The measurement of Friendship-based Love in intimate relationships

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Abstract

Friendship-based Love (FBL) in intimate relationships may be defined as a comfortable, affectionate, trusting love for a likable partner, based on a deep sense of friendship and involving companionship and the enjoyment of common activities, mutual interests, and shared laughter. Theoretical derivation of the FBL concept is described, along with two versions of a new scale for its measurement. Two studies of the characteristics of Friendship-based Love with middle-aged married adults ($N = 622$) and dating young adults ($N = 201$) indicated that this type of love characterized the intimate relationships of both samples and was significantly and positively related to relationship satisfaction and to a variety of relationship characteristics. Discriminating comparisons of the FBL scale (both versions) with a revised measure of erotic love, with a revised measure of ludic or game-playing love with a variety of partners, and with Passionate Love also were conducted. Both versions of the Friendship-based Love scale showed substantial convergent and discriminant validity on the basis of correlational evidence (Studies 1 and 2), on multitrait-monomethod validity criteria (Study 1), and via the method of contrasted groups (Studies 1 and 2).

Implicit in the love literature is the idea of a type of love that has not been fully developed or articulated. This type of love may be named *Friendship-based Love* (FBL)[1] and defined as a comfortable, affectionate, trusting love for a likable partner, based on a deep sense of friendship and involving companionship and the enjoyment of common activities, mutual interests, and shared laughter. In this research two versions of a new scale to measure FBL are presented along with the validating data.

1. Throughout this article, FBL will refer either to the concept or to the scale that measures the concept. If the latter, it will be called the FBL scale or measure.

Previous research has yielded concepts similar, but not identical, to FBL in the form of "liking" (Rubin, 1970, 1974), "conjugal love" (Driscoll, Davis, & Lipetz, 1972; Knox & Sporakowski, 1968; Munro & Adams, 1978), "companionate love" (Walster & Berscheid, 1974), "friendship" (Davis & Todd, 1982), "intimacy" (Sternberg, 1986), and "Storge" (Hendrick & Hendrick, 1986; Lee, 1976). These ideas of love generally reveal one of two omissions. Either they underestimate the importance of FBL in satisfying love relationships, although they may acknowledge the place of liking in loving, or their concept of FBL is not well-defined or has been portrayed, at least recently, as incompatible with romantic or erotic feelings.

A notable exception to this pattern of research is found in the work of Roberts (1982) whose friendship model of intimate heterosexual relationships included elements of intimacy, respect, trust, liking, and a balanced power structure between the partners. Indeed, there is good reason to believe that this form of love exists in het-

erosexual intimate relationships. More specifically, a number of researchers looking at the phenomenology of love have noted the salience of companionate aspects of love (Fehr & Russell, 1991; Hendrick & Hendrick, 1993) and of reciprocal liking (Aron, Dutton, Aron, & Iverson, 1989) in male and female descriptive accounts of their love relationships. Interestingly, the experience of a companionate type of love seems to be of striking significance to young adults' prototypical conceptions of love in romantic relationships, with companionate features often described as more central to the concept of love than passionate features. It thus appears efficacious not only to highlight the importance of Friendship-based Love for dating and married adults, but also to delineate this expanded concept through the development of a new scale.

Developing a valid and reliable measure of FBL should contribute to our knowledge about the viability of this type of love in a number of ways. First, it is reasonable to expect that FBL will be not only compatible, but also strongly associated with self-confident, erotic love, particularly in satisfying love relationships (Saflios-Rothschild, 1977). In contrast, Lee (1976) conceptualized Storge, a kind of friendship-based love, as having little to do with passion and physical attraction. Lee did, however, admit the possibility of a mixture of erotic and storgic love when he said that "an Eros lovestyle will convert over time into a more relaxed companionship, in a mixture of Eros and Storge" (Lee, 1988, p. 43). Empirical evidence on the positive relationship between types of love similar to FBL and erotic or passionate love has been mixed (Hatfield & Sprecher, 1986; Hendrick & Hendrick, 1986; Richardson, Medvin, & Hammock, 1988; Sternberg, 1987).

Developing an instrument to measure FBL should also reveal the extent to which it is positively related to relationship satisfaction in intact intimate relationships. A strong association between satisfaction and Storge has received theoretical support (Lee, 1976), but curiously little empirical

confirmation in previous studies (Davis & Latty-Mann, 1987; Hendrick, Hendrick, & Adler, 1988; Levy & Davis, 1988). By contrast, in other studies, notions similar to Storge, namely intimacy (Sternberg, 1987) and companionate love (Traupman, Eckels, & Hatfield, 1982), have been significantly and positively related to relationship satisfaction. It is possible, as Levy and Davis (1988) have suggested, that the measure of Storge was not fully descriptive of the idea of Friendship-based Love. Thus, it appears fruitful to expand the measurement of FBL.

Scale Development

The development of the Friendship-based Love scale was part of a larger effort to revise the Hendrick and Hendrick (1990) relationship-specific version of their Love Attitudes Scale (1986). The latter had been derived originally from Lasswell and Lasswell (1976) and the theoretical work of Lee (1976). The purpose of the revision was to develop measures of types of love relevant and meaningful to *both* young adults in dating relationships and married adults in lengthy relationships.

The revision process affected all six of the Hendricks' love attitudes (Eros, Ludus, Storge, Pragma, Mania, and Agape). For a complete description of the revision of all the lovestyles, see the Love Perceptions Survey (Grote, 1992; Grote & Frieze, 1994). In this article we will refer to the revised love attitudes as love perceptions. Of the six love perceptions, the Storge measure was changed the most and was renamed the Friendship-based Love scale to reflect a broader definition of Lee's concept of Storge (1976). The spirit of the development of the FBL scale reflected several principles.

First, rather than constructing items from scratch, the FBL scale was comprised initially of six items and later of nine items, which had been borrowed or adapted from previous scales or written with Lee's concept of Storge (1976) in mind. This deductive, theoretical approach to scale construction differs from an inductive one in which

first there is written a large sample pool of items and then a few items are selected from this pool (Burisch, 1984). Using a deductive approach, we systematically selected items from the love literature for both versions of the new Friendship-based Love scale. The notion of the likability of the partner came from Rubin's Liking Scale (1970). The elements of feeling comfortable with and trusting of one's partner derived from descriptions of conjugal love (Driscoll et al., 1972; Munro & Adams, 1978). The idea of affection as integral to Friendship-based Love stemmed from the concept of companionate love (Hatfield & Walster, 1978) and also has received support in terms of concurrent validity in a study by Thompson and Borrello (1987). Trusting and being able to count on the partner came from Sternberg's Intimacy scale (1987) and from Davis and Todd's ideas (1982) about love and friendship. Experiencing deep friendship, relaxed companionship, and the sharing of common activities and interests was central to Lee's concept of Storge (1977). Finally, associated with the notion of companionship, dyadic cohesion, and liking in love relationships was the idea of shared laughter (Murstein & Brust, 1985; Palisi, 1984; Spanier, 1976). See Table 1 for the item content and alpha coefficients of the 6-item and 9-item versions of the FBL scale. The results of confirmatory factor analyses involving the two FBL scales will be presented in the Measures section of this article.

Second, because our intention was to describe Friendship-based Love, we decided that scale items should not be a mixture of evaluative and descriptive statements. Lee had earlier suggested this modification (personal communication, 1990). Thus, we made an effort to select or produce love attitude items that were descriptive, but not evaluative, of the love relationship. For example, we excluded the items "Our love is the best kind because it grew out of a long friendship" and "To be genuine, our love required caring for a while" from the Friendship-based Love scale because they

were statements of value, not of fact. Third, wherever possible, we wrote descriptive love attitude statements using the first-person pronoun, as Lee also had suggested (personal communication, 1990). In this way it would be clear that the respondent was to speak for himself or herself, rather than for the spouse or partner. Fourth, we decided to use only one "friendship" item in the FBL scale and created or borrowed new items to amplify and delineate more fully the concept of Friendship-based Love.

Even though our FBL scale was considerably different from Hendrick and Hendrick's Storge (1990), we did not expect the two scales to be empirically unrelated. In a pilot study conducted at a large, mid-Atlantic urban university with a sample of dating undergraduates ($N = 159$), we found that our 6-item FBL scale was strongly and positively correlated with Storge ($r = .60$). On the other hand, the FBL scale showed a stronger positive association with relationship satisfaction ($r = .78$) than did Storge ($r = .44$), as revealed on a test of differences between dependent correlations ($z = 7.6, p < .001$). This correlational difference provided evidence that the FBL scale was measuring something conceptually different from what Storge was capturing.

Exploring the Characteristics of Friendship-based Love

To explore the characteristics of Friendship-based Love and to validate the new scale, two studies were carried out. In the first study, a sample was obtained of married middle-aged men and women with an average age of 46. In the second study, a sample of dating college-aged young adults was used. Previous theoretical and empirical research had suggested that Friendship-based Love should be most relevant to mature adults in long-term relationships (Hendrick et al., 1988; Lee, 1976). Thus, we thought it important to include middle-aged as well as younger adults in the exploration and validation process.

