# Matching for Attractiveness in Romantic Partners and Same-Sex Friends: A Meta-Analysis and Theoretical Critique

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Seventeen studies of similarity in physical attractiveness between members of romantic couples or pairs of same-sex friends, employing 34 independent samples of dyads, were retrieved. Meta-analysis found the interpartner correlation for attractiveness to be higher for romantic couples than for pairs of friends. For couples, the correlations were homogeneous across 27 samples, with an average correlation of .39 (.49 after correction for attenuation). For pairs of friends, variations among correlations were found but were explained by gender of dyad: the matching effect was obtained only with men. Romantic partners were also similar in their self-ratings of attractiveness. These findings were related to contemporary theories of relationship formation.

The early studies of the effects of physical attractiveness on dating behavior (Berscheid, Dion, Walster, & Walster, 1971; Byrne, Ervin, & Lamberth, 1970; Walster, Aronson, Abrahams, & Rottmann, 1966), the identification of the beautiful-is-good stereotype (Dion, Berscheid, & Walster, 1972; Miller, 1970), and the important review of this work by Berscheid and Walster (1974) engendered widespread interest in physical appearance throughout the 1970s (Cash, 1981). Numerous reviews of this literature have recently appeared; articles (Berscheid & Gangestad, 1982; Maruyama & Miller, 1981), bibliographies (Cash, 1981; Hatfield & Sprecher, 1986), books (Bull & Rumsey, 1988; Hatfield & Sprecher, 1986; Patzer, 1985), chapters (Adams, 1982; Dion, 1981; Langlois & Stephan, 1981; Sorell & Nowak, 1981), and edited collections (Graham & Kligman, 1985; Herman, Zanna, & Higgins, 1986; Lucker, Ribbens, & McNamara, 1981).

Reviewers have usually singled out romantic interaction as the context in which physical attractiveness has its greatest impact (e.g., Hatfield & Sprecher, 1986). In experimental studies of romantic behavior, college students were requested to select photographs of students they would like to date (e.g., Berscheid et al., 1971; Huston, 1973), or they were led to interact with a confederate whose level of attractiveness had been manipulated through dress and grooming (e.g., Kiesler & Baral, 1970; Kleck & Rubenstein, 1975). These experiments were motivated by the "matching hypothesis," which posits that people prefer dates of their own level of attractiveness (Aron, 1988; Berscheid & Walster, 1974; Kalick & Hamilton, 1986; Walster et al., 1966). The consistent finding, however, has been that all students desired attractive dates, although small matching effects were sometimes obtained (e.g., Berscheid et al., 1971). Males who

tive dates than their less self-confident peers (Huston, 1973; Walster, 1970). Although this trait hypothesis was not supported, Kiesler and Baral (1970) did find that state of self-esteem (manipulated via false feedback) interacted with targets' attractiveness in affecting romantic attraction, with individuals whose self-esteem had been lowered showing greater interest in an unattractive confederate.

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In the early 1970s, researchers began to examine matching in attractiveness with real-life couples and found that members of romantically linked dyads were similar in physical attractiveness (Cavior & Boblett, 1972; Murstein, 1972; Silverman, 1971). Cavior and Boblett (1972) also found the matching effect (interpartner correlation for attractiveness) to be stronger for married couples than for dating couples, suggesting that interpartner similarity in attractiveness is predictive of courtship success for dating couples. Social exchange theory (e.g., Blau, 1964; Thibaut & Kelley, 1959) has been adapted in the formulation of the "marriage market" hypothesis, which contends that good-looking people select one another as mates, forcing less attractive individuals to choose from eligibles of their own level of attractiveness or to remain unattached (Kalick & Hamilton, 1986).

In addition to examining romantic pairing for "objective" physical attractiveness, i.e., attractiveness as assessed by judges (Berscheid & Walster, 1974), some studies of couples have reported interpartner correlations for self-ratings of attractiveness and also have examined "equity" (e.g., Murstein, 1972). Equity theory (e.g., Walster, Walster, & Berscheid, 1978) accentuates the importance of perceived interpartner equality for relationship formation and maintenance. An equity coefficient then can be defined as the correlation between self-rated attractiveness and the self-perception of the attractiveness of one's romantic partner. When equity was examined, separate (but not

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<sup>&</sup>lt;sup>1</sup> What is termed "equity" in this article has been called the "interperceptual rating of attractiveness" by Murstein (1972) and "perceived similarity" by Bailey and Price (1978).

statistically independent) equity correlations were obtained for male and female members of couples.

Until recently, the nature of self-ratings of attractiveness was ambiguous, although they were known to be only trivially related to objective attractiveness (Berscheid & Walster, 1974). Contemporary factor-analytic research on the multidimensional aspects of self-esteem by Fleming and Courtney (1984) found that self-ratings of attractiveness loaded heavily on a physical self-esteem factor, defined also by body image (satisfaction with one's appearance) and by self-ratings of confidence in interactions with the opposite sex. From this perspective, an interpartner correlation for self-ratings of attractiveness suggests pairing for self-concept, and the correlation between men's self-ratings of attractiveness and the objective attractiveness of their romantic partners affords a test of the hypothesis that self-assured men are more likely to have attractive partners.

