

Research Article

If I'm Not Hot, Are You Hot or Not?

Physical-Attractiveness Evaluations and Dating Preferences as a Function of One's Own Attractiveness

Leonard Lee,¹ George Loewenstein,² Dan Ariely,³ James Hong,⁴ and Jim Young⁴

¹Columbia University, ²Carnegie Mellon University, ³Duke University, and ⁴HOTorNOT.com, San Francisco, California

ABSTRACT—Prior research has established that people's own physical attractiveness affects their selection of romantic partners. This article provides further support for this effect and also examines a different, yet related, question: When less attractive people accept less attractive dates, do they persuade themselves that the people they choose to date are more physically attractive than others perceive them to be? Our analysis of data from the popular Web site HOTorNOT.com suggests that this is not the case: Less attractive people do not delude themselves into thinking that their dates are more physically attractive than others perceive them to be. Furthermore, the results also show that males, compared with females, are less affected by their own attractiveness when choosing whom to date.

Physical attractiveness is an important dimension of individuals' dating preferences. Not only are physically attractive people popular romantic targets (Buss & Barnes, 1986; Feingold, 1990; Regan & Berscheid, 1997; Walster, Aronson, Abrahams, & Rottmann, 1966), but they are also likely to date other attractive people (Buston & Emlen, 2003; Kowner, 1995; Little, Burt, Penton-Voak, & Perrett, 2001; Todd, Penke, Fasolo, & Lenton, 2007). Studies of assortative mating find very strong correlations between the attractiveness of partners in both dating and marital relationships (Berscheid & Walster, 1974; Buss & Barnes, 1986; Epstein & Guttman, 1984; Spurler, 1968). In a meta-analysis on this topic, Feingold (1988) found that interpartner correlations for attractiveness averaged .39, and were remarkably consistent across 27 samples of romantic partners.

Address correspondence to Leonard Lee, Columbia Business School, Columbia University, Uris Hall, 3022 Broadway, Room 508, New York, NY 10027-6902, e-mail: leonardlee@columbia.edu.

Such attractiveness matching can potentially be explained by various theories, including evolutionary theories, which posit that assortative mating maximizes gene replication and increases fitness (Thiessen & Gregg, 1980); equity theory, which proposes that a relationship built on attribute matching could be perceived to be more equitable and satisfactory than a relationship that involves a mismatch of personal attributes (Walster, Walster, & Berscheid, 1978); market theories, which indicate that attractive people seek one another as mates, leaving the less attractive people to choose among themselves (Hitsch, Hortacsu, & Ariely, 2006; Kalick & Hamilton, 1986); and parental-image theories, which claim that people are attracted to others who resemble their parents and thus indirectly themselves (Epstein & Guttman, 1984).

The phenomenon of assortative mating raises the question of whether, beyond affecting the attractiveness of the people whom one will accept as dating or marital partners, one's own attractiveness also affects one's perceptions of how physically attractive those potential partners are. Does, for example, a potential partner appear more attractive to an individual who is likely to attract only average-looking partners than to one who is likely to attract much more attractive partners?¹

A rich body of research on dissonance theory, dating back to the seminal work of Festinger (1957), suggests that, in order to justify accepting physically less attractive dates, individuals might engage in postdecisional dissonance reduction and persuade themselves that those they have chosen to date are in fact more physically appealing than other, unmotivated individuals would perceive them to be (Wicklund & Brehm, 1976). Such evaluative distortion would serve the important psychological

¹See Clark and Reis (1988) and Berscheid and Reis (1998) for comprehensive reviews of interpersonal processes in romantic relationships.

function of allowing individuals to reconcile the apparent discrepancy between their overt behavior and their covert desires.

However, prior studies have consistently shown that people seem to have largely universal, culturally independent standards of beauty (Berscheid & Reis, 1998; Cunningham, Roberts, Barbee, Druen, & Wu, 1995; Jones & Hill, 1993; Langlois et al., 2000; Langlois & Roggman, 1990; McArthur & Berry, 1987; Singh, 1993)—large eyes, “baby-face” features, symmetric faces, “average” faces, and specific waist-hip ratios (different for men vs. women), to name a few. Cross-cultural agreement on what constitutes physical attractiveness, coupled with the finding that even infants prefer more attractive faces (Langlois, Ritter, Roggman, & Vaughn, 1991), suggests that these universal yardsticks of beauty might have an evolutionary basis. Together, these findings raise the contrary possibility that, despite their own level of physical attractiveness and how it might affect whom they pick as romantic partners, people may have a realistic sense of how physically attractive (or unattractive) these partners are.

In addition to providing further support for the well-established finding that more attractive people are more selective when it comes to mate choice, the study we report here tested these predictions—that is, we tested whether one’s own attractiveness affects one’s evaluations of the attractiveness of potential partners.