Table 1. *Alpha coefficients and final confirmatory factor loadings of Eros-R, Ludus-R, and Friendship-based love in Studies 1 and 2*

			Standardized Factor Loadings[a]		
			Study 1	Study 2	
Item	Study 1 Alpha	Study 2 Alpha	FBL1	FBL1	FBL2
Eros-R	.83	.62			
1. I am still attracted to my partner. (Hendrick & Hendrick, 1990, revised)			.82*	.77*	.77*
2. I feel we have the right physical "chemistry" between us (Hendrick & Hendrick, 1990)			.85	.70	.71
3. Sexual intimacy is an important part of our relationship. (Lee, 1976)			.75	.29	.29
4. My partner fits my ideal standards of physical beauty/handsomeness. (Hendrick & Hendrick, 1990)			.49	.61	.61
Ludus-R	.74	.82			
1. Sometimes I have to keep my partner from finding out about other partners. (Hendrick & Hendrick, 1990)			.70*	.55*	.55*
2. I could get over my relationship with my partner in a short time because "there are other fish in the sea." (Lee, 1976)			.45	.58	.57
3. When my partner becomes too attached to me, I want to back off a little. (Hendrick & Hendrick, 1990, revised)			.30	.49	.48
4. I enjoy playing the "game of love" with my partner and a number of other partners. (Hendrick & Hendrick, 1990)			.63	.72	.72
5. I am already committed to my partner, but I am prepared to have a relationship with another partner on the side. (Lee, 1976)			.87	.77	.77
6. Even though I am happy with my partner, I feel that there are others I could be just as happy with. (Lee, 1976)			.43	.66	.65
FBL 1 & 2[b]	.88	.81(FBL1) .87(FBL2)			
1. I feel our love is based on a deep and abiding friendship. (Hendrick & Hendrick, 1990, revised)			.82*	.69*	.71*
2. I express my love for my partner through the enjoyment of common activities and mutual interests. (Lee, 1976)			.63	.55	.55
3. My love for my partner involves solid, deep affection. (Thompson & Borrello, 1987, revised)			.83	.80	.76
4. An important factor in my love for my partner is that we laugh together. (Spanier, 1976, revised)			.73	.50	.52
5. My partner is one of the most likable people I know. (Rubin, 1970)			.59	.52	.54
6. The companionship I share with my partner is an important part of my love for him/her. (Lee, 1976)			.83	.75	.74
7. I feel I can really trust my partner. (Sternberg, 1987)			—	—	.57
8. I am able to count on my partner in times of need. (Sternberg, 1987)			—	—	.63
9. I feel relaxed and comfortable with my partner. (Lee, 1976)			—	—	.64

Note: Study 1 involved 568 married, middle-aged adults. Study 2 involved 198 dating young adults. The revised love perceptions of Eros-R, Ludus-R, and Friendship-based Love are part of the Lovestyle Perceptions Survey (Grote, 1992; Grote & Frieze, 1994).
[a]Standardized factor loadings in Studies 1 and 2 are from the final confirmatory factor analyses.
[b]FBL1 = Questions 1–6; FBL2 = Questions 1–9.
*$p < .001$ for all standardized factor loadings.

Furthermore, two revised love scales, sensual and erotic love (Eros-R) and game-playing love (Ludus-R), were used in this study to provide a comparison with the concept of Friendship-based Love. Validation of the Friendship-based Love scale by the method of *contrasted groups* involved comparing levels of Friendship-based Love, erotic love, and ludic love among three distinct groups of middle-aged adults (married, separated/divorced, and dating) and among two groups of young adults (dating or no longer dating). *Convergent and discriminant validity* for the Friendship-based Love scale was also investigated for young and middle-aged adults to show that FBL correlated more highly than Eros-R and Ludus-R with those relationship variables with which it should theoretically correlate, but that it correlated to a lesser extent with variables from which it should differ. Specific hypotheses regarding FBL, Eros-R, Ludus-R, and other variables will be presented at the beginning of each of the two studies.

Study 1

With regard to the middle-aged sample, it was expected that three distinct groups of adults (married, separated/divorced without a current partner, and dating) would show significant differences with respect to levels of Friendship-based Love, erotic love, and ludic love. Based on Lee's theory (1976), it was predicted that married and dating adults would be higher in Friendship-based and erotic love than separated/divorced adults (who responded to love perception questions in terms of their ex-spouse or partner). Moreover, it was predicted that middle-aged adults who were married and supposedly more committed to their spouses would be lower in ludic love than their dating or separated or divorced counterparts.

Two sets of correlations are presented as evidence for the convergent and discriminant validity of the Friendship-based Love scale with respect to the married adults in this sample. On the basis of theory (Lee,

1976), we predicted that FBL would be more strongly related to security, that Eros would be more strongly related to sexual satisfaction, and that Ludus would be more strongly related to not being monogamous in the relationship than to the other love scales. We expected FBL to be more strongly correlated than Eros-R and Ludus-R with relationship satisfaction for married adults. In a previous study of dating undergraduates (Hendrick et al., 1988), Eros was more strongly and positively related to satisfaction than was Storge, but the Storge measure was conceptually different from our FBL scale. The relative influence of Eros and FBL on relationship satisfaction for adults in lengthy marriages remains to be seen. We also hypothesized that Friendship-based Love would be more highly related to the following variables than erotic love and ludic love—importance of the relationship, respect for partner, and feeling close to partner, as implied in the work of Lee (1976) and Sternberg (1986)—and to relationship length, as previous theoretical and empirical work has suggested (Driscoll et al., 1972; Hendrick et al., 1988; Lee, 1976).

By contrast, we predicted that erotic love would be more highly associated than the other love scales with experiencing a general sense of sexual satisfaction and with having a new spouse after 40 years of age. The rationale for hypothesizing a connection between Eros and having recently married is based on previous findings that the strength of erotic love is inversely related to marriage length (Grote, 1992). Further, it was expected that ludic love would be more strongly correlated than the other scales with having had an extramarital affair after the age of 40. The ludic lover, though married, presumably enjoys a variety of partners (Lee, 1976).

Method 1

Sample

The sample consisted of 731 middle-aged adults, 398 men and 333 women, who gradu-

ated in 1966 from an Ivy League men's or women's college in the northeastern United States. Ninety-seven percent of these adults ranged in age from 45 to 47. The sample was divided into three distinct groups of adults, differentiated on the basis of relationship status with a current or past spouse/partner: married (n = 622); separated/divorced without a current partner (n = 56); and dating (single or separated/divorced with a current partner) (n = 53). Adults in the sample were involved in heterosexual love relationships. The love relationships of a smaller sample of homosexual adults (males, n = 18; females, n = 10) will be examined in a future study.

Regarding employment, 92% of the men and 62% of the women worked full-time, and 5% of the men and 20% of the women worked part-time. The median family income was $150,000 for the men and $110,000 for the women. Furthermore, 87% of the men and 66% of the women had obtained an advanced degree. Overall, the sample appeared to be mostly White, affluent, middle-aged adults who resided throughout the United States and abroad.

Procedure

In October 1990, a total of 1,268 subjects were mailed a 16-page-long 25th-college reunion questionnaire from one of two colleges. The questionnaire was answered anonymously (no names or codes were marked on the survey) and consisted of a variety of measures, some of which were relevant to this study. After two follow-ups and two reminders, making a total of five mailings, 71% of the women (374) and 59% of the men (436) returned the survey, making an average response rate of 64%. Although no information on variables relevant to the study was available on the nonrespondents, a comparative analysis of responses across the five respondent groups revealed that men in the fourth group were higher on ludic love than those in the earlier three groups and that women in the first

group were higher on FBL than those in the second group. These findings are suggestive of a possible trend involving male scores on Ludus. It may be that male nonrespondents were higher on ludic love than those who responded to the survey.

A majority of the respondents was used as the study sample. The main criterion for selection into the study sample was that the respondents be currently married, separated/divorced with or without a partner, or single and dating. Thus, the sample consisted of 731 middle-aged subjects who answered questions about their love perceptions and certain relationship variables. In terms of answering questions about the former, married or dating adults were instructed to rate how they *currently* felt about their spouse or partner. Separated or divorced adults were directed to rate how they felt when they *were* with their most recent spouse or partner. The precise period of time to be evaluated was not specified.

Measures

Friendship-based Love (FBL), Eros-R, and Ludus-R. See Table 1 for the item content and alpha coefficients for these three love scales. Scores were obtained by adding the item responses for each scale and dividing by the number of items. The current scoring of the love scales (1 = strongly disagree, 5 = strongly agree) was changed from the Hendrick and Hendrick (1986, 1990) scoring system (1 = strongly agree, 5 = strongly disagree) because to us it made sense to equate the relative strength of a love perception with a high versus a low value. Similar scoring had been used in other research on the Hendricks' lovestyles (Richardson et al., 1988).

In addition to the newly developed FBL scale, the Eros-R and Ludus-R scales (see Table 1) were modified from the Hendrick and Hendrick (1990) version. The purpose of the revision was to make Eros and Ludus more relevant and meaningful to *both*

young adults in short-term relationships and older married adults. The wording of our Ludus-R measure was intended to be less extreme than that of Hendrick and Hendrick, so that ludic love would appear more "socially acceptable" to those in ongoing dating and marital relationships. The modified content of these scales was intended to be consistent with Lee's theoretical description (1976).

Because we had expected Friendship-based Love and Eros-R to be intercorrelated, the love perception data were primarily analyzed by confirmatory factor analyses. The EQS covariance structure modeling program was used (Bentler, 1989). In EQS, confirmatory factor models allow correlations among latent factors. The goodness of fit of such models is tested by a chi-square statistic and other relevant indices. Ideally, in a well-fitting model the χ^2 statistic should be nonsignificant with a large probability value. In addition, the model fit may be considered acceptable if values above .90 are obtained on the Bentler-Bonett Normed Fit Index (NFI) and on the Comparative Fit Index (CFI) (Bentler, 1989). These indices are especially useful with large samples, since the χ^2 statistic is sensitive to sample size. In a large sample, even though the model may have a very acceptable NFI or CFI well above .90, the p value of the χ^2 statistic may still be significant. Finally, the CFI specifically avoids the underestimation of fit often noted in smaller samples.

