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Perceptions of risk in intimacy and social participation

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Abstract

The present study examined the relations between individuals' social lives and the risks they perceived in being intimate with others. Participants maintained a variant of the Rochester Interaction Record (Wheeler & Nezlek, 1977) and completed the Risk in Intimacy Inventory (Pilkington & Richardson, 1988). The results indicated that, compared to people who perceived less risk, people who perceived more risk in intimacy had less rewarding social lives on measures of socio-emotional and socio-instrumental dimensions of interaction. Risk in intimacy concerns were particularly salient for women in their interactions with the opposite sex and for men in their interactions with the same sex. In addition, the statistical associations between perceptions of risk in intimacy and characteristics of interactions within close opposite-sex personal relationships varied as a function of participants' sex and the nature of this personal relationship.

When Billie Holiday sang, "Don't threaten me with love, baby" (cited in Handley, 1986), she described the fear that interpersonal closeness can engender. For some people, perhaps most, establishing intimacy in relationships is one of life's most rewarding experiences; yet for others, intimacy is viewed with distrust and as something to be avoided. Given the central role that the intimacy of personal relationships plays in many psychological theories, and by implication, in people's lives, understanding people's distrust or fear of intimacy should provide important insights into the hows and

whys of social life. More specifically, considerable research and theorizing suggest that people's distrust or fear of intimacy should be negatively related to the quality and quantity of their interpersonal relationships. The present study investigated the relations between individuals' social lives and their perceptions of risk in intimacy, a construct introduced by Pilkington and Richardson (1988).

The present study used a naturalistic, selfreport diary technique to measure participants' social lives. The technique was modeled after the Rochester Interaction Record, introduced by Wheeler and Nezlek (1977). A diary method was used because (a) it provided measures of a variety of different components of social interaction, allowing investigation of the relationships between perceived risk in intimacy and specific aspects of social life; and (b) because it included measures of psychologically meaningful interactions that would not be easily available for examination through traditional observational or experimental methods, e.g., prolonged interactions and/or physically intimate interactions. Although

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laboratory studies of intimacy have provided important insights into the processes that regulate interpersonal closeness, this work needs to be complemented by more naturalistic studies that examine intimacy as it exists across the broad spectrum of events that constitute people's lives.

By and large, the research on intimacy suggests two things. First, although intimacy has been defined in a variety of ways, interpersonal closeness and interdependence, along with feelings of warmth and affection, have been found to be hallmark characteristics of intimacy (Perlman & Fehr, 1987). Second, the research suggests that interpersonal intimacy is desirable and beneficial. Both the development and the maintenance of intimacy are critical features of a variety of psychological theories (e.g., Altman & Taylor's, 1973, theory of social penetration; Bowlby's, 1969, theory of attachment). For Altman and Taylor, the development and maintenance of interpersonal intimacy are the foundations of social life. Bowlbv and other attachment theorists make similar predictions, positing that the quality of people's attachments to others contributes to both intra- and interpersonal well-being. People with secure attachment styles are assumed to be healthier and happier than those with insecure styles. Research on social support also suggests that intimacy is beneficial (e.g., Dean & Lin, 1977; Sarason, Pierce, & Sarason, 1990).

Social psychological research indicates that although intimacy in relationships is generally desirable and beneficial, not everyone experiences or even desires a great amount of intimacy in their lives. However, perhaps because intimacy is viewed so positively, much of the social psychological research on intimacy has focused on the types of people who establish intimate relationships and how they do so; consequently, less attention has been paid to why people avoid intimacy. Some people may avoid intimacy because of the potential dangers they associate with it. Becoming intimate with another person entails revealing one's inner self, which in turn makes one more vulnerable.

This vulnerability is multifaceted. People's faults may be exposed and used against them; they may lose control of their emotions and/or lose their sense of individuality; they may be rejected (Hatfield, 1984). Many people may be aware of these vulnerabilities, but some people are more concerned than others about them and thus see more risks in intimacy than do others.

Pilkington and Richardson (1988) developed a measure of risk in intimacy based on the belief that some individuals are more aware of and/or sensitive to the dangers associated with intimacy than are others. In studies validating the measure, Pilkington and Richardson (1988) found that people who perceived greater risk in intimacy had fewer close friends and were less likely to be romantically involved than people who perceived less risk in intimacy. Relative to those who perceived less risk in intimacy, individuals who perceived more risk reported that they were less extroverted and less assertive in dating situations. They also trusted their "most trustworthy" same-sex friends less and took a more jealous and possessive (i.e., manic; Hendrick & Hendrick, 1986) approach toward love. Other research (Pilkington, 1989) has found that differences in the perception of risk in intimacy distinguish the three styles of romantic attachment proposed by Hazan and Shaver (1987). Avoidant lovers perceived significantly greater risk in intimacy than did those who described themselves as anxious/ambivalent lovers, who, in turn, perceived significantly greater risk than did secure lovers.

