms of length of relationship, the higher level of male mate value ( $M=1186.54$ ,  $SD=2401.47$ ) produced significantly higher ratings of relationship length than did the middle level ( $M=639.66$ ,  $SD=972.83$ ), the lower level ( $M=611.57$ ,  $SD=768.64$ ), and the lowest level of male mate value ( $M=427.55$ ,  $SD=676.81$ ),  $F(4, 634)= 5.18$ ,  $p<.001$ .

**Summary:** These findings indicate that as the manipulated levels of overall male mate value increased, overall relationship satisfaction, female relationship satisfaction, how well-matched the couples were, male desirability, and length of relationship also increased.

### **Female traits**

#### *Age*

Age was positively correlated with overall relationship satisfaction, Pearson's  $r(660)=.12$ ,  $p=.002$ , male relationship satisfaction,  $r(659)=.19$ ,  $p<.001$ , how well-matched couples were,  $r(659)=.16$ ,  $p<.001$ , female desirability,  $r(659)=.17$ ,  $p<.001$ , and length of relationship,  $r(639)=.08$ ,  $p=.039$ .

A follow up one-way between subjects ANOVA was conducted to examine whether each of the above variables was affected by level of age range. The analysis revealed that overall relationship satisfaction responses were affected by age in that response scores were statistically higher for women in the highest, i.e. most desirable, level age range (mid 20s) ( $M=4.93$ ,  $SD=1.27$ ) were rated significantly higher than women in the lowest level age range, i.e. least desirable, (late 30s) ( $M=4.55$ ,  $SD=1.31$ ),  $F(2, 656)= 12.65$ ,  $p<.001$ . For male relationship satisfaction ratings, the highest level age range ( $M=5.22$ ,  $SD=1.29$ ) generated significantly higher

male relationship satisfaction than the lowest level age range ( $M=4.57$ ,  $SD=1.43$ ),  $F(2, 656)=12.65$ ,  $p<.001$ . The extent to which couples were well-matched also was affected by age: the highest ( $M=4.77$ ,  $SD=1.50$ ) level age range elicited significantly higher ratings for well-matched than did the moderate ( $M=4.20$ ,  $SD=1.49$ ) and the lowest ( $M=4.16$ ,  $SD=1.54$ ) age range levels,  $F(2, 656)=10.99$ ,  $p<.001$ . The analysis revealed that the highest level age range ( $M=71.01$ ,  $SD=15.95$ ) elicited significantly higher ratings for female desirability than did the moderate ( $M=66.31$ ,  $SD=18.41$ ) and the lowest ( $M=63.78$ ,  $SD=18.76$ ) age range levels,  $F(2, 656)=9.63$ ,  $p<.001$ . The ANOVA also revealed that the highest level age range ( $M=989.21$ ,  $SD=1846.19$ ) elicited significantly higher ratings for length of relationship than did the moderate level age range ( $M=549.30$ ,  $SD=865.69$ ),  $F(2, 636)=5.41$ ,  $p=.005$ .

**Summary:** These findings indicate that as the levels of manipulated age range increased, overall relationship satisfaction, male relationship satisfaction, how well-matched the couples were, female desirability, and length of relationship also increased.

### *Physical Attractiveness*

Physical attractiveness was positively correlated with overall relationship satisfaction, Pearson's  $r(660)=.31$ ,  $p<.000$ , male relationship satisfaction,  $r(659)=.49$ ,  $p<.001$ , how well-matched couples were,  $r(659)=.28$ ,  $p<.001$ , female desirability,  $r(659)=.47$ ,  $p<.001$ , and length of relationship,  $r(639)=.16$ ,  $p<.001$ .

A follow up one-way between subjects ANOVA was conducted to examine whether each of the above variables was affected by level of physical attractiveness. The analysis revealed that the lowest level of physical attractiveness ( $M=4.10$ ,  $SD=1.19$ ) generated significantly lower overall relationship satisfaction scores than did both the moderate ( $M=4.95$ ,  $SD=1.22$ ) and