An initial confirmatory factor analysis (CFA) was performed on the love perception data, allowing correlations among all the latent factors. The initial CFA statistics were: $\chi^2(101, N = 568) = 568.81, p < .001$, NFI = .87, CFI = .89. To improve the fit of the model, it was necessary to account for a larger portion of covariation in the data. Thus, correlations were permitted between error residuals of the love perception items, both within and across factors. After this post hoc modification, the fit of the final CFA was as follows: $\chi^2(81, N = 568) = 315.22, p < .001$, NFI = .93, CFI = .95. Al-

though making a sizable improvement in the model's fit, the final CFA did not fit the data by the p-value criteria. However, the NFI and the CFI indicated that a vast majority of the variation (up to 95%) was accounted for by the model. For this reason, this model was considered an acceptable approximation to the data.

Table 1 contains the standardized factor loadings from the final CFA. As in the initial analysis, all factor loadings were clearly significant ($p < .001$). The only low loading received was item 3 for Ludus-R. The factor intercorrelations for the final CFA were: FBL and Eros-R (.71); FBL and Ludus-R ($-.35$); and Eros-R and Ludus-R ($-.46$), all significant at $p < .001$. These intercorrelations are supposed to be generally larger than the measured variable correlations, which are often attenuated by measurement error. In addition, all the correlations had small standard errors (.027 to .043). Thus, it is not likely that the true factor correlations were 1.0. In sum, although the model provided an acceptable fit for the data and produced significant factor loadings, these results must be viewed as tentative inasmuch as correlated errors were added post hoc.

Security, sexual satisfaction, and non-monogamy measures. In this study, a factor named "security" was derived from two items, which when scaled together showed an alpha of .70. A high level of security was indicated by high scores on responses to two questions: "How much do you think your partner loves you?" (1–5) and "When you have a problem in your life, how much, if any, do you rely on your spouse or partner for help or comfort?" (1–4). The reason we named this factor "security" was that the first item seemed to assess "faith" in the partner's love and the second item seemed to measure the "dependability" of the partner. Faith in the love of a significant other and being able to depend on that person seem to be important components of a sense of relational security.

Sexual satisfaction was measured by two items, which when scaled together had a reliability of .89. High sexual satisfaction was shown by high scores in response to: "How satisfied are you with your sexual relationship (with your spouse/partner)?" (1–5) and "How satisfied are you with the frequency of your sexual activity (with your spouse/partner)?" (1–5). The sexual satisfaction measure was obtained by adding responses to these two items together.

Non-monogamy of oneself in the relationship with one's spouse/partner was measured by asking, "Have you had sexual relations with others than your spouse/partner since you have been together?" Ratings were made on a 3-point scale: 1 = No; 2 = No, but I think about it; and 3 = Yes, in the past or Yes, currently or Yes, in the past and currently. (The three "Yes" responses [N = 163] were combined, as well as the two "No" responses [N = 447].)

Other relationship variables. These variables included relationship length, relationship satisfaction, general sexual satisfaction, importance of the relationship, respect for one's spouse/partner, feeling close to one's spouse/partner, having married a new partner since the age of 40, and having had an extramarital affair after the age of 40. Relationship length was measured by the total number of years married and for those dating by number of years together. Relationship satisfaction was assessed by means of a 6-item Relationship Assessment Scale (RAS). This 6-item scale was derived from a 7-item scale developed by Hendrick (1988) and used in a number of studies (Hendrick, 1988; Hendrick et al., 1988). (Unfortunately, because of a coding error, one item from the original 7-item RAS was not included. Note that the alpha coefficient of this 6-item version of the RAS was still quite high.) The six items were: "To what extent does your partner meet your needs?"; "How satisfied are you with your relationship?"; "To what extent is this relationship good compared to most?"; "How

much do you wish you hadn't gotten into this relationship?"; "How much do you love your partner?"; and "To what extent are there problems in your relationship?" In the present study, this 6-item scale had an alpha coefficient of .90. Items were rated on a 5-point Likert scale and the fourth and sixth items were reverse scored.

General sexual satisfaction was measured by this statement: "Rate your overall satisfaction with the following aspects of your life." "Sex" was one of 16 items (including money, personal health, friendships, etc.) to be rated. Ratings were given on a 1 (very low) to 5 (very high) scale. General sexual satisfaction is to be distinguished from the 2-item sexual satisfaction measure in that the latter refers specifically to one's current spouse or partner, whereas the former can include other relationships. Three variables—importance of, respect for, and feeling close to spouse/partner—each were measured by a single rating on a 4-point scale (not true to very true). Having a new spouse after age 40 and having an extramarital affair after age 40 were assessed on a dichotomous scale (1 = no; 2 = yes).

Results

Contrasted groups

Because of the significant differences in family income across the three marital status groups [$F(2, 687) = 15.5, p < .001$], with those married being wealthier than the other groups, a MANCOVA was conducted with family income as a covariate. This covariate was not significantly related to the love perceptions, however, so a MANOVA was used to test the predictions. In this 3 × 2 × 3 mixed MANOVA, the love perceptions (3) were a repeated measures factor and gender (2) and marital status (3) were between-subjects factors. Because of the differences in cell sizes, a Box M test was used to test for homogeneity of variances. Because the test was significant and the larger variances were associated with the smaller cells, a conservative alpha level

of $p < .01$ was used for the multivariate and univariate tests.

Findings indicated that there was a significant multivariate interaction of marital status by love [Multivariate F (4,1420) = 17.5, $p < .001$], as well as a significant univariate interaction of marital status by love [$F(4) = 17.4, p < .001$]. In addition, there was a significant univariate main effect for marital status [$F(2) = 40.8, p < .001$]; a significant multivariate main effect for love [Multivariate F (2,709) = 249.3, $p < .001$]; and a significant univariate main effect for love [$F(2) = 317.6, p < .001$].

Table 2 shows the marital status differences and similarities in love perceptions. Inasmuch as the mixed MANOVA uses transformed variables, Duncan posttests were conducted to tease out the love by marital status interaction effects. As predicted at the beginning of Study 1, it was found that currently married and dating adults were higher on Friendship-based Love [$F(2, 718) = 65.1, p < .001$] and on erotic love [$F(2, 717) = 32.0, p < .001$] than were separated/divorced adults. In addition, the expectation that married adults were

lower on ludic love than were dating and separated/divorced adults was confirmed [$F(2, 713) = 2.2, p < .05$].

With regard to gender differences, there were no differences in Eros-R, Ludus-R, and FBL on multivariate analyses for this middle-aged sample of adults, including those married, separated/divorced, and dating. For the married adults, however, there was a significant multivariate main effect of gender on perceptions of love [$F(3, 610) = 5.6, p < .01$], with married women showing higher Friendship-based Love than married men [$F(1, 612) = 6.8, p < .05$].

Multitrait-monomethod validity matrix

To ascertain the extent of convergent-discriminant validity for the Friendship-based Love scale, a multitrait-monomethod matrix, similar to the multitrait, multimethod matrix of Campbell and Fiske (1959), was developed for the subset of married adults in the sample (see Table 3). The "concepts" (instead of traits) to be measured were the three love perceptions (FBL, Eros-R, and Ludus-R) and other related ideas (security,

Table 2. *Study 1: Mean love perception scores by marital status for middle-aged adults*

| | | Mean Love Perception Scores[a] | | | | | |
| | | FBL1[b] | | Eros-R[b] | | Ludus-R[b] | |
Status	n	Men	Women	Men	Women	Men	Women
Married	615	4.2$_A$	4.4$_A$	3.8$_A$	3.8$_A$	1.8$_A$	1.7$_A$
		(.73)	(.75)	(.88)	(1.00)	(.71)	(.70)
Separated	51	3.2$_B$	2.9$_B$	3.2$_B$	2.7$_B$	2.0$_B$	2.0$_B$
		(1.02)	(1.27)	(1.23)	(1.10)	(1.03)	(.81)
Dating	58	4.0$_A$	4.4$_A$	3.8$_A$	4.2$_A$	2.2$_B$	1.8$_B$
		(.75)	(.67)	(.82)	(.63)	(.83)	(.68)
Total Sample	724	4.1	4.2	3.8	3.7	1.8	1.8
		(.77)	(.92)	(.90)	(1.05)	(.76)	(.72)

Note: Love perception scores range from 1 = Strongly Disagree to 5 = Strongly Agree. Standard deviations are in parentheses.
The Box M test for equality of covariances was done because of the large differences in cell sizes. Because the test was significant and the larger variances were associated with the smaller cells, a conservative alpha of $p < .01$ for univariate and multivariate tests was used.
[a]Significant multivariate interaction of marital status by love at $p < .001$.
[b]Significant univariate interaction of marital status by love at $p < .001$.
In any column, means with dissimilar subscripts differ at $p < .05$ on post hoc tests.

sexual satisfaction, and self non-monogamy). Each of these concepts was assessed by several measures that shared the same method—self-report. When multiple scores are derived from the same instrument, this procedure may produce shared method variance. The problem of method nonindependence will be addressed at the end of this section.

Campbell and Fiske (1959) delineated four evaluative criteria that should be satisfied in a multitrait-multimethod matrix to indicate excellent construct validity on the part of a measuring instrument. Pearson correlations were computed between the love perceptions and related concepts. Analysis of these intercorrelations by the Campbell and Fiske criteria revealed that the Friendship-based Love scale, as well as the Eros-R and Ludus-R scales, generally met all of the four criteria (see Table 3). In addition, unless otherwise stated, specified differences between correlations were significant, *at least* at the .05 level, as revealed by the test for differences between dependent correlations. (Specific information regarding each test performed is available upon request.) The criteria and relevant indices are spelled out below.

