Research Paper

Exploring the Impact of Mate Value & Desire for Commitment on Changing Mate Preferences in Indian Youth

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ABSTRACT

Mate preferences is an uncharted area in India with few studies (such as Prakash & Singh, 2014) laying rudimentary foundations about characteristics that individuals prefer in potential partners. The impact of moderator variables such as desire for commitment in relationships & mate value have been predominantly studied in WEIRD (Western, Educated, Industrialized, Rich & Democratic) cultures alone. This paper aimed to 1) explore underlying dimensions of mate preferences within an Indian sample 2) identify gender differences in mate preferences, 3) identify the impact of desire for commitment on mate preferences and 4) study the moderating effects of mate value and desire for commitment on mate preferences. From responses of 200 Indian participants from Bangalore urban, 5 underlying dimensions (Physical Attractiveness & Compatibility, Dependability & Emotional Warmth, Social Status & Resources, Sociability, Ambitiousness) were identified through exploratory factor analysis. Females were found to prefer Social Status & Resources and Ambitiousness characteristics more than men. While desire for commitment alone had no impact on mate preferences, along with mate value as a moderator it was found to significantly affect preferences. The paper further discusses implications of findings in a larger cultural context and proposes research to untangle the complex moderating effect of mate value on mate preferences.

Keywords: Desire for commitment, Evolutionary psychology, Mate preferences, Mate value

Evolutionary psychology is an age-old scientific attempt to include the evolutionary sciences and theories that systematically works out the cause of existing belief and engage in research practices for the same (Tooby & Cosmides, 1992). Mate preference is described as the characteristics that are commonly desired and sought in a mate. Individuals who are abundant in these desired characteristics are preferred over the ones who have a low level of the same (Buss & Barnes, 1986). From an evolutionary perspective, women are more selective than men to find a potential mate; partially influenced by the social constructs of men and women (Wood & Eagly, 2002).

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Mate Preference

Mate preferences are the outputs of psychological mechanisms designed to motivate people to pursue potential mates who possess particular traits (Conroy-Beam, D. & Buss, D., 2016). It has been shown to shift as a function of personal and ecological contexts. India is a collectivistic country (Triandis, 1995) which has gone through a series of changes in terms of diversity in traditional value, impassioned sentiment, social obligation, kinship bond, and economic resource (Heitzman & Worden, 1995). Since the last 25 years, there has been a shift- modern Indians (relative to Indians studied in 1984) prefer to marry later in life, attached to the trait "ambitiousness" in long-term mate. But despite this change, men seem to prefer women who are younger to them and are attractive, correlating to health & fertility (Sugiyama, 2005). Status and potential to provide resources are preferred more over physical attractiveness for women (Kenrick et al., 2001; Waynforth, 2001). Women have evolved their mate preferences in men to resource-acquisition abilities to take care of the family and children (Buss, 2012). For evaluating rivals, women assess physical cues and behaviors related to female mate value like, nubility, youth, fertility, fecundity, health (Bleske & Shackelford, 2001; Buss & Dedden, 1990). Their mate-choice preferences and behaviors are influenced by intrapersonal motives, interpersonal motives and contextual/ available mates (Bateson 1987; Belsky et al. 1991; Buss and Schmidt 1993; Campbell 2002; Gangestad and Simpson 2000; Geary 1998; Hill and Hurtado 1996; Lancaster 1994; Penton-Voak et al. 2003; Vigil and Geary 2006). Gender-role ideology and collectivism exert a unique influence on the relationship attitudes and preferences in a country like India.

Desire for Commitment

Desire for commitment in a relationship is a significant predictor of relationship stability in intimate partnerships (Pope, A.L., 2013). In the lines with the study conducted by Bejanyan, Marshall and Ferenczi (2015), collectivists experienced upward pressure on their relationship commitment and passion due to their family allocentrism but downward pressure on these relationship outcomes due to high parental influence. The former can be explained in terms of smaller discrepancy in their preferences and their perception of their parents' preferences for a mate possessing qualities of warmth and trustworthiness. Feelings of love promote commitment to one's partner (Gonzaga, Keltner, Londahl, and Smith, 2001). Romantic commitment can be seen through an evolutionary-economics perspective in accounting for the costs and benefits underlying a relationship- parental investment and sexual selection. Unlike men, women have more to lose (pregnancy, rearing of offspring) than men if they make a poor choice of mate and hence, they have comparatively stronger motivation to select a mate wisely (Buss & Schmitt, 1993; Geary, 1998; Kenrick, Groth, Trost, & Sadalla, 1993; Li et al., 2002; Regan, 1998; Schmitt, Shackelford, & Buss, 2001). Error management theory (Haselton & Buss, 2000) brings in an interesting perspective on two types of biases which may influence one's desire for commitment in a relationship. One is a situation where men infer more sexual intent in women than it is actually present while the other one is a situation where women infer less commitment intent in men than there is actually present. In other words, women want to minimize selling errors and men want to optimize buying errors. Across societies, women appear to assess prospective long-term mates using cues of willingness and ability to invest in a mate and her offspring, such as kindness, intelligence, industriousness, and ability to acquire resources (Buss, 1989).

Mate Value

Components of human mate value include species, sex, age, degree of relatedness, health, status, kindness, intelligence, and willingness and ability to mate with one and invest in their

offspring. (Symons, 1979). Some have higher mate values than others; it can predict availability of mates and hence their commitment in the relationship (Tadinac, M. & Hromatko, I., 2007; Starratt, V.G., Weekes-Shackelford, V., Shackelford, T.K., 2016). Sexual selection (Darwin, 1871) saves time, energy and physical costs by averting competition with rivals that the individual is unlikely to outcompete. For women, male-mate value includes traits associated with genetic quality, health, and physical formidability, as well as traits associated with ability and willingness to invest in a woman and her offspring (Symons, 1979; Millar, 2013; Edlund & Sagarin, 2010). It is assumed that people can have an accurate sense of their own mate value and that of others even if they cannot concise all the factors influencing it (Base & Guy, 2004).

The Current Study

Therefore, the current study aimed to do the following: 1) identify underlying dimensions of mate preferences within an Indian sample, 2) identify significant differences in mate preferences due to gender, 3) measure the impact of desire for commitment on mate preferences in males and females, and 4) explore the impact of mate value and desire for commitment jointly on variance in mate preferences in men and women.