The use of quantitative or meta-analytic methods to survey literature is becoming increasingly popular, and statistical procedures have been developed to conduct meta-analysis (Glass, McGaw, & Smith, 1981; Hedges & Olkin, 1985; Hunter, Schmidt, & Jackson, 1982; Rosenthal, 1984). Results from meta-analysis are most unambiguous when there are large numbers of studies examining the same hypotheses by comparable procedures. Pooling correlations across samples of dyads then produces effect sizes having considerable external validity and relatively narrow confidence intervals (CI). Comparisons of correlation coefficients across samples from independent studies can yield findings about questions not assessed in the primary research, such as whether or not methodological features of the research (e.g., sampling method, rating method) moderate effect magnitude. Identification of moderator variables may be theoretically motivated. For example, a question of perennial interest has been whether or not the interpartner correlation for attractiveness is higher for the most committed romantic couples (e.g., Cavior & Boblett, 1972; White, 1980) and can be addressed through meta-analysis by grouping and ordering samples of romantic couples by relationship status.

Research has also examined attractiveness similarity between members of same-sex friendship dyads (e.g., Cash & Derlega, 1978), and a summary of that work is also needed. Matching in attractiveness between friends would signify that the phenomenon is not unique to romantic pairing and that it may occur indirectly, as attractive people might socialize primarily with one another. Roughly speaking, samples of friendship pairs constitute control groups to be contrasted with romantic couples.

There are three main objectives of this review. The first is to determine the average correlation coefficients associated with the different types of matching effects (attractiveness, self-ratings of attractiveness, equity, self-rated attractiveness and partners' attractiveness) that have been examined in contemporary correlational research on romantic couples. The second goal is to examine and comprehend variations in effect sizes across different samples. Finally, the meta-analytic findings are related to contemporary theories of relationship formation.

# Method

#### Retrieval of Studies

Dissertation Abstracts International, Educational Resources Information Center, Inventory of Marriage and Family Literature, Master's Abstracts, and Psychological Abstracts were searched for references to American studies of romantic couples or same-sex friends indexed between 1970 and mid-1987.<sup>2</sup> Reference lists from all retrieved studies and attractiveness reviews were examined for additional citations.

The search yielded 18 studies, employing 36 independent samples of dyads (N = 1,644 dyads), in which one or more of the effect sizes reviewed here had been reported.

### Coding of Samples

Subjects. Descriptive features coded for each sample were (a) demographic characteristics, (b) recruitment method, (c) relationship type, and (d) number of dyads. Demographic descriptions were coded with verbal statements (e.g., college students, middle-aged adults).

Two types of recruitment methods have been employed. In the first procedure, volunteer couples were sought from subject pools or through advertisements. The second method was observation of and procurement of dyads from public places.

Gender of dyad was recorded for the samples of friendship pairs. The samples of romantic couples were sorted into four mutually exclusive and exhaustive groups according to courtship status. The casual dating group consisted of couples who were involved in nonexclusive dating relationships. The mixed dating group consisted of samples of couples in which some dyads were dating one another in a casual fashion and others were engaged in exclusive relationships. The steady dating group consisted primarily of couples in exclusive dating relationships. However, samples that included small numbers of nonsteady daters were assigned to this group if the samples also contained some engaged or married partners, yielding groups in which steady dating was the average relationship status. The committed group of couples was composed of samples of couples who were engaged, married, or cohabitating.

Attractiveness rating method. When measured, physical attractiveness was assessed by pooling judges' ratings of subjects' appearance. Judges typically employed graphic rating scales, for example, a 1 (low attractiveness) to 7 (high attractiveness) rating scale, in making their evaluations. In the first method, subjects were photographed and the attractiveness assessments were made from the prints. The second method (the "live" technique) had the judges present when subjects were run and the ratings were made by them at that time.

Publication status. An effect size was coded as unpublished if it was available only from University Microfilms, was from a presentation, or had been obtained as unpublished raw data from a published study.

#### Data Analysis

Reliability analysis. For each sample in which couples had been measured for physical attractiveness, the number of raters used per subject was recorded. When available, the mean interjudge correlation or the composite reliability was recorded. Rosenthal's (1984) table of effective reliabilities (derived from the Spearman-Brown formula) was employed so that both types of coefficients were recorded for each study reporting reliability information.

A meta-analysis was conducted on the interrater reliabilities obtained from the subset of studies reporting reliability data. Each reliability coefficient was weighted by its sample size in the computation of the mean  $\kappa$ . This (average) mean interrater reliability was assumed to hold for the studies in which no reliability coefficients had been reported. For such studies, the unreported composite reliabilities were estimated by adjust-

<sup>&</sup>lt;sup>2</sup> Foreign studies eliminated were Harrell (1979), Price (1981), and Shepherd and Ellis (1972). Two contemporary American studies were also eliminated. Silverman's (1971) study had to be eliminated because an effect size could not be calculated from his results. Nagy's (1980) study of same-sex pairs had to be excluded because her sample did not consist exclusively of friendship dyads.

ing the mean interrater r obtained from the meta-analysis for the numbers of judges used in the no-reliability studies.