First, the reliability of each love perception measure should be significantly greater than zero, and it should be greater than the correlation of the particular love perception with the other love perception measures. Triangle 1 (Table 3) shows that this expected pattern was obtained. Similarly, the reliabilities of the Security and the Sexual Satisfaction measures were significantly greater than zero and were also higher than the intercorrelations among these measures (see Triangle 2, Table 3).

Second, values (in bold italics) in the validity diagonals of the matrix (Table 3) should be greater than the other values in the same row or column within that matrix. Again, this predicted pattern was found for the FBL and Eros-R scales. By contrast, the validity correlation of Ludus-R with Self Non-monogamy was only greater than the row values, not the column values.

Third, correlations between the FBL and security measures, between the Eros-R and sexual satisfaction measures, and between the Ludus-R and self non-monogamy measures (validity coefficients) should be higher than the intercorrelations among the love perception measures and among the related measures. Both the Friendship-based Love and Eros-R measures fully met this third criterion. However, the Ludus-R validity coefficient was higher than only two out of the six intercorrelations among the love perception measures and among the related measures. Fourth, the same pattern of interrelationships should be found within each set of measures. This criterion was met to a marked degree.

The multitrait-monomethod matrix just examined in Table 3 was based on Pearson correlations. However, because these correlations may have been affected by shared error variance, including shared method variance due to nonindependent methods, a CFA, allowing factor intercorrelations and correlated errors, was conducted with the love perceptions and related measures. The EQS structural equation modeling program was used (Bentler, 1989). In this program, convergent and discriminant validity were assessed via a 3-factor model in which measures related to erotic love were constrained to load on the first factor, measures related to ludic love on the second, and measures related to Friendship-based Love on the third. In addition, we made post hoc model modifications by allowing correlated error residuals both within and across factors to account for more variation in the data. Using this technique, the modified model provided a statistically acceptable fit for the data, according to the relevant indices [$\chi^2(165, N = 550) = 494.58, p < .001$; NFI = .93; CFI = .95].

To address the convergent validity question, the individual loadings for each love perception factor were examined. All of the items loaded significantly on their respective factors, at least at .45 or above. We should be cautious, however, in interpreting

Table 3. *Study 1: Convergent and discriminant correlation matrices for love perception measures and related measures*

	Love Perception Measures			Related Measures		
	FBL1	Eros-R	Ludus-R	Security	Sexual Satisfaction	Non-Monogamy
Love Perception Measures		#1				
FBL1	0.88					
Eros-R	.60**C	(.83)				
Ludus-R	-.41**A	-.48**A	(.74)			
		#4				
Related Measures		#3			#2	
Security	-.73**B	.62**C	-.43**A	(.70)		
Sexual Satisfaction	.41**F	.73**B	-.42**A	.51**A	(.89)	
Non-Monogamy	-.10**E	-.17**D	.48**A	-.15**D	-.21**D	(—)

Note: Data for 622 married respondents only.
FBL1 = Friendship-based Love scale with 6 items.
The validity diagonals are the set of bold, italicized values. The alpha coefficient diagonals are the two sets of values in parentheses. The triangle (#1) of intercorrelations among the three love perceptions is enclosed by a *solid* line. The triangle (#2) of intercorrelations among the security, sexual satisfaction, and non-monogamy measures is enclosed by a *solid* line. The two triangles (#3 and #4) of intercorrelations among the love perceptions and the related measures are enclosed by *broken* lines.
In a given row or column, correlations with different subscripts differ at least at $p < .05$ on difference tests for dependent correlations.
Triangles #1 and #2 should be viewed separately and triangles #3 and #4 in combination.

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these results as estimates of convergent validity. Because the idea of convergence assumes independent methods and only self-report measures were used in this study, it is necessary to test for convergence with different methods in the future.

On the other hand, according to Cole (1987), the test of discriminant validity in this multitrait-monomethod data set is straightforward. The empirical distinguishability of the concepts tapped by the love perceptions and related measures may be ascertained by examining the standard errors of the factor intercorrelations: FBL and Eros (.67; $SE = .040$); FBL and Ludus ($-.35$; $SE = .043$); Eros and Ludus (-44; $SE = .040$). The small size of the standard errors suggests that the true factor correlations are not likely to be 1.0, indicating that the three factors are indeed empirically distinct.

In sum, the CFA of the multitrait-monomethod data provided rigorous support, consistent with previous correlational evidence, for the convergent, discriminant, and, ultimately, construct validity of the FBL scale. However, inasmuch as the valid-

ity evidence was based on post hoc model modifications of confirmatory factor analyses, it must be considered tentative and in need of replication.

Additional evidence for convergent-discriminant validity

Additional intercorrelations among the three love perceptions and various relationship variables were examined specifically for the married adults in the sample and may be seen in Table 4. Again, unless otherwise stated, specified differences between correlations were significant, as revealed by the test for difference between dependent correlations. As hypothesized, Friendship-based Love was more highly correlated with the following relationship characteristics than were erotic or ludic love—relationship satisfaction, importance of the relationship, respect for spouse/partner, and feeling close to spouse/partner. Unexpectedly, Friendship-based Love was not positively correlated with relationship length. To a small degree, erotic love and ludic love were associated with relationship

Table 4. *Study 1: Convergent and discriminant correlations for the love perceptions and related measures for married, middle-aged adults*

	FBL1	Eros-R	Ludus-R	RAS
Measures Expected to Correlate with FBL1				
Relationship Satisfaction (RAS)	.78**$_A$	.70**$_B$	$-.56$**$_C$	—
Importance of Relationship	.62**$_A$	.52**$_B$	$-.42$**$_C$	.62**$_A$
Respect for Spouse	.63**$_A$	.48**$_C$	$-.36_D$	.58**$_B$
Feeling Close to Spouse	.71**$_A$	.56**$_B$	$-.46_C$	.70**$_A$
Relationship Length	$-.01_A$	$-.11$**$_B$	.10*$_B$	.02$_A$
Measures Expected to Correlate with Eros-R				
General Sexual Satisfaction	.38**$_C$	.69**$_A$	$-.28$**$_D$	.50**$_B$
New Spouse Since Age 40	.03$_B$	.11**$_A$	$-.04$*$_A$	.02$_B$
Measures Expected to Correlate with Ludus-R				
Extramarital Affair Since Age 40	$-.12$**$_C$	$-.19$**$_B$	.52**$_A$	$-.23$**$_B$

Note: Data for 622 married respondents.
FBL1 = Friendship-based Love scale with 6 items.
RAS = Relationship Assessment Scale (Hendrick, 1988).
In any row, correlations with different subscripts differ at least $p < .05$ on difference tests for dependent correlations.
*$p < .05$. **$p < .01$ for two-tailed tests.

length—Eros-R negatively and Ludus-R positively. In addition, these analyses were performed with a square root transformation of the length variable, and there were no differences in the correlations found.

Further, as predicted, erotic love was more highly related than were both Friendship-based Love and ludic love with a general sense of sexual satisfaction. Also, it was more associated than FBL with having a new spouse since the age of 40 (i.e., within the past 6 years). As expected, ludic love was more related to having an extramarital affair after age 40 than Eros-R or Friendship-based Love.

Although FBL and relationship satisfaction, measured by the Relationship Assessment Scale, were highly related (.78), they could be empirically distinguished. With respect to discriminant correlational patterns, Table 4 shows that FBL was more positively related to respect for spouse than was satisfaction, which revealed a stronger positive association with general sexual satisfaction and a stronger negative relation with non-monogamy after 40 years than did FBL. Inasmuch as the reliabilities of the FBL and satisfaction scales were almost identical (.88 and .90, respectively), this discriminant pattern appears to reveal real, though small, differences between these two measures. Further, this pattern appears to replicate that found previously in the multitrait-monomethod matrix: In this case, the FBL scale was more strongly related to respect (as it was to trust), whereas satisfaction was more strongly associated with general sexual satisfaction (positively) (like the Eros-R scale) and with non-monogamy (like the Ludus-R scale), albeit negatively.

In addition, FBL and satisfaction were found to be empirically distinct on a CFA using the EQS program, which allows for factors to be intercorrelated (Bentler, 1989). All of the standardized factor loadings for FBL and for the RAS were at .60 or above and significant at $p < .001$. The final CFA included significant correlated error residuals both within and across factors. The fit statistics were: χ^2 $(46, N = 573)$ $= 49.8, p < .33$, NFI $= .99$, CFI $= .99$. Thus, both the p-value and the fit indices showed that this model fitted the data very well. Because the factor intercorrelation between FBL and satisfaction was so high (.88) in this program, we tested whether this correlation was significantly different from 1.0. The 2-factor model was compared via a chi-square difference test to a single-factor model, in which all items were constrained to load on one factor. The significant χ^2 difference $[(1, N = 573) = 112.60, p < .001]$ provided strong evidence for the empirical independence of the FBL and satisfaction scales and for the superiority of the 2-factor model in fitting the data. It is possible that the high correlation between FBL and satisfaction could reflect an underlying second-order construct. A model that includes this second-order construct will be tested in the future. Again, because post hoc model modifications were made, the evidence must be viewed as inconclusive.

Another way to demonstrate that FBL and satisfaction, though related, are relatively distinct is to see whether they independently contribute to the variation of a criterion variable of interest in a multiple regression equation. We decided to include Eros-R as well in these analyses because it, too, was highly related to FBL. Because of the multicollinearity problem due to the substantial intercorrelations among these predictor variables, we used hierarchical multiple regression, entering Eros-R or FBL first before satisfaction. We reasoned that the love perceptions should precede satisfaction because the former were presumptive determinants of the latter, not the converse (Cohen & Cohen, 1983).

