



HurryDate: Mate preferences in action

Robert Kurzban*, Jason Weeden

*Department of Psychology, University of Pennsylvania, 3720 Walnut Street, Philadelphia,
PA 19104, United States*

Initial receipt 17 June 2004; final revision received 24 August 2004

Abstract

To investigate the choices that people make in dating partners, we analyzed data provided by *HurryDate*, a commercial dating service aimed at adult singles living in major metropolitan areas. Here, we report data from 10,526 participants in *HurryDate* sessions, in which roughly 25 men and 25 women interacted with each other for three minutes and subsequently indicated which of the people they met they would be interested in having contact with in the future. We had general survey information collected by *HurryDate* for all the participants and additional survey information for 2,650 participants. Our main findings are that (1) *HurryDate* interactions are driven primarily by generally agreed-upon mate values and less by niche-based or assortative patterns, (2) the agreed-upon mate values for both men and women derive almost exclusively from physically observable attributes like attractiveness, BMI, height, and age and are not substantially related to harder-to-observe attributes such as education, religion, sociosexuality, having children, or desiring future children, and (3) small positive assortative trends arise in the areas of race and height. Our results provide rare behavioral evidence regarding people's preferences in dating partners.

© 2005 Elsevier Inc. All rights reserved.

Keywords: Mating; Mate Preferences; Attractiveness; Dating

* Corresponding author. Tel.: +1 215 898 4977; fax: +1 215 898 7301.

E-mail address: kurzban@psych.upenn.edu (R. Kurzban).

1. Introduction

1.1. Theoretical issues in mating: Assortative or agreed-upon preferences?

Debate continues regarding the nature of people's preferences when selecting mates. One class of models suggests that different people have different criteria for what constitutes the best mate. The most popular version of this hypothesis is that people prefer those who are similar to themselves on relevant dimensions. Because people differ from one another on these dimensions, preferences will differ correspondingly. This idea, known as the "matching hypothesis" or the "likes-attract hypothesis," has a deep history (e.g., Berscheid, Dion, Walster, & Walster, 1971) and remains a popular account of preferences (Buston & Emlen, 2003; Keller, Thiessen, & Young, 1996; Thiessen, Young, & Delgado, 1997).

In contrast, a second model, favored by many evolutionary theorists, suggests that the value of individuals as mates is consensual, and that people's preferences are relatively homogeneous. That is, mate preferences are relatively similar across individuals with preferences reflecting properties that were evolutionarily advantageous in past environments (for reviews, see Buss, 2003, and Geary, Vigil, & Byrd-Craven, 2004). This view is summarized nicely by Pinker (1997): "Somewhere in this world of five billion people there lives the best-looking, richest, smartest, funniest, kindest person who would settle for you" (p. 417).

On this view, people have mate values that characterize the price that they fetch on the mating market (Todd, 1997), and matings are determined by two-sided market forces. Of course, the fact that the same people are preferred does not contradict the observation that many people are in relationships with people other than those at the top of the market. Nearly everyone might *prefer* to live in spacious houses, but people live in housing situations that bear a strong relationship to their income. In this view, people agree on who are the most desirable mates but can obtain only someone whose value is comparable with their own. This model makes the straightforward prediction that perceptions of one's qualities that are desired by the opposite sex should influence one's mate choices—the higher one's perceived relative rank in the mating market, the more selective one can and should be (Buston & Emlen, 2003). Indeed, some data have been taken to support such a conclusion (Waynforth & Dunbar, 1995). The work described here is an attempt to shed further light on this topic.

1.2. Dimensions of preference

The issue of preferences is complicated by the fact that preferences depend on whether one is looking for a short-term sexual partner or a long-term romantic partner (Kenrick, Sadalla, Groth, & Trost, 1990). For long-term mates, women and men report similar preferences for the characteristics they most prefer, in particular, kindness, intelligence, and an exciting personality (Buss, 1989). There are, however, important differences between the sexes, the largest ones being the greater emphases that females place on earning capacity and that males place on physical attractiveness (Buss & Schmidt, 1993; Feingold, 1992). In terms of a woman's physical attractiveness, a crucial variable is body mass index (BMI): weight divided

by height squared. Substantial evidence indicates that males have a relatively robust preference for a particular BMI range (Thornhill & Grammar, 1999; Tovée & Cornelissen, 2001; Tovée, Maisey, Emery, & Cornelissen, 1999; Tovée, Reihardt, Emery, & Cornelissen, 1998).

With respect to short-term mating, there are again certain similarities: Both sexes place substantial weight on physical attractiveness (Buss & Schmidt, 1993). There are differences as well: Men place a high value on sexual experience when searching for a short-term mate, while women place a premium on access to immediate resources (for a thorough discussion, see Buss, 1998).

Other variables play important roles as well. Age is crucial, with adult men preferring women younger than themselves, and women having a reciprocal preference for somewhat older men, the size of this preference varying as a function of one's age (especially men's) and culture (Buss & Schmidt, 1993; Keller et al., 1996). In addition, people assort on a number of dimensions such as educational attainment (Plomin, Defries, & Roberts, 1977) and ethnicity (U.S. Bureau of the Census, 1996). Indeed, similarity on certain dimensions predicts the length of the relationship (e.g., Keller et al., 1996).

2. Mate preferences in action

Investigations of mate choice have a long history, although the nature of mating necessarily puts important methodological constraints on the tools that can be brought to bear on this important research area. Cooper and Sheldon (2002) recently reviewed 477 studies investigating questions surrounding personality and relationships and highlighted a number of methodological difficulties that characterize this broad literature, including the use of self-report methods with respect to mating preferences (where the mate choices are hypothetical and not actual) and relatively modest sample sizes.