METHODOLOGY

Participants

200 individuals (Male = 49, Female = 149, Transgender = 1, Non-Binary = 1) in the age range of 20-29 years (Mean = 22.67, SD = 2.26) were recruited for this study through convenient sampling. Out of which, 64.8% of women and 66.6% of men reported a desire for commitment higher than the sample mean. All participants were Indian nationals, predominantly from Bangalore urban and reported their relationship status as follows: 38.5% of females & 35.4% of males reported 'In a Relationship', 6% of females reported being 'Married', 55.4% of females and 64.58% of males reported being 'Single'.

Design & Materials

A multi-study approach was employed to 1) measure and analyze underlying dimensions of mate preferences reported within this specific Indian sample and 2) explore the relationship between mate preference, desire for commitment and mate value. Study 1 used data provided by 200 participants to identify underlying dimensions of sample-specific mate preferences through exploratory factor analysis. With dimensions of mate preferences identified in study 1, Study 2 employed frequentist methods of hypothesis testing to explore impact of desire of commitment and mate value (as predictor variables) on variance in 5 dimensions of mate preferences (as outcome variable).

Mate Preferences were measured by the Extended Hill Mate Selection survey (Conley, 2007) which consisted of 24 personal characteristics that individuals might look for in a future mate (e.g. good cook & housekeeper, pleasing disposition, sociability etc.). Participants were instructed to rate the extent to which they desire a characteristic in potential partners on a 4-point rating scale ranging from 1 (irrelevant/unimportant) to 4(indispensable). All responses were subjected to EFA (see Study 1 Results) and collated into 5 dimensions of: Physical Attractiveness & Compatibility, Dependability & Emotional Warmth, Social Status & Resources, Ambitiousness & Sociability. The 5-factor model of mate preferences within the sample displayed good reliability ($\alpha = 0.84$).

Desire for Commitment were measured through Rusbult, Martz & Agnew (1998)'s Investment model scale. The 5-item scale (better internal consistency than that of 7-item scale) measures construct of commitment & interdependence in romantic relationships on a 5-point likert scale (1 = Strongly Disagree, 5 = Strongly Agree). A mean score of responses on the scale was used to identify desire for commitment in a relationship, with scale items such as: "I am committed to maintaining my relationship with my partner" or "I feel very attached to our relationship" ($0.91 < \alpha < 0.95$).

Mate Value was measured with a scale developed by Edlund & Sagarin (2014). It consists of 4-items on a 7-point likert response scale (where 1 = Extremely undesirable, 7 = extremely desirable) and contains items such as: "Overall, how would you rate your level of desirability as a partner on the following scale". The scale reports good reliability, Cronbach's $\alpha = .86$.

Procedure
Participants that responded to recruitment via in-person and online channels were directed to a Google Forms link, where they were given detailed information about the study. On expressing their consent, socio-demographic details such as age, gender, place of origin, occupation, relationship status and socio-economic status were measured. Participants were then directed to the 3 key questionnaires of the study, namely the Expanded Hill Mate selection survey (Conley, 2007), Rusbult et. al. (1998)'s Investment model scale and Edlund & Sagarin (2014)'s Mate Value scale. On completion of surveys, participants were provided an option to leave identifying information (such as email) if they were interested in the results of the study. The current study was conducted as part of Master's thesis at Montfort College and was provided due ethical clearance from the Department of Counseling Psychology.

RESULTS
Study 1
No consensus has been achieved on a universal dimension of mate preferences: with Shackelford, Smith & Buss (2005) identifying 5 dimensions, Fletcher et al. (1999) identifying 3 dimensions and Atari & Jamali (2015) identifying 5 different dimensions in an Iranian sample. Therefore, the present study aimed to identify dimensions specific to the current Indian sample.

Data Checks
Responses of 200 participants to 23 Mate characteristics from the adapted Hill (1947) survey were checked for factorability. 19 out of 23 items displayed item-rest correlations higher than 0.3, with a Kaiser-Meyer-Olkin measure of sampling accuracy of 0.82 (higher than the recommended 0.6) and a significant result of Bartlett's test of sphericity (χ^2 (253) =1261.74, $p < 0.05$). The current sample did not display multivariate normality, as tested by Shapiro-Wilk's test for Multivariate Normality.

Factor Analysis
EFA was applied with a Maximum Likelihood estimation (Lawley, 1940) method and factors were rotated with Orthogonal varimax rotation method. In comparison of multiple models, the 5-factor model displayed the best goodness-of-fit indices (RMSEA = 0.04, 90% CI = 0.012-0.05, BIC = -600.44, Chi-square/df = 0.12), as compared to a 4-factor (RMSEA = 0.047, 90% CI = 0.026-0.055, BIC = -659.177) or 3-factor model (RMSEA = 0.051, 90%

CI = 0.033-0.059, BIC = -722.016). Factors loadings and correlations are reported in Table x.

Factor 1 ('Physical Attractiveness & Compatibility) loaded the following items: Good looks (0.40), Good health (0.53), Intelligence (0.54), Sense of Humour (0.43), Physical Attractiveness (0.73), Shared Hobbies/Interests (0.50) and Sexual Compatibility (0.58). Factor 1 explained 11% of proportion variance.

Factor 2 ('Dependability & Emotional Warmth) loaded the following items: Pleasing disposition (0.55), Dependable character (0.68), Emotional stability (0.57), Mutual love (0.56) and Emotional support (0.53). Factor 2 explained 10.1% of total proportion variance.

Table 1 Factor loadings of items on Expanded Mate Preference Survey (Hill, 1947) in Indian Sample

	Physical Attractiveness & Compatibility	Dependability & Emotional Warmth	Social Status & Resources	Ambitiousness	Sociability
Good cook and housekeeper			0.33		
Pleasing disposition		0.56			
sociability					0.53
similar political background					
refinement, neatness			0.35		
good financial prospect			0.43		
chastity			0.53		
dependable character		0.68			
emotional stability, maturity		0.57			
desire for home and children			0.39		
favorable social status			0.57		
good looks	0.4		0.39		
similar religious background			0.76		
ambitiousness, industriousness				0.61	
similar educational background					
mutual attraction and love		0.57			
good health	0.53				
education, intelligence	0.55				
sense of humor	0.43				
emotionally		0.54			

supportive/good listener				
physical attraction/ chemistry	0.73			
shared interest/hobbies	0.51			
sexual compatibility	0.59			

Factor Correlation				
Physical Attractiveness & Compatibility	0.12	0.03	0.12	0.04
Dependability & Emotional Warmth	0.12	0.01	0.02	0.06
Social Status & Resources	0.03	0.01	0.13	0.1
Ambitiousness	0.12	0.02	0.13	0.06
Sociability	0.04	0.06	0.1	0.06

Factor 3 ('Social Status & Resources') loaded the following items: Good cook & Housekeeper (0.33), Neatness/Refineness (0.34), Good Financial Prospects (0.43), Chastity (0.52), Desire for Home & Children (0.38), Favourable social status (0.57), Similar religious background (0.75). Factor 3 explained 9.5% of total proportion variance.