The existing research suggests that some people distance themselves from others as a means of avoiding the possibility of ridicule, betrayal, or rejection. In addition, it appears that the perception of risk in intimacy is not linked exclusively to romantic involvements or even to opposite-sex relationships. People who view intimate relationships as being risky may avoid interactions that are seen as preludes to romance or close friendship. This behavior is consistent with Altman and Taylor's (1973) description of the development of relationships as a social penetration

process that begins at a superficial level. As long as interactions are rewarding, participants move gradually and systematically toward deeper levels of intimacy; yet people who perceive greater risk in intimacy are not apt to find such movement toward deeper intimacy rewarding. As the social penetration process commences, people who perceive intimacy as risky are likely to pull back from the developing intimacy, a withdrawal that will diminish the rewards (as well as any punishments) that they might derive from interaction. In addition, this reticence will interfere with the development of relationships and eventually lead to relatively lower levels of social contact.

Hypotheses

Risk in intimacy

The general hypothesis that guided the present study was that people who perceived greater risks in intimacy would have more limited social lives in terms of two dimensions. One dimension was amount of contact, which was operationalized in two ways: total amount of social activity and size of social networks. Existing research indicates that people vary considerably in terms of both how much social contact they have and among how many people they distribute these contacts (Nezlek, Wheeler, & Reis, 1983; Reis & Wheeler, 1991). Because the simplest way to avoid intimacy is to minimize the amount of social contact one has. the first hypothesis was that people who perceived greater risk in intimacy would have fewer interactions with fewer different others than those who perceived less risk in intimacv.

A second way to consider social interaction is in terms of people's reactions to social contact, and the second hypothesis was that compared to people who perceived less risk in intimacy, those who perceived greater risk in intimacy would find their interactions less socio-emotionally rewarding, and would feel less personally efficacious in interactions. Previous research suggests reactions to social interaction can be described along two dimensions, corresponding roughly to a

socio-emotional and a socio-instrumental (or personal efficacy) dimension. Bales (1950) identified two levels at which group members interact: (1) an expressive or socio-emotional level and (2) a task or instrumental level. He defined socio-emotional activity as behaviors that occur "'because' of some immediate pressure, tension, or emotion" (p.51) and instrumental activity as behavior that occurs "'in order to' realize certain ends" (p.51). This distinction appears to be a general one, and similar distinctions have been made in studies of leadership (Katz & Kahn, 1978) and interpersonal style (Spence, 1984).

The prediction regarding socio-emotional rewards was fairly straightforward. Intimacy is an important part of social interaction, and those who perceive risks in intimacy are likely to avoid intimacy and less likely to reap the rewards it brings. Predictions concerning the socio-instrumental dimension were less obvious. To the extent that the normative movement in social interaction is toward increasing intimacy (Altman & Taylor, 1973), then individuals who perceive intimacy to be riskier may feel less powerful in social interaction because of their anxiety or fear about intimacy. That is, although people who perceive greater risk in intimacy do not want interactions to become intimate, social norms and the desires of co-interactants may lead to greater intimacy. If so, those who perceive intimacy as risky will experience a diminished sense of control. Similarly, the salience of intimacy in interaction may undermine the confidence of people who perceive intimacy as risky by increasing their anxiety and fear.

The previous hypotheses do not distinguish same-sex and opposite-sex interactions, and considerable previous research (Nezlek et al., 1983; Reis & Wheeler, 1991) has found that reactions to interactions vary as a function of the gender similarity of interactants. The third hypothesis of the study was that the statistical associations between reactions to interactions and perceptions of risk in intimacy would vary as a function of gender similarity. More specifically, male co-

interactants were expected to make the risks inherent in intimacy more salient. To the extent that women are stereotyped as nurturant and men as not nurturant, the risks of intimacy will not be salient when interacting with women. In contrast, men, who may be seen as more instrumental and possibly as having more selfish or goal-oriented (i.e., less nurturant) motives in mind, may make the risks inherent in intimacy more salient. Regardless of whether these stereotypes about women's nurturance and men's instrumentality are accurate or not, if people hold them, they will influence their behavior