In the first multiple regression equation, security was regressed onto FBL, Eros-R, and satisfaction. Results showed that FBL, Eros-R, and satisfaction were significant predictors of security (betas $= .35, .15, .38$, $p < .001$, respectively) in a significant equation $[F(3, 611) = 355.8, p < .001$; Multiple R

= .80]. Further, each predictor's incremental R^2 contributed significantly ($p <$ .001) to the overall equation R^2 (.64), although FBL accounted for 54% of the unique variability. In the second equation, sexual satisfaction was regressed onto Eros-R, FBL, and satisfaction. Although each predictor variable made a significant contribution (betas = .67, $-$.21, .32, $p <$ .001, respectively) to the significant equation [$F(3, 605) = 327.9, p < .001$; Multiple $R =$ .75], only Eros-R and satisfaction accounted for significant increases in the equation R^2 (.62). Eros-R accounted for 59% of the variance in sexual satisfaction. When sexual satisfaction was regressed onto only FBL and satisfaction, however, both predictors contributed significant betas ($-$.11, $p < .05$, and .71, $p < .001$, respectively) to the significant equation [$F(2, 606) = 197.28, p < .001$; Multiple $R = .63$]. In addition, their incremental R^2s significantly increased the equation R^2 (.39) by equal percentages. Finally, in the third equation, the 1-item variable, marital satisfaction, was regressed onto Eros-R, FBL, and satisfaction. Each of these predictors was significantly related to marital satisfaction (betas = .13, .17, .65, $p < .001$, respectively) in a significant equation [$F(3, 605) = 722.1, p < .001$; Multiple $R = .88$) and significantly contributed to the equation R^2 (.78), with Eros-R contributing 46% of the variance.

Discussion

The Friendship-based Love scale yielded promising indications of substantial construct validity, as assessed by three approaches—the method of contrasted groups, the multitrait-monomethod validity criteria, and additional evidence for convergent/discriminant validity. As expected, married or dating middle-aged adults showed higher Friendship-based Love, as well as erotic love, for their spouse/partner than did their separated/divorced counterparts for their former spouse/partner. (It should be mentioned, however, that these group differences in perceptions of love, though substantial, may have been affected, in part, by the ambiguity of instructions to the separated and divorced adults.) The Friendship-based Love scale also demonstrated excellent convergent/discriminant validity according to the four validity criteria suggested by Campbell and Fiske (1959) and on confirmatory factor analyses accounting for shared method variance.

Furthermore, Friendship-based Love was significantly more related than Eros-R and Ludus-R to a number of relationship variables, including relationship satisfaction, importance of the relationship, and feeling respect for and closeness to one's spouse. With respect to discriminant validity, FBL was found to be less or not at all related to those relationship characteristics with which Eros-R and Ludus-R were significantly associated. In sum, it is important to note here that FBL and Eros-R, even though highly related, showed discriminant correlational patterns on eight out of the eight variables in Table 4. Moreover, FBL and Eros-R were found to be empirically distinct on a CFA, which allowed for correlations among love perception factors (see Measures section). Finally, in hierarchical multiple regression analyses, FBL and Eros-R, along with relationship satisfaction, made distinct and independent contributions to the prediction of security and marital satisfaction.

Similarly, FBL and relationship satisfaction, though highly related, could be distinguished in three ways. First, FBL and relationship satisfaction were found to be empirically distinct on a Confirmatory Factor Analysis, using the chi-square difference test. Second, as mentioned above, FBL and satisfaction could be distinguished from each other by their independent contributions to marital satisfaction, security, and sexual satisfaction in a series of multiple regression equations. Last, FBL and satisfaction showed significantly different correlations with respect to three variables of interest—respect for spouse (FBL stronger), sexual satisfaction in the mar-

riage, and non-monogamy after 40 years of age (both more highly related to satisfaction). Conceptually, respect for the partner seems more central to Friendship-based Love than to satisfaction insofar as FBL involves viewing one's spouse as a peer or equal. On the other hand, it makes sense that the degree to which the spouses are sexually satisfied and monogamous affects the level of satisfaction in the marriage, as well as vice versa. Theoretically, sexual enjoyment appears less integral to the strength of FBL (Lee, 1976) than it is for satisfaction, though erotic love and Friendship-based Love may be strongly related, as we have previously suggested.

Interestingly, Friendship-based Love was not significantly associated with relationship length for the married adults in this sample. The latter result was contrary to what had been found previously with respect to trusting, conjugal love, and relationship length in an undergraduate sample (Driscoll et al., 1972). It may be that the positive correlation between FBL and relationship length holds only for adults in dating relationships. This possibility will be tested in Study 2. Unfortunately, data for this analysis were not available in Study 1. Perhaps once intimately involved adults have decided to marry, the level of Friendship-based Love has already stabilized and become relatively high, reflecting a ceiling effect.

With respect to gender differences in perceptions of love, married women were found to be significantly stronger in Friendship-based Love than were married men in the sample. Similarly, in a previous study, married women rated themselves higher than married men on emotional security (a component of love involving trust, affection, and caring) (Reedy, Birren, & Schaie, 1981). Note that the middle-aged, married men and women in our study did not differ on the strength of ludic love, as did young adult undergraduates in earlier research (Hendrick & Hendrick, 1986, 1990; Hendrick et al., 1988). In a recent study using the same sample of married adults and the

same Ludus-R measure (Grote & Frieze, 1994), we argued that perhaps after marriage, commitment to monogamy is experienced more equally by men and women than it is before marriage, at least among college-educated married adults. The results on Ludus need to be replicated, however, because the married male nonrespondents may have been stronger in ludic love than those who responded to our survey.

Study 2

In the second study we examined further some of the characteristics of Friendship-based Love in a college student sample. Four goals were set. First, a 9-item scale version of Friendship-based Love (FBL2) was introduced in addition to the original 6-item scale version (FBL1), which had been used for middle-aged adults in the first study. We thought the expansion of the initial FBL scale important to delineate further the concept of Friendship-based Love. Indeed, FBL2 was intended to be more inclusive of relevant and related concepts from the previous love literature, particularly the notions of trusting, counting on, and feeling at ease with the partner. The FBL1 had included a majority of items emphasizing interactional cohesion (Lewis & Spanier, 1979); the expanded scale added three items, the first two pertaining to a sense of security and the last to emotional rapport. See Table 1 for both the 6-item and 9-item scale versions of FBL.

Second, to test our predictions about the convergent and discriminant validity of the two Friendship-based Love scales, we again compared the scores on this love perception scale with those of Eros-R and Ludus-R. It was expected that both FBL scales and Eros-R would be equally associated with relationship length, as previous research has found for conjugal love (Driscoll et al., 1972) and for Eros (Hendrick et al., 1988). In addition, it was hypothesized that FBL1 and FBL2, as compared to erotic and ludic love, would be more related to relationship satisfaction (Lee, 1976; Sternberg, 1987;

Traupman et al., 1982). With regard to the latter, in a previous study of dating college students (Hendrick et al., 1988), it was found that Eros was more highly associated with two measures of relationship satisfaction than was Storge. We believe, however, that these results may have been due to the way in which Storge was measured in that study. Moreover, research examining prototypical conceptions of love among laypeople suggests that a companionate type of loving constitutes the central feature of the concept of love, which includes heterosexual intimate relationships (Fehr, 1993). Thus, it is arguable that the companionate aspects of love represented by items in the FBL scales may be critical to satisfaction in dating relationships and more predictive of such satisfaction than erotic love.

It was also predicted that the FBL scales would show a stronger association than the other love perceptions with a measure of courtship progress, reflecting increasing intimacy, interdependence, and commitment in dating relationships (King & Christensen, 1983), and with the perception that one knows and really understands the partner. This last variable is somewhat similar to an item in Sternberg's Intimacy scale (1987) and consistent with Lee's theory (1976). By contrast, it was predicted that erotic love would be more highly associated than the other love perceptions with the perception that just seeing the partner is exciting (Sternberg, 1987). Further, it was expected that ludic love would be more correlated than the others with an adversarial, game-playing approach to romantic relationships, exemplified by the item "women take advantage of men" (Burt, 1980).

Third, the Hatfield and Sprecher (1986) Passionate Love Scale (PLS) was administered to make sure that Friendship-based Love was indeed distinct from Passionate Love on a number of relationship characteristics, including relationship satisfaction, courtship progress, and understanding. We also predicted that FBL1 and FBL2 would be more strongly associated than the PLS with relationship length, because previous

evidence has shown that conjugal love (similar to FBL) was more highly correlated with relationship stability over time than was romantic love (Driscoll et al., 1972). On the other hand, we expected that Passionate Love would be more strongly associated with seeing the partner as exciting.

Further, it was hypothesized that Passionate Love would be moderately related to erotic love because the Eros-R and Passionate Love scales shared three similar items. Previous research has shown a moderate and positive association (.53) between these two love scales (Hendrick & Hendrick, 1989). At the same time, we expected that the PLS would be moderately and positively related to FBL1 and FBL2 scales because, again, the latter shared a number of similar items with the PLS. Further, empirical evidence (Hendrick & Hendrick, 1989) has revealed that scales similar to the FBL scales that measure relational intimacy (Davis & Latty-Mann, 1987; Sternberg, 1987) are indeed moderately associated in a positive way with the PLS (.56 and .48, respectively). Ludic love was expected to relate less than the other love perceptions to Passionate Love.

The final goal of the study was to compare the love perception ratings for young adults in current dating relationships with those of young adults who were no longer dating. As in Study 1, employing the method of contrasted groups was another way to test the construct validity of the FBL scales. It was hypothesized that FBL would be higher in intact dating relationships than in previously dissolved dating relationships. In addition, it was expected that scores on Eros and Passionate Love would be higher and ratings on Ludus lower in current dating relationships than in previous ones.

