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The Value of Physical Attractiveness in Romantic Partners: Modeling Biological and Social Variables

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ABSTRACT. According to research on physical attractiveness, personal attributes such as gender, height, and self-perception are important in determining how much individuals value physical attractiveness in their romantic partners. In a survey of 228 college-aged participants, the ratings of the physical attractiveness of potential romantic partners were positively correlated with how much participants valued physical attractiveness in their long-term romantic partners. Individuals' partner preferences may be sensitive to their perceptions of themselves. Perceptions of the attractiveness of those in one's local area may also play a part in the development of such partner preferences through exposure.

Keywords: attractiveness of alternatives, conditional mating strategies, mate choice, physical attractiveness

FEW RESEARCHERS AND LAYPERSONS WOULD DISAGREE that individuals value physical attractiveness in their romantic partners. However, disagreement arises about where, when, and why the preferences for physical attractiveness develop. Evolutionary researchers have suggested that individuals have adaptive preferences for physically attractive romantic partners that are designed to maximize fitness returns (Buss, 1989) in a past environment (and actually may not maximize returns in current environments), whereas some nonevolutionary researchers have suggested that patriarchal power systems result in the development of such preferences (Eagly & Wood, 1999). Neither of these traditions argues that the other is irrelevant; rather, the researchers tend to be more interested in ultimate mechanisms in the evolutionary case and proximate mechanisms in the nonevolutionary case.

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Although these research traditions do not agree on the causes of psychological phenomena such as gender differences, they do share many of the same predictions and findings. A more accurate appraisal of the human condition is offered by a multifaceted approach that considers social and biological variables. In the present study, I integrated variables that have proven important from both perspectives, in addition to a new one related to how attractive one's local candidate-mates are, to examine how they jointly relate to the value individuals place on having a physically attractive romantic partner.

According to evolutionary researchers, preferences for physical attractiveness focus on a number of characteristics to determine whom individuals find attractive (Wade, 2000). For instance, there is a large body of research suggesting that men and women have different preferences in the physical attractiveness of their long-term romantic partners because of different levels of obligate investment to offspring (Buss, 1989; Li & Kenrick, 2006). Men place a higher premium on the physical attractiveness of their romantic partners than do women because men have lower levels of obligate investment to potential offspring in each sexual encounter than do women (Buss & Schmitt, 1993), and women, who have high levels of obligate investment, pursue long-term partners who have resources and status over men (Buss & Schmitt).

In contrast, mainstream social psychologists (Eagly & Wood, 1999) argued that men are more likely to be physically larger (on average 8–12%) than women and that this size difference leads to the creation of social systems and divisions of labor that exacerbate or amplify gender differences. Women's preferences for resource- and status-holding men may be a reflection of women's lower social position. Other nonevolutionary work suggests that women date men who are taller because of socially learned norms (Pierce, 1996).

Evolutionary research on height also leads to a similar conclusion, albeit from a different perspective. Pawlowski (2003) found that height of participants reflected different levels of stringency in dating preferences. Those women who were shorter wanted to date men who were taller than their taller counterparts. Pawlowski argued that this was related to the availability of potential mates and that the availability shifts with the height of the women.

It is clear that the personal attributes of height and gender, which themselves are correlated, are important in determining partner preferences regardless of perspective on the question. Thus, I predicted that men would value physical attractiveness in their long-term romantic partners more than would women. I also predicted that height of participants would be correlated with value of physical attractiveness in those participants' long-term romantic partners. Gender and height should also interact to predict the value of physical attractiveness in their long-term romantic partners.

A second type of variable that evolutionary researchers have used to explain why individuals value physical attractiveness in their romantic partners is related to self-perceptions (for a review, see Wade, 2000). The manner in which an indi-

vidual perceives her- or himself is an individual difference variable that is positively correlated with the partner preferences, such as how much individuals want a physically attractive partner. Studies in this area devise self-perceptual concepts such as mate-value (Gangestad & Simpson, 2000), self-rated worth (Bereczeki & Csanaky, 1996; Buston & Emlen, 2003; Waynforth & Dunbar, 1995), and self-rated physical attractiveness (Little, Burt, Penton-Voak, & Perrett, 2002) to explain variability in preferences for dating partners. Thus, I predicted that self-ratings of physical attractiveness would be correlated with the value placed on the physical attractiveness of long-term romantic partners.