Another characteristic of interaction taken into account in the present study was the nature of the relationships that existed between co-interactants. For present purposes, two types of relationships were examined: close same-sex friendships and romantic relationships. Using the same rationale as that for general social interactions, it was hypothesized that the perception risk in intimacy would be associated with more limited interaction with same-sex friends. Hypotheses about romantic relationships were not as easily formulated. Although the risks associated with intimacy are not peculiar to romantic relationships, concerns about those risks may be especially salient in interactions with a romantic partner. Relative to interactions with other people, high levels of intimacy are expected in interactions with romantic partners, and these expectations may make perceptions of risk in intimacy particularly salient in romantic relationships. On the other hand, romantic relationships may be characterized by relatively high levels of caring (e.g., Steck, Levitan, McLane, & Kelley, 1982), rendering the risks in intimacy less salient. Therefore, no specific hypotheses about romantic relationships were formulated, although the statistical associations between perceptions of risk in intimacy and social interactions in romantic relationships were examined.

To examine social interaction in the detail required to test the present hypotheses, social interaction was measured using a vari-

ant of the Rochester Interaction Record (RIR; Wheeler and Nezlek, 1977). This version of the RIR included rating scales concerning how intimate interactions were, how enjoyable they were, and how responsive others in the interaction were to participants' needs and desires. These three aspects of social interaction were intended to measure the socio-emotional dimension of interpersonal processes. The present version of the RIR also included two other rating scales concerning how confident the participants felt in their interactions and how much influence they believed they had over the structure and course of those interactions. These two scales were intended to measure the socio-instrumental aspects of social interaction.

Method

Participants

Participants were recruited in two ways. Freshmen participants were introductory psychology students; juniors were those who had been participants in previous studies on social interaction. Both groups had been recruited initially in a similar fashion from introductory psychology classes; they had indicated on a questionnaire distributed in their classes that they were interested in participating in a diary study. Moreover, we believe that the participants in the study did not differ (in meaningful ways) from nonparticipants. Previous research has found no differences on a variety of measures between volunteers and nonvolunteers for, or between participants and nonparticipants in, social interaction dairy studies (Nezlek,

A total of 181 students began the study; of these, 7 were not included in the analyses because they did not follow instructions for maintaining the diary properly, and 5 others did not complete the Risk in Intimacy Inventory. Of the remaining 169 students, 100 were women and 69 were men. All were paid \$20 for their participation; no other incentives were provided.

Measures

Perceptions of risk in intimacy were measured using the Risk in Intimacy Inventory (RII; Pilkington & Richardson, 1988). The RII has 10 items that concern the potential risks of intimacy, and each item uses a 6point scale. The specific items are presented in Table 1. The extent to which intimacy was perceived as risky was represented as the sum of responses to the 10 items on the RII. The decision to use a single total score was based on previous research (e.g., Pilkington & Richardson, 1988) that has found that the RII is unidimensional, and on the results of a confirmatory factor analyses of the present data. Using EQS (Bentler, 1989), a one-factor model was fit to the RII data. This analysis produced a comparative fit index (Bentler, 1988) of .99 (the maximum is 1.0), demonstrating that the RII is unidimensional. The use of a single score was suggested also by the fact that Cronbach's Alpha for the scale consisting of all 10 items was 89, a value very similar to that found in previous research. The average score for the sample was 23.4, and the standard deviation was 9.4, statistics comparable to those obtained in previous studies (Pilkington & Richardson, 1988).

Social interaction was measured using a variant of the Rochester Interaction Record (RIR; Wheeler & Nezlek, 1977). Partici-

pants used the RIR to record every social interaction they had that lasted 10 minutes or longer. Similar to most studies using the RIR, the version of the RIR used in the current study asked participants to indicate who their co-interactants were (using unique initials for each co-interactant) and the sex of each co-interactant. If there were more than three different co-interactants in an event, the event was described as a group interaction, and no description of the specific co-interactants was provided. The length of each interaction also was reported.

Participants rated each interaction on five qualitative dimensions: (1) intimacy, (2) enjoyment, (3) other's responsiveness, (4) confidence, and (5) influence. The intimacy, enjoyment, and responsiveness ratings were measures of the socio-emotional dimensions of interaction, and the confidence and influence ratings were measures of the socio-instrumental dimension of interaction. In describing the ratings to participants, intimacy was defined as "how interpersonally close" an individual felt to his or her co-interactants, with specific mention that "intimacy did not have to include a sexual component." Enjoyment was defined as "how pleasurable or satisfying" the participant found each interaction to be. Responsiveness was defined as "how responsive to your needs and feelings you felt the people in the

Table 1. The Risk in Intimacy Inventory

It is dangerous to get really close to people.

I prefer that people keep their distance from me.
I'm afraid to get really close to someone because I might get hurt.
At best, I can handle only one or two close friendships at a time.
I find it difficult to trust other people.
I avoid intimacy.
Being close to other people makes me feel afraid.
I'm hesitant to share personal information about myself.
Being close to people is a risky business.
The most important thing to consider in a relationship is whether I might get hurt.