Method

Sample

The sample consisted of 298 working-class and middle-class college students, 220

women and 78 men, who were at a large urban university in the mid-Atlantic region. Ninety-two percent were between the ages of 18 and 20. Most (88%) were white. The sample was divided into two groups based on whether they were currently dating (67%) or no longer dating (33%). Students in the sample were or had been involved in heterosexual love relationships. Of those currently dating, 44% had been with their partners more than a year and 22% from 6 months to a year. Of those no longer dating, 29% had been in relationships more than a year and 22% between 6 months and a year.

Procedure

Participants volunteered for a study on "Dating Relationships" as partial fulfillment of a requirement for an Introduction to Psychology course. They completed a survey asking about their current or previous dating relationships. Instructions for those dating were: "Describe how you NOW feel about your partner" and for those not dating: "Answer questions in terms of most recent dating partner." The subjects were treated as independent cases in the data analyses. However, a possible limitation is that some of the respondents may have been dating each other.

Measures

Friendship-based Love, Eros-R, Ludus-R, and Passionate Love. Friendship-based Love was measured by both a 6-item scale (FBL1), identical to that in Study 1, and a 9-item scale (FBL2). In FBL2, two of the items added came from Sternberg's Intimacy scale (1987) and one item was derived from Lee's ideas about Storge (1976). Table 1 shows the alpha coefficients and item content of FBL1 and FBL2, as well as of the Eros-R and Ludus-R scales, which were identical to those used in Study 1.

As in Study 1, confirmatory factor analyses, which permit intercorrelations among the latent factors, were conducted on the love perception data. With respect to the

6-item FBL scale, Eros-R, and Ludus-R, the initial CFA fit statistics were: $\chi^2(101, N = 198) = 222.96, p < .001$, NFI = .81, CFI = .89. After allowing correlated error residuals within and across factors, the fit statistics of the final CFA indicated that the model fit the data well, according to the CFI index: $\chi^2(91, N = 198) = 121.82, p < .001$, NFI = .90, CFI = .97. With a small sample, the CFI is the index of choice (Bentler, 1989). Standardized factor loadings were significant at $p < .001$ and may be seen in Table 1. Note that Eros-R item 3 showed a low loading for the young adults but not for the middle-aged adults. Factor intercorrelations were also significant at $p < .001$: FBL1 and Eros-R (.70); FBL1 and Ludus-R ($-.65$); Eros-R and Ludus-R ($-.67$). The standard errors of these correlations were small (from .057 to .060), indicating that the true factor correlations were probably not 1.0.

With respect to the 9-item FBL scale and the other love perceptions, the initial CFA fit statistics were: $\chi^2(149, N = 198) = 292.13, p < .001$, NFI = .81, CFI = .89. Allowing for correlated errors within and across factors, the final CFA fit statistics were: $\chi^2(138, N = 198) = 190.34, p < .005$, NFI = .87, CFI = .96. Thus, according to the CFI, the data fit the model well. Standardized factor loadings were all significant at $p < .001$ (see Table 1). Again, Eros-R item 3 received a low loading for this sample of young adults. Factor intercorrelations, significant at $p < .001$, were: FBL2 and Eros-R (.68); FBL2 and Ludus-R ($-.63$); and Eros-R and Ludus-R ($-.68$). Again, the standard errors for these factor correlations were small (from .056 to .059), suggesting that the true correlations were different from 1.0. Inasmuch as correlated errors were added post hoc in both the FBL1 and FBL2 models, the evidence from these analyses must be viewed as inconclusive.

The Passionate Love Scale (Hatfield & Sprecher, 1986) was administered with the same 5-point Likert format as the other scales. Unfortunately, we inadvertently omitted one of the items from the PLS ("I

want [ ]—physically, emotionally, mentally"), thus making it a 14-item rather than a 15-item scale. Nonetheless, the alpha coefficient for the PLS was high (.90).

Other relationship variables. These included relationship length, relationship satisfaction, courtship progress, and three single-item variables, described below. Relationship length was measured by number of months/years together. Relationship satisfaction was measured by means of an 11-item scale developed by Simpson (1987). Scale items were rated on the basis of a 5-point format. The reason we used the Simpson scale for the college student sample instead of the RAS (S. Hendrick, 1988), which had been employed in Study 1, was that we thought it important to see how the FBL scales performed relative to the other love perceptions on a different measure of relationship satisfaction. The alpha coefficient for the Simpson measure was .81. Items asked about degree of satisfaction with the physical attractiveness of the partner, the partner's ability to provide emotional support, partner's financial resources, reliability of partner, similarity of interests and values, ability of partner to be kind and understanding, stability of partner's personality, social status of partner, partner's ability to be close and intimate, and sexual attractiveness of partner.

Courtship progress, reflecting increasing intimacy, interdependence, and commitment in dating relationships, was assessed by the King and Christensen Relationship Events Scale (1983). Sample items from this 19-item scale included: "You have called your partner an affectionate name"; "You feel comfortable enough with each other so that you could be with each other without talking or doing an activity together"; and "You have referred to your partner as your girlfriend or boyfriend." The scale was scored using a 5-point Likert scale, and its alpha coefficient was .89.

Two additional relationship variables were measured by single items answered on

a 1 = strongly disagree to 5 = strongly agree scale and included "Just seeing my partner excites me" (Sternberg, 1987) and "I feel I know and really understand my partner" (Lee, 1976). One other variable was an item from Burt's Adversarial Beliefs scale (1980), "Women take advantage of men" (see Table 6).

Results

Love perceptions in intact and dissolved dating relationships

Love perception mean scores with standard deviations are listed in Table 5 for undergraduate men and women who were dating and no longer dating their partners. The data were analyzed with at $5 \times 2 \times 2$ mixed MANOVA in which five love perceptions (FBL1, FBL2, Eros-R, Ludus-R, and Passionate Love) were a repeated measures factor, and gender (2) and relationship status (2) were between-subjects factors. We included Passionate Love in the analysis to see whether its scores showed a pattern consistent with that of the Eros-R and FBL scales. A Box M test was again used because of the large variations in sample sizes. Estimations of significance involved the use of a conservative alpha of $p < .01$ for the multivariate and univariate tests.

Results showed a significant multivariate interaction of relationship status and love [Multivariate $F(2, 291) = 19.9$, $p < .001$], as well as a significant univariate interaction of status and love [$F(4) = 36.3$, $p < .001$]. There was also a significant univariate main effect for relationship status [$F(1) = 78.7$, $p < .001$]; a significant multivariate main effect for love [Multivariate $F(4, 291) = 91.4$, $p < .001$]; and a significant univariate main effect for love [$F(4) = 132.0$, $p < .001$].

It had been predicted that dating young adults would be higher in Friendship-based Love, erotic love, and Passionate Love and lower in ludic love than those no longer dating. Duncan posttests were used to identify the significant love by status interaction

Table 5. *Study 2: Mean love perception scores by relationship status for young adults*

| | Status[a] | | | | | |
| | Men[b] | | | Women[b] | | |
	Total Group	Still Dating	Not Dating	Total Group	Still Dating	Not Dating
Love perceptions						
FBL1	3.8^C (1.0)	4.1_A (0.7)	4.3_B (1.2)	4.1^D (0.7)	4.3_A (0.5)	3.6_B (0.7)
FBL2	3.9^C (0.9)	4.2_A (0.6)	3.2_B (1.1)	4.1^D (0.7)	4.4_A (0.5)	3.6_B (0.7)
Eros-R	4.0 (0.7)	4.2_A (0.6)	3.6_B (0.8)	4.0 (0.7)	4.2_A (0.6)	3.5_B (0.8)
Ludus-R	2.8^C (0.8)	2.8_B (0.9)	2.9_A (0.6)	2.6^D (0.7)	2.4_B (0.7)	2.9_A (0.7)
Passionate Love	3.6^C (0.9)	3.8_A (0.7)	3.1_B (1.0)	3.8^D (0.7)	4.1_A (0.5)	3.4_B (0.9)
Sample Size	78	52	26	220	149	71

Note: In any row, means with dissimilar subscripts differ at $p < .05$ on post hoc tests.
In any row, means with dissimilar superscripts differ at $p < .05$ on post hoc tests.
FBL1 = Friendship-based Love Scale with 6 items.
FBL2 = Friendship-based Love Scale with 9 items.
Love perception scores range from 1 = Strongly disagree to 5 = Strongly agree. Standard deviations are in parentheses.
The Box M test for equality of covariances was done because of the large variations in sample sizes. Significance of this test led to our use of a conservative alpha of $p < .01$ for univariate and multivariate tests.
[a]Significant multivariate interaction of status by love at $p < .001$.
[b]Significant multivariate interaction of sex by love at $p < .01$.

effects. Table 5 shows that these predictions were confirmed. Those dating were stronger on FBL1 [$F(1, 296) = 86.8, p < .001$], on FBL2 [$F(1, 296) = 113.5, p < .001$], on Eros-R [$F(1, 296) = 60.4, p < .001$], and on Passionate Love [$F(1, 296) = 62.9, p < .001$]. Conversely, those no longer dating reported higher ludic love [$F(1, 296) = 19.1, p < .001$].

With respect to gender differences in love in the total sample (Table 5), the interaction of sex by love was significant on multivariate tests [Multivariate $F(4, 291) = 3.66, p < .01$] and on a univariate basis [$F(4) = 5.7, p < .001$]. On Duncan posttests, men were higher than women on ludic love [$F(1, 304) = 6.4, p < .05$], but lower on FBL1 [$F(1, 304) = 3.1, p < .05$], on FBL2 [$F(1, 304) = 4.4, p < .05$], and on Passionate Love [$F(1, 304) = 5.4, p < .05$].