Factor 4 ('Ambitiousness) loaded a single item: Ambition (0.68) and explained 4.8% of total proportion variance. Factor 5 ('Sociability') also loaded single item: sociability (0.53) and explained 3.8% of total proportion variance. Items such as 'Similar education background' and 'Similar political background' did not load on any factor, given the minimal correlation requirement of $r = 0.3$.

The Expanded Mate Preference survey in the current sample displayed adequate reliability, Cronbach's $\alpha = 0.84$.

Study 2
Based on results of EFA, Participants' responses to mate preferences were collapsed into 5 dimensions of: Physical Attractiveness & Compatibility, Dependability & Emotional Warmth, Social Status & Resources, Ambitiousness & Sociability. As mate preferences have seldom been measured within non-WEIRD samples such as India, the descriptive statistics of mate preferences of men & women (Total N = 198) in this sample across 5 dimensions, have been shown in Table x2. Results from Table x2 show that while differences were marginal, both men and women prioritized mate preferences of Dependability & Emotional warmth. In addition, women prioritized characteristics of Ambitiousness and Physical Attractiveness & Compatibility over that of Social status & Resource and Sociability. While men prioritized characteristics of Physical Attractiveness & Compatibility and Sociability over others.

Table 2 Descriptive Statistics of Mate Preferences by Gender

	Mate Preferences									
	Physical Attractiveness & Compatibility		Dependability & Emotional Warmth		Social Status & Resources		Ambitiousness		Sociability	
Descriptive Statistics	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
n	148	48	148	48	148	48	148	48	148	48
Mean	2.84	2.87	3.5	3.4	2.54	2.17	2.99	2.64	2.75	2.67
SD	0.48	0.5	0.48	0.35	0.52	0.49	0.75	0.88	0.74	0.75
Shapiro Wilk's Test	0.98	0.95	0.82	0.93	0.97	0.97	0.8	0.86	0.81	0.82
Shapiro-Wilk's P-Value	0.06	0.07	<.001	0.01	0.02	0.3	<.001	<.001	<.001	<.001

Mate Preferences & Gender

In the current study, participants significantly differed in their mate preferences by gender. Assumptions for homogeneity of covariance were met with Box's M test of homogeneity of covariance matrices, but assumptions for normality were not met. MANOVA results found that Gender as a variable explained significant differences in Mate preferences, Pillai's Trace = 0.13, F (5,190) = 5.73, $p < .001$. Follow-up univariate ANOVA results found significant impact of Gender on preference for Social Status & Resources (F (1,194) = 18.65, $p < .001$) and Ambitiousness (F (1,194) = 7.07, $p < .05$). With Women preferring characteristics of Social Status & Resources about 4.3 times more than men (t = 4.31, p < 0.01, d = 0.71); and characteristics of Ambitiousness 2.6 times more than men (t = 2.69, $p < .05$, $d = 0.44$). However, there was no significant evidence in this data to explain differences in mate preferences of Physical Attractiveness & Compatibility (F (1,194) = 0.14, $p = 0.7$), Dependability & Emotional Warmth (F (1,194) = 0.4. $p = 0.5$). In conclusion, mate preferences significantly differed by gender: Females reported higher preferences for characteristics of Social status & Resources and Ambitiousness in potential partners.

Mate Preferences & Desire for Commitment

The impact of desire for commitment on differences in mate preferences were evaluated by a MANOVA. Gender was added as another fixed factor variable. Assumptions of homogeneity of covariance matrices were met, but not of normality. There was no significant impact found of desire of commitment as a main effect (Pillai's Trace = 0.01, F (5,188) = 0.60, $p = 0.69$) or as a mixed effect with Gender ($p = 0.89$). Therefore, participants' desire for commitment in a relationship did not explain the variance in their mate preferences.

Mate Preferences & Mate Value Across Gender

Correlation matrix (See Graph 1(a) in Appendix) between Mate preferences for females and self-reported mate value show that no significant correlations exist. However, Mate value was found to show a negative significant small correlation with preference for Dependability & Emotional Warmth by men ($r = -0.29$, $p < .05$). For men, mate value was found to be

negatively correlated to all other mate preferences, albeit non-significant (see Graph 1(b) in Appendix). Based on the lack of correlations, conducting further inferential statistics were foregone. Therefore, mate value alone was not found to significantly influence variance in mate preferences for men and women.