Note: Responses were given on a scale with the following labels: 1, very strong disagreement; 2, moderate disagreement; 3, slight disagreement; 4, slight agreement; 5, moderate agreement; 6, very strong agreement.

interaction were...the extent to which other people changed their behavior to accommodate your particular needs and feelings." Influence was defined in terms of the extent to which the participant believed that he or she "controlled the interaction (e.g., initiation, determining what was to be done, where to go, etc.)," and confidence was defined as "how self-assured you were and how competent you felt." Each of these ratings was done using a 9-point scale, with the following labels: 1, not; 3, slightly; 5, somewhat; 7, quite; and 9, very. According to research conducted by Cliff (1959) on the relative strength of modifiers, these labels represented roughly equal intervals.

Procedure

During an introductory meeting, the importance of understanding social interaction was explained, and the role of the participants as collaborators in this naturalistic research was emphasized. The instructions given to participants were modelled closely after those employed by Wheeler and Nezlek (1977). Participants were instructed to use the RIR to record every social interaction they had over the next 2 weeks that lasted 10 minutes or longer. An interaction was defined as any encounter with another person (or people) in which the participants attended to one another and adjusted their behavior in response to one another. Examples were provided so as to clarify what was an interaction (e.g., a conversation, dancing) and what was not an interaction (e.g., simply sitting next to someone in a lecture). This definition is similar to Goffman's (1971) concept of a "social with." As part of this orientation, the various response categories on the RIR were discussed until participants understood the definitions supplied to them and felt comfortable with the forms and the procedure.

To facilitate accurate recording, participants were encouraged to complete the records at least once a day at a uniform time, such as before going to sleep. Participants were given a bound pad of interaction forms

sufficient for the duration of the study, approximately 2 weeks. After 3 days, a research assistant contacted participants to determine whether they were having any problems maintaining the diary; none were reported. Throughout the study, a collaborative, nondeceptive atmosphere was maintained, and the confidentiality of the records was emphasized and closely guarded (for a detailed description of the methods used in RIR studies, see Nezlek and Wheeler, 1984).

At the conclusion of the record-keeping period, participants were interviewed individually about the difficulties, ambiguities, and potential sources of inaccuracy in their data. Participants were encouraged to be straightforward when describing how they maintained the diary. Moreover, they were told that they would be paid regardless of what they said about how they had maintained their diaries. Based on these interviews, the data of the 7 previously mentioned participants were discarded. The remaining 169 participants maintained their diaries an average of 16.7 days; they reported updating their diaries an average of 1.8 times per day and spending an average of 15.4 minutes per day doing this. The difficulty of maintaining the diary, the interference caused by keeping the diary, and the accuracy of the diary were rated on 9-point scales (where 1 = not; 5 = somewhat; and 9 very). The mean difficulty reported was 3.9, average interference was 2.2, and average accuracy was 7.2. On average, participants reported missing fewer than 10% of their interactions. These responses suggest that participants followed the instructions for maintaining the diary and that their diaries were accurate representations of their social lives during the diary-keeping period. Moreover, these responses compare favorably to participants' responses in other RIR studies (cf. Nezlek et al., 1983). Finally, analyses that compared freshmen's and juniors' reports of how they maintained the diary did not find any differences between these two groups.

Following the interviews, participants completed additional questionnaires, in-

cluding the Risk in Intimacy Inventory (Pilkington & Richardson, 1988). Upon completion of these questionnaires, participants were paid and any further questions they had about the study were answered. This method of administration has been used successfully in previous research (e.g., Wheeler, Reis, & Nezlek, 1983). It is important to note that the maintenance of the diary and the completion of the RII were separated temporally and psychologically. That is, although both are self-report measures, they are very different types of measures. The RIR was updated on a daily basis over a 2-week period, whereas the RII took only a few minutes to complete, and it was completed days after the diary ended. There is little reason to believe that the maintenance of the diary per se influenced responses on the RII.

Results

Measures of social interaction

Participants' social interactions were quantified by calculating summary measures that described the quantity and quality of each participant's social interactions during the period of the study. The level of analysis used to summarize interaction diaries was the individual participant. Therefore, although considerable variability existed among participants in how socially active they were, participants contributed equally to the final analyses. The aggregation strategies used in this study produced broadly based measures that were well suited for investigating the relations between perceptions of risk in intimacy and social interaction. See Epstein (1979) for a discussion of choosing measurement and aggregation strategies when studying the relationships between individual differences and behaviors. Summary measures were calculated using a version of the Rochester Interaction Record Analysis Package, a set of programs written specifically to summarize data generated by the RIR. A discussion of this analytic framework can be found in Wheeler

and Nezlek (1977) and in Nezlek and Wheeler (1984).