From both traditions, the variables from past research on physical attraction clearly come in two forms: biological and self-perceptual variables. This leaves at least one type of variable neglected: perceptions of the local candidate-mates. *Self-perceptual variables* are perceptions of the quality of one's own personal attributes, whereas *perceptions of candidate-mates* are perceptions of the quality of another's personal attributes (e.g., physical attractiveness). *Candidate-mates* are those individuals who are available to date on the basis of proximity (Kalmijn & Flap, 2001). Although few researchers have specifically addressed how the physical attractiveness of candidate-mates is related to how much individuals value physical attractiveness in their long-term romantic partners, both evolutionary and nonevolutionary researchers have eluded to this topic.

Evolutionary researchers have studied how facets of candidate-mates factor into preferences for traits in their romantic partners. According to Schmitt (2003), mating strategy choices are limited by "opportunity, personal mate-value . . . and other features of social and personal context" (p. 87). Gangestad and Simpson (2000) argued that local conditions will affect mating strategies and that "selection produced mixed [mating] strategies that depend on environmental circumstances and their cues [such as the physical attractiveness of candidate-mates]" (p. 574). In a cross-cultural study (Schmitt, 2005), sociosexual orientation correlated with the operational sex ratio, or the ratio of sexually capable adult men to women in a population, where a male-skewed ratio was associated with less restrictive sexual behavior for women. The gender ratio was also correlated with the amount of value individuals placed on physical attractiveness in their mates (Barber, 1995). However, the operational gender ratio is only one measure of local conditions (for an alternative, see Kokko & Rankin, 2006) and is a relatively objective measure of local conditions. Perceptions of the physical attractiveness of candidate-mates for long-term romantic relationships should also be important.

Nonevolutionary researchers have also addressed how the attractiveness of candidate-mates relates to dating choices; however, they have referred to it as the *attractiveness* or *quality of alternatives*. The attractiveness of alternatives predicts one's satisfaction and willingness to remain in a given relationship (Le & Agnew, 2003; Rusbult, Martz, & Agnew, 1998; Sprecher, 1988). It seems likely that when assessing those around them for physical attractiveness, the quality of alternatives may affect the value that individuals place on the physical attractiveness of

their long-term romantic partners. However, previous work has focused more on how the quality of alternatives affects those in existing relationships, not in new relationships. It is clear that the attractiveness of alternatives, or candidate-mates, factors into dating choices. Because preferences for physically attractive romantic partners factor into dating choices, they should be related to the value one has for a physically attractive romantic partner.

As individuals perceive more attractive candidate-mates in their local environment, they should value physical attractiveness more in their romantic partners. If there were few attractive options, individuals would be hard-pressed to find a satisfactory mate and thus would have fewer chances to date or mate with physically attractive others. Therefore, I predicted that participant's ratings of the physical attractiveness of local candidate-mates would correlate with how much participants value physical attractiveness in their long-term romantic partners.

Research on gender differences suggests that men will rate candidate-mates as more attractive than will women. As a result of female choice, some men may be excluded from access to any one woman (often called *effective polygny*). Women "have greater power and can dictate the sexual terms of the relationship" (Baumeister, 2000, p. 370). Conversely, women are less likely to need to adapt to local conditions in mating contexts than are men (Kokko & Mappes, 2005) because women are the more valued gender in the mating market, according to evolutionary research. To maintain more opportunities, men should have more generous ratings of the candidate-mates. I predicted that men would rate local candidate-mates as more attractive than would women.

The general purpose of the present study was to address how perceptions of local candidate-mates are related to the value that individuals place on physical attractiveness in their long-term romantic partners. Specifically, the purpose of this study was to integrate self-perceptions of attractiveness, gender, height, and quality of potential partners to examine how they jointly relate to the value of physical attractiveness in prospective mates through the use of path modeling. In lieu of the fact that most of the aforementioned predictions assume that all other variables are equal, and all other variables are rarely equal, a multivariate approach was useful to address this assumption. Theoretically, the present study was meant to provide a more complete picture of why individuals value physical attractiveness in their long-term romantic partners by not only introducing a new variable, but also integrating a number of variables in one model to show their interrelationships.