OVERVIEW OF THE EMPIRICAL INVESTIGATION

Propitiously, the unique setup of HOTorNOT.com allowed us not only to seek further support for the tendency for the physically attractive to date the physically attractive, but also to examine the more novel question of how more attractive versus less attractive people perceive the physical attractiveness of those whom they choose to date. Founded in 2000, HOTorNOT.com was originally a Web site where members rated how attractive (or how “hot”) they thought pictures of other members were (on a 10-point scale) and posted their own pictures to receive feedback on how hot others perceived them to be. After the Web site became extremely popular, in part to raise revenue, the founders added a dating component that included the ability for members to chat with, and send messages to, other members with whom they wanted to meet or get acquainted. To date, HOTorNOT.com has more than 1.6 million registered members and has recorded more than 12 billion picture ratings.

For our empirical investigation, we employed two data sets from HOTorNOT.com—one containing members’ dating requests, and the other, their attractiveness ratings of other members. Both data sets also included ratings of members’ own attractiveness as rated by other members. Thus, the first data set allowed us to validate whether individuals perceived as less attractive by others are indeed more willing to date others who are, on average, perceived as less attractive. The second data set allowed us to test whether individuals rated as less

TABLE 1

Factor Loadings of Photo Ratings in the Pretest

Trait judgment	Factor 1	Factor 2
Hotness	.96	.03
Attractiveness	.90	.11
Sexiness	.95	.05
Intelligence	−.00	.88
Confidence	−.05	.91

attractive by others rate potential dates as being more attractive—that is, whether people’s own attractiveness affects their ratings of others’ attractiveness. Note that the ratings and dating decisions in these data sets were based on members’ exposure to the photos of other members, and hence were not colored by any face-to-face interactions between members and their potential dates.

“HOTNESS” VERSUS PHYSICAL ATTRACTIVENESS: A PRETEST

To assess the validity of using the hotness ratings in the HOTorNOT.com data sets as a measure for physical attractiveness, we ran a separate study in which we asked 46 participants (19 males and 27 females) to rate (on 10-point scales) 100 pictures of members of the opposite sex in terms of five different attributes—hotness, physical attractiveness, intelligence, confidence, and sexiness. These pictures were actual photos posted on HOTorNOT.com by members.

Factor analysis using principal-components analysis with varimax rotation revealed that the ratings loaded on two primary underlying factors (see Table 1): Hotness, physical attractiveness, and sexiness loaded on one factor; intelligence and confidence loaded on the other. Correlation analysis further revealed that participants’ ratings of the hotness of the targets in the photos were highly and significantly correlated with their ratings of the targets’ physical attractiveness (overall: $r = .92$, $p_{\text{rep}} > .99$; for males: $r = .93$, $p_{\text{rep}} > .99$; for females: $r = .90$, $p_{\text{rep}} > .99$). These results support the idea that members’ ratings of the hotness of potential dates in the HOTorNOT.com data sets are a valid measure for how physically attractive they found these potential dates to be.

EMPIRICAL ANALYSES OF HOTORNOT.COM DATA

The Data

As noted, the field study was based on two separate data sets from HOTorNOT.com. The *meeting-requests* data set contained members’ binary decisions about whether or not they wished to meet other members (randomly generated from HOTorNOT.com’s membership database) after viewing pictures and brief profiles of those other members. The *attractiveness-ratings* data

TABLE 2
Results of Random-Effects Logistic Regressions Predicting Meeting Requests: Models Incorporating Gender and Attractiveness Ratings

Predictor	Model 1	Model 2	Model 3
Intercept	-6.223*** (0.035)	-1.286*** (0.081)	-5.797*** (0.067)
Male dummy	1.221*** (0.017)	1.129*** (0.018)	0.749*** (0.075)
Number of pictures viewed	-0.0003*** (0.000)	-0.001*** (0.000)	-0.0002*** (0.000)
Member's own attractiveness	-0.292*** (0.004)	-0.927*** (0.010)	-0.199*** (0.007)
Own Attractiveness × Male Dummy			-0.102*** (0.008)
Target's attractiveness	0.827*** (0.002)	0.147*** (0.010)	0.688*** (0.006)
Target's Attractiveness × Male Dummy			0.154*** (0.006)
Own Attractiveness × Target's Attractiveness		0.087*** (0.001)	
Log likelihood	-796,840.99	-794,211.25	-796,480.32
Pseudo- R^2	16.46%	16.74%	16.50%

Note. The table presents regression coefficients, with standard errors in parentheses. This data set included 2,386,267 decisions of 16,550 members (average number of pictures viewed = 144.2).
 *** $p < .001$.

set contained members' ratings of other members' pictures (also randomly generated).² In addition, both data sets contained the average of each member's own attractiveness ratings (i.e., the average of the ratings the member received from other members). These two data sets represented about 10% of all the Web site's activity from August 9 through August 18, 2005. However, for every member included in these data sets, all transactions during this 10-day period (i.e., all the member's ratings of other members' pictures or all the member's meeting requests after viewing these pictures) were included in the data sets.³ Only heterosexual members were included (i.e., we excluded members who rated or viewed any pictures or profiles of members of the same sex).