Graph 1 (a) Correlation Matrix of Mate Value & Mate Preferences of Females
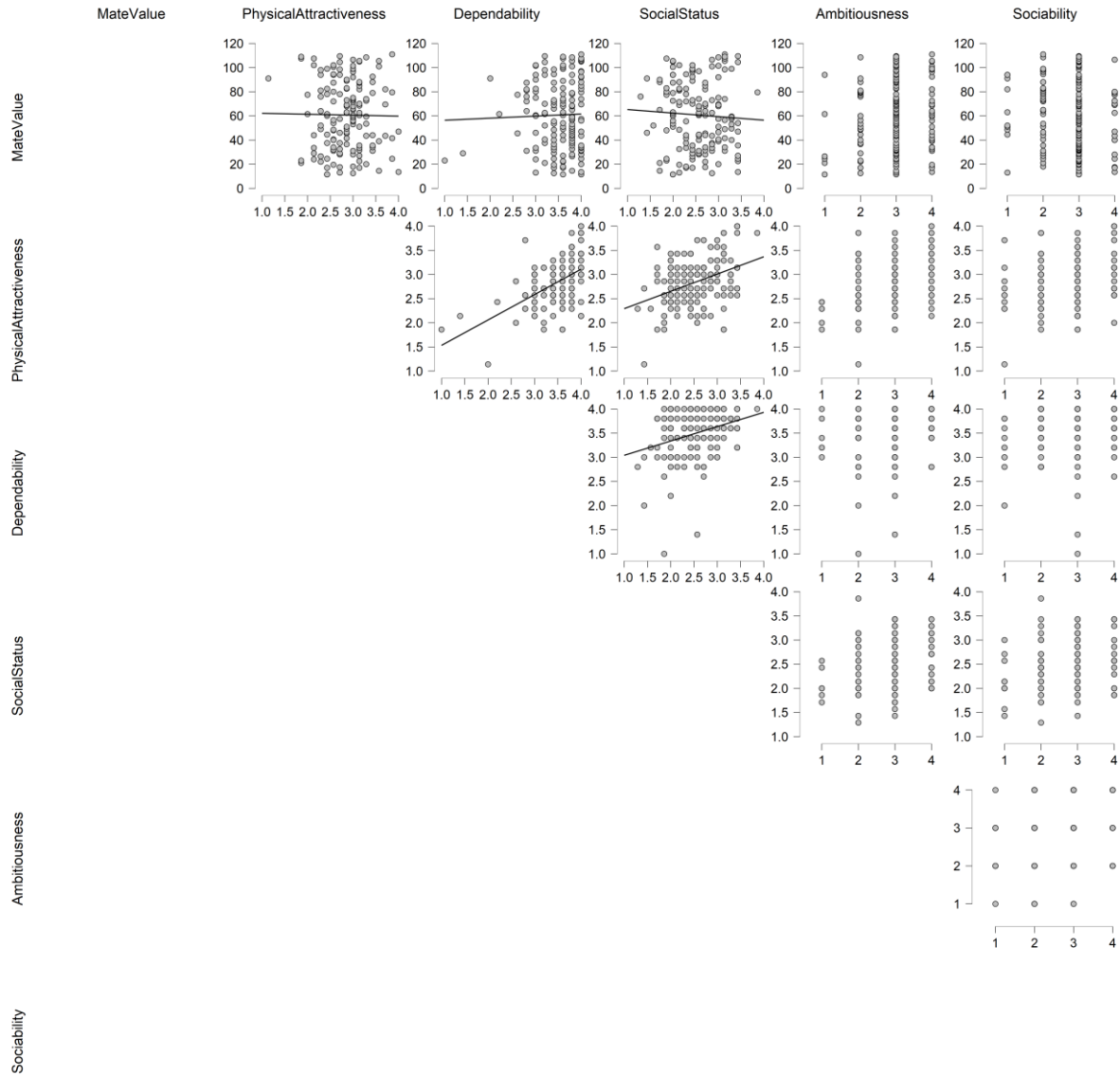
Graph 1(b) Correlation Matrix of Mate Value and Mate Preferences of Men
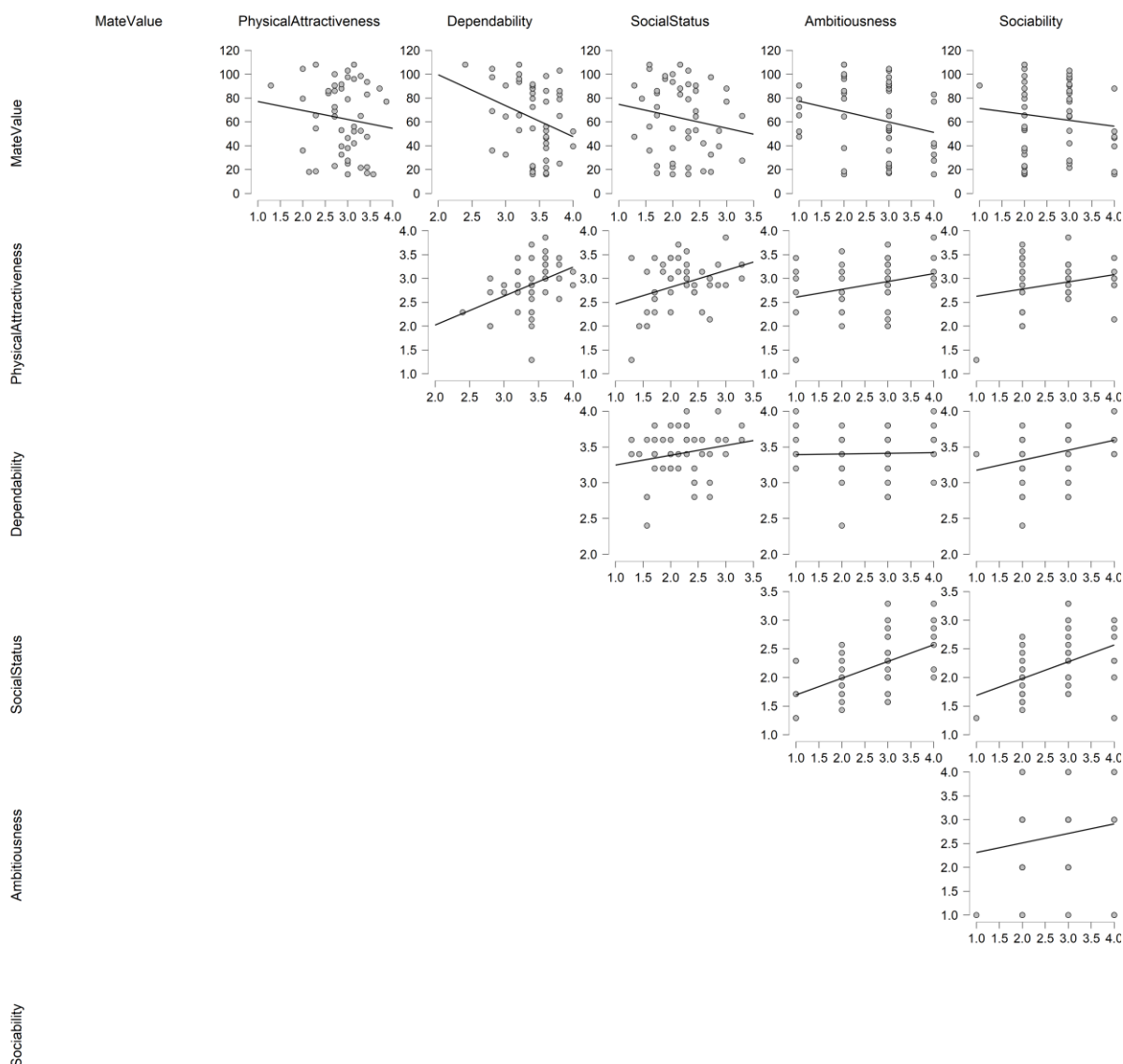
Mate Preference, Mate Value & Desire for Commitment

Further inferential analyses were conducted by splitting the dataset by gender inroder to identify influences of predictor variables on mate preferences of men & women. Here, multiple regression analyses are conducted to identify the influence of mate value and desire for commitment on 5 dimensions of mate preferences.