Method

Participants

The sample consisted of 228 (63%) heterosexual undergraduate women (*M* age = 20 years, *SD* = 1.20, range = 18–65) from three Connecticut universities or colleges who received extra credit in communication or anthropology classes for

their voluntary participation in the study. The participants self-identified as 15% Caucasian, 33% African American, 32% Latino(a), 19% Asian, and 2% other. Fifty-nine percent of the sample self-classified as single and 41% as in a committed relationship. Male participants reported an average height of 5 ft.10 in. (*SD* = 3 in.), and female participants reported an average height of 5 ft. 4 in. (*SD* = 4 in.).

Measures

Participants completed a survey designed to assess the previous hypotheses. They were asked the demographic information reported in the previous section. Participants were then asked a number of items to assess the variables. To mask the purpose of the study from participants, these items were dispersed among a number of other items in a survey regarding media consumption.

Self-perceived attractiveness was measured using a five-item, 5-point Likert-type scale ranging from 1 (*not at all*) to 5 (*very much*). Participants indicated how much they agreed with the following statements: (a) "I am ugly" (reverse-scored), (b) "I am good looking," (c) "I am attractive," (d) "I am physically attractive," and (e) "I am not good looking" (reverse-scored). These items were averaged to create a single measure of self-rated attractiveness (Cronbach's α = .85; *M* = 3.46, *SD* = .64). These items loaded between .79 and .88 on this factor (50% of the variance).

Participants' rating of the physical attractiveness of local candidate-mates was measured with a 12-item, 5-point Likert-type scale ranging from 1 (*not at all*) to 5 (*very much*) that asked participants the physically attractiveness of those whom they would consider dating in a number of locations: the gym, a sporting event, the mall, class, the park, and the movie theater. Participants were also asked how unattractive individuals were in these locations, and these item were reverse-coded to make six more attractiveness rating items. These items were averaged to create an index for how attractive local candidate-mates were (Cronbach α = .65; *M* = 3.30, *SD* = 0.29). These locations were considered regular places that college students attend; therefore, they were places where they would be able to assess the attractiveness of potential partners. This may reflect institutions or locations that may aid in assortative mating as discussed in Kalmijn and Flap (2001). These items loaded between .45 and .70 on this factor (35% of the variance).

The value that participants placed on the physical attractiveness of potential long-term romantic partners was measured on a five-item, 5-point Likert-type scale ranging from 1 (*not at all*) to 5 (*very much*). The participants were asked how much they agreed with the following statements: (a) "I want my boyfriend/girlfriend to be physically attractive," (b) "I want my serious relationship partner to be attractive," and (c) "I would only seriously date a person who was physically attractive." Those ratings were averaged to create a single measure (Cronbach's α = .80; *M* = 3.26, *SD* = 0.65). These items loaded between .60 and .72 on this factor (45% of the variance).

Results

The race of the participant and whether he or she was single or in a relationship had no significant main effects or interactions on either ratings of physical attractiveness of local candidate-mates or the value placed on physical attractiveness in one's long-term romantic partners. The participant's ratings of the physical attractiveness of local candidate-mates were positively correlated with the amount he or she valued physical attractiveness in their long-term romantic partners, $r(228) = .18$, $p < .01$. Participants rated themselves as more attractive than their candidate-mates, $t(227) = 3.60$, $p < .01$, $d = 0.31$; M self = 3.45, SD self = 0.65; M candidates = 3.27, SD candidates = .46. Men rated candidate-mates as more physically attractive than did women, $t(228) = -2.23$, $p < .05$, $d = 0.29$; M male = 3.35, SD male = 0.42; M female = 3.21, SD female = .47, valued physical attractiveness in their long-term romantic partners more than did women, $t(228) = -4.66$, $p < .01$, $d = 0.62$; M male = 3.30, SD male = 0.63, M female = 3.10, SD female = 0.64, but they did not rate themselves as more physically attractive than did women. The amount of value placed on physical attractiveness in long-term romantic partners was correlated with participant's height, $r(228) = .28$, $p < .01$. When men and women were analyzed separately, there was no correlation between height and preferences in long-term partners. No interaction was found between the gender of the participant and her or his height on the value placed in having physically attractive long-term romantic partners. Participants' self-rated physical attractiveness was marginally correlated with their ratings of the attractiveness of local candidate-mates, $r(228) = .12$, $p = .08$, and significantly correlated with the value placed in physical attractiveness of their long-term romantic partners, $r(228) = .20$, $p < .01$.