highest level of physical attractiveness ( $M=5.08$ ,  $SD=1.27$ ),  $F(2, 657)= 41.08$ ,  $p<.001$ . The ANOVA also revealed that ratings of male relationship satisfaction increased significantly with each increasing level of physical attractiveness: least physically attractive ( $M=3.97$ ,  $SD=1.32$ ), moderately physically attractive, ( $M=5.19$ ,  $SD=1.18$ ), and highly physically attractive ( $M=5.61$ ,  $SD=1.09$ ), all of which were statistically significant from one another,  $F(2, 656)= 111.38$ ,  $p<.001$ . The extent to which couples were well-matched also was affected by physical attractiveness: the highest level of physical attractiveness ( $M=4.78$ ,  $SD=1.48$ ) and the moderate level of physical attractiveness ( $M=4.63$ ,  $SD=1.49$ ) elicited significantly higher ratings for well-matched than did the lowest levels of physical attractiveness ( $M=3.74$ ,  $SD=1.43$ ),  $F(2, 656)= 32.66$ ,  $p<.001$ . The analysis conveyed that ratings of female desirability increased significantly with each increasing level of physical attractiveness: least physically attractive ( $M=55.12$ ,  $SD=17.06$ ), moderately physically attractive, ( $M=70.59$ ,  $SD=14.78$ ), and highly physically attractive ( $M=75.79$ ,  $SD=15.10$ ), all of which were statistically significant from one another,  $F(2, 656)= 103.71$ ,  $p<.001$ . The analysis also conveyed that the lowest level of physical attractiveness ( $M=401.09$ ,  $SD=595.86$ ) generated significantly lower length of relationship predictions than did both the moderate ( $M=905.17$ ,  $SD=1683.34$ ) and highest level of physical attractiveness ( $M=958.00$ ,  $SD=1623.53$ ),  $F(2, 636)= 10.51$ ,  $p<.001$ .

**Summary:** These findings indicate that as the levels of manipulated physical attractiveness increased, overall relationship satisfaction, male relationship satisfaction, how well-matched the couples were, female desirability, and length of relationship also increased.

*Overall Female Mate Value*

Overall female mate value was positively correlated with overall relationship satisfaction, Pearson's  $r(660)=.30$ ,  $p<.000$ , male relationship satisfaction,  $r(659)=.48$ ,  $p<.001$ , how well-matched couples were,  $r(659)=.31$ ,  $p<.001$ , female desirability,  $r(659)=.45$ ,  $p<.001$ , and length of relationship,  $r(639)=.17$ ,  $p<.001$ .

A follow up one-way between subjects ANOVA was conducted to examine whether each of the above variables was affected by level of overall female mate value. The analysis revealed that the highest level of female mate value ( $M=5.21$ ,  $SD=1.30$ ) generated significantly higher overall relationship satisfaction scores than did the lowest level ( $M=3.96$ ,  $SD=1.09$ ), the lower level ( $M=4.39$ ,  $SD=1.32$ ), the middle level ( $M=4.69$ ,  $SD=1.25$ ), and the higher level ( $M=5.16$ ,  $SD=1.23$ ) of female mate value. The higher level of female mate value ( $M=5.16$ ,  $SD=1.23$ ) also yielded significantly higher relationship satisfaction than the lowest level ( $M=3.96$ ,  $SD=1.09$ ), the lower level ( $M=4.39$ ,  $SD=1.32$ ), and the middle level ( $M=4.69$ ,  $SD=1.25$ ). The middle level ( $M=4.69$ ,  $SD=1.25$ ) of female mate value yielded significantly higher relationship satisfaction than the lowest level ( $M=3.96$ ,  $SD=1.09$ )  $F(4, 655)= 17.21$ ,  $p<.001$ . The ANOVA also revealed that ratings of male relationship satisfaction increased significantly with each increasing level of female mate value: lowest level ( $M=3.65$ ,  $SD=1.21$ ), lower level ( $M=4.36$ ,  $SD=1.40$ ), middle level ( $M=4.95$ ,  $SD=1.27$ ), higher level ( $M=5.65$ ,  $SD=.99$ ), and highest level ( $M=5.75$ ,  $SD=1.06$ ), all of which were statistically significant from one another except the highest level and the higher level,  $F(4, 654)= 50.58$ ,  $p<.001$ . The extent to which couples were well-matched also was affected by female mate value: the lowest level of female mate value ( $M=3.38$ ,  $SD=1.30$ ) elicited significantly lower ratings for well-matched than did the lower level ( $M=4.06$ ,  $SD=1.55$ ), the middle level ( $M=4.35$ ,  $SD=1.46$ ), the higher level ( $M=5.03$ ,  $SD=1.32$ ), and the highest level ( $M=4.84$ ,  $SD=1.63$ ). The lower level of female mate value yielded significantly lower well-