Physical Attractiveness and Compatibility. A multiple regression model with mate value and desire for commitment as predictor variables was found to significantly explain variance in preference for physical attractiveness & compatibility in females [$F(2,145) = 116.67$, $R^2 = 0.61$]. Further investigation identified that both mate value [Beta = -13.88, $t(147)= -15.26$, $p <.001$] and desire for commitment [Beta = 13.89, $t(147) = 15.27$, $p <.001$] were significant predictors.

The same model was also found to be significant in predicting variance in preference for Physical Attractiveness & Compatibility traits in males [$F(2,45) = 19.46$, $R^2 = 0.46$]. With

desire for commitment [Beta = 13.04, t(47) = 6.13, $p<.001$] and mate value [Beta = -13.15, t (47) = -6.18, $p <.001$] as significant predictors of the outcome variable.

Dependability & Emotional Warmth. Multiple regression analyses of this mate preference in females was found to be significantly predicted by desire for commitment and mate value [$F(2,145) = 60.31$, $R^2 = 0.45$]. Both, desire for commitment [Beta = 11.91, t (147) = 10.97, $p <.001$] and mate value [Beta = -11.86, t(147) = 10.92, $p <.001$] were found to be significant predictors of this trait. In men as well, preference for dependability and emotional warmth was significantly predicted by these 2 predictor variables [$F (2,45) =5.88$, $R^2 = 0.2$] and individual predictors were found to be significant as follows: desire for commitment [Beta = 6.78, t(47) = 2.6, $p <.05$] and mate value [Beta = -7.07, t(47) = -2.7, $p <.005$].

Social Status & Resources. Multiple regression analyses found that preference for social status and resources in potential partners by women were significantly predicted by both desire for commitment and mate value [$F (2,147) = 55.55$, $R^2 = 0.43$]. further investigation of individual predictors found that desire for commitment [Beta = 11.61, t(147) = 10.5, $p <.001$] and mate value [Beta = -11.64, t(147) = -10.53, $p <.001$] were significant predictors. In men, the same model was also found to be a significant predictor of about 57% of the variance, $F (2,47) = 30.98$, $R^2 = 0.57$. Predictor variables of desire for commitment [Beta = 14.47, t(47) = 7.6] and mate value [Beta = -14.61, t(47) = -7.75] were both significant at $p <.001$ level.

Ambitiousness. In females, multiple regression analysis of desire for commitment and mate value was found to significantly explain 56% variance in preference for ambitiousness, $F(2,145) = 92.18$, $p < .001$. On further investigations, both predictor variables mate value [Beta = -12.84, t (147) = -13.17] and desire for commitment [Beta = 13.05, t (147) = 13.34] were found significant at $p <.001$ level. Male preference for ambitiousness in potential partners could also be significantly predicted by desire for commitment and self-reported mate value [$F(2,47) = 45.74$, $R = 0.67$, $p <.001$]. Individual predictors such as desire for commitment [Beta =15.13, t (47) = 9.07] and mate value [Beta = -15.37, t (47) = -9.21] at $p <.001$ level.

Sociability. Female preference for sociability in male partners was significantly ($p <.05$) predicted by a model containing desire for commitment and mate value [$F (2,147) = 3.64$, $R = 0.13$]. Further investigation showed predictor variables of desire for commitment [Beta = 5.14, t (147) = 3.69] and mate value [Beta = -5.26, t (147) = -3.78] as significant at the $p <.001$ level. In males, a model with desire for commitment and mate value as predictor variables was found to significantly ($p <.05$) explain 13% variance in preference for sociability traits in female partners. Further analysis showed that both variables: desire for commitment [Beta = 6.84, t (47) = 2.54] and mate value [Beta = -6.96, t(47) = -2.58] were significant at $p <.05$ level.

In conclusion, the current study finds significant evidence to take part the delicate relationship between desire for commitment in potential relationships, an individual's self-report mate value and preferred characteristics in potential mates. We find that gender continues to have a significant impact on mate preferences, with females reporting significantly higher preference for traits of Status & Resources and Ambitiousness in potential partners. While Men prioritized traits of Physical attractiveness & Compatibility, they did not significantly differ in these preferences from women. Desire for commitment,

however, did not singularly impact changes in mate preferences by gender. But, when coupled with self-report scores of mate value, it was found to explain significant variance in preference for mate characteristics in women & men. Such that, mate value was negatively correlated with increased mate preferences and desire for commitment was positively correlated for men and women.

DISCUSSION

Study 1
The study aimed to identify underlying dimensions of mate preferences within an Indian sample. Exploratory factor analysis of the data identified a 5-factor model with adequate indicators of goodness-of-fit (RMSEA = 0.04, 90% CI = 0.012-0.05). We found that mate preferences of Indian participants could be assimilated into dimensions of: Physical Attractiveness & Compatibility, Dependability & Emotional Warmth, Social Status & resources, Ambitiousness & Sociability.

A suggestion for universal dimensions of mate preferences does exist by Shackelford, Schmitt & Buss (2005), with traits such as Love vs Status/Resources, Dependable/Stable vs Good Looks/Health, Education/Intelligence vs Desire for Home/Children and Sociability vs Similar Religion. However, such a suggestion has been routinely challenged by cross-cultural differences in dimensions of mate preferences with Atari & Jamali (2016) identifying 5 dimensions of women's mate preferences in Iran as: Kindness/Dependability, Status/resources, Attractiveness/Sexuality, Religiosity/Chastity and Education/Intelligence, with a replication in countries such as Pakistan & Turkey (Atari, Chaudhary & Al-Shawaf, 2019). Cooperman & Waller (2020) found 14 underlying dimensions from the 108-item measure of Mate Preferences, with factors such as: Conservative/Religiosity, Physical Attractiveness/Health and Resource Acquisition. While models proposed universally may differ, we find that individuals state the same characteristics that are often reported in research (i.e., traits of Physical Attractiveness, Dependability & Good financial prospects have found to be attributed to different factors in all models stated above). Therefore, it is important to consider that such differences in models may boil down to cross-cultural and social change differences across time (Bech-Sorensen & Pollet, 2016).