However, because the internal consistency of the ratings of the level of attractiveness of local candidate-mates was low, item analyses were conducted. There was a significant main effect when comparing the six locations (each composed of two averaged items), so that those people in the theater and the park were rated as less attractive than those in the other locations, $F(1, 277) = 71.66$, $p < .01$, $\eta^2 = .24$. The value that individuals placed on the physical attractiveness of their romantic partners was correlated with ratings of the attractiveness of those participants who would consider dating in the gym, $r(228) = .21$, $p < .01$; the mall, $r(228) = .28$, $p < .01$; and the movie theater, $r(228) = .13$, $p < .05$. The remaining relations were not significant, $rs > .10$, $ps < .10$. In the case of gender differences in ratings of particular locations, men continued to rate the environments as containing more physically attractive candidate-mates.

On the basis of the results and theory outlined in the introduction, a path model was constructed to examine in an integrative multivariate approach how the variables used in the past (i.e., height, gender, self-rated attractiveness) relate to perceptions of the physical attractiveness of those available for the participant to date and how those all relate to the value that individuals place on physical attractiveness in their long-term romantic partners. Results demonstrate an inte-

grative model of why individuals value physical attractiveness in their long-term romantic partners (see Figure 1).

The coefficients were corrected for attenuation. The model in Figure 1 was a good fit, Root Mean Square Error (*RMSE*) = .08, $\chi^2(1, N = 228) = 0.57$, $p = .65$. Results confirmed the predictions from the present study, supported prior work on physical attractiveness preferences, and suggested that like self-rated attractiveness, ratings of the physical attractiveness of local candidate-mates partially, but not fully, mediate the relation between personal attributes, such as gender and height, and how much individuals value physical attractiveness in their long-term romantic partners.

Because men and women have slightly different mating strategies, even when considering long-term relationships (Li & Kenrick, 2006), and because there are limitations to including dichotomous variables in path models, a secondary set of path models was also constructed for each gender (see Figure 2). These secondary models show how the correlational relations are different for men and women, but partial mediation still exists for men. Most notably, the coefficient strengths from self-rated attractiveness, the attractiveness of candidate-mates, and the value placed in the physical attractiveness of long-term romantic partners are stronger for men than they are for women. As shown in Figure 2, no mediation was present for female participants because participant height was related to neither of the purported

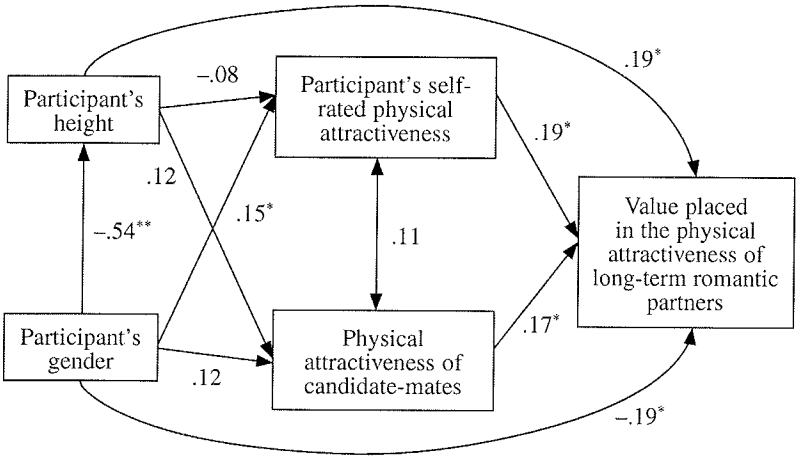

FIGURE 1. An integrative mating strategies model for the value placed in physical attractiveness in long-term romantic partners. Root Mean Square Error = .08, $\chi^2(1) = .57$, $p = .65$; male = 1; female = 2. $^*p < .05$. $^{**}p < .01$.