matched scores than did the higher and the highest levels. The middle level of female mate value also yielded significantly lower well-matched scores than did the higher level,  $F(4, 654) = 20.21$ ,  $p < .001$ . The analysis revealed that ratings of female desirability increased significantly with each increasing level of female mate value: lowest level ( $M = 52.53$ ,  $SD = 16.66$ ), lower level ( $M = 59.90$ ,  $SD = 18.68$ ), middle level ( $M = 67.43$ ,  $SD = 16.24$ ), higher level ( $M = 75.41$ ,  $SD = 14.31$ ), and highest level ( $M = 78.56$ ,  $SD = 12.31$ ), all of which were statistically significant from one another except the highest level and the higher level as well as the lowest level and the lower level,  $F(4, 654) = 42.12$ ,  $p < .001$ . The analysis also conveyed that the highest level of female mate value ( $M = 1053.26$ ,  $SD = 1896.40$ ) generated significantly higher predicted length of relationship scores than did the lowest level of female mate value. The higher level ( $M = 1116.40$ ,  $SD = 1953.15$ ) of female mate value also yielded significantly higher predicted length scores than did the lowest level ( $M = 333.78$ ,  $SD = 610.44$ ), the lower level ( $M = 588.36$ ,  $SD = 1019.66$ ), and the middle level ( $M = 657.23$ ,  $SD = 1103.68$ ),  $F(4, 634) = 5.71$ ,  $p < .001$ .

**Summary:** These findings indicate that as the levels of overall female mate value increased, overall relationship satisfaction, male relationship satisfaction, how well-matched the couples were, female desirability, and length of relationship also increased.

## Male and Female

### *Difference in Overall Mate Value*

The difference in overall mate value was calculated by taking the difference of male overall mate value and female overall mate value (subtracting one from the other) and taking the absolute value of that number. Because traits relevant to mate value for men (ambition and financial security) and women (age, physical attractiveness) were ranked on three levels (1, 2, 3), overall mate values for men and women included 2, 3, 4, 5, 6. Absolute value of difference between couple members thus ranged included 0, 1, 2, 3, 4. Difference in overall mate value was negatively correlated with overall relationship satisfaction, Pearson's  $r(660)=-.142$ ,  $p<.001$ , was marginally correlated with male relationship satisfaction,  $r(659)=-.09$ ,  $p=.027$ , how well-matched couples were,  $r(659)=-.17$ ,  $p<.001$ , and was marginally correlated with length of relationship,  $r(639)=-.10$ ,  $p=.011$ .

A follow up one-way between subjects ANOVA was conducted to examine whether each of the above variables was affected by level of difference in overall mate value. The analysis revealed that the lowest level of difference in overall mate value ( $M=4.92$ ,  $SD=1.23$ ) generated significantly higher overall relationship satisfaction than the middle level of difference in overall mate value ( $M=4.46$ ,  $SD=1.36$ ),  $F(4, 655)= 3.97$ ,  $p=.003$ . The effect of difference in mate value on male relationship satisfaction, however, was not significant,  $F(4, 654)= 1.73$ ,  $p=.142$ . Regarding how well-matched couple members were perceived to be, the lowest level of difference in mate value ( $M=4.64$ ,  $SD=1.54$ ) was determined to yield significantly higher well-matched ratings than the middle level ( $M=4.15$ ,  $SD=1.55$ ), the higher level ( $M=4.89$ ,  $SD=1.45$ ), and the highest level ( $M=4.30$ ,  $SD=1.59$ ) of difference in mate value,  $F(4, 654)= 5.38$ ,  $p<.001$ .

The effect of difference in mate value on length of relationship was not significant,  $F(4, 634)=1.933, p=.103$ .

**Summary:** These findings indicate that as the levels of difference in overall mate value increased, overall relationship satisfaction, female relationship satisfaction, how well-matched the couples were, male desirability, and length of relationship decreased. Recall that the investigators predicted that a difference in mate value would be negatively correlated with relationship length, perception of how well-matched couples were, and overall relationship satisfaction. The data supports all of these predictions.

### **Dependent Variable Comparisons**

Significant correlations were also produced when dependent variables were compared to other dependent variables. To compute follow up statistics on these combinations, a dependent variable of interest was compared to another dependent variable by performing a median split on the latter and executing a one way ANOVA to compare the dependent variable of interest to the two groups created.

#### *Overall Relationship Satisfaction*

Overall relationship satisfaction was positively correlated with male relationship satisfaction,  $r(659)=.70, p<.001$ , female relationship satisfaction,  $r(659)=.35, p<.001$ , how well-matched couples were,  $r(659)=.80, p<.001$ , male desirability,  $r(659)=.44, p<.001$ , female desirability,  $r(659)=.51, p<.001$ , and length of relationship,  $r(639)=.38, p<.001$ .