The data we report here, while having their own limitations, overcome these particular shortcomings. Through an arrangement with a commercial firm, "HurryDate," we obtained behavioral and questionnaire data from over 10,000 men and women who had participated in HurryDates. In each of these sessions, roughly 25 men and 25 women met one another and indicated who they wanted to contact again. Their choices in these sessions constitute real behavior with actual consequences: When two HurryDaters matched, their email addresses were given to one another, permitting the arrangement of more traditional dates. In addition to their yes/no data, we also collected answers to a number of questionnaire items, some of which were included at our request.

2.1. Distinguishing models using the Hurry-Data

The data from HurryDate allow us to look at (1) what attributes people actually prefer in mates in this context, as embodied in their yes/no selections, (2) what attributes of individuals make them more selective in their choices of potential mates, and (3) whether there are attributes of individuals that make them more or less likely to desire mates with different characteristics (e.g., through the expression of assortative preferences). These data help tease

apart the two competing models described above because the assortative-value and the agreed-upon-value models make distinct predictions. The assortment model predicts that people should prefer traits similar to their own, hence, there should be a large number of correlations between one's own placement on particular mating-relevant traits (e.g., facial attractiveness or education) and preferences for one's mate's placement on that dimension. In contrast, the agreed-value models predict that those who are high on traits that are valued by the opposite sex, generally, should show preferences for those who are similarly high on generally valued traits. Hence, for example, if the market explanation is correct, because a woman's BMI is an important component of her mate value, women with desirable BMI should be selective, preferring those who score high on traits that make males valuable as mates (e.g., being tall or having a high income). For this reason, traits that differ in their relative importance for mate value—especially body shape, which is known to be more important in men's preferences for women than the reverse—should show substantial sex differences if the market account is correct.

3. Methods

3.1. Procedure

HurryDate, based in New York City, operates in major metropolitan areas across North America. It is a commercial firm that caters to single men and women trying to meet other singles for romantic relationships. They market their services through print and other media outlets. Participants register for individual sessions that take place during the evening at bars and clubs. Participants pay a fee of about US\$35 to participate, although this varies with location and occasional discounts. A maximum of 25 men and 25 women are permitted to register for each event, which are referred to as “parties.” Events are stratified by age (25–35 and 35–45 are typical) so that participants of roughly the same ages are participating in the same session. Age ranges for some events are asymmetrical (e.g., men 35–45, women 30–40). HurryDate also runs events that cater to specific subpopulations (e.g., “Black HurryDate”). Our analyses take the possibility of heavily unbalanced sessions into account.

Sessions are run by local hosts; hence, there is some variation in the procedures. In general, participants arrive for the event and are assigned a number and given a corresponding numbered tag to wear in a visible location on their person. They are also given a sheet of paper (a “SCOREcard”) for indicating those people they encounter that they wish to meet again. Before the actual HurryDate session begins, there is a short period of time in which participants are permitted to mingle with one another.

When the session begins, men and women take seats facing one another and are given verbal instructions about the procedure. The start of the first round is indicated by a whistle or other loud sound, and participants are given three minutes to interact. Participants are free to discuss whatever they like and often exchange personal information about jobs, hobbies, education, and so forth. After three minutes, time is called. At this point, both parties (discretely) circle either “yes” or “no” on their SCOREcards underneath the number that corresponds to the

label worn by the person with whom they just interacted. One sex (usually the men) then proceeds to the next round by changing seats. After the event, participants take their SCOREcards home and enter their yes/no responses online. These data are processed by HurryDate to produce matches—cases in which a male and a female both indicated “yes” for one another. Subsequently, participants can find out who their matches are, view these individuals’ online profiles, and send email to their matches. What happens after these contacts is, of course, up to the participants.

3.2. Survey measures

HurryDate collects survey data from their participants. Of the items collected, we analyzed participants’ age, height, education, income, drinking behavior, smoking behavior, whether they have been married, income, race (African, Asian, European, Hispanic, other), and religion (Catholic, Protestant, Jewish, other, none).

In addition, for purposes of this project, HurryDate added optional survey questions. In exchange for answering these additional questions, participants were given a US\$10 discount on a subsequent HurryDate event. Of these questions, we analyzed participants’ ratings of the attractiveness of their own body, face, and personality, how many children they had now and wanted to have in the future, weight (which we used, along with their height, to compute BMI), and four measures of sociosexuality (SOI; Simpson & Gangestad, 1991). The SOI items used, rated on an integer scale between 1 (*strongly disagree*) and 7 (*strongly agree*), were the following: (1) “Sex without love is okay,” (2) “I can imagine myself being comfortable and enjoying ‘casual’ sex with different partners,” (3) “I would have to be closely attached to someone (both emotionally and psychologically) before I could feel comfortable and fully enjoy having sex with him or her,” and (4) “It’s hard to imagine spending the rest of my life with one sex partner.” Responses to these four items were standardized, then averaged, to create the SOI scale.

Not all participants responded to all questionnaire items, yielding unequal sample sizes. We tested for differences between those who responded and those who did not respond to the optional survey items on the set of standard HurryDate survey items (age, education, etc.) and found none.

HurryDate agreed to provide data from a substantial number of sessions and implement our survey for several months during 2003. In exchange, we agreed to turn over to HurryDate all our analyses and to point out which results might be of value for improving their service.

3.3. Participants

HurryDate provided raw data from 12,892 people. We deleted cases for whom we had no age information, those who answered essentially no survey questions, those for whom there were substantial inconsistencies in their data (e.g., people of one sex with a substantial percentage of matches of their same sex), men and women who were unusually young or old (men under 23 and above 50 and women under 22 and above 47, who were more than two standard deviations from the mean), and people for whom we had little or no data on their

matches and nonmatches (typically because they had filled out HurryDate's online survey but had not attended any events or had attended an event that included mostly people who had not filled out a survey). This resulted in omitting about 18% of the data, leaving us with $N=10,526$ (54.3% female).

4. Results

4.1. Descriptive statistics

The participants that comprised our final data set are described in Table 1. They are predominantly well educated, have high incomes, and are of European descent.