Nevertheless, our findings display consistent similarities by reporting commonly found dimensions of Physical Attractiveness & Compatibility, Social Status & Resources and Dependability & Emotional Warmth. Single-item dimensions of Ambitiousness & Sociability remain unique to this sample, as compared to factors such as Conservative/Religiosity (Cooperman & Waller, 2020) or Education/Intelligence (Atari & Jamali, 2016).

Study 2
Study 2 found significant gender differences in dimensions of mate preferences within the current sample. Gender differences in mate preferences is an often over researched area in the literature with consistent findings of women's prioritization of status or power-related traits in men and men's prioritization of physical attractiveness or health-related traits in women (Buss, 1989; Buss, Shackelford, Kirkpatrick & Larsen, 2001). This effect has been attributed to an evolutionary mechanism by men to maximize benefits of offspring production by selecting traits associated with fertility in women (Buss, 2015). In tandem with such research, the current study also finds significant difference in mate preferences due to gender.

However, gender differences in mate preferences have changed over the years due to social change (Bech-Sorensen & Pollet, 2016). In Bech-Sorensen et al. (2016)'s study preferences such as willingness to marry previously married individuals show increase, due to high divorces rates and reduced stigma of divorces. Boxer, Noonan & Whelan (2013) found that gender differences in preference for 'good financial prospects' has reduced over last 25 years, with men's preference for financial prospects increasing over time. However, women's preference for good financial prospects in male partners has stayed stable over time. Additionally, cultural selection of certain traits (such as physical attractiveness and high status) may explain gender difference in mate preference, but also individual characteristics such being agentic (i.e., wanting to contrast normative culture) or communal (i.e., wanting to assimilate to normative culture) (Gebauer, Leary & Neberich, 2012). In the current sample, women significantly preferred traits of Social status & Resources and Ambitiousness far more than their male counterparts. Prioritization of resource acquisition traits by women is in accordance with classic evolutionary theories. However, men and women did not significantly differ in their preference for physical attractiveness & compatibility traits, showing a lack of evidence in support of Buss (2015)'s theory of males prioritizing youth/fertility traits in women. Such findings hold implications to expand the cultural makeup of mate preferences in India, and chart future developments across the years.

Desire for commitment in a relationship had no significant impact on mate preferences. While similar constructs have been tested, no prior research has been conducted on impact of desire for commitment on mate preferences. Previous research makes a case for impact of ecological conditions such as resource availability (Cohen & Belsky, 2008) on preference for certain traits in mates, but romantic attachment showed minimal effects. Relationship orientation (preference for a long-term or short-term relationship) has also been found to differ by gender with women reporting long-term orientations (Schmitt, Shackelford & Buss, 2001). Due to such an orientation, women have been found to prefer traits supporting parental investment in partners such as resource acquisition (Gangstead & Simpson, 2000). While substantial evidence exists to show that mate preferences become flexible based on resource availability and relationship orientation of an individual (Montoya, 2005), no conclusive evidence extends to other factors of relationships such as commitment desire or relationship satisfaction. We hypothesize the study's finding of a lack of impact of commitment desire on mate preferences is due to a small effect size. When coupled with mate value, commitment desire was found to significantly predict changes in mate preferences.

Edlund & Sagarin (2010) found that individuals with high mate value seek partners with high levels of mate characteristics. Indeed, men with high self-reported mate value also reported higher levels of preference of sociability, ambitiousness, social status & financial prospect traits in women (Arnocky, 2018). While mate value alone has been found to impact mate preferences greatly, it also acts as a potent moderator to observe flexibility in preferences. In a study by Conroy-Beam, Goetz & Buss (2016), mate value was found to predict relationship satisfaction such that relationship satisfaction reduced for participants when their partners did not match their preferences, but only for those with high mate value. In the current study as well, mate value was found to be a key moderator, along with commitment desire, on changing mate preferences. While mate value and commitment desire impact mate preferences, the changes in preference for individual traits are complex with effects of mate value, commitment desire and gender intertwined together. Additional

research is required to tease apart such complex effects of mate value in tandem with commitment reside, ecological resources and gender-specific differences.

Implications of the current findings open up new avenues for further research into mate preferences in India. While initial research (Prakash & Singh, 2014; Bejanyan, 2015) lay exciting groundwork for a look into the vastly ever-changing landscape of Indian mate preferences, a thorough investigation is much needed. Additionally, the study's findings provide a null finding on the impact of commitment desire on changing mate preferences as counteraction to previously found evidence on similar constructs. Lastly, the study proposes that a complex relationship exists between mate value, commitment desire and mate preferences with mate value acting as a strong moderator in what individuals prefer in potential characteristics across different instances of desire for commitment. However, such findings must be generalized cautiously due to the culture-specificity of such a sample. While the current sample cannot represent the large population of India, it provides an initial albeit urban look.

REFERENCES

Ackerman, J. M. & Griskevicius, V. (2011). Let's Get Serious: Communicating Commitment in Romantic Relationships. *Journal of Personality and Social Psychology.* Vol 100, No.6. 1079-1094. doi: 10.1037/a0022412

Arnocky, S. (2018). Self-perceived mate value, facial attractiveness, and mate preferences: Do desirable men want it all?. *Evolutionary Psychology*, *16*(1), 1474704918763271.

Atari, M., & Jamali, R. (2016). Mate preferences in young Iranian women: Cultural and individual difference correlates. *Evolutionary Psychological Science,* 2(4), 247-253.

Atari, M., Chaudhary, N., & Al-Shawaf, L. (2020). Mate preferences in three Muslim-majority countries: Sex differences and personality correlates. *Social Psychological and Personality Science,* 11(4), 533-545.

Bateson, P. (1987). Familiarity Out-breeds. *Behavioral and Brain Sciences.* 10:71-72.

Bech-Sørensen, J., & Pollet, T. V. (2016). Sex differences in mate preferences: A replication study, 20 years later. *Evolutionary Psychological Science*, *2*(3), 171-176.

Bejanyan, K. (2015). *The influence of familial involvement and cultural values on mate preferences and romantic relationships: what do today's emerging adults in India and America want?* (Doctoral dissertation, Brunel University London).

Bejanyan, K., Marshall, T.C., Ferenczi, N. (2015). Associations of Collectivism with Relationship Commitment, Passion, and Mate Preferences: Opposing Roles of Parental Influence and Family Allocentrism. *PLoS One.* doi: 10.1371/journal.pone.0117374

Belsky, J., et al. (1991). Childhood Experience, Interpersonal Development, and Reproductive Strategy: An Evolutionary Theory of Socialization. *Child Development*. 62:647-670.