Follow up one-way between subjects ANOVAs were performed to examine whether each of the above variables, after being split by median, was affected by level of overall relationship



satisfaction. The analysis revealed that the high level of male relationship satisfaction ( $M=5.62$ ,  $SD=.98$ ) generated significantly higher overall relationship satisfaction than did the low level of male satisfaction ( $M=4.12$ ,  $SD=1.07$ ),  $F(1, 655)= 330.70$ ,  $p<.001$ . The ANOVA relevant to female relationship satisfaction revealed that the high level of female satisfaction ( $M=5.60$ ,  $SD=1.05$ ) generated significantly higher overall relationship satisfaction than did the low level of female satisfaction ( $M=4.18$ ,  $SD=1.11$ ),  $F(1, 657)= 265.48$ ,  $p<.001$ . The ANOVA relevant to how well-matched couples were revealed that the high level of how well-matched couples were ( $M=5.58$ ,  $SD=.83$ ) yielded significantly higher overall relationship satisfaction than did the low level of how well-matched couples were ( $M=3.82$ ,  $SD=1.03$ ),  $F(1, 651)= 588.30$ ,  $p<.001$ . The ANOVA corresponding to male desirability revealed that the high level of male desirability ( $M=5.23$ ,  $SD=1.23$ ) yielded significantly higher overall relationship satisfaction than did the low level of male desirability ( $M=4.31$ ,  $SD=1.18$ ),  $F(1, 657)= 92.55$ ,  $p<.001$ . The ANOVA corresponding to female desirability revealed that the high level of female desirability ( $M=5.16$ ,  $SD=1.16$ ) yielded significantly higher overall relationship satisfaction than did the low level of female desirability ( $M=4.09$ ,  $SD=1.20$ ),  $F(1, 657)= 131.86$ ,  $p<.001$ . The ANOVA corresponding to length of relationship revealed that the high level of length of relationship ( $M=5.30$ ,  $SD=1.07$ ) yielded significantly higher overall relationship satisfaction than did the low level of length of relationship ( $M=3.99$ ,  $SD=1.14$ ),  $F(1, 637)= 224.26$ ,  $p<.001$ .

**Summary:** These findings indicate that as the levels of overall relationship satisfaction increased, male relationship satisfaction, female relationship satisfaction, how well-matched the couples were, male desirability, female desirability, and length of relationship also increased.

#### *Male Relationship Satisfaction*

Male relationship satisfaction was positively correlated with overall relationship satisfaction, as discussed above, female relationship satisfaction,  $r(659)=.17$ ,  $p<.001$ , how well-matched couples were,  $r(659)=.64$ ,  $p<.001$ , male desirability,  $r(659)=.19$ ,  $p<.001$ , female desirability,  $r(659)=.65$ ,  $p<.001$ , and length of relationship,  $r(639)=.33$ ,  $p<.001$ .

Follow up one-way between subjects ANOVAs were performed to examine whether each of the above variables, after being split by median, was affected by level of male relationship satisfaction. The ANOVA relevant to female relationship satisfaction revealed that the high level of female satisfaction ( $M=5.50$ ,  $SD=1.26$ ) generated significantly higher male relationship satisfaction than did the low level of female satisfaction ( $M=4.57$ ,  $SD=1.34$ ),  $F(1, 657)= 78.41$ ,  $p<.001$ . The ANOVA relevant to how well-matched couples were revealed that the high level of how well-matched couples were ( $M=5.68$ ,  $SD=.92$ ) yielded significantly higher male relationship satisfaction than did the low level of how well-matched couples were ( $M=4.13$ ,  $SD=1.35$ ),  $F(1, 657)= 297.02$ ,  $p<.001$ . The ANOVA corresponding to male desirability revealed that the high level of male desirability ( $M=5.23$ ,  $SD=1.34$ ) yielded significantly higher male relationship satisfaction than did the low level of male desirability ( $M=4.68$ ,  $SD=1.38$ ),  $F(1, 657)= 26.77$ ,  $p<.001$ . The ANOVA corresponding to female desirability revealed that the high level of female desirability ( $M=5.52$ ,  $SD=1.06$ ) yielded significantly higher male relationship satisfaction than did the low level of female desirability ( $M=4.09$ ,  $SD=1.35$ ),  $F(1, 657)= 232.54$ ,  $p<.001$ . The ANOVA corresponding to length of relationship revealed that the high level of length of relationship ( $M=5.48$ ,  $SD=1.07$ ) yielded significantly higher male relationship satisfaction than did the low level of length of relationship ( $M=4.25$ ,  $SD=1.41$ ),  $F(1, 637)= 157.14$ ,  $p<.001$ .