Meta-analysis of correlation coefficients. The procedures outlined by Hedges and Olkin (1985) and Rosenthal (1984) were employed to combine and compare correlations across independent samples. First, retrieved correlations were grouped into categories for the effects to be summarized. Unreported correlations were estimated from the given p values (with results reported only as "nonsignificant" obtained in two cases set equal to .00), and added to the appropriate categories (Rosenthal, 1984). Second, the correlations were pooled across samples but within categories. For each category, the rs were transformed to their Fisher's z equivalents, weighted by their df, averaged, and the mean zs were transformed back to the r metric (Hedges & Olkin, 1985; Rosenthal, 1984). Third, effect categories were then classified into more homogeneous subgroupings by methodological features associated with the samples. Correlations were then averaged within the subgroups and compared across subgroup within effect categories with Rosenthal's (1984) contrast z procedure. Fourth, chi-square tests of homogeneity were conducted (Hedges & Olkin, 1985; Rosenthal, 1984). (Insignificant chi-squares suggest that within-category variations among correlations may be explainable solely by sampling error.) Finally, the 95% CIs for the mean correlations were determined (Hedges & Olkin, 1985), and the results from meta-analysis of composite reliability coefficients were used to correct the weighted mean correlations and their CI for attenuation (Hunter et al., 1982).3

Physical attractiveness: Cross-sectional comparisons. The average interdyad correlation for physical attractiveness was determined separately for romantic couples and pairs of same-sex friends, and the two effect sizes were compared. For the friendship pairs, effect size variation by gender of dyad was examined. For romantic couples, the contrast z test was used to investigate trends among rs ordered by courtship status (in which the four relationship categories were treated as evenly spaced values of a continuous variable).

Physical attractiveness: Longitudinal effects. Comparisons of interpartner correlations across groups of couples differing in courtship status apply a cross-sectional approach to answering a developmental question. In some attractiveness research, the interpartner rs were determined during the first stage of longitudinal investigations of courtship progress among romantic couples. When follow-up studies had been conducted, the correlations between initial interpartner similarity in physical attractiveness and subsequent courtship progress were obtained, and these correlations were grouped as an additional effect category (longitudinal effects).

Self-rated physical attractiveness/equity. The interpartner correlation for self-ratings of attractiveness were combined and compared across the four relationship statuses as had been done for physical attractiveness. But when equity coefficients were grouped by courtship status, the first (casual dating) group was found to consist of only one small (N = 17) sample of dyads. That group was deleted, and the trend analysis employed the three other relationship groups.

Self-rated attractiveness and partners' attractiveness. Although correlations between self-rated attractiveness and partners' attractiveness were not discussed in any primary research, these correlations were sometimes retrievable from reported tables of intercorrelations among ratings. These matrices also indicated that self-ratings of attractiveness were not independent of the objective ratings, raising the possibility of a spurious relationship between self-rated attractiveness and partners' attractiveness. Participants who rated themselves highly may have had more physically attractive partners because they actually were better looking. Thus, self-rated attractiveness was a pure measure of self-esteem only after any variance associated with physical attractiveness was removed from the self-ratings. The focus thus shifted to the partial correlations between self-rated attractiveness and partners' attractiveness, with one's own attractiveness controlled. Because these partial correlations had not been previously computed, a secondary analysis of each study had to be conducted to obtain them. Both the reported zero-order and the calculated partial correlations were pooled across samples by gender.

Matching: Direct effects. The possibility of spurious relationships because of the correlation between self-rated attractiveness and actual attractiveness is also relevant to the interpartner correlations for self-rated attractiveness. If romantic couples paired off for physical attractiveness, then the interpartner correlation for self-ratings of attractiveness could have been spurious, a by-product of matching for attractiveness.

The direct effects of matching for each type of attractiveness rating (with the other type held constant) were obtained through secondary analyses. First, the second-order partial correlation between men's attractiveness and women's attractiveness (with both partners' self-ratings controlled) was calculated for each sample providing the necessary intercorrelations. Second, the second-order partial correlations between men's self-rated attractiveness and women's self-rated attractiveness (with the two objective attractiveness ratings held constant) were determined. These second-order rs addressed, in order, the following two questions. One, for romantic couples matched at a given level of self-rated attractiveness, was there an interpartner correlation for physical attractiveness? Two, for couples matched on attractiveness, was there an interpartner correlation for self-rated attractiveness? The second-order partial rs were pooled across samples to obtain the average direct effect for each type of attractiveness rating.

#### Results

# Overview of Sampling and Procedures

All but five studies (Cavior & Boblett, 1972; McKillip & Riedel, 1983; Murstein, 1971; Price, Dabbs, Clower, & Resin, 1974; Rich, 1985) used self-selected volunteer samples. Most of the studies obtained their samples from a collegiate environment. Exceptions included samples of high school students (Price et al., 1974), middle-aged adults (Murstein & Christy, 1976; Price & Vandenberg, 1979), and elderly couples (Peterson & Miller, 1980). In all but four studies (Critelli & Waid, 1980; McKillip & Riedel, 1983; Murstein, 1971; Pennington, 1973), physical attractiveness (when measured) was determined by ratings made from photographs.

# Meta-Analysis of Reliability Coefficients

For romantic couples, reliabilities of the attractiveness ratings were available for 10 of the 15 studies and for 19 of the 27 samples. Based on the 19 samples, the weighted average of the mean interjudge coefficients was .49, and the corresponding composite reliability was .79 (N = 818). For the eight other samples, the mean of the estimated composite reliabilities was .81 (N = 421). For all 27 samples, the mean reliability was .80.