The meeting-requests data set contained a total of 2,386,267 decisions made by 16,550 distinct members (75.3% males and 24.7% females). During the 10-day period, each member evaluated an average of 144 other members ($SD = 279$) and decided whether or not to meet each of these potential dates after viewing the potential date's picture and profile.

The attractiveness-ratings data set contained a total of 447,082 ratings made by 5,457 distinct members (79.1% males and 20.9% females); each rating represents one member's assessment of another specific member's attractiveness after view-

ing the other member's picture. Each member rated an average of 82 pictures ($SD = 209$ pictures) during the 10-day period. (Note that the uneven gender distributions in both data sets, as well as the likelihood that HOTorNOT.com members are more concerned with attractiveness than the general population, could have introduced self-selection biases.)⁴

Empirical Analyses

To examine whether individuals' own physical attractiveness affects how they decide whether to date others and how they evaluate the attractiveness of others, we estimated separate, and different, regression equations for the two data sets. For the attractiveness-ratings data set, a random-effects linear model was fitted to account for rater heterogeneity and to isolate any overall gender effects. For the meeting-requests data set, a random-effects logit model was fitted to account for the dichotomous dependent variable.

Results

Analysis of the Meeting-Requests Data Set

Table 2 summarizes the results of analyzing the relationship between members' decisions of whether or not to meet another member (after seeing the other member's picture and profile) and a set of possible predictors. As shown for Model 1, the likelihood for a member's positive response to a potential date after seeing his or her picture was positively predicted by the member's sex ($b = 1.221$, $p_{\text{rep}} > .99$), a finding consistent with previous findings that males tend to be less selective than females in

²This data set excluded the activity of ad hoc Web-site visitors who rated photos of members but were not members themselves and hence did not post their own photos to be rated by others. One particular aspect of the Web site's design that might influence members' ratings of others is that immediately after a member has rated another member's (i.e., the target's) photo, the target's consensus average rating is revealed on the next screen. To test whether members' ratings are affected by other members' ratings, we ran a separate on-line study ($N = 171$) in which, for some participants, we artificially downgraded the consensus ratings of all photos by 1 unit. We found that the downgrading did not affect participants' ratings ($p_{\text{rep}} = .56$, n.s.); in contrast, the result that male raters gave higher ratings than female raters (see the results for the analysis of the attractiveness-ratings data set on p. 674) was replicated ($p_{\text{rep}} = .99$).

³Both data sets excluded members who viewed only one picture or who had zero variance in their ratings or decisions.

⁴HOTorNOT.com forbids the posting of nude, sexually suggestive, celebrity, or copyrighted photos. Since August 2006, HOTorNOT.com members see short textual descriptions beside the photos of other members when rating these members' physical attractiveness; this feature had not been implemented when the data for the current field study were collected.

dating (e.g., Buss & Schmitt, 1993; Kenrick, Sadalla, Groth, & Trost, 1990; Regan & Berscheid, 1997). The significantly positive coefficient indicates that if a member was male, the log odds of his accepting a target member increased by 1.221 units; in equivalent percentage probability terms, males were 240% more likely to say “yes” to potential female dates than females were to say “yes” to potential male dates. In addition, the likelihood that a member requested a potential date was positively predicted by the attractiveness evaluation of that particular date by other members ($b = 0.827, p_{rep} > .99$); that is, with every 1-unit increase in consensus attractiveness of the potential date, a member’s likelihood of responding positively increased approximately 130%.

Most relevant to the primary objective of our analysis is the finding that members rated as more attractive had a lower propensity to respond positively to others ($b = -0.292, p_{rep} > .99$), controlling for the target’s attractiveness. In percentage probability terms, for every 1-unit decrease (measured on a 10-point scale) in a member’s rated attractiveness, he or she was 25% more likely to say “yes” to a potential date, holding all other variables constant. We added to the basic regression specification an independent variable for the interaction between the member’s own attractiveness and the potential date’s attractiveness to further examine whether there was any association between members’ physical attractiveness and the attractiveness of those they wanted to pursue romantically. In Model 2 (see Table 2), this interaction term positively predicted members’ willingness to date ($b = 0.087, p_{rep} > .99$); less attractive members were more likely to accept less attractive people as dates, and, conversely, more attractive members were more likely to accept more attractive people. These results suggest that less attractive members not only were less selective overall, but also tended to be less selective in the rated (consensus) attractiveness of potential dates.

Furthermore, we added two independent variables to the basic regression specification to check for any gender variations in how much members’ own attractiveness and potential dates’ attractiveness influenced members’ dating decisions (see results for Model 3 in Table 2). Whereas male members were significantly more influenced by the consensus physical attractiveness of their potential dates than female members were ($b = 0.154, p_{rep} > .99$), they were *less* affected by how attractive they themselves were ($b = -0.102, p_{rep} > .99$). Given the widely reported finding that males focus more on physical attractiveness in mate selection than females do (Buss, 1989; Buss & Barnes, 1986; Feingold, 1990), it is noteworthy that our results not only are consistent with this basic finding, but also show that in making date choices, males are less influenced by their own rated attractiveness than females are.