Reactions to interactions were measured by computing averages for the five ratings: intimacy, enjoyment, responsiveness, confidence, and influence. There were three primary measures of interaction quantity: (1) the mean number of interactions each participant had per day, (2) the average amount of time spent per day interacting with others (in minutes), and (3) the percent of all interactions that were of specific types (e.g., percent of interactions involving same-sex best friend). Social network size was defined as the number of different individuals (separately for same-sex and opposite-sex others) with whom the participant interacted during the study, adjusted for (divided by) the number of days the diary was maintained. In addition, the average length of interactions (in minutes) was calculated to help understand any discrepancies between the results of interactions per day and time per day.

Participants' social interactions were described by three separate sets of summary measures representing different aggregation strategies. The first set (overall) described all of a participant's interactions. To test hypotheses about gender similarity effects in the relationships between social interaction and perceptions of risk in intimacy, a second set of measures (composition) distinguished interactions on the basis of the sex of the co-interactants. In this second set, separate summary measures described each participant's same-sex interactions (i.e., those in which all co-interactants were the same sex as the participant), opposite-sex interactions (i.e., those in which all co-interactants were the opposite sex of the participant), and mixed-sex interactions (i.e., those in which both male and female co-interactants were present). To examine the statistical relations between perceived risk in intimacy and social interaction in close relationships, a third set of summary measures described only those interactions involving participants' close friends, calculated separately for same-sex and opposite-sex close friends.

Overview of analyses

To examine differences in social participation as a function of perceptions of risk in intimacy, participants were divided into lowrisk and high-risk groups based on their scores on the RII, and differences between these two groups of participants were examined using analyses of variance.1 The median score for the sample (22) was used to divide participants into the low-risk and high-risk groups. This categorization produced the following sample sizes: 54 low-RII women, 34 low-RII men, 46 high-RII women, and 35 high-RII men.2 Analyses of the quantity and quality of social participation were carried out at three different levels, corresponding to the different sets of summary measures described above.

Overall social interaction

The first set of analyses examined differences in general social interaction between low-RII and high-RII participants, using measures aggregated at the *overall* level as described above. The first hypothesis of the study, that people who perceived intimacy as

less risky would have fewer interactions with fewer people, was supported by analyses of interaction quantity. The two measures of interaction quantity, number of interactions per day and time per day spent in interaction, were analyzed with a 2 (sex of participant) × 2 (RII: high vs. low) MA-NOVA, and this analysis produced a significant main effect for RII F(2,164) = 6.7, p <.05. Univariate follow-up analyses indicated that this main effect was due primarily to significant differences between low-RII and high-RII participants in the number of interactions they had per day; the univariate ANOVA of time per day did not produce a significant effect for RII. People who perceived lower levels of risk in intimacy had more interactions per day than those who perceived higher levels of risk in intimacy, although the two groups spent relatively similar amounts of time per day in interaction. The means and the results of the univariate tests for these analyses are presented in Table 2.

The discrepancy between the results of the univariate analyses of number of interactions and time spent in interaction is probably best explained by the fact that average length of interaction varied as a function of

Table 2. Quantity of social interaction as a function of perception of risk in intimacy (all interactions)

	High RII	Low RII	F-ratio
Interaction per day	5.32	5.90	4.9**
Time per day (minutes)	359	352	NS
Social network size ^a Same-sex Opposite-sex	1.01 .58	1.06 .69	NS 4.5**

Note: The degrees of freedom for all the univariate test were 1,165. F-ratios accompanied by ** were significant at the .05 level or beyond, and NS indicates a nonsignificant effect.

perceptions of risk in intimacy. Low-RII participants had shorter interactions (M = 62 minutes) than did high-RII participants (M = 67 minutes), F(1,165) = 3.7 p < .06. In other words, across all interactions, high-RII participants had fewer, but longer, interactions than did low-RII participants, leading to a net similarity in the amount of time they spent with other people.

Social network size was calculated by determining the number of different individuals with whom participants interacted over the course of the study. Because there was some variability (1 or 2 days) in the number of days participants maintained the diary, the total number of different co-interactants was divided by the number of days the diary was maintained. Size of social networks also varied as a function of the perception of risk in intimacy. A 2 (sex of participant) × 2 (RII: high vs. low) ANOVA of the number of different opposite-sex others with whom participants interacted over the course of the study found that high-RII participants had smaller opposite-sex social networks than did low-RII participants. In contrast, a similar analysis of the size of same-sex social networks produced no differences between the two groups. The means and the results of these analyses are presented in Table 2.