Table 1
Descriptive statistics of HurryDate participants

Variable	Units	Male participants	Female participants
		Mean±S.D. (<i>n</i>)	Mean±S.D. (<i>n</i>)
Age	Years	33.8±5.8 (4816)	31.4±4.9 (5710)
Height	Inches	70.5±2.7 (4545)	65.1±2.6 (5412)
BMI	kg/m ²	25.5±3.3 (1259)	23.9±4.0 (1336)
Attractive body	1 (<i>low</i>) to 7 (<i>high</i>)	4.59±1.16 (1288)	4.65±1.31 (1362)
Attractive face	1 (<i>low</i>) to 7 (<i>high</i>)	4.83±1.10 (1288)	5.23±1.15 (1362)
Attractive personality	1 (<i>low</i>) to 7 (<i>high</i>)	5.38±1.17 (1288)	5.64±1.18 (1362)
Race			
African	Yes (1)/No (0)	0.02±0.15 (4394)	0.03±0.17 (5225)
Asian	Yes (1)/No (0)	0.06±0.24 (4394)	0.06±0.24 (5225)
European	Yes (1)/No (0)	0.84±0.37 (4394)	0.83±0.37 (5225)
Hispanic	Yes (1)/No (0)	0.04±0.19 (4394)	0.04±0.21 (5225)
Other	Yes (1)/No (0)	0.04±0.20 (4394)	0.03±0.18 (5225)
Previous marriage	Yes (1)/No (0)	0.18±0.38 (4337)	0.14±0.35 (5145)
Current children	Number	0.17±0.55 (1288)	0.13±0.48 (1362)
Children desired	Number	1.65±1.05 (1288)	1.74±1.07 (1362)
Education	Years	16.9±2.0 (4379)	16.8±2.0 (5207)
Income	Dollars (1000)	84.0±42.2 (1748)	53.4±25.4 (1425)
Religion			
Catholic	Yes (1)/No (0)	0.26±0.44 (3670)	0.32±0.47 (4631)
Protestant	Yes (1)/No (0)	0.24±0.43 (3670)	0.28±0.45 (4631)
Jewish	Yes (1)/No (0)	0.10±0.30 (3670)	0.08±0.28 (4631)
Other	Yes (1)/No (0)	0.04±0.20 (3670)	0.03±0.18 (4631)
None	Yes (1)/No (0)	0.35±0.48 (3670)	0.29±0.45 (4631)
Drinking	0 (never); 0.5 (some); 1 (often)	0.48±0.14 (4230)	0.49±0.12 (5079)
Smoking	0 (never); 0.5 (some); 1 (often)	0.06±0.18 (4267)	0.08±0.20 (5090)
Sociosexuality	See Methods section ^a	0.26±0.67 (1288)	-0.26±0.67 (1362)

^a Higher values connote higher sociosexuality.

4.2. What predicts desirability at HurryDate events?

We analyzed the percentage of “yeses” that a person received from members of the opposite sex, a measure of desirability in this context. On average, men were chosen by 34% of women (S.D.=21%), and women were chosen by 49% of men (S.D.=22%).

We used three categories of variables to predict people’s desirability: (1) the target’s own attributes, (2) the average attributes of the target’s particular group of opposite-sex judges, and (3) the similarity of the targets to their particular group of judges on each of our measured attributes. The first category assesses the absolute effects of a person’s characteristics on their desirability. The second category measures whether desirability varies with the absolute features of their potential selectors (e.g., people with lower body attractiveness might say “yes” more frequently, making anyone being judged by groups with lower average body attractiveness more “desirable” in our sense). The third category assesses assortative trends (e.g., people might be more likely to say “yes” to someone of a similar body attractiveness to themselves, thus making people more desirable in our sense to the extent that their potential selectors are more similar to them).

Table 2 shows correlations between our predictor variables and men’s desirability, as well as the results of a forward stepwise regression using all available predictors. We chose to do a forward stepwise regression because of the large number of predictors involved and because some of the predictors were closely related. Here, as in all subsequent analyses, we tested quadratic terms for each noncategorical variable to look for curvilinear relationships. The only strongly nonlinear predictor was men’s BMI, with BMIs closer to 25 (roughly the sample median) being the most desirable, hence, we created a term measuring men’s absolute deviation from 25 BMI [labeled “BMI(abs25)”. Because the large samples involved in this study have the potential to find numerous trivially sized significant results, we only report results that account for more than 1% of the variance in the predicted measure and for which $p < .005$.

As shown in Table 2, physically observable attributes dominated the predictors of the men’s desirability to women at HurryDate events. The strongest predictors—facial and body attractiveness, height, and age—show up as absolute and not assortative predictors. That is, men who were more attractive, taller, and younger were chosen more frequently, regardless of whether they were being selected by women who were similar to them. Racial preferences, on the other hand, showed up assortatively as well as absolutely. Men of European descent were more desirable and men of Asian descent were less desirable, but a marginally stronger predictor was the assortative one—being judged by a group that contained a higher percentage of one’s own race (Similar Race).

In the multiple regression, the primary predictors of men’s desirability were higher facial attractiveness, taller stature, younger age, closer to the middle (25) BMI, and interacting with a higher percentage of women of one’s own race. These five predictors accounted for 18.4% of the variance in the frequency with which men were selected. The other individual predictors failed to account for an additional 1% of the variance after these five were entered into the model.