For dating young adults, there was a marginally significant interaction of sex by love [Multivariate $F(4, 196) = 3.1, p < .05$] and a significant univariate interaction of sex by love [$F(4) = 6.4, p < .001$]. Duncan posttests showed that dating men reported marginally stronger ludic love than did their female peers [$F(1, 199) = 4.3, p < .01$], but marginally less Passionate Love [$F(1, 199) = 2.0, p < .05$]. No gender differences in Friendship-based Love were found for those dating.

Evidence for convergent and discriminant validity

Next we looked at the extent to which the pattern of convergent and discriminant correlations in Table 6 supported the predictions about Friendship-based Love and the other love perceptions for the group of dating undergraduates. Only those pairs of correlations found to be significant at least at the .05 level are reported in the text.

Examining the first part of Table 6, note that FBL1 and FBL2 are highly intercorrelated ($r = .96$), as expected, inasmuch as they share six items in common. In addi-

Table 6. *Study 2: Convergent and discriminant correlations for the love perceptions and related measures for dating young adults*

	FBL1	FBL2	Eros-R	Ludus-R	Passionate Love	SAT
Love Perception Intercorrelations						
FBL1	(.81)					
FBL2	.96**	(.87)				
Eros-R	.46**	.46**	(.62)			
Ludus-R	−.50**	−.49**	−.43**	(.81)		
Passionate Love	.63**	.61**	.63**	−.55**	(.90)	
Measures Expected to Correlate with FBL						
Relationship Length	.38**$_A$	.42**$_A$	.30**$_A$	−.25**$_B$	.26**$_B$	.15**$_B$
Relationship Satisfaction (SAT)	.61**$_A$	.66**$_A$	.49**$_B$	−.35**$_B$	.44**$_B$	—
Relationship Events Scale	.47**$_A$	.49**$_A$	.34**$_B$	−.38**$_A$	.35**$_B$	.37**$_B$
Understand Partner	.62**$_A$	.67**$_A$	.30**$_C$	−.31**$_C$	.44**$_B$	.50**$_B$
Measures Expected to Correlate with Eros-R						
Partner Excites Me	.37**$_B$	.36**$_B$	.51**$_A$	−.34**$_B$	.59**$_A$	.39**$_B$
Measures Expected to Correlate with Ludus-R						
Women Take Advantage of Men	−.13$_A$	−.16*$_A$	−.04$_B$	.26**$_A$	−.03$_B$	−.12*$_A$

Note: Values in parentheses are alpha coefficients.
Data for 201 dating undergraduates.
Passionate Love = Hatfield and Sprecher (1986).
FBL1 = 6-item Friendship-based Love scale.
FBL2 = 9-item Friendship-based Love scale.
SAT = Relationship Satisfaction Scale (Simpson, 1987).
In any row, correlations with different subscripts differ at at least $p < .05$ on difference tests for dependent correlations.
*$p < .05$. **$p < .01$ for two-tailed tests.

tion, FBL1, FBL2, and Eros-R are related to Passionate Love to the same degree, as had been predicted. This finding makes sense in light of the observation that the PLS contains both passionate and companionate elements (as well as manic and agapic aspects). Both FBL1 and FBL2 show moderate correlations (.46) with Eros-R.

The middle section of Table 6 shows that the measures expected to correlate with both scale versions of Friendship-based Love did so. (Once again we performed a square root transformation of the relationship length variable and found no differences in the correlations.) As predicted, FBL1 and FBL2 were significantly more strongly related to relationship length, relationship satisfaction (only for FBL2), courtship progress, and the variable of under-

standing the partner than was Passionate Love. This pattern of correlations shows that Friendship-based Love, though strongly and significantly related to Passionate Love, can be clearly differentiated from Passionate Love on a number of relationship characteristics.

As hypothesized, the item from Sternberg's Passion scale (1987), "Just seeing my partner excites me," was more strongly related to Eros-R and to Passionate Love than it was to the FBL scales and to Ludus-R. We had also expected that Ludus would be associated more strongly than the other love perceptions with an adversarial, game-playing approach to love. Some support for this prediction was found. Ludic love showed a small but significantly stronger correlation with this item than did Eros-R and Passionate Love.

In this study, Friendship-based Love and erotic love were moderately correlated. However, the FBL scales may be empirically distinguished from Eros-R in terms of their stronger correlations with relationship satisfaction, courtship progress, and understanding the partner, and their weaker correlations with "partner excites me" (see Table 6). As in Study 1, this correlational pattern supports the discriminant validity of the FBL scales vis-à-vis erotic love. Further, confirmatory factor analyses of the love perception data showed that the FBL scales and Eros-R were empirically distinct. Finally, FBL1 (beta = .40, $p < .001$) and Eros-R (beta = .16, $p < .001$) were significant, independent predictors of courtship progress in a hierarchical multiple regression equation [$F(2, 198) = 31.5$, $p < .001$; Multiple $R = .49$], as were FBL2 (beta = .42, $p < .001$) and Eros-R (beta = .15, $p < .001$) [$F(2, 198) = 33.8$, $p < .001$; Multiple $R = .50$]. Further, FBL1, FBL2, and Eros-R made significant incremental R^2 contributions to the overall R^2s in their respective equations, although both FBL1 and FBL2 contributed most to the overall variance in each equation. Similarly, these love perceptions were significant predictors of "partner excites me"—Eros-R (beta = .43. $p < .001$) and FBL1 (beta = .17, $p < .001$) [$F(2, 198) = 38.5, p < .001$; Multiple $R = .53$]; Eros-R (beta = .42, $p < .001$) and FBL2 (beta = .16, $p < .05$) [$F(2, 198) = 37.9$, $p < .001$; Multiple $R = .53$]. Once again the incremental R^2s associated with each love perception were significant in their equations, with Eros-R contributing the lion's share of the variance to the overall R^2 in each. All of these results suggest that Friendship-based Love, as measured by our scales, can be empirically distinguished from erotic love.

Note that the FBL and Eros-R scales are related to relationship length to the same degree, as had been predicted. In other words, it may be that dating relationships that have higher levels of both physical attraction and friendship qualities last

predictably longer than those that are weaker in these respects. Alternatively, it may be that erotic love and Friendship-based Love are among the indicators of high relationship quality that, in effect, contribute to the duration of the dating relationship.

Also observed in Table 6 are the strong correlations of the FBL scales with Simpson's (1987) Satisfaction scale. The Simpson item "similarity of interests in various activities" was somewhat similar to the FBL item: "I express my love for my partner through the enjoyment of common activities and mutual interests." Likewise, the Simpson item "trustworthiness of partner" was similar to the FBL2 item: "I feel I can really trust my partner." Nonetheless, the FBL scales and the Simpson Satisfaction scale could be empirically distinguished from each other via the pattern of discriminant correlations, seen in Table 6. The FBL scales were more strongly related than satisfaction to relationship length, to courtship progress, and to understanding the partner.

Moreover, confirmatory factor analyses permitting intercorrelations among the factors were conducted with the FBL scales and the Simpson Satisfaction scale. The final CFA models for both FBL1 and FBL2 were modified post hoc to include correlated errors within and across factors. The final CFA fit statistics for the FBL1 and Simpson scales were: $\chi^2(108, N = 199) = 116.8, p < .001$; NFI = .91; CFI = .98. Using the CFI as the index of choice for small samples, we found that the model appeared to be an acceptable fit for the data. Standardized factor loadings were above .53 for FBL1 and .38 or above for the Simpson scale, with three exceptions. "Physical attractiveness," "sexual attractiveness," and "financial resources" of partner all received loadings ranging from .18 to .27. Apparently these items do not fit the satisfaction construct well in this scale. The intercorrelation between FBL1 and satisfaction was substantial (.74, $p < .001$), a finding suggesting that the true factor correlation might be

1.0. Thus, we compared the fit of this 2-factor model with that of a 1-factor model, combining the FBL1 and satisfaction items. The chi-square difference test was significant [$\chi^2(1,N = 199) = 26.9, p < .001$], indicating that the two factors were empirically independent.

With respect to FBL2 and the Simpson Satisfaction scale, the final CFA fit statistics were: $\chi^2(150, N = 199) = 188.1, p < .001$, NFI = .89, CFI = .97. The CFI indicated that the model fit was acceptable. Standardized factor loadings were again above .53 for FBL2 and .40 or above for satisfaction, with the same three exceptions as mentioned above. The intercorrelation between FBL2 and satisfaction was .80 ($p < .001$). Again, a chi-square difference test was conducted to compare the fit of the 2-factor model with a 1-factor model. This comparison provided evidence of the empirical independence of FBL2 and satisfaction [$\chi^2(1,N = 199) = 64.3, p < .001$]. Again, because of the post hoc model modifications, results from the FBL1 and FBL2 confirmatory factor analyses must be considered tentative and in need of replication.

Finally, though highly correlated, FBL1 (beta = .51, $p < .001$) and the Simpson Satisfaction scale (beta = .18, $p < .05$) were significant, independent predictors of understanding the partner in a hierachical multiple regression equation [$F(2, 197) = 67.1, p < .001$; Multiple $R = .64$]. The incremental R^2s contributed by each measure to the equation R^2 (.40) were also significant, with FBL1 contributing most to the overall variance. These findings indicate that these two concepts are not identical. On the other hand, in a similar equation with FBL2 and satisfaction, only FBL2 (beta = .60. $p < .001$) contributed to the variation in understanding the partner [$F(2, 197) = 79.7, p < .001$; Multiple $R = .67$].