The second hypothesis was supported by analyses of affective reactions to interactions. A 2 (sex of participant) × 2 (RII: high vs. low) MANOVA of the three measures of the socio-emotional component of interaction, i.e., intimacy, enjoyment, and responsiveness, produced a significant main effect for RII, F(3,163) = 3.4, p < .05, and followup univariate analyses revealed that this main effect was reliable for all three measures. Compared to low-RII participants, high-RII participants reported that their interactions were less intimate and less enjoyable, and that their co-interactants were less responsive to them. The means and the results of the univariate tests for these analyses are presented in Table 3.

A 2 (sex of participant) \times 2 (RII: high vs. low) MANOVA of the two measures of the socio-instrumental component of interac-

Table 3. Reactions to all social interaction as a function of perception of risk in intimacy

	High RII	Low RII	F-ratio
Socio-emotional c	limension		
Intimacy	6.00	6.53	10.1***
Enjoyment	6.55	6.85	5.6**
Responsiveness	6.35	6.70	6.5***
Instrumental dime	ension		
Influence	6.26	6.66	9.1***
Confidence	6.75	7.33	16.6***

Note: The degrees of freedom for all the univariate test were 1,165. F-ratios accompanied by ** were significant at the .05 level or beyond, and those accompanied by *** were significant at the .01 level or beyond.

tion, i.e., influence and confidence, also produced a significant main effect for RII, F(2,164) = 8.4, p < .01. Follow-up univariate analyses revealed that this main effect was reliable for both measures. Compared to low-RII participants, high-RII participants felt less confident in their interactions, and they believed that they had less influence over their interactions. The means and the results of the univariate tests for these analyses are presented in Table 3.

Sex composition of interaction

The third hypothesis of the study was that differences in the social interactions of low-RII and high-RII participants would vary as a function of the gender similarity of their co-interactants. To test this hypothesis, various analyses were conducted that included the sex composition of an interaction (i.e., same-sex, opposite-sex, and mixed-sex) as a within-subjects variable. In addition to testing the third hypothesis, these analyses helped us to understand more thoroughly the differences in overall patterns by analyzing measures that described same-, opposite-, and mixed-sex interactions separately.

The analyses of the quantity of interaction comparing these three types of interac-

^{1.} Initially, the data described in this article were analyzed with correlational techniques. However, analyses of variance relying upon a median split on RII scores are presented despite the fact that, in general, correlational analyses are more powerful than median splits followed by analyses of variance. Analyses of variance were presented because some of the most important findings of the study involved differences in the relationships between perceptions of risk in intimacy and social interaction as a function of participants' sex, the gender similarity of co-interactants, and the nature of participants' relationships with certain individuals; a presentation relying upon median splits and analyses of variance revealed these differences more clearly than did the correlational analyses.

^{2.} The current sample included both freshmen and juniors, and although no hypotheses concerned differences between these two groups, all the analyses reported below were repeated with academic year as a between-subjects factor. However, inclusion of the academic year did not alter the results reported below in any fashion; thus, analyses involving academic year are not presented.

a Network size represents the number of different cointeractants mentioned in the diary divided by the number of days the diary was maintained.

tions found differences between low-RII and high-RII participants very similar to those found in the analyses of overall quantity of social interaction. Generally, low-RII participants had more interactions per day (of all types of interactions) than did high-RII participants. These analyses also found that low-RII and high-RII participants distributed their interactions similarly. Analyses of both the percent of interactions that were same-sex vs. opposite-sex vs. mixed-sex and the percent of interactions with samesex vs. opposite-sex best friends produced no significant effects involving perceived risk in intimacy. Because the effects of risk in intimacy did not vary across the gender similarity of co-interactants, analyses of quantity of social interaction that included gender similarity as a factor are not presented

In contrast, and in support of the third hypothesis, the relationships between perceived risk in intimacy and reactions to interactions varied across the three types of interactions. The first analysis was a 2 (sex of participant) × 2 (RII: high vs. low) × 3 (sex composition: same-sex vs. opposite-sex vs.

mixed-sex) MANOVA of the three ratings of the socio-emotional component of interaction. This analysis produced a significant interaction of participant sex, RII, and sex composition, F(6,664) = 2.5, p < .05. Univariate follow-up analyses revealed that this effect was reliable and similar for all three measures. Results of these univariate analyses and the relevant means are presented in Table 4.