Two nonphysical attributes of the men showed up as individual predictors—desiring more children in the future and having an attractive personality. In addition, being chosen more often

Table 2

Predictors of men's and women's desirability (i.e., the percentage of people encountered at HurryDate events who selected the person)

	Men's desirability		Women's desirability	
	Correlation (<i>n</i>)	Standard β in the stepwise multiple regression (entry order)	Correlation (<i>n</i>)	Standard β in the stepwise multiple regression (entry order)
Age	-.19 (4816)	-.18 (3)	-.19 (5710)	-.26 (2)
Height	.21 (4545)	.18 (2)		
BMI			-.50 (1336)	-.51 (1)
BMI(abs25)	-.18 (1259)	-.16 (4)		
Attractive face	.26 (1288)	.21 (1)	.17 (1362)	.12 (5)
Attractive body	.22 (1288)		.30 (1362)	
Attractive personality	.11 (1288)			
Race Asian	-.13 (4394)			
Race European	.15 (4394)		.10 (5225)	
Number of future children	.15 (1288)			
Similar race	.16 (4394)	.16 (5)	.11 (5225)	.17 (3)
Similar BMI	.11 (1165)**		-.20 (1289)	
Female average age	-.11 (4816)			
Female average income	-.11 (4591)			
Male average previous marriage				.14 (4)
Male average race African				.10 (6)

For all displayed values, $p < .0001$, except when noted.

Regression for men's desirability: $n = 1211$, model $R^2 = .184$, $p < .0001$. Regression for women's desirability: $n = 1285$, model $R^2 = .340$, $p < .0001$.

** $p < .001$.

was weakly predicted from being judged by younger women and women with lower personal income. None of these attributes, however, added meaningful variance once physical attractiveness, height, age, BMI, and race were taken into account. Variables that predicted less than 1% of the variance in men's desirability were the following: race African, race Hispanic, race other, previously married, number of current children, education, income, religion Catholic, religion Protestant, religion Jewish, religion other, religion none, drinking, smoking, sociosexuality, averages for female judges for all variables, except age and income, and similarity between male target and female judges on all characteristics, except race and BMI.

Table 2 also shows the correlations between our predictor variables and women's desirability and the results of a forward stepwise regression. In addition to looking for linear relationships, we also tested quadratic terms for each noncategorical predictor to look for curvilinear relationships, but found none.

As with the men, the attributes that predicted women's desirability at HurryDate events were physically observable ones. Of these, BMI dominated the analysis, alone accounting for a remarkable 25% of the variance in women's desirability. Having an attractive body and a *dissimilar* BMI to the judging men were also among the stronger individual predictors, but these two variables failed to add as much as 1% additional variance after controlling for BMI.

Additional predictors for women's desirability included younger age, higher self-rated facial attractiveness, being judged by a higher proportion of men of one's own race, and being of European descent (although, as with men, being of European descent was not a meaningful predictor after controlling for racial similarity to potential selectors). Finally, two predictors arose after controlling for the very strong effect of BMI—the proportion of the judging men who had previously been married and the proportion of the judging men who were African-American. These results indicate that, while men generally chose thinner women, previously married men and African-American men had reduced tendencies to do so. Variables that predicted less than 1% of the variance in women's desirability were the following: height, attractive personality, race African, race Asian, race Hispanic, race other, previous marriage, number of future children, number of current children, education, income, religion Catholic, religion Protestant, religion Jewish, religion other, religion none, drinking, smoking, sociosexuality, averages for male judges for all variables, except previous marriage and race African, and similarity between female target and male judges on all characteristics, except BMI and race.

Overall, the women's BMI, age, facial attractiveness, and racial similarity to the men judging them, and the proportion of men previously married and African-American simultaneously accounted for 34.0% of the variance in the percentage of men saying "yes" to different women.

4.3. *What predicts selectivity at HurryDate events?*

This section reports analyses of the percentage of members of the opposite sex at HurryDate events to whom a given person said "no" (or did not say "yes"), a measure of selectivity in this context. High values indicate greater selectivity.

As an initial matter, we note that desirability and selectivity were positively correlated in both sexes. For men, the correlation was .21 ($n=4816$; $p<.0001$), and for women, the correlation was .18 ($n=5710$; $p<.0001$). Thus, individuals who were said "yes" to more often tended to say "yes" less frequently.

We used the same three categories of variables to predict people's selectivity that we used to predict their desirability: (1) the person's own attributes, (2) the average attributes of the potential opposite-sex selectees, and (3) the similarity of the person to the group of potential selectees on each of our measured attributes. The first category assesses the absolute effect of a person's characteristics on their selectivity. The second category investigates whether a person's selectivity varies in accordance with the absolute features of their potential selectees. The third category investigates assortative trends.

Table 3 shows correlations between our predictor variables and men's selectivity, as well as the results of a forward stepwise regression using all available predictors. Men's BMI showed the only nonlinear relationship, with BMIs closer to 23 (a thin value around the 25th percentile for these men) indicative of greatest selectivity. Thus, we created a term measuring the men's absolute deviation from 23 BMI [labeled "BMI(abs23)"].

Men's selectivity was higher to the extent that they had BMIs close to 23 and higher personal incomes. These two variables had the largest correlations individually with men's selectivity, and both survived at similar effect sizes in a multiple regression. After controlling

Table 3

Predictors of men's and women's selectivity (i.e., the percentage of people encountered at HurryDate events whom the person did not select)

	Men's selectivity		Women's selectivity	
	Correlation (<i>n</i>)	Standard β in stepwise multiple regression (order)	Correlation (<i>n</i>)	Standard β in stepwise multiple regression (order)
BMI			-.25 (1336)	-.24 (1)
BMI(abs23)	-.18 (1259)	-.18 (1)		
Race European	.11 (4394)			
Attractive body	.11 (1288)		.16 (1362)	
Attractive face	.10** (1288)			
Income	.17 (1748)	.20 (2)	.11 (1425)	
Number of current children		-.15** (3)		
Similar BMI	.12 (1165)		-.16 (1289)	
Female average BMI		.12* (4)		
Male average age			.10 (5710)	.10** (2)

For all displayed values, $p < .0001$, except when noted.