**Summary:** These findings indicate that as the levels of male relationship satisfaction increased, female relationship satisfaction, how well-matched the couples were, male desirability, female desirability, and length of relationship also increased.

### *Female Relationship Satisfaction*

Female relationship satisfaction was positively correlated with overall relationship satisfaction, as discussed above, male relationship satisfaction, as also discussed above, how well-matched couples were,  $r(659)=.35$ ,  $p<.001$ , male desirability,  $r(659)=.32$ ,  $p<.001$ , female desirability,  $r(659)=.11$ ,  $p=.005$ , and length of relationship,  $r(639)=.16$ ,  $p<.001$ .

Follow up one-way between subjects ANOVAs were performed to examine whether each of the above variables, after being split by median, was affected by level of female relationship satisfaction. The ANOVA relevant to how well-matched couples were revealed that the high level of how well-matched couples were ( $M=5.57$ ,  $SD=.95$ ) yielded significantly higher female relationship satisfaction than did the low level of how well-matched couples were ( $M=4.27$ ,  $SD=3.10$ ),  $F(1, 657)= 53.55$ ,  $p<.001$ . The ANOVA corresponding to male desirability revealed that the high level of male desirability ( $M=5.67$ ,  $SD=3.12$ ) yielded significantly higher female relationship satisfaction than did the low level of male desirability ( $M=4.36$ ,  $SD=1.28$ ),  $F(1, 657)= 53.18$ ,  $p<.001$ . The ANOVA corresponding to female desirability revealed that the high level of female desirability ( $M=5.11$ ,  $SD=1.27$ ) yielded significantly higher female relationship satisfaction than did the low level of female desirability ( $M=4.68$ ,  $SD=3.31$ ),  $F(1, 657)= 5.30$ ,  $p=.022$ . The ANOVA corresponding to length of relationship revealed that the high level of length of relationship ( $M=5.35$ ,  $SD=1.09$ ) yielded significantly higher female relationship

satisfaction than did the low level of length of relationship ( $M=4.41$ ,  $SD=3.27$ ),  $F(1, 637)=25.60$ ,  $p<.001$ .

**Summary:** These findings indicate that as the levels of female relationship satisfaction increased, how well-matched the couples were, male desirability, female desirability, and length of relationship also increased.

#### *How Well-Matched Couples Were*

The extent to which couples were well-matched was positively correlated with overall relationship satisfaction, as discussed above, male relationship satisfaction, as also discussed above, female relationship satisfaction, as also discussed above, male desirability,  $r(659)=.37$ ,  $p<.001$ , female desirability,  $r(659)=.47$ ,  $p<.001$ , and length of relationship,  $r(639)=.38$ ,  $p<.001$ .

Follow up one-way between subjects ANOVAs were performed to examine whether each of the above variables, after being split by median, was affected by level of how well-matched couples were. The ANOVA corresponding to male desirability revealed that the high level of male desirability ( $M=4.88$ ,  $SD=1.47$ ) yielded significantly higher ratings of extent to which couples were well-matched than did the low level of male desirability ( $M=3.99$ ,  $SD=1.47$ ),  $F(1, 657)= 59.36$ ,  $p<.001$ . The ANOVA corresponding to female desirability revealed that the high level of female desirability ( $M=4.88$ ,  $SD=1.40$ ) yielded significantly higher ratings of extent to which couples were well-matched than did the low level of female desirability ( $M=3.69$ ,  $SD=1.43$ ),  $F(1, 657)= 114.60$ ,  $p<.001$ . The ANOVA corresponding to length of relationship revealed that the high level of length of relationship ( $M=5.08$ ,  $SD=1.30$ ) yielded significantly higher ratings of extent to which couples were well-matched than did the low level of length of relationship ( $M=3.54$ ,  $SD=1.36$ ),  $F(1, 637)= 212.62$ ,  $p<.001$ .

**Summary:** These findings indicate that as the extent to which couples were well-matched increased, male desirability, female desirability, and length of relationship also increased.

### *Male Desirability*

Male desirability was positively correlated with overall relationship satisfaction, as discussed above, male relationship satisfaction, as also discussed above, female relationship satisfaction, as also discussed above, how well-matched couples were, as also discussed above, female desirability,  $r(659)=.39, p<.001$ , and length of relationship,  $r(639)=.27, p<.001$ .