The fact that members’ own attractiveness and potential dates’ attractiveness had significant but opposite effects on members’ probability of requesting a date raises the question of whether people’s likelihood of accepting a potential date might be af-

TABLE 3
Results of Random-Effects Logistic Regressions Predicting Meeting Requests: Models Incorporating Gender and Attractiveness Differences

Predictor	Model 1	Model 2
Intercept	-1.950*** (0.013)	-1.980*** (0.014)
Male dummy	1.440*** (0.016)	1.461*** (0.019)
Number of pictures viewed	-0.001*** (0.000)	-0.001*** (0.000)
Positive attractiveness difference	0.637*** (0.003)	0.762*** (0.007)
(Positive attractiveness difference) ²		-0.038*** (0.002)
Negative attractiveness difference	0.900*** (0.003)	0.907*** (0.007)
(Negative attractiveness difference) ²		0.007*** (0.002)
Log likelihood	-799,728.80	-799,444.08
Pseudo-R ²	16.16%	16.19%

Note. The table presents regression coefficients, with standard errors in parentheses. This data set included 2,386,267 decisions of 16,550 members (average number of targets evaluated = 144.2). Attractiveness difference was calculated by subtracting the member’s own attractiveness rating from the target’s attractiveness rating.
*** $p < .001$.

ected by the magnitude of the attractiveness gap between them and the potential date. For example, is a person most likely to say “yes” to a potential date if the two are “compatible” in looks, as one might conjecture on the basis of the assortative-mating literature? Conversely, how probable is it that someone will say “yes” if the other person is overwhelmingly more attractive than he or she is?

To investigate the relationship between a member’s interest in pursuing a date and the difference in attractiveness between the member and the potential date, we fitted a separate random-effects piecewise logit model on the meeting-requests data set using the difference between the member’s own attractiveness rating and the potential date’s attractiveness rating as an independent variable and accounting for potentially different slopes when the attractiveness difference was positive versus negative. Comparing the positive and negative difference terms (see results for Model 1 in Table 3) revealed that people give substantially greater weight to negative than to positive differences in rated attractiveness between themselves and their potential date ($p_{rep} > .99$), a pattern consistent with loss aversion (Kahneman & Tversky, 1979). When we added quadratic terms (Model 2), both were significant; this result, which is consistent with prospect theory, shows that people also display diminishing sensitivity to increasing positive and negative differences.

To examine this relationship further, we plotted the mean probability of requesting a date at different levels of difference in attractiveness between the members and the potential dates (see Fig. 1a). Echoing the findings in Table 3, this graph