Because self-ratings of attractiveness were always assessed by one-item scales, no direct estimate of internal consistency was available for them. However, because it was almost certain that the reliability of a one-item measure was below .80, a value of .80 was used to obtain conservative corrections for attenuation. That the correction is not overly conservative is indicated by a recent study in which college students made self-ratings of attractiveness on two very similar one-item scales (DePaulo,

<sup>&</sup>lt;sup>3</sup> As there were no available reliability data on partner-rated attractiveness, and because errors of measurement in the self-ratings and partner ratings of attractiveness were probably correlated, no corrections for attenuation were made for the equity coefficients.

Tang, & Stone, 1987). An interitem correlation of .75 was obtained, providing a crude estimate of the internal consistency of a single-item rating scale.

#### Meta-Analysis of Correlation Coefficients

Table 1 reports most of the retrieved effect sizes of interest: physical attractiveness reliability data, the correlations between self- and objective ratings of attractiveness, interpartner correlations for attractiveness and for self-rated attractiveness, and equity coefficients. The primary findings from the meta-analysis are reported in Table 2: the interpartner correlations for physical attractiveness and self-rated attractiveness, and the equity coefficients.

Physical attractiveness: Cross-sectional comparisons. As expected, the interdyad correlation for attractiveness was smaller for pairs of friends (r = .18, CI = .03-.31) than for romantic couples (r = .39, CI = .34-.44), Cohen's (1977) q (for effect size of difference) = .24, z = 2.94, p < .01. The seven correlations from friendship pairs were not homogeneous and much of the variation was explainable by a gender effect. Matching for attractiveness was found for male dyads (r = .38, CI = .18-.55)but not for female pairs (r = .00), q = .40, z = 2.67, p < .01. By contrast, the 27 correlations for attractiveness matching from samples of couples did not differ significantly. As shown in Table 2, the interpartner correlations were relatively constant across the courtship groupings, and did not increase linearly with relationship stage, z = .36. The effect sizes also did not vary with sample or methodological features. 4 Because the average reliability of the attractiveness ratings was .80, correction for attenuation raised the interpartner r from .39 to .49 (CI = .42 - .55).

Physical attractiveness: Longitudinal effects. Table 3 presents the correlations between initial similarity in physical attractiveness and subsequent courtship progress from four samples of couples studied in three longitudinal investigations. The mean correlation was .13 (CI = .03-.23), but the four coefficients in this category were almost significantly heterogeneous,  $\chi^2(3) = 7.41$ , p < .06. As shown in Table 3, the largest pairwise difference between correlations involved White's (1980) two samples of couples, one consisting of couples who were dating at the outset of the study (and who showed a positive effect) and the other of couples who were relatively committed when the study began (and who showed a negative effect). As the difference between these two effect sizes was significant (White, 1980), interpartner similarity in physical attractiveness was predictive of courtship progress (defined as "staying together") only for the initially uncommitted couples.

Self-rated physical attractiveness/equity. Table 2 reports that the interpartner correlations for self-ratings of physical attractiveness yielded an average r of .26 (CI = .19-.33). The correlation was increased to .32 (CI = .24-.41) by the approximate correction for errors of measurement. Unpublished research yielded a slightly and insignificantly smaller (uncorrected) correlation (r = .23, seven samples, N = 367) than was found from summarization of published findings (r = .30, five samples, N = 374).

The analysis of equity coefficients (Table 2) found a similar mean r for male (.26, CI = .18-.34) and female (.27, CI = .18-.35) members of romantic couples. For men, the nine coeffi-

cients were significantly (p < .001) heterogeneous. Trend analysis of the courtship groupings (excluding the casual dating group) found a significant quadratic trend for men, z = 2.61, p < .01. The equity effect was stronger in the steady dating group than in either of the other two groups (see Table 2).

Self-rated attractiveness and partners' attractiveness. Table 4 reports the correlations between self-ratings of physical attractiveness and the attractiveness of one's romantic partner. Higher self-ratings of attractiveness were associated with having a more attractive partner, with a mean correlation of .14 (CI = .04-.24) for men and .18 (CI = .07-.28) for women (N = 365). The results from homogeneity tests of the rs were not significant,  $\chi^2(4) = 4.64$  for men and  $\chi^2(4) = 2.71$  for women. However, as the interpartner correlation for physical attractiveness for the same subgroup of studies was .41, it was attractiveness, not self-rated attractiveness, that was the primary predictor of the attractiveness of one's current romantic partner.

Multiple regression analysis was employed to determine the relative contributions of self-rated attractiveness and objective attractiveness to prediction of partners' attractiveness. The partial correlations between self-rated attractiveness and partners' attractiveness (with subjects' physical attractiveness controlled) were obtained from the secondary analyses and are reported in Table 4 adjacent to the corresponding zero-order rs. Metanalysis found average partial correlations of .04 and .08 for males and females, respectively. Thus, the correlation between self-rated attractiveness and partners' attractiveness was completely eliminated after subjects' own attractiveness was controlled.

Matching for attractiveness: Direct effects. The second-order partial correlations assessing the direct effects of matching for each type of attractiveness (with the other controlled) from five samples are reported in Table 5, along with the corresponding zero-order interpartner correlations. For this five-sample subset, the average interpartner correlations were .41 and .24 for physical attractiveness and self-rated attractiveness, respectively. The mean correlation between the two attractiveness ratings was .24 for both sexes.<sup>5</sup> The mean correlations between self-rated attractiveness and partners' attractiveness were .14 and .18 for male and female members, respectively. The mean adjusted interpartner correlations were .37 and .20 (N = 365) for physical attractiveness and self-rated attractiveness, in that order, or .04 below the corresponding zero-order correlations found in the subsample.