Follow up one-way between subjects ANOVAs were performed to examine whether each of the above variables, after being split by median, was affected by male desirability. The ANOVA corresponding to female desirability revealed that the high level of female desirability ( $M=73.73, SD=15.93$ ) yielded significantly higher male desirability than did the low level of female desirability ( $M=59.93, SD=17.27$ ),  $F(1, 657)= 112.24, p<.001$ . The ANOVA corresponding to length of relationship revealed that the high level of length of relationship ( $M=72.00, SD=15.63$ ) yielded significantly higher male desirability than did the low level of length of relationship ( $M=62.50, SD=19.00$ ),  $F(1, 637)= 48.10, p<.001$ .

**Summary:** These findings indicate that as male desirability increased, female desirability and length of relationship also increased.

### *Female Desirability*

Female Desirability was positively correlated with overall relationship satisfaction, as discussed above, male relationship satisfaction, as also discussed above, female relationship

satisfaction, as also discussed above, how well-matched couples were, as also discussed above, male desirability, as also discussed above, and length of relationship,  $r(639)=.28, p<.001$ .

A follow up one-way between subjects ANOVAs was performed to examine the above variable, after being split by median, was affected by male desirability. The ANOVA revealed that the high level of length of relationship ( $M=72.27, SD=14.65$ ) yielded significantly higher female desirability than did the low level of length of relationship ( $M=60.25, SD=19.37$ ),  $F(1, 637)= 79.61, p<.001$ .

**Summary:** These findings indicate that as female desirability increased, length of relationship also increased.

## Discussion

This study was performed to investigate differences in mate value of couple members in relationships, an understudied area of evolutionary psychology research. To assess the effects of difference in mate value, simulated dating advertisements were created which provided cues to mate value based on previous research and published mate value inventories. The target areas of interest concerning mate value for men were ambition and financial security and for women included age and physical attractiveness. Participants were shown two dating advertisements at a time to represent a couple and assessed the relationship and couple members on many axes such as their desirability, how well-matched they were, relationship satisfaction, and predicted length of relationship. The purpose of the study was to investigate whether measures of difference in mate value were related or could be used to predict relationship length. Investigators predicted that difference in mate value would be negatively correlated with relationship length, well-matched scores, and overall relationship satisfaction.

### *Summary*

The results of this study largely supported the hypotheses and predictions made by the investigators. The manipulation of ambition and financial security for male advertisements and the manipulation of age and physical attractiveness in female advertisements, intended to represent manipulations of mate value, were significantly positively correlated with participants' ratings of desirability (analogous to mate value). The predictions made concerning difference in overall mate value—that difference in mate value will be negatively correlated with relationship length, well-matched scores, and overall relationship satisfaction—were all supported. These findings indicate, as was expected, that difference in the mate value of couple members can

signal information about the “quality” of their relationship in that positive aspects that indicate a successful or enjoyable relationship, decrease with a high difference in mate value and increase with a small difference. Some of these “positive aspects” include how well-matched couples are, overall satisfaction and that of couple members, and length of relationship. Difference in mate value was, however, only marginally correlated with length of relationship.

It is also important to note that difference in mate value was more highly correlated with overall relationship satisfaction than with length of relationship. This finding seems to indicate that difference in mate value *is* a predictor for quality of relationship, but simply that relationship satisfaction is a better measurement of quality than length of relationship. However, relationship satisfaction was also highly correlated with length of relationship—more highly correlated, in fact, than with difference in mate value. Indeed overall relationship satisfaction was more highly correlated than difference in mate value on many other relevant variables (male relationship satisfaction, female relationship satisfaction, how well-matched couples were, male desirability, female desirability). Although overall relationship satisfaction was a better indicator of these variables, difference in mate value was still valuable as an indicator because the difference in mate value is more easily perceived when assessing a couple than overall relationship satisfaction. Overall relationship satisfaction incorporates many factors (it is significantly correlated with all measured variable relating to mate value, male desirability, female desirability, male relationship satisfaction, female relationship satisfaction, and how well-matched couples were, so it follows that participants considered all of these elements when assigning overall relationship satisfaction) which may not be easily determined, whereas difference in mate value only requires knowledge of each partner’s mate value. One needs relatively little information about a couple to assess their difference in mate value and make



predictions based upon that, whereas assessing overall relationship satisfaction is based on information that may not be easily accessible.

Another interesting findings was that financial security was more highly correlated with male desirability than ambition. When considering evolutionary psychology theory, this finding makes sense in that, although a man with high ambition and no resources is more likely one day to achieve resources than a man with low ambition, there is not necessarily any guarantee that he will ever achieve resources—there merely seems to be an increased potentiality. In addition, even high ambition, if met with failure again and again, could cause a man to become discouraged and therefore cause his ambitiousness to wane. Evolutionarily, it seems more advantageous for a woman to value current financial security over ambition, i.e., the mere possibility of future financial security. A bird in the hand is worth two in the bush, as they say.