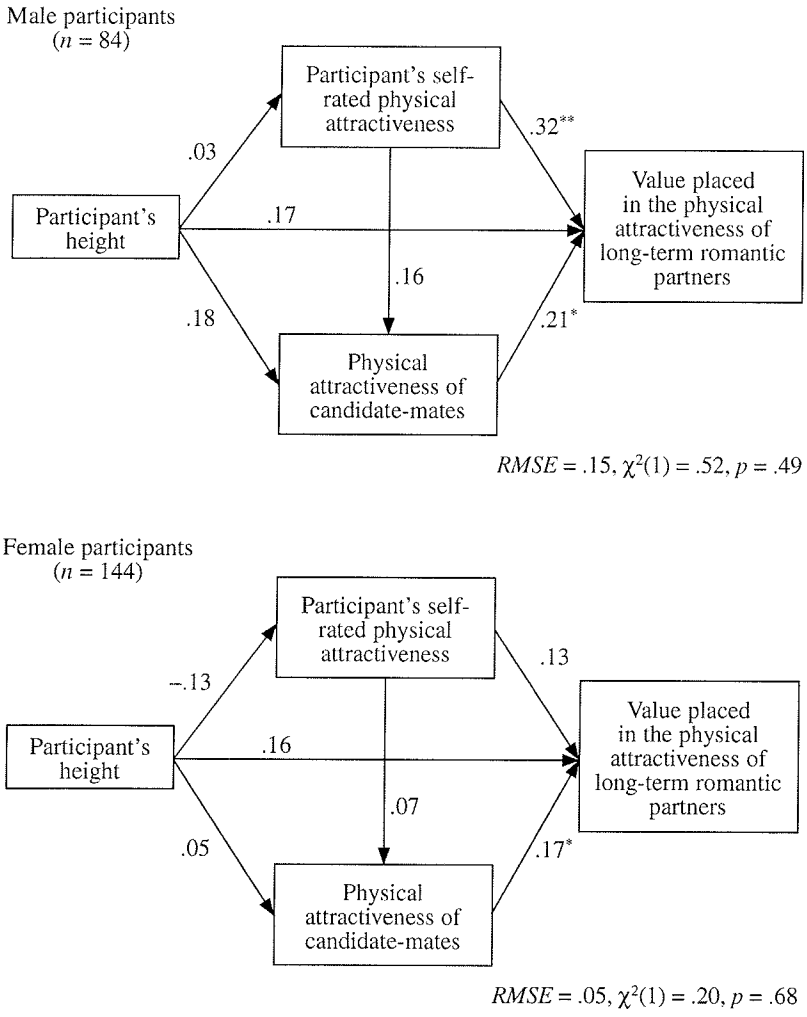

FIGURE 2. Path analyses by gender of participant for the value placed in physical attractiveness in long-term romantic partners. *RMSE* = Root Mean Square Error. $^{*}p < .05$. $^{**}p < .01$.

mediators. These models, although not informative for the general case, are more informative about men and women. The lack of significant correlations is likely a reflection of decreased statistical power caused by a decreased sample size.

Discussion

The present study demonstrates a number of findings that are useful in understanding partner preferences for physically attractive long-term romantic partners. Men not only valued physical attractiveness in their long-term romantic partners more than did women, but they also rated candidate-mates as more attractive than did women, suggesting that men may rate the pool as more attractive than do women as a strategic response to overcome, or at least minimize, the effects of female choice. Those participants who were taller, valued physical attractiveness more, but they also rated candidate-mates as more attractive. In sum, the results show how perceptual variables, such as self-ratings of physical attractiveness and ratings of the attractiveness of candidate-mates, partially mediate the relations between biological variables, such as gender and height, and outcome variables, such as the amount of value placed on having a physically attractive long-term romantic partner.