<sup>&</sup>lt;sup>4</sup> The interpartner correlations for the 19 volunteer samples (N = 986) and the eight field-recruited samples (N = 313) were .38 and .43, respectively. The same .39 correlation was obtained whether attractiveness was measured from photographs (21 samples, N = 885) or assessed by judges in person (six samples, N = 414). Samples obtained from a student environment yielded a mean interpartner r of .38 (19 samples, N = 958), whereas eight samples obtained from a less restrictive setting yielded a corresponding effect size of .42 (N = 341). Finally, unpublished work provided seven samples for which the average interpartner r was .37 (N = 354), compared with an r of .40 obtained from 20 published findings (N = 945).

<sup>&</sup>lt;sup>5</sup> These results are inconsistent with Rand and Hall's (1983) finding that women were more accurate than men at judging their own attractiveness.

Table 1
Reliability and Correlation Coefficients From Studies Used in Meta-Analysis

	Psych	nometric (	data	Correlations						
Study	PA measurement			PA and SRPA		Interpartner		Equity		
	Raters	$\overline{r}^{\mathtt{a}}$	$r_{tt}$	М	F	PA	SRPA	M	F	N
			Same-se	x friends						
Male dyads										
McKillip & Riedel, 1983	1	.40ъ	.40	NA	NA	.48	NA	NA	NA	31
Cash & Derlega, 1978	2	.75°	.86	NA	NA	.47 <sup>d</sup>	NA	NA	NA	24
McKillip & Riedel, 1983	1	.40 <sup>b</sup>	.40	NA	NA	.20	NA	NA	NA	32
Female dyads										
Cash & Derlega, 1978	2	.75°	.86	NA	NA	.40 <sup>d</sup>	NA	NA	NA	24
McKillip & Riedel, 1983	1	.40 <sup>6</sup>	.40	NA	NA	.13	NA	NA	NA	24
McKillip & Riedel, 1983	1	.40 <sup>b</sup>	.40	NA	NA	.01	NA	NA	NA	36
Murstein, 1971	25°	NA	.96 <sup>f</sup>	NA	NA	49	NA	NA	NA	26
			D	:						
			Komant	ic couples						
Casual dating			_							
Feingold, 1981	4	.60	.85	.31*	.10 <sup>8</sup>	.55	.13 <sup>8</sup>	NA	NA	17
Bailey & Kelly, 1984; Kelly, 1975	16	NA	.94f	.408	.20 <sup>8</sup>	.51g	.058	36ª	.16 <sup>8</sup>	17
McKillip & Riedel, 1983	1	.40 <sup>b</sup>	.40	NA	NA	.26	NA	NA	NA	10
White, 1980	10	.34	.83	NA	NA	.18	NA	NA	NA	24
Mixed dating										
Critelli & Waid, 1980	3	.66	.86	.21	.35	.53	.30	.35	.16	123
Price, Dabbs, Clower, & Resin, 1974	54	NA	.96 <sup>f</sup>	.138	.09*	.528	NA	NA	NA	37
Pennington, 1973	7	NA	.87 f	.28 <sup>8</sup>	.218	.278	.08ª	.00s	.218	150
Cavior & Boblett, 1972	30	.45	.96	NA	NA	.19	NA	NA	NA	17
Steady dating										
White, 1980	10	.34	.83	NA	NA	.56	NA	NA	NA	60
Bailey & Kelly, 1984; Kelly, 1975	16	NA	.94f	.48	.228	.45 <sup>8</sup>	.028	.48	.07 <sup>8</sup>	19
Murstein, 1972, 1976	8	.55	.91	.33	.24	.38	.31	NA	NA	99
Murstein, 1972, 1976	NA	NA	NA	NA	NA	NA	.33 <sup>d</sup>	.50	.45	98
McKillip & Riedel, 1983	1	.40 <sup>b</sup>	.40	NA	NA	.37	NA	NA	NA	39
Feingold, 1981	4	.60	.85	.118	11 <sup>8</sup>	.37	.478	NA	NA	53
McKillip & Riedel, 1983	1	NA	.49 <sup>f</sup>	NA	NA	.30	NA	NA	NA	53
Hill, Rubin, & Peplau, 1976	4	NA	.79 <sup>f</sup>	NA	NA	.24	NA	NA	NA	174
Committed										
Cavior & Boblett, 1972	30	.45	.96	NA	NΑ	.73	NA	NA	NA	18
White, 1980	10	.34	.83	NA	NA .	.63	NA	NA	NA	21
Peterson & Miller, 1980	5	.22	.58	.55	.00d	.63	.00d	NA	NA	32
Murstein & Christy, 1976	5	.22	.59	.46	.42	.60	.39	.34	.34	22
McKillip & Riedel, 1983	1	.40b	.40	NA	NA	.48	NA	NA	NA	39
Rich, 1985	4	.56°	.84	.348	.328	.448	.36 <sup>g</sup>	NA	NA	100
White, 1980	10	.34	.83	NA	NA	.37	NA	NA	NA	17
Bailey & Kelly, 1984; Kelly, 1975	16	NA	.94 <sup>f</sup>	30 <sup>8</sup>	.12 <sup>g</sup>	.328	.398	.328	.60	11
Price & Vandenberg, 1979	23	.45	.95	NA	NA	.32	NA	NA	NA	28
Price & Vandenberg, 1979	23	.45	.95	NA	NA	.32	NA	NA	NA	27
Bailey & Price, 1978	20	NA	.951	.07*	.50°	.318	NA	.18	02	20
Price & Vandenberg, 1979	3	.51	.76	NA	NA	.25	NA	NA	NA	72
Centers, 1972	NA	NA	NA	NA	NA	NA	NA	.37	.42	50