A similar finding was that physical attractiveness was much more highly correlated with female desirability than age. Age is an important factor of female mate value in evolutionary psychology theory because of reproductive value, for instance. Younger females have higher reproductive value than older women because they essentially have more time in which they could produce a higher number of children (Buss, 2008). However, age offers no indication of *fertility*, the ability to produce children. Although a young woman may have more time left in her life to produce more children than an older woman, if the young woman is infertile, then the amount of future time she has is irrelevant because she will never be able to produce offspring. Physical attractiveness, on the other hand, is thought to be associated with fertility. Clearly a female mate who possesses both traits would be preferable, but, when forced to choose, evolutionary theory would predict that to value physical attractiveness more highly than age would be beneficial (Buss, 2008).

Another interesting finding revealed that male relationship satisfaction is more highly correlated with overall relationship satisfaction than female satisfaction. Considering that the number of male and female participants was nearly equal, an overrepresentation of men is not responsible for this statistic. As previously discussed, parental investment theory suggests that women are more selective or “choosier” than men due to their greater minimal obligatory investment (Trivers, 1972). Because females are more the selective sex, men are required to compete for access to females. It follows, then, that because men are more competitive, they should derive more satisfaction from being in a relationship rather than without a mate. This is especially true because, if they are not chosen as a mate, men can get shut out of mating (Buss, 2008).

Still more finding revealed that female desirability is somewhat more highly correlated with how well-match couples were than male desirability and that female desirability is somewhat more highly correlated with overall relationship satisfaction than male desirability. These findings seem to suggest that female desirability is a slightly better indicator of overall relationship satisfaction and how well-matched couples are than male desirability. These findings, again, could be explained by the notion that women are the more selective sex and that men are the more competitive. If men derive more satisfaction from being in a relationship rather than not, as discussed above, then it follows that men would be even more satisfied if that relationship were with a highly desirable female, therefore driving up the overall relationship satisfaction score. If an attribute, like female desirability, is thought to increase overall relationship satisfaction, then that attribute should also be correlated with other cues to high quality relationships, such as being well-matched, as was found.

*Limitations*

One limitation of the study is that the manipulation and measurement of the variables relied on highly simplified dating advertisements. Real dating advertisements and real people offer much more information and vary quite a bit whereas these simulated dating advertisements followed one of two basic templates and they were limited in the number and variation of personal attributes presented—only two key variables corresponding to mate value were manipulated for men and women. While the advertisements used in the study allow for more exact comparisons across participant ratings of the advertisements and across the advertisements themselves, they are not highly similar to actual dating advertisements or actual people. Results of future studies could be considered more representative of reality if more complex advertisements were used.

Another limitation is that one of the key dependent variables of interest, length of relationship, was measured by participants' open responses rather than as a scaled response. The open-ended nature of participants' responses proved problematic when trying to compare the data. For instance, when participants used a number and a unit of measurement such as 1 month, this could be assumed to mean, when converted to days, approximately 30 days. However, some participants used more ambiguous terms with no direct conversion to length of time—such as predicted length of relationship responses such as “marriage,” “until death,” or “forever” were difficult to quantify. Investigators conservatively estimated “marriage” and similar responses as corresponding to approximately 10 years. Other responses were too ambiguous to quantify, such as “a long time,” were impossible to estimate and so the data of length of relationship for those participants had to be discarded. Future studies would benefit from a more structured response

form for this question. For example, a 1 to 7 scaled response that had options corresponding to days, weeks, months, and years would standardize responses and allow for more reliable comparisons between the data.

Yet another possible limitation is the sample size and demographic of the study. In total, 57 students participated in the experiment, 29 male and 27 female. The study would likely benefit from a larger sample size so that more robust findings could be produced. This study also suffers from the college sophomore problem (the majority of participants were sophomores) and the fact that all of these participants were students from Carnegie Mellon University. How representative this sample is to the rest of the population is, therefore, somewhat questionable.