Regression for men's selectivity: $n = 445$, model $R^2 = .108$, $p < .0001$. Regression for women's selectivity: $n = 1336$, model $R^2 = .071$, $p < .0001$.

* $p < .01$.

** $p < .001$.

for BMI and income, several marginal individual predictors failed to add meaningful additional variance in predicting men's selectivity, including having dissimilar BMI to the women that the men are selecting, being of European descent, and having a more attractive body and face. Two variables that did not have substantial correlations alone nonetheless entered into the regression after controlling for BMI and income—having fewer children and being faced with women with higher BMIs. The regression analysis revealed that the most selective men (those that said “yes” the least often) were close to 23 BMI, had higher income, had fewer children, and were selecting from women with higher BMIs. This regression model accounted for 10.8% of the variance in men's selectivity. Variables that predicted less than 1% of the variance in men's selectivity were the following: age, height, attractive personality, race African, race Asian, race Hispanic, race other, previous marriage, number of future children, education, religion Catholic, religion Protestant, religion Jewish, religion other, religion none, drinking, smoking, sociosexuality, averages for female selectees for all variables, except BMI, and similarity between male selector and female selectees on all characteristics, except BMI.

Table 3 shows the correlations between our predictor variables and women's selectivity, as well as the results of a forward stepwise regression using all available predictors. There were no substantial curvilinear effects.

The primary predictor of women's selectivity at HurryDate events was having a lower BMI. After controlling for BMI, the related individual predictors of having a more attractive body and having dissimilar BMI to the male selectees both failed to add meaningful additional variance in predicting women's selectivity. Higher income women were modestly more selective, although income failed to add meaningful variance after controlling for BMI.

Having older men to choose from also modestly increased women's selectivity, an effect that survived controlling for BMI.

Variables that predicted less than 1% of the variance in women's selectivity were the following: age, height, attractive face, attractive personality, race African, race Asian, race European, race Hispanic, race other, previous marriage, number of future children, number of current children, education, religion Catholic, religion Protestant, religion Jewish, religion other, religion none, drinking, smoking, sociosexuality, averages for male selectees for all variables, except age, and similarity between female selector and male selectees on all characteristics, except BMI.

Women's selectivity—that is, their tendency to say “no” more often—was highest for thinner women at events with older men, with the regression analysis accounting for 7.1% of the variance.

4.4. *What predicts the differences in people's selections?*

Next, we ask what attributes of individuals predict differences in their choices and matches. For example, some men might have disproportionately chosen women with higher education. Are there attributes that predict which men did so, and if so, are these attributes assortative (e.g., the men's own education), based on general mate value (e.g., the men's desirability among women generally), or something else?

Assortative trends in selections and matches might exist for two reasons: because the HurryDate events were themselves assortative—by design (e.g., Black HurryDate), by regional difference (e.g., people in New York City make more money), or otherwise—or because of different preferences among individuals within the events. Because we were only interested in the latter, we generated measures of people's selections and matches that controlled for event-level differences in average characteristics: We looked at the average attributes of selected individuals after controlling for the average attributes of all available potential selectees at a given individual's event(s) and correlated those residuals with the attributes in question. For the analyses that follow, we tested correlations with the survey-based attributes of the selecting individuals, along with their desirability and selectivity described above.

For the men, the only strongly nonlinear predictor was the men's BMI, with BMIs closer to 25 (roughly the sample median) being associated with selecting women with lower BMIs. For these analyses, given the low number of meaningful correlations for most of the predicted variables, we did not conduct multiple regressions. [Table 4](#) shows these results.

There were few meaningful predictors of the feature differences in men's selections. Men who chose more educated women, for example, were not substantially more (or less) educated themselves (nor substantially more or less attractive, tall, etc.). Only three small assortative relationships appear: Men were more likely to choose women of similar height (similar relative to members of their own sex), African-American men were more likely to choose African-American women, and middle-BMI men were more likely to choose thinner women (a result that is assortative on body attractiveness as opposed to body size). Somewhat stronger relationships existed with respect to men who were more and less selective: More selective men chose women who were thinner, younger, and more physically attractive. There were no

Table 4
Predictors of differential average attributes of men's and women's selections

Attributes of opposite sex selected	Correlations between attributes of men and the women they selected (<i>n</i>)	Correlations between attributes of women and the men they selected (<i>n</i>)
Age	-.22 (4773) Selectivity	-.15 (5414) Selectivity
Age		.11 (5414) Age
Height	.11 (4501) Height	.21 (5399) Selectivity
Height		.12 (5143) Height
BMI	-.33 (3630) Selectivity	
BMI	.12** (1062) BMI (abs25)	
Attractive body	.19 (3658) Selectivity	.10 (4249) Selectivity
Attractive face	.12 (3658) Selectivity	.11 (4249) Selectivity
Race African	.10 (4351) Race African	
Race European		.15 (4945) Race European
Race European		-.10 (4945) Race African

For all entries, $p < .0001$, except when noted.

** $p < .001$.

correlations accounting for more than 1% of the variance in men's different selections based on the selected women's averages for the following attributes: attractive personality, race Asian, race European, race Hispanic, race other, previous marriage, number of future children, number of current children, education, income, religion Catholic, religion Protestant, religion Jewish, religion other, religion none, drinking, smoking, and sociosexuality.

Table 4 also shows the results for the women. There were few meaningful predictors of the feature differences in women's selections. Three small assortative relationships appeared: European-American women were more likely to choose European-American men (and African-American women were less likely to choose European-American men), women were more likely to choose men of similar height (similar relative to members of their own sex), and women were more likely to choose men of similar age. Small relationships existed as well with respect to women who were more and less selective, with more selective women choosing men who were taller, younger, and more physically attractive. There were no correlations accounting for more than 1% of the variance in predicting women's different selections based on the selected men's averages for the following attributes: BMI, attractive personality, race African, race Asian, race Hispanic, race other, previous marriage, number of current children, number of future children, education, income, religion Catholic, religion Protestant, religion Jewish, religion other, religion none, drinking, smoking, and sociosexuality.