Note. Samples were arranged within groups in order of descending magnitude of matching for physical attractiveness. PA is physical attractiveness; SRPA is self-rated PA; equity is intraindividual correlation between attractiveness rating assigned to oneself and to one's partner; M is male; F is female; N is number of subjects or number of couples (as applicable); NA is not available/not applicable.

<sup>&</sup>lt;sup>a</sup> Mean interrater reliability.

<sup>&</sup>lt;sup>b</sup> The study used two raters, one to rate each member of the dyads. Interrater reliability based on a subsample in which both raters rated same subjects.

<sup>&</sup>lt;sup>c</sup> An unusually high interrater agreement was obtained by the unique use of two "trained" judges.

<sup>&</sup>lt;sup>d</sup> Estimated correlation from reported p value for finding.

<sup>\*</sup> Peer raters were used rather than objective judges.

<sup>&</sup>lt;sup>t</sup> No reliability information was reported. Composite reliability estimated by adjusting mean interrater r of .49 (obtained from other studies) for number of raters used.

<sup>&</sup>lt;sup>8</sup> Effect size has not been previously published.

Table 2
Meta-Analysis of Correlation Coefficients for Attractiveness
Matching in Same-Sex Friends and Romantic Couples

Type of matching	r	k	N	$\chi^2(k-1)^a$
	Same-sex	friends		
PA matching				
Men	.38	3	87	1.80
Women	.00	4	110	10.75*
All friends	.18	7	197	16.69**
	Romantic	couples		
PA matching				
Casual dating	.38	4	68	2.17
Mixed dating	.40	4	327	8.03*
Steady couples	.35	7	497	7.11
Committed couples	.44	12	407	12.37
All couples	.39	27	1299	31.89
SRPA matching				
Casual dating	.09	2	34	.05
Mixed dating	.18	2 2 4	273	3.50
Steady couples	.33		269	3.11
Committed couples	.30	4	165	3.50
All couples	.26	12	741	14.84
Equity for men				
Casual dating	36	1	17	_
Mixed dating	.16	2 2	273	8.80**
Steady couples	.50		117	.01
Committed couples	.33	4	103	.54
All couples	.26	9	510	27.03***
Equity for women				
Casual dating	.16	1	17	_
Mixed dating	.19	2	273	.18
Steady couples	.40	2	117	2.36
Committed couples	.35	4	103	3.71
All couples	.27	9	510	11.57

Note. r is weighted mean correlation coefficient; k is number of groups; N is number of dyads contributing to the mean correlation (for PA matching and SRPA matching) or number of subjects (for equity coefficients); PA is physical attractiveness; SRPA is self-rated physical attractiveness; equity is intraindividual correlation between attractiveness ratings assigned to oneself (SRPA) and the attractiveness rating attributed to one's romantic partner.

#### Discussion

# Magnitude of Effect Sizes

Cohen's (1977) criteria for effect size interpretation (by which correlations of .10, .30, and .50 are designated small, medium, and large effects, respectively) are useful for evaluating the present findings. The mean interrater reliability of the attractiveness assessments and the corrected interpartner correlation for physical attractiveness for romantic couples (both .49) were large.

Medium size correlations (.26-.38) included the interpartner r for self-rated attractiveness (for couples), the interpartner r for attractiveness (for male friendship pairs), and the equity effect for both sexes. The correlations between self-assessed attrac-

Table 3
Correlations Between Interpartner Similarity in Physical
Attractiveness and Courtship Progress
From Three Longitudinal Studies
of Romantic Couples

Study	Follow-up time (months)	Courtship progress criterion	r	N
White, 1980	9	Separated vs. stayed together	.27ª	65
White, 1980	9	Separated vs. stayed together	-,24ª	32
Hill, Rubin, & Peplau, 1976	24	Separated vs. stayed together	.08 <sup>b</sup>	174
Murstein, 1976	6	Questionnaire measure	.25	95

Note. A positive correlation indicates that attractiveness similarity was associated with subsequent courtship progress. N is number of dyads represented in correlation.

tiveness and the attractiveness of one's romantic partner, and the effect of similarity in attractiveness between romantic partners on subsequent courtship progress (as determined from longitudinal research), were small (.13-.22). No correlation was found between attractiveness ratings of pairs of female friends or between self-rated attractiveness and partners' attractiveness after subjects' attractiveness was controlled.