Bleske, A. L., & Shackelford, T. K. (2001). Poaching, promiscuity, and deceit: Combatting mating rivalry in same-sex friendships. *Personal Relationships*. 8(4), 407–424.

Bradbury, J. W., & Vehrencamp, S. L. (1998). Principles of animal communication. Sunderland, MA: Sinauer.

Brase, G. L. & Guy, E. C. (2004). The demographics of mate value and self-esteem. *Personality and Individual Differences.* 36, 471–484.

Bullis, C., Clark, C., & Sline, R. W. (1993). From passion to commitment: Turning points in romantic relationships. In P. Kalbfleisch (Ed.), *Interpersonal communication* (pp. 213–236). Hillsdale, NJ: Erlbaum.

Buss, D. M. & Schmitt,D.P. (1993). Sexual Strategies Theory: An Evolutionary Perspective on Human Mating. *Psychological Review*.100:204-232.

Buss, D. M., Shackelford, T. K., Kirkpatrick, L. A., & Larsen, R. J. (2001). A half century of mate preferences: The cultural evolution of values. *Journal of marriage and Family*, *63*(2), 491-503.

Buss, D. M. & Shackelford, T. K. (2008). Attractive Women Want it All: Good Genes, Economic Investment, Parenting Proclivities, and Emotional Commitment. *Evolutionary Psychology Journal.* 6(1). 134-146.

Buss, D. M. (2016). The Handbook of Evolutionary Psychology. 2nd ed. *John Wiley & Sons Inc.* Vol 1. New Jersey, USA.

Buss, D. (2015). *Evolutionary psychology: The new science of the mind*. Psychology Press.

Buss, D. M., & Dedden, L. A. (1990). Derogation of competitors. *Journal of Social and Personal Relationships*. 7(3), 395–422.

Buss, D. M., et al. (2001). A half century of American mate preferences. *Journal of Marriage and the Family*. 63, 491–503.

Buss, D.M. & Barnes, M. (1986). Preferences in Human Mate Selection. *Journal of Personality and Social Psychology.* Vol 50, No 3. 559-570.

Buss, D.M. (1989). Sex Differences in human mate preferences: Evolutionary hypotheses tested in 37 cultures. *Behavioral and Brain Sciences*. 12(1), 1-49.

Boxer, C. F., Noonan, M. C., & Whelan, C. B. (2015). Measuring mate preferences: A replication and extension. *Journal of Family Issues*, *36*(2), 163-187.

Campbell, A. (2002). A Mind of Her Own: The Evolutionary Psychology of Women. London: Oxford University Press.

Cohen, D. L., & Belsky, J. (2008). Individual differences in female mate preferences as a function of attachment and hypothetical ecological conditions. *Journal of Evolutionary Psychology*, *6*(1), 25-42.

Conroy-Beam, D., Goetz, C. D., & Buss, D. M. (2016). What predicts romantic relationship satisfaction and mate retention intensity: mate preference fulfillment or mate value discrepancies?. *Evolution and Human Behavior*, *37*(6), 440-448.

Darwin, C. (1859). On the origin of species. London, England: John Murray.

Darwin, C. (1871). Sexual selection and the descent of man. London, England: Murray.

Edlund, J. E. & Sagarin, B. J. (2010). Mate value and mate preferences: An investigation into decisions made with and without constraints. *Personality and Individual Differences*. 49, 835–839.

Gangestad, S. W. & Simpson, J. A. (2000). The Evolution of Human Mating: Trade-offs and Strategic Pluralism. *Behavioral and Brain Sciences.* 23:573~44.

Gangestad, S. W., Thornhill, R., Garver-Apgar, C. E. (2010). Men's facial masculinity predicts changes in their female partners' sexual interests across the ovulatory cycle, whereas men's intelligence does not. *Evolution and Human Behavior*. 31(6), 412-424.

Gangestad, S.W., Garver-Apgar, C.E., and Simpson, J.A. (2007). Changes in women's mate preferences across the ovulatory cycle. Journal of Personality and Social Psychology, 92, 151-163.

Geary, D. C. (1998). Male, Female: The Evolution of Human Sex Differences. Washington, DC: American Psychological Association.

Gebauer, J. E., Leary, M. R., & Neberich, W. (2012). Big Two personality and Big Three mate preferences: Similarity attracts, but country-level mate preferences crucially matter. *Personality and Social Psychology Bulletin*, *38*(12), 1579-1593.

Gonzaga, G. C., Keltner, D., Londahl, E. A., Smith, M. D. (2001). Love and the commitment problem in romantic relations and friendship. *Journal of Personality and Social Psychology*. 81(2), 247–262.

Goodwin, R., et al. (2012). Mate value and self-esteem: Evidence from eight cultural groups. *PloS One*. 7(4), e36106.

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, 81–91. doi:10.1037/0022-3514.78.1.81

Heitzman, J. & Worden, R.L., (Eds.), (1995). India: A Country Study. Washington: GPO for the library of Congress.

Hill, K. & Hurtado,A. M. (1996). Ache Life History: The Ecology and Demography of a Foraging People. New York: Aldine de Guyter.

Kaplan, H., Hill, K., Lancaster, J., Hurtado, A. M. (2000). A theory of human life history evolution: Diet, intelligence, and longevity. *Evolutionary Anthropology*. 9, 156–185.

Kamble, S. V., et al. (2014). Indian Mate Preferences: Continuity, Sex differences, and Cultural change across a Quarter of the Century. *Personality and Individual Differences.* doi: 10.1016/j.paid.2014.06.024

Kenrick, D. T., et al. (2001). Can One Ever Be Too Wealthy or Too Chaste? Searching for Nonlinearities in Mate Judgement. *Journal of Personality and Social Psychology.* 80:462-471.

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. doi:10.1037/0022-3514.64.6.951

Kenrick, D.T. & Keefe, R.C. (1992). Age preferences in mates reflect sex differences in reproductive strategies. *Behavioral and Brain Sciences*. 15, 75-133.

Lancaster, J. B. (1994). Human Sexuality, Life Histories, and Evolutionary Ecology. *In Sexuality across the Life Course*, A. S. Rossi, ed. Pp. 39~52. Chicago: University of Chicago Press.

Li, N. E., et al. (2002). The Necessities and Luxuries of Mate Preferences: Testing the Trade-offs. *Journal of Personality and Social Psychology*. 82:947-955.