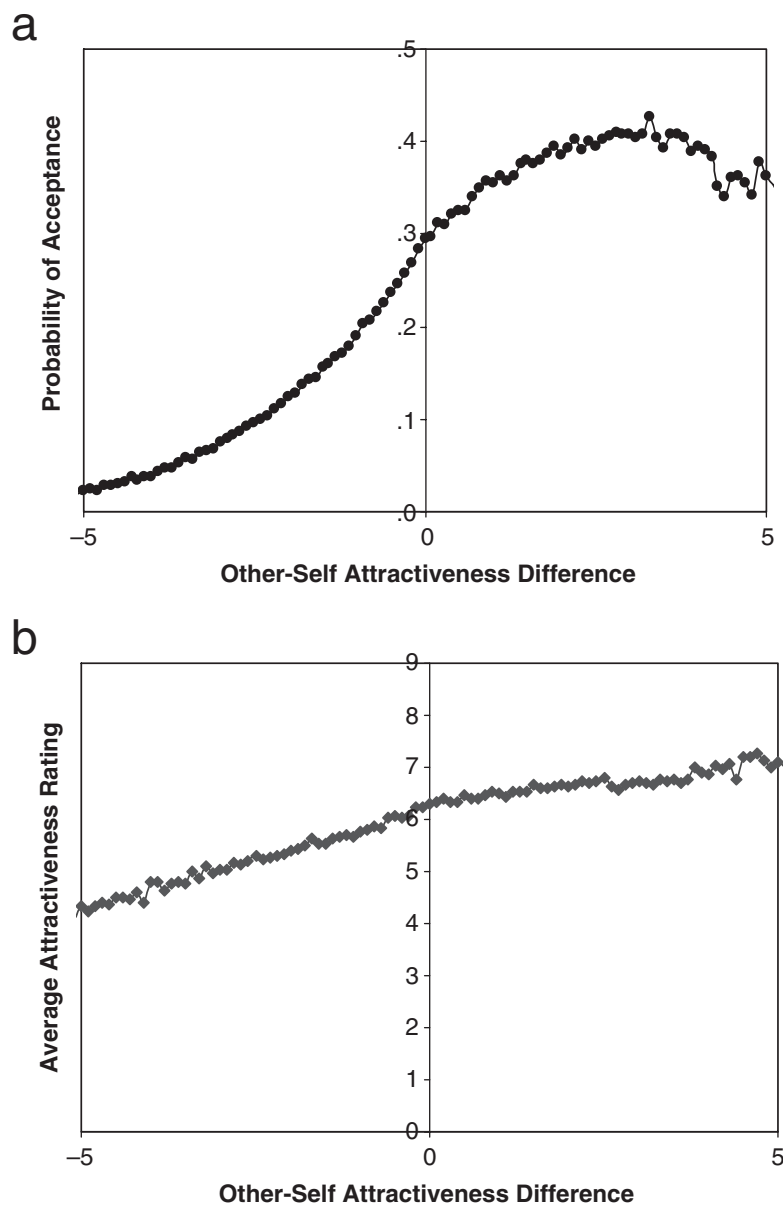


Fig. 1. Probability of requesting a date (a) and average attractiveness rating (b) as a function of the difference in physical attractiveness between the decision maker and the target (attractiveness of target minus attractiveness of decision maker). Observations of attractiveness differences more extreme than ± 5 were excluded because of small sample sizes.

conformed to the characteristic S-shaped pattern of prospect theory's value function (Kahneman & Tversky, 1979), indicating that people used their own physical attractiveness as a reference point when considering whether to date others of various degrees of physical attractiveness. In particular, whereas the slope above zero (the "attractiveness compatibility point") was concave, the slope below zero was convex. Moreover, the slope above zero had a smaller magnitude than the slope below zero, and there was a hint of a downturn in the probability of requesting a date when there was a very large attractiveness difference between the

target individual and the rater. Perhaps people believe that certain individuals are simply "out of their league" in terms of physical attractiveness and are not worth pursuing. Or possibly, people are intimidated by others who are far more attractive than they are.

Analysis of the Attractiveness-Ratings Data Set

Table 4 summarizes the results from analyzing the relationship between members' attractiveness ratings of other members and a set of possible predictors. As was the case for meeting requests,

TABLE 4
Results of Random-Effects Linear Regressions Predicting Attractiveness Ratings: Models Including Gender and Attractiveness Ratings

Predictor	Model 1	Model 2	Model 3
Intercept	0.803*** (0.100)	0.812*** (0.124)	1.721*** (0.212)
Male dummy	1.187*** (0.060)	1.187*** (0.060)	0.129 (0.234)
Number of pictures viewed	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)
Member's own attractiveness	0.003 (0.011)	0.001 (0.015)	0.021 (0.027)
Own Attractiveness × Male Dummy			-0.022 (0.030)
Target's attractiveness	0.556*** (0.002)	0.554*** (0.010)	0.419*** (0.005)
Target's Attractiveness × Male Dummy			0.159*** (0.005)
Own Attractiveness × Target's Attractiveness		0.000 (0.001)	
Within-group R^2	19.44%	19.44%	19.63%
Overall R^2	11.84%	11.84%	11.91%

Note. The table presents regression coefficients, with standard errors in parentheses. This data set included 447,082 ratings made by 5,457 members (average number of pictures rated = 81.9).
 *** $p < .001$.

members' ratings were positively predicted by the consensus attractiveness ratings given to the target by other members ($b = 0.556, p_{rep} > .99$). In addition, male members were inclined to give higher ratings overall than female members ($b = 1.187, p_{rep} > .99$). However, contrary to what we found in the meeting-requests analysis, members' own attractiveness was *not* a significant predictor of their ratings of targets ($b = 0.003, n.s.$), and neither was the interaction between members' own attractiveness and the consensus attractiveness ratings of the targets (see results for Model 2 in Table 4; $b < 0.001, n.s.$). Given that the data set included almost 450,000 observations, this lack of significance is rather stunning; if there was any connection between own attractiveness and the perceived attractiveness of others, we should have had ample statistical power to detect it.

Again, we added two independent variables to the basic specification to examine whether there were any gender variations in how much members' own attractiveness and targets' attractiveness influenced members' attractiveness ratings of the targets (see results for Model 3 in Table 4). Whereas male members were significantly more influenced by the consensus physical attractiveness of the targets than female members were ($b = 0.159, p_{rep} > .99$; note that this finding mirrors the results of the meeting-requests analysis), neither male nor female members were affected by their own attractiveness when rating other members ($b = -0.022, n.s.$).