4.5. What predicts the differences in people's matches?

The previous section looked at the correlates of attribute differences among people's *selections*. This section provides similar tests for the correlates of attribute differences among people's *matches*. Here, the variables tested are the average attributes of individuals' matches after controlling for the average attributes of all opposite-sex participants at that individual's HurryDate event(s).

These results are shown in Table 5. Men’s BMI yielded a nonlinear effect, with BMIs closer to 25 (roughly the sample median) being associated with making matches with women with lower BMI. There are few meaningful predictors of the feature differences in men’s matches. Three assortative relationships appear: Men were more likely to match with women of similar height (similar relative to members of their own sex), middle-BMI men were more likely to find matches with thinner women, and men were more likely to find matches with women with similar numbers of children. In addition, men with more children were more likely to find matches with women who had previously been married. Three correlations are based upon men’s selectivity: More selective men tended to be matched with women who were thinner, had more attractive bodies, and were younger. Finally, more desirable men tended to be matched with thinner women. There were no correlations accounting for more than 1% of the variance in predicting men’s different matches based on the women’s averages for the following attributes: attractive body, attractive face, attractive personality, race African, race Asian, race European, race Hispanic, race other, number of future children, education, income, religion Catholic, religion Protestant, religion Jewish, religion other, religion none, drinking, smoking, and sociosexuality.

Table 5
Predictors of differential average attributes of men’s and women’s matches

Attributes of opposite sex matches	Correlations between men’s attributes and the women they matched with (<i>n</i>)	Correlations between women’s attributes and the men they matched with (<i>n</i>)
Age	-.11 (4247) Selectivity	-.10 (4930) Selectivity
Height	.13 (3993) Height	.11 (4660) Height
Height		.17 (4873) Selectivity
Height		.12 (4873) Desirability
Height		.11 (4660) Attractive body
BMI	-.30 (2385) Selectivity	
BMI	-.16 (2385) Desirability	-.10 (3062) Desirability
BMI	.13** (758) BMI (abs25)	
Attractive body	.15 (2410) Selectivity	.12 (3091) Selectivity
Attractive body		.12 (3091) Desirability
Attractive face		.11 (3091) Selectivity
Race European		.12 (4462) Race European
Race European		.10 (4822) Selectivity
Income		.14 (3476) Desirability
Income		-.12** (895) BMI
Previous marriage	.12** (1146) Number of current children	.11** (1199) number of current children
Number of current children	.12** (781) Number of current children	-.12** (844) Number of future children
Religion none		.11** (1139) Sociosexuality

For all entries, $p < .0001$, except when noted.

** $p < .001$.

The results for women show more interesting relationships, although overall, there were few strong predictors of the differential attributes of women's matches. Few of the revealed relationships are straightforwardly assortative, however—only with regard to height and European descent did we find small, positively assortative outcomes with women's matches. In addition, there are some relationships that suggest somewhat assortative outcomes along similar but nonidentical dimensions: Women with more attractive bodies were more likely to be matched with taller men; women with more children were more likely to be matched with men who had previously been married; women who desired fewer future children were more likely to be matched with men with more children; and women who were higher in sociosexuality were more likely to be matched with men who were not religious. Finally, women with lower BMI were more likely to be matched with higher income men.

In addition to the survey-based attributes, both women's selectivity and their desirability predicted certain differential match attributes. More selective women tended to have matches who were taller, had more attractive bodies and faces, were younger, and were of European descent. More desirable women tended to have matches who had higher incomes and more attractive bodies and were taller and thinner. There were no correlations accounting for more than 1% of the variance in predicting women's different matches based on the men's averages for the following attributes: attractive personality, race African, race Asian, race Hispanic, race other, number of future children, education, religion Catholic, religion Protestant, religion Jewish, religion other, drinking, smoking, and sociosexuality.

5. Discussion

5.1. Summary of findings

HurryDate events provide strong evidence of the importance of generally agreed-upon mate values as opposed to mate values driven by assortative or other attribute-matching trends, and these generally agreed-upon mate values derive almost exclusively from observable attributes, such as physical attractiveness, BMI, height, age, and race. HurryDate participants are given three minutes in which to make their judgments, but they mostly could be made in three seconds.

Other than the very broad and unsurprising result that women are more selective than men are (Trivers, 1972), the centrally predictable fact from HurryDate events is that women's desirability is dominated by their relative thinness, a finding consistent with data from personal ads (Lynn & Shurgot, 1984; Sitton & Blanchard, 1995). Such findings support both theoretical emphasis on men's attention to physical attractiveness and lay intuitions that men care most deeply about women's body size and shape. Our findings also indicate that, at least in the context of HurryDate events, women show similar physically driven preferences (compare with Feingold, 1990). While men at HurryDate events are strongly attracted to women who are thin, young, attractive, and of a similar race, women strongly prefer men who are physically attractive, tall, young, of medium build, and of a similar race. Women's preferences are not strongly determined by a single trait, but, collectively, their preferences are driven by appearance.

The larger percentage of predictable variance in women's desirability as compared with men's desirability (34.0% vs. 18.4%) might encourage an interpretation that attractiveness is a stronger determinant of women's desirability than of men's in this sample, but the data do not directly support such a view. When compared directly, the sizes of the correlations between attractiveness ratings and desirability for men and women are of similar magnitudes. The crucial difference is that we were able to include BMI, which is a powerful determinant of women's bodily attractiveness, but not of men's—for men, factors such as waist-to-chest ratio play a much stronger role than BMI does (Maisey, Vale, Cornelissen, & Tovée, 1999).