#### Moderator Variables

Matching in attractiveness: Cross-group comparisons. Cavior and Boblett (1972) and White (1980) grouped romantic couples

Table 4
Correlations of Physical Attractiveness and Self-Rated
Physical Attractiveness With Romantic
Partners' Physical Attractiveness

		Simple r		Partial ra	
Study	N	PA	SRPA	PA	SRPA
	Me	n			
Feingold, 1981	53	.37	.10	.36	.06
Feingold, 1981	17	.55	20	.66	47
Murstein & Christy, 1976	22	.60	.40	.51	.17
Critelli & Waid, 1980	123	.53	.22	.51	.13
Pennington, 1973	150	.27	.08	.26	.00
	Won	nen			
Feingold, 1981	53	.37	.06	.38	.11
Feingold, 1981	17	.55	14	.57	23
Murstein & Christy, 1976	22	.60	.27	.57	.02
Critelli & Waid, 1980	123	.53	.23	.49	.04
Pennington, 1973	150	.27	.19	.24	.14

Note. PA is physical attractiveness; SRPA is self-rated physical attractiveness; N is number of dyads represented in correlation.

<sup>&</sup>lt;sup>a</sup> Homogeneity test for within-group correlations.

<sup>\*</sup> p < .05. \*\* p < .01. \*\*\* p < .001.

Computed from reported t tests (i.e., point-biserial correlations).

<sup>&</sup>lt;sup>b</sup> Estimated from *p* level of the significance of the difference between two correlation coefficients.

<sup>&</sup>lt;sup>a</sup> These partial correlations correspond to the standardized regression coefficients obtained when partners' physical attractiveness is regressed simultaneously on physical attractiveness and self-rated physical attractiveness.

Table 5
Interpartner Correlations for Physical Attractiveness
and Self-Rated Physical Attractiveness:
Obtained Effects and Direct Effects

	Physical pl attrac- a		phy: attr	rated sical rac- ness	
Study	$r_{ m obt}$	r <sub>adj</sub>	r <sub>obt</sub>	r <sub>adj</sub>	N
Feingold, 1981	.37	.37	.47	.48	53
Feingold, 1981	.55	.70	.13	.33	17
Murstein & Christy, 1976	.60	.50	.39	.27	22
Critelli & Waid, 1980	.53	.48	.30	.24	123
Pennington, 1973	.27	.23	.08	.03	150

Note.  $r_{\text{obt}}$  is obtained r;  $r_{\text{adj}}$  is adjusted r. The adjusted rs are second-order partial correlations assessing the interpartner similarity for each type of attractiveness rating with the other held constant (see text). N is number of dyads represented in correlation.

by courtship status and reported that more committed couples showed stronger interpartner correlations for attractiveness, a finding not obtained in this meta-analysis. Instead, the important finding from the cross-group comparisons was that male friendship dyads showed an attractiveness matching effect, but it was absent in samples of pairs of female friends.

Excluding the work with dyads, three correlational studies have investigated the relationship between physical attractiveness and same-sex interactions (Berscheid et al., 1971; Reis, Nezlek, & Wheeler, 1980; Reis, Wheeler, Spiegel, Kernis, & Perri, 1982) and all found significant correlations only for men. Why should attractiveness be associated with same-sex interaction only for men? An explanation comes from Deaux (1977), who has observed that social interaction among men is characterized by the formation of status hierarchies. If attractive men have higher social status, the obtained matching effect could be indirect, a function of friendship pairing by popularity level and the correlation between men's attractiveness and their popularity.

Physical attractiveness: Longitudinal effects. Although an effect of interpartner similarity in physical attractiveness on relationship development was found, it was very small, affording an explanation for the failure to detect an effect in the comparison of correlations across couples grouped by relationship status. Correlations have large sampling errors, and comparisons between correlations from independent samples are known for their low statistical power (Cohen, 1977). Although the difference was not significant, the interpartner correlation for attractiveness was indeed higher for the committed couples (r = .44) than for the other three groups of couples combined (r = .37; see Table 2), suggesting that the inconsistency between the cross-sectional and longitudinal results may be more apparent than real.

Self-rated attractiveness/equity. The interpartner correlations for self-rated attractiveness were homogeneous across samples. However, because the self-ratings were obtained after relationship formation, the direct effects of interpartner similarity found in the meta-analysis may be a product rather than a cause of relationship formation.<sup>6</sup>

The equity coefficients from the female members of couples were homogeneous across samples. For the men, however, the equity effects varied curvilinearly with courtship status. A possible explanation is that men may have a greater need to perceive equality at the crucial juncture at which relationships either terminate or progress to the commitment stage.

Self-rated attractiveness and partners' attractiveness. These correlations were homogeneous across five samples for both sexes and indicated no direct effect of self-rated attractiveness on having an attractive partner. Because self-ratings of attractiveness reflect self-esteem, these findings are consistent with the work of Huston (1973) and Walster (1970), both of whom found the trait of self-esteem to be unpredictive of preference for attractive dates.

# An Interdisciplinary Perspective on Matching

The studies used in the meta-analysis were retrieved from the social psychological literature. Unfortunately, the primary researchers had not measured other individual difference variables (e.g., educational attainment, personality dimensions) and determined the corresponding interpartner correlations for them, thereby permitting an assessment of the relative strength of the matching effects found for attractiveness and self-rated attractiveness. As mate selection is an interdisciplinary area, however, sociologists (e.g., Taylor & Glenn, 1976; Udry, 1977), behavioral geneticists (e.g., Johnson, Nagoshi, & Ahern, 1987), social biologists (e.g., Epstein & Guttman, 1984), and personality psychologists (e.g., Lewak, Wakefield, & Briggs, 1985) have also studied romantic couples and have documented interpartner correlations for a wide range of characteristics.