We plotted HOTorNOT.com members' average ratings of other members' physical attractiveness as a function of the (consensus) attractiveness difference between the members and the targets they had rated (see Fig. 1b). The result was a linear pattern (see also Table 5, which presents the results of regressing members' ratings of targets' attractiveness on both the linear and quadratic terms of both positive and negative attractiveness difference), consistent with our finding that members' attractiveness ratings of others depended on the consensus attractiveness ratings of those others, but not on how attractive the members

themselves were. This result further corroborates our finding that whereas one's own attractiveness serves as a reference point for dating decisions and affects whom one chooses to date, it does not affect one's evaluation of how attractive others are.

GENERAL DISCUSSION

Physical attractiveness has been shown consistently to be a principal factor in shaping romantic relationships; physically attractive people not only are popular targets for romantic pursuits, but also tend to flock together. The data from HOTorNOT.com,

TABLE 5
Results of Random-Effects Linear Regressions Predicting Attractiveness Ratings: Models Including Gender and Attractiveness Differences

Predictor	Model 1	Model 2
Intercept	4.950*** (0.055)	4.989*** (0.055)
Male dummy	1.349*** (0.061)	1.349*** (0.061)
Number of pictures viewed	-0.000 (0.000)	-0.000 (0.000)
Positive attractiveness difference	0.576*** (0.004)	0.547*** (0.008)
(Positive attractiveness difference) ²		0.004 (0.002)
Negative attractiveness difference	0.525*** (0.002)	0.607*** (0.007)
(Negative attractiveness difference) ²		0.020*** (0.001)
Within-group R^2	19.18%	19.21%
Overall R^2	7.79%	7.81%

Note. The table presents regression coefficients, with standard errors in parentheses. This data set included 447,082 ratings made by 5,457 members (average number of pictures rated = 81.9). Attractiveness difference was calculated by subtracting the member's own attractiveness rating from the target's attractiveness rating.
 *** $p < .001$.

where physical attractiveness is the single attribute for evaluation, showed the same pattern: More attractive people tended to prefer potential dates who were more attractive.

Does this negative association between own attractiveness and willingness to date imply that less attractive people wear a different pair of lenses when evaluating others' attractiveness, such that less attractive people perceive members of the opposite sex as generally more attractive than more attractive people do? The results of our study suggest otherwise: Whereas people (and males in particular) tended to give higher attractiveness ratings to targets judged to be more attractive by other individuals, people seemed to judge targets' attractiveness similarly regardless of how attractive they themselves were (see also Keisling & Gynther, 1993). Thus, overall, the results from analyzing the HOTorNOT.com data imply that whereas less attractive people are willing to accept less attractive others as dating partners, they do not delude themselves into thinking that these less attractive others are, in fact, more physically attractive than they really are.

Our analysis of the relationship between the self-other attractiveness difference and attractiveness evaluations versus dating preferences also contributes toward current understanding of assortative mating: Although people with similar levels of physical attractiveness indeed tend to date one another, people also prefer to date others who are moderately more attractive than themselves, but not those who are overwhelmingly more attractive (see Fig. 1a).

Factors Affecting Date Selection

Our field study shows that, despite being more receptive in accepting potential dates (including less attractive ones), less attractive people do not adjust their perception of how physically attractive others are so as to better appreciate partners they are likely to attract. Yet, possibly, dissonance reduction (Festinger, 1957) could take other forms. Perhaps, for instance, people of different attractiveness levels do not wear different lenses when judging others' attractiveness, but instead differ in the importance they place on various desirable attributes in their romantic partners.

We explored this hypothesis in a follow-up study conducted at a real speed-dating event sponsored by a Boston-based on-line dating company.⁵ At the beginning of the event (before participants had a chance to meet other speed daters), the 24 participants were asked to complete a short survey in which they indicated, on a 10-point scale, how much they weighed each of six criteria (physical attractiveness, intelligence, sense of humor, kindness, confidence, and extraversion) when selecting potential dates. During the actual event, participants chatted with each participant of the opposite sex for 4 min before rating

⁵Other researchers have also used speed dating for research in romantic attraction and dating preferences (e.g., Finkel, Eastwick, & Matthews, 2007; Fisman, Iyengar, Kamenica, & Simonson, 2006; Todd et al., 2007).

TABLE 6
Correlations Between Participants' Own Attractiveness and Their Date-Selection Criteria in the Speed-Dating Study

Date-selection criterion	Correlation with own attractiveness
Physical attractiveness	.60**
Intelligence	.05
Extraversion	-.26
Kindness	-.01
Sense of humor	-.44*
Confidence	-.02
Composite of criteria other than physical attractiveness	-.60** ^a

Note. The sample consisted of 13 males and 11 females. Interrater reliability for participants' ratings of other participants' attractiveness was 75% for males and 85% for females; both values were significant, $p < .01$.

^aGiven that weights were standardized within each participant, the correlation between participants' own attractiveness and the composite of weights given criteria other than physical attractiveness is simply the negation of the correlation between participants' own attractiveness and the weight assigned to physical attractiveness.

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

the participant on physical attractiveness and deciding whether they wanted to become further acquainted with him or her.