Many traits had surprisingly little effect on people's desirability at HurryDate events, including education and income, previous marriages, having children, concordant desires for future children, religious compatibility, appetites with respect to casual sex, and having similar habits with regard to smoking and drinking. This is noteworthy because these attributes have been reported as important determinants of mate preferences (Campos, Otta, & Sequeira, 2002; Ingoldsby, Schvaneveldt, & Uribe, 2003; Jaffe & Chacon-Puignau, 1995; Pawlowski & Koziel, 2002; Plomin et al., 1977). It is of course possible that these traits do not show up strongly in HurryDate events, not because they are unimportant, but because they are traits for which it is difficult to gain reliable information in a short, initial interaction. However, we doubt that a woman's ability to assess a man's education and wealth would be substantially less in the HurryDate environment than in the context of personal ads, where researchers have found consistent preferences among women for male status. In a HurryDate session, women can gather information on men's wealth and status not only by asking directly about education and occupation but also from indirect cues such as dress and diction. Presumably, even less information—or, at least, even less reliable information—is available in personal ads. Nevertheless, Goode (1996), for example, found that “men were far more influenced by looks, and women by success,” (p. 141) the latter finding in obvious contrast with our own (for similar findings, see also Bereczkei, Voros, Gal, & Bernath, 1997; Greenlees & McGrew, 1994). Similarly, the finding of Pawlowski and Koziel (2002) that education level influenced female preferences in personal ads the most is at odds with our data, although this might be an artifact of our peculiar sample, which consisted of people who were predominantly well educated. Comparing our results with data from personal ads suggests that women put substantial weight on appearance when it is available.

Our results also suggest that men and women are both aware that they are in a market and know, to some degree, how to respond to market forces (Pawlowski & Dunbar, 1999a, 1999b). Both women and men decreased their selectivity to the extent that they were less desirable and, specifically, to the extent that they had a less desirable BMI. Heavier women said “yes” to a relatively high proportion of potential dates, as did men who were either heavy or very thin. Men appeared to attempt to compensate somewhat for having a less attractive face, but not at all for being older or shorter. Women also did not appear to adjust their selectivity for being older (but see Campos et al., 2002). Income played a role in men's selectivity, although it did not affect their desirability: Although women showed no preference for higher income men, these men were more selective.

When men and women increase their selectivity, they exclude less desirable people. The result is that more selective men choose and are matched with women who are, on average,

thinner, younger, and more attractive, while more selective women end up choosing and being matched with men who are taller, younger, and more attractive (see also [Bereczkei et al., 1997](#)). Consequently, desirable women (specifically women with low BMI) end up matched with higher income men, not because these women select higher income men, but because higher income men are more selective. This is an interesting case in which the mating market seems to achieve a certain amount of efficiency despite incomplete and asymmetrical information ([Hayek, 1988](#); [Smith, 1991](#)). This suggests that, in more information-rich environments, we should expect even closer assortment on mate value.

Assortative trends did emerge, but these effects were small compared with the primary trends driven by general mate values and strategic selectivity. The most straightforward assortative trends were with regard to race and height. In addition, there were small and inconsistent trends regarding matches among people with previous marriages and existing children. People also matched on BMI, but the matching occurred not on the basis of absolute BMI (which would fulfill the assortative prediction that similar people assort) but rather on desirable BMI (middleweight men chose and were matched with thin women, an outcome that favors a market-driven agreed-upon-value interpretation).

5.2. Implications for theory and applications

Given the stylized environment of *HurryDate*, caution is required in attempting to evaluate theories of mating based on these findings—it can be argued that theories of human mating were not meant to capture what occurs in a setting that diverges from everyday human interactions. Our results apply to situations in which people are meeting potential mates for the first time but may not adequately characterize repeat interactions over longer periods of time.

Some aspects of our data provide limited support for some existing hypotheses. There is evidence for assortment by race, consistent with a wealth of existing data ([U.S. Bureau of the Census, 1996](#)). Furthermore, if one construes this as a short-term mating environment, our results indicating that both sexes care mainly about physical appearance are consistent with previous research on short-term mating ([Buss & Schmidt, 1993](#)). The male preference for women of low BMI is also consistent with existing theory and data ([Thornhill & Grammar, 1999](#); [Tovée & Cornelissen, 2001](#); [Tovée et al., 1998, 1999](#)). In terms of age, men and women both had preferences that lean to the younger end, but because the men in our sample were, on average, roughly two and a half years older than the women were, this is not inconsistent with previous findings: Men prefer women who are younger, and women prefer men who are a little, but not a great deal, older than themselves ([Buunk, Dijkstra, Kenrick, & Wamntjes, 2001](#); [Kenrick & Keefe, 1992](#)).

Other results are somewhat more surprising. The analyses reflected in [Table 2](#) involve a wide array of variables that should, on either evolutionarily derived theories or theories about assortment, predict choice. For example, personality shows up in the top four desired characteristics in a (long-term) mate for both sexes ([Buss, 1998](#)), but having an attractive personality had little effect on men's desirability, and none at all on women's. The irrelevance of religion, education, and income are also noteworthy. The fact that these variables did not predict preferences could, of course, be a function of the short duration of the interaction.

Additional work will be needed to determine how access to information reveals a different preference structure.

Taken together, these results suggest a continued emphasis not on assortment, but rather on building a more cohesive picture of the attributes of individuals that make them more desirable in the mating market (Li, Bailey, Kenrick, & Linsenmeier, 2002; Pawlowski & Dunbar, 1999a) and how these feature sets may change in different mating contexts. If the market account of mating is correct, then good predictions should be possible on the basis of attributes relevant to mate value.

Acknowledgments

We would like to thank HurryDate, Hurry Brands, and especially Adele Testani for their generosity, without which this project would not have been possible.