The implications from the present study are twofold. First, individuals may value physical attractiveness less because not only do they have a lower self-perceived mate-value, but they also perceive fewer opportunities to date physically attractive others. An individual who perceives fewer attractive alternatives is more satisfied with her or his current relationship (Le & Agnew, 2003; Rusbult et al., 1998; Sprecher, 1988). The positive correlation between ratings of the physical attractiveness of local opposite-sex others and the value placed on physical attractiveness of romantic partners suggests that individuals who view fewer opportunities to date physically attractive others will be less particular about the attractiveness of their partners. Without a rich pool of local candidate-mates from which to choose, one may have to reduce her or his expectations of finding a physically attractive romantic partner. When physically attractive candidate-mates are available, individuals have a richer pool from which to choose and thus may be more discriminating in all regards, including physical attractiveness.

Second, the results imply theoretical conclusions relating to the nature of how individuals develop preferences in their romantic partners. It may be that through exposure over time to many attractive others in one's life, the individual's standards for physically attractive romantic partners are set high. Conversely, those who have lived in an environment where there are few attractive others may have standards set lower because of less exposure to the attractive others. In essence, individuals' standards for physically attractive romantic partners are set, in part, depending on their environment. Future research could use a budget allocation method (Li & Kenrick, 2006) that manipulates candidate-pool attractiveness to experimentally verify this conjecture.

Although the models in the path analyses are based on correlational data, they confirm previous research (Pawlowski, 2003) and offer predictions for further testing. For instance, field studies could be conducted to assess whether isolated populations show a greater tendency toward ratings

of decreased opportunities and value of attractiveness in romantic partners, and whether they thus have weaker trait preferences. In isolated areas, greater constraints may be placed on individuals. The findings in this study are likely to be amplified in isolated populations.

A strength of path analysis is its allowance for the concurrent assessment of numerous variables; thus it reduces concerns about the assumption in most simple correlational hypotheses that all other variables are equal. Although the models produced good fit indexes, the complete model is more telling for the general case (see Figure 1), and examining the genders separately is more informative for men and women's different preferences in their dating partners. It is apparent in the present study, as has been shown before (Li & Kenrick, 2006), that men and women derive their preferences for long-term romantic partners in similar yet not identical fashions. The correlation for women between ratings of the pool and the value placed on physical attractiveness suggested that women may adapt to local conditions, which is in contrast to research by Kokko and Mappes (2005). Although women appear to be less sensitive than men, women still appear to adapt to local conditions in dating contexts. It is for men that ratings of themselves were significantly correlated with how much they valued physical attractiveness in their romantic partners. This may reflect a global attitudinal difference between men and women in relation to physical attractiveness.

However, these results would be more compelling if the internal consistency of the variable that measured the physical attractiveness of candidate-mates had been greater and if the measure had focused on more than six places and more than just physical attractiveness (i.e., sense of humor and intelligence; Buss, 1989). In fact, when item analyses were done on the items that comprised this scale, the correlations with the value placed in physically attractive romantic partners varied from .10 to .28. In the path model, the coefficients were corrected for measurement error and thus may reflect more realistic outcomes than the zero-order correlations.

In conclusion, individuals exist in an environment that contains potential mates of all shapes and sizes. Individuals have many absolute options to choose from within a pool of candidate-mates; however, a number of factors act to determine whom individuals are actually able and willing to date. Previous research has focused on the effects of personal characteristics and self-perceived mate value as constraints that explain the variability in how much individuals value physical attractiveness in their long-term romantic partners. The quality, or at least perception, of local candidate-mates may act as a further constraint on the value placed on physical attractiveness in romantic partners. In addition, these perceptions may also be related to why some individuals value physical attractiveness more in their romantic partners than do others. The exposure to many attractive others may lead individuals to value physical attractiveness more in their romantic partners than do those who have had few experiences with large groups of highly physically attractive others.

AUTHOR NOTE

Peter K. Jonason is a doctoral candidate in experimental social psychology at New Mexico State University. He is currently researching the Dark Triad personality traits and their adaptive role in people's life and evolutionary history; he also continues to research mating strategies.

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