We computed the correlation between participants' own attractiveness (determined using the average rating given by all participants of the opposite sex) and their self-reported standardized weights for each of the six criteria (see Table 6). Analysis revealed that participants' own attractiveness was significantly correlated with their standardized weights for physical attractiveness ($r = .60$, $p_{\text{rep}} = .98$), but negatively correlated with their standardized weights for sense of humor ($r = -.44$, $p_{\text{rep}} = .91$). Overall, these results suggest that more attractive people and less attractive people consider different criteria in date selection: Less attractive people tend to place less weight on physical attractiveness and greater weight on non-attractiveness-related attributes such as sense of humor.

Hedonic Adaptation

Among the cards that life deals out, innate physical attractiveness is one that has been shown to make a major difference, both in economic terms (by affecting, e.g., one's chances of getting a job, a pay raise, or a promotion; Hamermesh & Biddle, 1994; Heilman & Saruwatari, 1979; Ross & Ferris, 1981) and in terms of the attractiveness of potential mates one is able to attract. One impact that physical attractiveness has not been shown to have, however, is on happiness (Diener, Wolsic, & Fujita, 1995; Noles, Cash, & Winstead, 1985). People seem to adapt to the advantages and disadvantages they experience as a result of their physical looks (much as they adapt to many other situations), achieving roughly similar levels of happiness throughout a wide range of attractiveness levels (Frederick & Loewenstein, 1999). What types of processes contribute to such hedonic adaptation?

Seen from the perspective of hedonic adaptation, the results of both our main study and the follow-up perhaps highlight one plausible mechanism underlying people's ability to cope with attractive options that are beyond their reach: When faced with a range of options (e.g., potential partners) or life situations (e.g., states of health) of varying hedonic value, instead of adopting a "sour grapes" mind-set and deluding themselves that what is unattainable is not as great as it looks, people divert their focus to the merits of options that are attainable. From an evolutionary perspective, such a motivated change in dating preferences can potentially increase an individual's pool of potential mates, reducing the likelihood that a physically unattractive person will end up without a partner, and supporting assortative mating. Much as Stephen Stills said in his famous song, people find a way to love the ones they are with.

Acknowledgments—We thank Associate Editors Margaret Clark and Brad Bushman and five anonymous reviewers for their constructive comments and suggestions; Eli Finkel, Tamar Krishnamurti, and Daniel Mochon for their insightful comments on a draft of this manuscript; Ed Diener for directing us to relevant research in the attractiveness literature; and Jeana Frost, Alex Kinzler, Michelle Lee, and Vu Nguyen for research assistance.