#### *Future Studies*

Aside from the suggestions for future studies relating to the above limitations, future studies could also investigate the effects of difference of mate value in real couples. In this proposed study, couples who are already in relationships would be asked to participate. Participants would come into the lab with their significant other and fill out questionnaires in separate rooms. They would receive the MVI-7 questionnaire and be asked other questions relating to mate value (such as, what percentage of the population they consider dateable—presumably those of higher mate value would find fewer people reasonable to date than would a person of lower mate value. An experimenter could also assess participants' mate value and take pictures of the participants before their departure to guarantee reliability (reach a consensus) on their mate value assessment so that the mate value measures are not solely based on self-report. After the couple has left the lab, the participants would receive follow-up emails on a monthly basis to determine whether or not they are still in a relationship with their original partner and to

judge their ongoing relationship satisfaction. The purpose of this study would be to investigate if any indicators of mate value are related or could be used to predict length and satisfaction of relationship.

This study investigated the various effects of difference in mate value between couple members in simulated dating advertisements. The predicted effects, that differences in mate value would be negatively correlated with relationship length, well-matched scores, and overall relationship satisfaction, were all supported. This provides preliminary evidence that difference in mate value is an important feature of relationships and is an indicator to aspects related to quality of relationship. Although overall relationship satisfaction was associated with higher correlations for aspects of relationship quality, difference in mate value remains a valuable indicator because it is a more easily assessed feature of relationships in “real life” situations than is overall relationship quality. Limitations and possible improvements of the study were considered. Future research could be conducted to corroborate these findings and assess whether the results are applicable to real couples.

### References

- Bereczkei, T., Voros, S., Gal, A., and Bernath, L. (1997). Resources, attractiveness, family commitment: Reproductive decisions in human mate choice. *Ethology*, 103, 681-699.
- Buss, D. M. (1989). Sex differences in human mate preferences: Evolutionary hypotheses testing in 37 cultures. *Behavioral and Brain Sciences*, 12, 1-49.
- Buss, D. M. (2008). *Evolutionary psychology: The new science of the mind* (3<sup>rd</sup> ed.). New York, NY: Pearson Education, Inc.
- Buss, D. M., & Barnes, M. (1986). Preferences in human mate selection. *Journal of Personality and Social Psychology*, 50: 559-570.
- Buston, P. M., & Emlen, S. T. (2003). Cognitive processes underlying human mate choice: The relationship between self-perception and mate preference in Western society. *Proceedings of the National Academy of Sciences, U.S.A.*, 10, 8805–8810.
- Gutierrez, S. E., Kenrick, D. T., & Partch, J. J. (1999). Beauty, dominance, and the mating game: Contrast effects in self-assessment reflect gender differences in mate selection. *Personality and Social Psychology Bulletin*, 25, 1126-1134.
- Kenrick, D. T., Neuberg, S. L., Zierk, K. L., & Krones, J. M. (1994). Evolution and social cognition: Contrast effects as a function of sex, dominance, and physical attractiveness. *Personality and Social Psychology Bulletin*, 20, 210-217.
- Shackelford, T. K., Schmitt, D. P., & Buss, D. M. (2005). Universal dimensions of human mate preferences. *Personality and Individual Differences*, 39: 447-458.

Stone, E. A., Shackelford, T. K., & Buss, D. M. (2007). Sex ratio and mate preferences: A cross-cultural investigation. *European Journal of Social Psychology*, 37: 288-296.

Trivers, R. (1972). Parental investment and sexual selection. In B. Campbell (Ed.), *Sexual selection and the descent of man: 1871-1971* (pp.136-179). Chicago: Aldine.

Waynforth, D., & Dunbar, R.I.M. (1995). Conditional mate choice strategies in humans: evidence from 'lonely hearts' advertisements. *Behaviour*, 132: 755-779.

My name is \_\_\_\_\_ and I am looking for a potential long term partner.

I am a man in my mid-20s. I am really ambitious and moderately healthy. I also pride myself on being very kind and understanding and am somewhat neat. My finances are very secure and I am generally a very easy-going person.

-----

My name is \_\_\_\_\_ and I am looking for a potential long term partner.

I am a very neat woman who is somewhat kind and understanding. I am in my mid 20s, am extremely easy-going, and am somewhat healthy. I am also very physically *attractive!*

---

*Figure 1.* Example of a dating advertisement featuring a high mate value man and woman



My name is \_\_\_\_\_ and I am looking for a potential long term partner.

I am a man in my mid-20s. I'm a very social person and I have a mediocre sense of humor. I am kind of independent, not at all ambitious, and not at all financially secure. I also happen to be very creative and artistic.

-----

My name is \_\_\_\_\_ and I am looking for a potential long term partner.

I'm a somewhat creative and artistic and very independent woman. I am in my late 30s, am not very physically attractive, but I have a great good sense of humor. I am moderately social as well.

---

*Figure 2.* Example of a dating advertisement featuring a low mate value man and woman