Feingold (1987) has reviewed the non-social psychological literature on mate selection, and his findings allow the current results to be placed in the proper perspective. The largest interpartner correlations (clustering at .60) were found for educational attainment (e.g., Johnson et al., 1987) and with the Heterosexuality scale of the Edwards Personal Preferences Schedule (.63-.79; Murstein, 1980). Interpartner correlations for the Dominance scale of the California Psychological Inventory, the Psychopathic Deviate scale of the Minnesota Multiphasic Personality Inventory, the Sensation-Seeking Scale, and attitude scales were all about .40 (e.g., Buss, 1984; Farley & Davis, 1977; Hill, Rubin, & Peplau, 1976; Lewak et al., 1985; Rubin, 1973), or about equal to the (uncorrected) correlation found for physical attractiveness in the current meta-analysis. Interspouse correlations for IQ clustered at .30 (e.g., Epstein & Guttman, 1984), or at about the same magnitude found here for self-rated attractiveness.

Thus, from an interdisciplinary perspective, the average matching effects found for attractiveness and self-rated attractiveness are not atypically high, apparently disconfirming the pervasive belief among social psychologists that romantic pair-

<sup>&</sup>lt;sup>6</sup> Over long periods of time, the possibility of convergence in actual physical attractiveness must also be considered (cf. Zajonc, Adelmann, Murphy, & Niedenthal, 1987).

ing is based primarily on physical attractiveness, which has been viewed synonymously with social desirability (e.g., Hatfield & Sprecher, 1986; Kalick & Hamilton, 1986).

To explain both the causes of the myriad interpartner correlations and the social psychologists' apparent preoccupation with attractiveness, Feingold (1987) postulated a three-stage theory of relationship formation. At stage one, social stratification groups together people who are similar in educational level and occupational status. Thus, competition for romantic partners occurs primarily within social groups of people who are comparable in status but heterogeneous in components of social desirability (e.g., attractiveness). The second stage, which subsumes the marriage marketplace theory, posits that individuals screen out from their group opposite-sex others who are less desirable than themselves. Thus, interactions eventuating in romantic pairings occur between people who are of similar socioeconomic status (SES) and within-group desirability, and these interactions constitute the second stage in Feingold's model. During these interactions, active decision making about partner selection occurs and is influenced by interpersonal similarity in affective variables, thereby defining the third stage in the formation of romantic dyads.

From the framework of the model, social psychologists have overemphasized attractiveness because their work has focused on the interpersonal processes occurring at stage two. Walster et al.'s (1966) classic dating study, which has been most responsible for the wave of work on attractiveness (especially as it affects romantic behavior), represents a case in point. First, the study was conducted with a homogeneous group of college students, assuring that SES effects were minimized (Folkes, 1982). Second, they had paired their subjects with one another for blind dates. Walster et al. found attractiveness to be the only predictor of romantic liking, apparently disconfirming their (correct) belief that attractiveness was only one piece of the pie. Yet, given the nature of their sample and design, which guaranteed an examination of stage-two behaviors, their results are not surprising, even considering the matching effects for personality and intelligence found in the assortative marriage literature (see Feingold, 1987).

#### Directions for Future Research

As romantic couples are similar in many ways, future research on the role of individual difference variables in partner selection might administer a wide range of affective, cognitive, and physical measures to heterogeneous samples of couples and employ multivariate analysis to examine the phenomenon. Canonical correlation analysis (Cooley & Lohnes, 1971), for example, could be used to test the hypothesis that couples match up according to level of global social desirability (e.g., Walster et al., 1966). The theory would be supported if the socially valued characteristics (e.g., educational attainment, attractiveness) were found to load positively and highly on the first canonical variate for both sexes constituting the couples. Because research suggests that status contributes more to social desirability level for men than for women (Buss & Barnes, 1986; Green, Buchanan, & Heuer, 1984), gender differences could be examined by canonical analysis through a comparison of the structure coefficients obtained for men and women. Educational level and occupational level would be expected to correlate more highly with the first variate for men. Also, extraction of subsequent canonical correlations might pinpoint dimensions of matching (e.g., for personality variables) unrelated to overall social desirability, confirming the need for a third stage in a valid model of romantic pairing.

Knowledge about the dynamics of relationship initiation may be obtained by studying mismatched couples. Recent research has shown that personality traits are predictive of individual responsiveness to physical attractiveness. Andersen and Bem (1981) found sex-typed students to be more influenced by attractiveness, and Snyder, Berscheid, and Glick (1985) found the same to be true for high self-monitors. Therefore, attractive people who date unattractive others may differ from their counterparts who summarily dismiss such eligibles. Some attractive persons may seek "love at first sight" relationships (and screen for appearance), whereas others may prefer "friends first" relationships (and "give people a chance"). Such preferences may be related to personality characteristics and to experiences with previous romantic partners (e.g., getting "burned" by a gorgeous psychopath). Feingold (1982), for example, found that steady-dating couples who had formed their relationships shortly (3 months or less) after meeting were less discrepant in attractiveness than were couples who had been acquainted for at least 8 months before they had started to date.

Future work on romantic pairing would profit by focusing on the social and societal processes causing interpartner correlations and by testing hypotheses with multivariate techniques (e.g., causal modeling) that integrate theory with data analysis.

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