REFERENCES

- Berscheid, E., & Reis, H.T. (1998). Attraction and close relationships. In D.T. Gilbert, S.T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (4th ed., Vol. 2, pp. 193–281). New York: McGraw-Hill.
- Berscheid, E., & Walster, E. (1974). Physical attractiveness. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 7, pp. 157–215). New York: Academic Press.
- Buss, D.M. (1989). Sex differences in human mate preferences: Evolutionary hypotheses tested in 37 cultures. *Behavioral and Brain Sciences*, *12*, 1–49.
- Buss, D.M., & Barnes, M. (1986). Preferences in human mate selection. *Journal of Personality and Social Psychology*, *50*, 559–570.
- Buss, D.M., & Schmitt, D.P. (1993). Sexual strategies theory: An evolutionary perspective on human mating. *Psychological Review*, *100*, 204–232.
- 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, USA*, *100*, 8805–8810.
- Clark, M.S., & Reis, H.T. (1988). Interpersonal processes in close relationships. *Annual Review of Psychology*, *39*, 609–672.
- Cunningham, M.R., Roberts, A.R., Barbee, A.P., Druen, P.B., & Wu, C. (1995). "Their ideas of beauty are, on the whole, the same as ours": Consistency and variability in the cross-cultural perception of female physical attractiveness. *Journal of Personality and Social Psychology*, *68*, 261–279.
- Diener, E., Wolsic, B., & Fujita, F. (1995). Physical attractiveness and subjective well-being. *Journal of Personality and Social Psychology*, *69*, 120–129.
- Epstein, E., & Guttman, R. (1984). Mate selection in man: Evidence, theory, and outcome. *Social Biology*, *31*, 243–278.
- Feingold, A. (1988). Matching for attractiveness in romantic partners and same-sex friends: A meta-analysis and theoretical critique. *Psychological Bulletin*, *104*, 226–235.
- Feingold, A. (1990). Gender differences in effects of physical attractiveness on romantic attraction: A comparison across five research paradigms. *Journal of Personality and Social Psychology*, *59*, 981–993.
- Festinger, L. (1957). *A theory of cognitive dissonance*. Stanford, CA: Stanford University Press.
- Finkel, E.J., Eastwick, P.W., & Matthews, J. (2007). Speed-dating as an invaluable tool for studying initial romantic attraction: A methodological primer. *Personal Relationships*, *14*, 149–166.
- Fisman, R., Iyengar, S.S., Kamenica, E., & Simonson, I. (2006). Gender differences in mate selection: Evidence from a speed dating experiment. *Quarterly Journal of Economics*, *121*, 673–697.
- Frederick, S., & Loewenstein, G. (1999). Hedonic adaptation. In D. Kahneman, E. Diener, & N. Schwarz (Eds.), *Well-being: The foundations of hedonic psychology* (pp. 302–329). New York: Russell Sage Foundation.
- Hamermesh, D.S., & Biddle, J.E. (1994). Beauty and the labor market. *The American Economic Review*, *84*, 1174–1194.
- Heilman, M.E., & Saruwatari, L.R. (1979). When beauty is beauty: The effects of appearance and sex on evaluations of job applicants for managerial and nonmanagerial jobs. *Organizational Behavior and Human Performance*, *23*, 360–372.
- Hitsch, G.J., Hortacsu, A., & Ariely, D. (2006). *What makes you click? Mate preferences and matching outcomes in online dating*. Unpublished manuscript, University of Chicago, Graduate School of Business.
- Jones, D., & Hill, K. (1993). Criteria of facial attractiveness in five populations. *Human Nature*, *4*, 271–296.
- Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica*, *47*, 263–291.
- Kalick, S.M., & Hamilton, T.E., III. (1986). The matching hypothesis reexamined. *Journal of Personality and Social Psychology*, *51*, 673–682.
- Keisling, B.L., & Gynther, M.D. (1993). Male perceptions of female attractiveness: The effects of targets' personal attributes and subjects' degree of masculinity. *Journal of Clinical Psychology*, *49*, 190–195.
- Kenrick, D.T., Sadalla, E.K., Groth, G., & Trost, M.R. (1990). Evolution, traits, and the stages of human courtship: Qualifying the parental investment model. *Journal of Personality*, *58*, 97–116.
- Kowner, R. (1995). The effect of physical attractiveness comparison on choice of partners. *The Journal of Social Psychology*, *135*, 153–165.
- Langlois, J.H., Kalakanis, L., Rubenstein, A.J., Larson, A., Hallam, M., & Smoot, M. (2000). Maxims or myths of beauty? A meta-analytic and theoretical review. *Psychological Bulletin*, *126*, 390–423.
- Langlois, J.H., Ritter, J.M., Roggman, L.A., & Vaughn, L.S. (1991). Facial diversity and infant preferences for attractive faces. *Developmental Psychology*, *27*, 79–84.
- Langlois, J.H., & Roggman, L.A. (1990). Attractive faces are only average. *Psychological Science*, *1*, 115–121.
- Little, A.C., Burt, D.M., Penton-Voak, I.S., & Perrett, D.I. (2001). Self-perceived attractiveness influenced human female preferences for sexual dimorphism and symmetry in male faces. *Proceedings of the Royal Society B: Biological Sciences*, *268*, 39–44.

- McArthur, L.Z., & Berry, D.S. (1987). Cross-cultural agreement in perceptions of babyfaced adults. *Journal of Cross-Cultural Psychology, 18*, 165–192.
- Noles, S.W., Cash, T.F., & Winstead, B.A. (1985). Body image, physical attractiveness, and depression. *Journal of Personality and Social Psychology, 53*, 88–94.
- Regan, P.C., & Berscheid, E. (1997). Gender differences in characteristics desired in a potential sexual and marriage partner. *Journal of Psychology and Human Sexuality, 9*, 25–37.
- Ross, J., & Ferris, K.R. (1981). Interpersonal attraction and organizational outcomes: A field examination. *Administrative Science Quarterly, 26*, 617–632.
- Singh, D. (1993). Adaptive significance of female physical attractiveness: Role of waist-to-hip ratio. *Journal of Personality and Social Psychology, 65*, 293–307.
- Spurler, J.N. (1968). Assortative mating with respect to physical characteristics. *Eugenics Quarterly, 15*, 128–140.
- Thiessen, D.D., & Gregg, B. (1980). Human assortative mating and genetic equilibrium: An evolutionary perspective. *Ethology and Sociobiology, 1*, 111–140.
- Todd, P.M., Penke, L., Fasolo, B., & Lenton, A.P. (2007). Different cognitive processes underlie human mate choices and mate preferences. *Proceedings of the National Academy of Sciences, USA, 104*, 15011–15016.
- Walster, E., Aronson, V., Abrahams, D., & Rottmann, L. (1966). Importance of physical attractiveness in dating behavior. *Journal of Personality and Social Psychology, 4*, 508–516.
- Walster, E., Walster, G.W., & Berscheid, E. (1978). *Equity: Theory and research*. Boston: Allyn and Bacon.
- Wicklund, R.A., & Brehm, J.W. (1976). *Perspectives on cognitive dissonance*. Hillsdale, NJ: Erlbaum.

(RECEIVED 11/2/07; REVISION ACCEPTED 12/5/07)