The pattern of means was similar for all three ratings of the socio-emotional component of interaction, and the results suggested that the size of the low-RII vs. high-RII main effect on these ratings varied as a function of participant sex and the sex composition of the interaction. For women, low-RII vs. high-RII differences were greater in opposite-sex interaction than in ratings of samesex and mixed-sex interactions, and RII differences in same-sex and mixed-sex interactions were similar to each other. A very different, near mirror-image pattern was found for men. For men, RII status made the least difference in ratings of opposite-sex interactions, whereas RII differences in reactions to same-sex and

Table 4. Socio-emotional reactions to social interaction: Combined effects of participant sex and sex of co-interactants

		Women			Men		
	Same	Opposite	Mixed	Same	Opposite	Mixed	
Intimacy							
High RII	6.10	6.12	5.62	5.56	6.86	5.51	
Low RII	6.56	6.87	6.00	6.22	6.77	6.17	
Low-High	.46	.75	.38	.66	09	.66	
Enjoyment							
High RII	6.45	6.69	6.64	6.29	6.84	6.40	
Low RII	6.62	7.13	6.82	6.66	7.04	6.93	
Low-High	.17	.44	.18	.37	.20	.53	
Responsiveness	s						
High RII	6.48	6.62	6.11	6.03	6.91	5.87	
Low RII	6.76	7.21	6.36	6.51	7.00	6.37	
Low-High	.28	.59	.25	.48	.09	.50	

Note: The third row for each variable represents between the high RII mean and the low RII mean. The univariate tests of the three-way interactions were: intimacy, F(2,324) = 6.6, p < .01; enjoyment, F(2,324) = 2.8, p = .06; and responsiveness, F(2,324) = 5.1, p < .01.

mixed-sex interactions were larger than the opposite-sex difference and were similar to each other. Another way to interpret these results is to recognize that for men and women RII differences were similar for same-sex and mixed-sex interactions, and that RII differences in opposite-sex interaction were different from the same-sex and mixed-sex pattern. This interpretation is consistent with the results of a post-hoc analysis that involved a specific contrast of same-sex and mixed-sex ratings vs. opposite-sex ratings. Separate 2 (sex of participant) = 2 (RII: high vs. low) ANOVAs of the three socio-emotional ratings indicated that, for each variable, the sex by RII interaction from these analyses accounted for over 95% of the sums of squares of the triple interaction in the original analysis. That is, virtually all of the composition effect in the original triple interaction was due to this contrast.

A 2 (sex of participant) × 2 (RII: high vs. low) × 3 (sex composition) MANOVA of the two socio-instrumental ratings-influence and confidence-produced a marginally significant sex by RII by composition interaction, F(4,464) = 2.1, p = .10, although follow-up univariate ANOVAs of each of these measures produced a significant interaction only in the analysis of influence. For ratings of influence, the pattern of means for men was similar to those found in the analyses of the socio-emotional ratings, whereas it was slightly different for women. High-RII men believed they had markedly less influence than did low-RII men in their same-sex interactions (Ms = 5.60, 6.57) and their mixed-sex interactions (Ms = 5.75, 6.45). whereas low-RII and high-RII men did not differ as much in their perceptions of influence in opposite-sex interactions (Ms = 6.69, 6.90). In contrast, high-RII women felt relatively less influential in same-sex interactions (Ms = 6.38, 6.72) and opposite-sex interactions (Ms = 6.64, 7.01) compared to low-RII women, and the two groups of women felt relatively similar, believing they had lower levels of influence in their mixedsex interactions (Ms = 6.05, 6.19).

Interactions within close relationships

The previous analyses examined the relations between perceptions of risk in intimacy and reactions to all of a participant's social interactions, and these analyses indicated that these relations varied as a function of the gender and gender similarity of those involved in an interaction. Because intimacy (and by implication, perceptions of risk in intimacy) is closely related to friendship development and maintenance, it was important to investigate specifically the relationship between perceptions of risk in intimacy and reactions to interactions with close friends. The fourth hypothesis of the study posited that relationship characterizing general social interaction would characterize interactions with close samesex friends, although no specific predictions were made concerning close opposite-sex relationships. Therefore, measures describing interactions that involved only close same-sex friends and only close oppositesex friends were analyzed.

Close friends were determined by examining each participant's social network, i.e., all the different people with whom the participant interacted during the study. Samesex and opposite-sex close friends were designated as the most frequently mentioned same-sex and opposite-sex co-interactants. This procedure provided a clear operationalization of friendship status that was consistent across participants. Moreover, previous research has shown that frequency of contact is a reliable indicator of the closeness of friendships (Hays, 1989; Nezlek, 1993b; Nezlek et al., 1983; Reis & Wheeler, 1991; and Wheeler & Nezlek, 1977). The three ratings of the socio-emotional component of interaction, and the two measures of the socio-instrumental component, were analyzed with 2 (sex of participant) \times 2 (RII) \times 2 (same-sex vs. opposite-sex close friend) MANOVAs, with the last variable treated as a within-subjects factor.