Discussion

In general, the results of Study 2, based on a sample of college students, replicated the findings from Study 1, based on a sample of married, middle-aged adults. This replication lends further support to the observation that the measurement of Friendship-based Love has substantial convergent and discriminant validity revealed via the method of contrasted groups and relative to other types of love—Eros, Ludus, and Passionate Love. Additionally, correlational evidence showed that despite its strong correlation with Passionate Love, Friendship-based Love was indeed significantly distinct from this type of love on a number of relationship variables—relationship length, satisfaction, courtship progress, and understanding.

The data also showed that, even though moderately related to Eros-R and Ludus-R, the FBL scales could be empirically differentiated from erotic love and ludic love in terms of their association with relationship satisfaction, courtship progress, and understanding (FBL significantly more related). In addition, despite their substantial intercorrelations, the FBL scales and the Simpson Satisfaction measure were found to be empirically independent in analyses of discriminant correlations and confirmatory factor structures. Nevertheless, it may be advisable to use another satisfaction measure with the FBL scales, inasmuch as the Simpson scale seems to assess the specific determinants of satisfaction, such as partner's attributes and abilities, rather than general aspects of relationship functioning. Depending on the definition of relationship satisfaction desired, it may be best to use the RAS satisfaction scale (Hendrick, 1988), which evaluates relationship functioning in general terms. Further, the RAS does not seem to confound the assessment of relationship satisfaction with the determinants of relationship satisfaction, except for the item about loving the partner. Fincham and Bradbury (1987) have argued that relationship satisfaction should be evaluated by measures that provide overall global assessments so that they do not overlap with the specific correlates of relationship satisfaction.

Study 2 made an additional contribution to the exploration of the characteristics of Friendship-based Love in dating relationships. An expanded, more interesting 9-item scale version of the FBL was specifically introduced in this study for the purpose of further delineating the concept of Friendship-based Love. Correlational evidence on convergent and discriminant validity suggests that this newer version of FBL performed in a manner conceptually similar to that of the 6-item scale version.

Gender differences did emerge for this sample of dating undergraduates, replicating the commonly reported finding that men are higher in ludic love than are women (Hendrick & Hendrick, 1986, 1990). On the other hand, dating men and women were similar on Friendship-based Love scores, which had not been found for Storge in previous research (Hendrick & Hendrick, 1986, 1988, 1990). This discrepancy between the FBL and Storge findings with respect to gender is likely due to the fact that there are considerable differences, both conceptually and methodologically, between the measures of FBL and Storge.

General Discussion

A primary purpose of the present research was to delineate more fully the aspects of the Storge lovestyle as described by Lee (1976) and measured by Hendrick and Hendrick (1986, 1990). An additional objective of this study was to integrate the characteristics of types of love, similar to Storge, which had been present in the love literature for several decades—conjugal love, companionate love, and intimacy. Ultimately, two Friendship-based Love scales were constructed and validated with the intention of providing reliable and meaningful multi-item measures of the FBL concept. Briefly, in two studies, both versions of the Friendship-based Love scale showed substantial evidence of convergent and discriminant validity. The Eros-R and Ludus-R scales were valid, albeit to a lesser degree than the FBL scales.

The FBL measures are intended to capture the phenomenal experience of Friendship-based Love with an intimate partner— the thoughts, feelings, and behaviors that are experienced in this kind of love. The measurement of Friendship-based Love describes an actual love experience, not an ideology about the nature of love. It is hoped that the 9-item FBL scale may be utilized in future research by itself or in conjunction with the Passionate Love scale (Hatfield & Sprecher, 1986). Even though Friendship-based Love and Passionate Love showed a moderately strong association, they were found to be empirically distinct, as seen in the discriminant validity data in Study 2.

Two types of samples were employed in this research—working-class and middle-class, young adult undergraduates attending an urban university and upper-middle to upper class, middle-aged adults, all having graduated from college in 1966. To be able to generalize the study's findings on FBL beyond the college sophomore, we thought it important to include a sample of middle-aged, married adults. Even though these older adults were affluent, there is some evidence to suggest that the pattern of correlations between the three love perceptions and various relationship variables (found in Study 1) may apply to middle-class, middle-aged, college-educated adults in general. Subgroup analysis of the bottom quartile of these middle-aged adults, classified with respect to salaries ($42,000 or less), revealed findings on convergent-discriminant validity similar to that for the entire sample.

Overall, findings from the present research have a number of implications. It had been conjectured in previous studies (Hendrick et al., 1988; Richardson et al., 1988) that the Storge lovestyle would be more salient in the lives of older as compared to younger adults. Interestingly in both studies, Friendship-based Love, which showed a strong correlation with the Hendricks' Storge in a pilot study, was relatively strong, on average, among both young dat-

ing and middle-aged married adults. In other words, the new measures of Friendship-based Love may be tapping a quality of loving that is active in ongoing love relationships, regardless of the chronological age of the subjects or the status of the relationship (dating versus marriage).

The finding that Friendship-based Love showed a moderate to strong relation with erotic love for both young and middle-aged adults in intimate relationships has an important implication for broadening the conception of Friendship-based Love. Previous research has shown mixed evidence about the association between Passionate or erotic love on the one hand and Storge, intimacy, and companionate love on the other. Some researchers have found no relation between Eros and Storge (Hendrick & Hendrick, 1986) or even an inverse association (Richardson et al., 1988). Storge, however, was measured differently by these two groups of researchers. By contrast, others have found a strong and positive relationship between those kinds of love that are similar to FBL and erotic love: intimacy and passion (Sternberg, 1987); companionate love and passionate love (Hatfield & Sprecher, 1986; Traupman & Hatfield, 1981).

Indeed, it makes sense that the climate for the maintenance and expression of erotic love would be favorable in a dating or marital relationship characterized by high levels of cohesion and enjoyment between the partners (FBL), and conversely, that feelings of affection and companionship would be renewed by positive sexual experiences (Eros) with the partner. Thus, the strong association between FBL and Eros in dating and married relationships in this research suggests that Friendship-based Love often occurs with erotic love, though this tendency is not invariant. It is also important to note that these types of love may be empirically distinguished, as demonstrated by the results of the confirmatory factor analyses, by the convergent/discriminant validity evidence, and by the multiple regression equations in both studies.

Another revealing finding in both studies was the strong positive correlation between Friendship-based Love and relationship satisfaction. In the pilot study, even though Hendrick and Hendrick's Storge measure was also moderately related to satisfaction, the relation between our FBL measure and relationship satisfaction was stronger. Most previous studies have found little relation between the Hendricks' Storge scale and relationship satisfaction, a counterintuitive finding (Davis & Latty-Mann, 1987; Hendrick, 1988; Hendrick et al., 1988; Levy & Davis, 1988). The importance of the relation between Friendship-based Love and relationship satisfaction was strongly established in this research.

By the same token, it is possible that Friendship-based Love and satisfaction are related to such an extent that they are isomorphic. Evidence in both studies indicating that these two concepts can be empirically distinguished suggests that this is not the case. It may be that their distinguishability depends on how satisfaction is defined and measured (Fincham & Bradbury, 1987; Kurdek, 1992). When satisfaction is assessed in terms of general aspects of relationship functioning, such as the extent of problems in the relationship, regrets, and how the relationship compares to others (Hendrick, 1988), the case for a theoretical and empirical distinction between FBL and satisfaction appears persuasive. In contrast to the RAS, the Friendship-based Love scale is designed to assess the specific determinants of satisfaction, i.e., the degree of cohesion in the relationship, as well as the level of affection and positive regard. As such, FBL is similar, though not identical to, Spanier's Dyadic Cohesion subscale (1976). It should be noted that Spanier found an average intercorrelation of .68 among all his components in the Dyadic Adjustment Scale (DAS), including the satisfaction and cohesion subscales, a finding consistent with the high correlation between FBL and satisfaction in both of our studies.

Clearly, the fact is that there are high correlations among many different measures of relationship quality (Fitzpatrick, 1988; Hicks & Platt, 1970; Kurdek, 1992; Lewis & Spanier, 1979), suggesting that these measures may be nearly equivalent in that they tap a single underlying dimension. It is possible, therefore, that FBL, and satisfaction (RAS), as well as Eros-R, reflect a second-order construct, namely relationship quality. At the same time, however, they may actually assess two levels of relationship quality: (1) relationship satisfaction (the RAS) and (2) factors that determine relationship satisfaction (the FBL and Eros-R scales). Fortunately, it is possible to test such a possibility through confirmatory factor analyses in future research. Finally, the virtue of the FBL scale is that it connects specific determinants of relationship satisfaction to the phenomenology of love.

Limitations and future research directions

A most obvious limitation of our research is the fact that we did not include the Hendricks' Eros, Ludus, and Storge scales in the analyses. This omission reflects more on the preliminary stage of our research on Friendship-based Love than on the importance of the Hendricks' contribution to the love literature. In fact, the intent of both studies presented here was to build upon the inherent strengths of the theory and measurement of Storge, which emerged out of the Hendricks' comprehensive work on the Love Attitude Scales (Hendrick & Hendrick, 1986). Recently, we have collected lovestyle and love perception data from a sample of 167 undergraduates, which we will present in a future report.

The definition and measurement of Friendship-based Love in this research has attempted to capture this "true friendship" quality of love in intimate relationships among men and women. Friendship-based Love may also be relevant and meaningful to gay and lesbian love relationships, a likelihood that must be investigated further. Additionally, the 9-item FBL scale needs to be tested on more diverse samples of adults, in terms of marital stage, race/ethnicity, class, and culture. Whether the concept of Friendship-based Love has broadened over the last several decades, witnessed in part by its affinity with erotic love, is a question for life course research. Examining the quality of love in the love relationships of men and women from different birth cohorts would shed light on this issue.

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