Li, N. P., & Kenrick, D. T. (2006). Sex similarities and differences in preferences for short-term mates: What, whether, and why. *Journal of Personality and Social Psychology*. 90, 468-489. doi:10.1037/0022-3514.90.3.468

Li, N. P., Bailey, J. M., Kenrick, D. T., Linsenmeier, J. A. W. (2002). The necessities and luxuries of mate preferences: Testing the tradeoffs. *Journal of Personality and Social Psychology.* 82, 947-955. doi: 10.1037/0022-3514.82.6.947.

Lindova, J. et al. (2021). Commitment, Dominance, and Mate Value: Power Bases in Long-Term Heterosexual Couples. *International Journal of Environmental Research and Public Health.* doi.org/10.3390/ijerph18041914.

Metts, S. (2004). First sexual involvement in romantic relationships: An empirical investigation of communicative framing, romantic beliefs, and attachment orientation in the passion turning point. In J. H. Harvey, A. Wenzel, & S. Sprecher (Eds.*), The handbook of sexuality in close relationships* (pp. 135–158). Mahwah, NJ: Erlbaum.

Millar, M. (2013). Menstrual cycle changes in mate preferences for cues associated with genetic quality: The moderating role of mate value. *Evolutionary Psychology*. 11(1), 18–35.

Matthew Montoya, R. (2005). The environment's influence on mate preferences. *Sexualities, Evolution & Gender*, *7*(2), 115-134.

Mucci, M. J. & Mason, S.E. (2015). Preferred Mate Characteristics in Young Adults. *The Journal of Psychology and the Behavioral Sciences.* Vol 24.

Pawlowski, B., & Dunbar, R. I. M. (1999). Impact of market value on human mate choice. Proceedings of the Royal Society B: Biological Sciences, 266, 281–285.

Penton-Voak, et al. (2003). Female Condition Influences Preferences for Sexual Dimorphism in Faces of Male Humans (Homo sapiens). *Journal of Comparative Psychology.* 117:262~71.

Pillsworth, E.G., Haselton, M.G., and Buss, D.M. (2004). Ovulatory shifts in female sexual desire. *Journal of Sex Research*. 41, 55-65.

Prakash, R., & Singh, A. (2014). Who marries whom? Changing mate selection preferences in urban India and emerging implications on social institutions. *Population Research and Policy Review*, *33*(2), 205-227.

Pope, A.L. (2013). Intimate Relationship Commitment: An Integrated Conceptual Model. *Journal of Couple & Relationship Therapy.* 12 (3): 270-289.

Puts, D. A. (2010). Beauty and the beast: Mechanisms of sexual selection in humans. *Evolution and Human Behavior*. 31(3), 157–175.

Puts, D.A. (2005). Mating context and menstrual phase affect women's preferences for male voice pitch. *Evolution and Human Behavior*. 26, 388-397.

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. *Personality and Social Psychology Bulletin*. 24, 1294–1303. doi:10.1177/0146167298241200

Schmitt, D. P. (2005). Is short-term mating the maladaptive result of insecure attachment? A test of competing evolutionary perspectives. *Personality and Social Psychology Bulletin*. 31, 757–768.

Schmitt, D. P., Shackelford, T. K., & Buss, D. M. (2001). Are men really more oriented toward short-term mating than women? A critical review of theory and research. *Psychology, Evolution, and Gender*. 3, 211–239. doi:10.1080/14616660110119331

Scott, I. M., Clark, A. P., Josephson, S. C., et al. (2014). Human preferences for sexually dimorphic faces may be evolutionarily novel. *Proceedings of the National Academy of Sciences*. USA, 111(40), 14388–14393.

Shackelford, T. K., Schmitt, D. P., & Buss, D. M. (2005). Universal dimensions of human mate preferences. *Personality and individual differences*, *39*(2), 447-458.

Smith, J. M., & David, H. (2003). Animal signals. Oxford, England: Oxford University Press.

Starratt, V.G., Weekes-Shackelford, V., Shackelford, T.K. (2016). Mate value both positively and negatively predicts intentions to commit an infidelity. *Personality and Individual Differences.* 104 (2017) 18-22.

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

Stone, Shackelford, & Buss. (2008). Socioeconomic Development and Shifts in Mate Preferences. *Evolutionary Psychology.* Vol. 6.

Sugiyama, L. S. (2005). Physical attractiveness in adaptationist perspective. In D. M. Buss (Ed.), The handbook of evolutionary psychology, (pp. 292–343). Hoboken, NJ: Wiley.

Surbey, M. & Conohan, C. D. (2000). Willingness to Engage in Casual Sex: The Role of Parental Qualities and Perceived Risk of Aggression. *Human Nature*. 11:367-386.

Symons, D. (1979). The evolution of human sexuality. New York, NY: Oxford University Press.

Symons, D. (1995). Beauty is in the adaptations of the beholder. In P. R. Abramson & S. D. Pinkerson (Eds.), Sexual nature, sexual culture (pp. 80–118). Chicago, IL: University of Chicago Press.

Tadinac, M. & Hromatko, I. (2007). Own mate value and relative importance of potential mate's qualities. *Studia Psychologica.* 49 (3): 251-264.

Thomas, A. G., Jonason, P. K., Blackburn, J. D., Kennair, L. E. O., Lowe, R., Malouff, J., Stewart-Williams, S., Sulikowski, D., Li, N. P. (2019). Mate preference priorities in the East and West: A cross-cultural test of the mate preference priority model. *Journal of Personality*. doi:10.1111/jopy.12514

Triandis, H.C. (1995). *Individualism and Collectivism*. Boulder, CO: Westview.

Tooby, J., & Cosmides, L. (1992). The psychological foundations of culture. In J. Barkow, L. Cosmides, & J. Tooby (Eds.), *The adapted mind: Evolutionary psychology and the generation of culture* (pp. 19–136). New York, NY: Oxford University Press.

Vigil, J. M. & Geary, D. C. (2006). Parenting and Community Background and Variation in Women's Life History Development. *Journal of Family Psychology*. in press.

Vigil, J.M., Geary, D.C., Byrd-Craven, J. (2005). Trade-offs in Low-income women's Mate Preferences: Within sex differences in Reproductive Strategy. *Human Nature.* Vol17, No.3. 319-336.

Waynforth, W. (2001). Mate Choice Trade-offs and Women's Preference for Physically Attractive Men. *Human Nature.* 12:207-219.

Wood, W., & Eagly, A. H. (2002). A cross-cultural analysis of the behavior of women and men: Implications for the origin of sex differences. *Psychological Bulletin*. 128, 699-72.