References

- Berezkei, T., Voros, S., Gal, A., & Bernath, L. (1997). Resources, attractiveness, family commitment: reproductive decisions in human mate choice. *Ethology*, *103*, 681–699.
- Berscheid, E., Dion, K., Walster, E., & Walster, G. W. (1971). Physical attractiveness and dating choice: a test of the matching hypothesis. *Journal of Experimental Social Psychology*, *7*, 173–189.
- 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. (1998). Sexual strategies theory: historical origins and current status. *Journal of Sex Research*, *35*, 19–31.
- Buss, D. M. (2003). *The evolution of desire: strategies of human mating* (Revised ed.). New York: Basic Books.
- Buss, D. M., & Schmidt, 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*, *100*, 8805–8810.
- Buunk, B. P., Dijkstra, P., Kenrick, D. T., & Warntjes, A. (2001). Age preferences for mates as related to gender, own age, and involvement level. *Evolution and Human Behavior*, *22*, 241–250.
- Campos, L. S., Otta, E., & Siqueira, J. O. (2002). Sex differences in mate selection strategies: content analyses and responses to personal advertisements in Brazil. *Evolution and Human Behavior*, *23*, 395–406.
- Cooper, M. L., & Sheldon, M. S. (2002). Seventy years of research on personality and close relationships: substantive and methodological trends over time. *Journal of Personality*, *70*, 783–812.
- 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.
- Feingold, A. (1992). Gender differences in mate selection preferences: a test of the parental investment model. *Psychological Bulletin*, *112*, 125–139.
- Geary, D. C., Vigil, J., & Byrd-Craven, J. (2004). Evolution of human mate choice. *Journal of Sex Research*, *41*, 27–42.
- Goode, E. (1996). Gender and courtship entitlement: responses to personal ads. *Sex Roles*, *34*, 141–169.
- Greenlees, I. A., & McGrew, W. C. (1994). Sex and age differences in preferences and tactics of mate attraction: analysis of published advertisements. *Ethology and Sociobiology*, *15*, 59–72.

- Hayek, F. (1988). *The fatal conceit*. Chicago: University of Chicago Press.
- Ingoldsby, B., Schvaneveldt, P., & Uribe, C. (2003). Perceptions of acceptable mate attributes in Ecuador. *Journal of Comparative Family Studies*, 34, 171–185.
- Jaffe, K., & Chacon-Puignau, G. (1995). Assortative mating: sex differences in mate selection for married and unmarried couples. *Human Biology*, 67, 111–120.
- Keller, M. C., Thiessen, D., & Young, R. K. (1996). Mate assortment in dating and married couples. *Personality and Individual Differences*, 21, 217–221.
- Kenrick, D. T., & Keefe, R. C. (1992). Age preferences in mates reflect sex differences in human reproductive strategies. *Behavior and Brain Sciences*, 15, 75–133.
- 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.
- 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.
- Lynn, M., & Shurgot, B. A. (1984). Responses to lonely hearts advertisements: effects of reported physical attractiveness, physique, and coloration. *Personality and Social Psychology Bulletin*, 10, 349–357.
- Maisey, D. S., Vale, E. L. E., Cornelissen, P. L., & Tovée, M. J. (1999). Characteristics of male attractiveness for women. *Lancet*, 353, 1500.
- Pawlowski, B., & Dunbar, R. I. M. (1999a). Impact of market value on human mate choice decisions. *Proceedings of the Royal Society of London. Series B*, 266, 281–285.
- Pawlowski, B., & Dunbar, R. I. M. (1999b). Withholding age as putative deception in mate search tactics. *Evolution and Human Behavior*, 20, 53–69.
- Pawlowski, B., & Koziol, S. (2002). The impact of traits offered in personal advertisements. *Evolution and Human Behavior*, 23, 139–149.
- Pinker, S. (1997). *How the mind works*. New York: W.W. Norton & Company.
- Plomin, R., DeFries, J. C., & Roberts, M. K. (1977). Assortative mating by unwed biological parents of adopted children. *Science*, 196, 449–450.
- Simpson, J. A., & Gangestad, S. W. (1991). Individual differences in sociosexuality: evidence for convergent and discriminant validity. *Journal of Personality and Social Psychology*, 60, 870–883.
- Sitton, S., & Blanchard, S. (1995). Men's preferences in romantic partners: obesity vs. addiction. *Psychological Reports*, 77, 1185–1186.
- Smith, V. L. (1991). *Papers in experimental economics*. Cambridge: Cambridge University Press.
- Thiessen, D., Young, R. K., & Delgado, M. (1997). Social pressures for assortative mating. *Personality and Individual Differences*, 22, 157–164.
- Thornhill, R., & Grammer, K. (1999). The body and face of woman: one ornament that signals quality? *Evolution and Human Behavior*, 20, 105–120.
- Todd, P. M. (1997). Searching for the next best mate. In R. Conte, R. Hegselmann, & P. Terna (Eds.), *Simulating social phenomena* (pp. 419–436). Berlin: Springer.
- Tovée, M. J., & Cornelissen, P. L. (2001). Female and male perceptions of female physical attractiveness in front-view and profile. *British Journal of Psychology*, 92, 391–402.
- Tovée, M. J., Maisey, D. S., Emery, J. L., & Cornelissen, P. L. (1999). Visual cues to female physical attractiveness. *Proceedings of the Royal Society of London. Series B*, 266, 211–218.
- Tovée, M. J., Reihardt, S., Emery, J. L., & Cornelissen, P. L. (1998). Optimal body-mass index and maximum sexual attractiveness. *Lancet*, 352, 548.
- Trivers, R. L. (1972). Parental investment and sexual selection. In B. Campbell (Ed.), *Sexual selection and the descent of man* (pp. 136–179). Chicago: Aldine.
- U.S. Bureau of the Census (1996). *Marital status and living arrangements: March 1994* (Current Population Reports, Series P20-484). Washington, DC: U.S. Government Printing Office.
- Waynforth, D., & Dunbar, R. I. M. (1995). Conditional mate choice strategies in humans: evidence from lonely hearts advertisements. *Behaviour*, 132, 755–779.