Similar to the results of the composition analyses, the analysis of the three ratings of the socio-emotional component produced a

significant participant sex by RII by samesex vs. opposite-sex interaction, F(3,163) =3.8, p = .01. Univariate follow-up analyses produced a significant triple interaction only in the analysis of intimacy, although the analyses of enjoyment and responsiveness produced marginally significant interactions. These three interactions were all due to the same pattern of results, a pattern that was similar to the means of the composition analyses. For men, low-RII and high-RII participants differed much more in terms of their reactions to same-sex friends (with low-RII men having more positive reactions than high-RII men) than in their reactions to opposite-sex friends. In contrast, for women, low-RII and high-RII participants differed much more in terms of their reactions to opposite-sex friends (with low-RII women having more positive reactions than high-RII women) than in their reactions to same-sex friends. The relevant means and results of the univariate tests are presented

In contrast to the interaction of sex, gender similarity of relationship, and RII found in the above analyses, the MANOVA of the

two ratings of the socio-instrumental component produced a significant RII main effect, F(2,164) = 5.4, p < .01. Follow-up univariate ANOVAs of influence and confidence also produced significant RII main effects, F(1,165) = 4.0, p < .05 and F(1,165) = 10.6, p < .01, respectively. Compared to low-RII participants, high-RII participants reported having less influence (Ms = 6.55 vs. 6.84) and feeling less confident (Ms = 6.95 vs. 7.45) in their interactions with their close friends.

Differences among types of relationships

Although previous research leaves little doubt that those one sees more frequently tend to be closer friends than those one sees less frequently, there was still considerable room for variability in the nature of the relationships that existed between the participants in the present study and their operationally defined close friends, i.e., the most frequently mentioned co-interactant. As part of their post-study interview, each participant indicated whether he or she was involved in a "steady, ongoing romantic rela-

Table 5. Socio-emotional reactions to social interaction with same-sex and opposite-sex best friends

	Wo	Women		Men	
	Same	Opposite	Same	Opposite	
Intimacy					
High RII	6.69	6.63	5.72	7.21	
Low RII	6.82	7.26	6.62	7.06	
Low-High	.13	.63	.90	15	
Enjoyment					
High RII	6.57	6.87	6.42	7.09	
Low RII	6.59	7.32	6.73	7.17	
Low-High	.02	.45	.31	.08	
Responsiveness					
High RII	6.61	6.68	6.26	6.98	
Low RII	6.83	7.29	6.55	7.05	
Low-High	.22	.61	.29	.07	

Note: The third row for each variable represents the difference between the high-RII mean and the low-RII mean. The univariate tests of the three-way interactions were: intimacy, F(1,165) = 10.2, p < 0.1; enjoyment, F(1,165) = 3.4, p = .07; and responsiveness, F(1,165) = 2.8, p = .10.

Table 6. Socio-emotional reactions to social interaction and types of opposite-sex relationships

	Women		Men				
	Non romantic	Romantic	Non romantic	Romantic			
Number of pa	rticipants						
High RII	29	17	20	15			
Low RII	26	28	18	16			
Intimacy							
High RII	5.93	7.82	7.32	7.05			
Low RII	6.81	7.69	6.74	7.43			
Low-High	.88	13	58	.38			
Enjoyment							
High RII	6.47	7.54	7.39	6.71			
Low RII	7.17	7.46	6.93	7.43			
Low-High	.70	08	46	.72			
Responsivene	ss						
High RII	6.40	7.18	7.28	6.58			
Low RII	7.09	7.47	6.89	7.22			
Low-High	.69	.29	39	.64			

Note: The third row for each variable represents the difference between the high-RII mean and the low-RII mean. The univariate tests of the three-way interactions were: intimacy, F(1,61) = 56, p = .01; enjoyment, F(1,161) = 9.2, p < .01; and responsiveness, F(1,161) = 4.3, p < .05.

tionship of 6 weeks or more," and if so, the participant indicated who this romantic partner was. Participants were divided into two groups: those for whom the operationally defined close friend was designated as a romantic partner, and those for whom this person was not designated as a romantic partner. Measures describing interactions with opposite-sex friends were then analyzed with MANOVAs that included this distinction as a between-subjects factor.³

The MANOVA of the three ratings of the socio-emotional component of interaction that took into account the nature of the relationship participants had with their opposite-sex friends produced a significant 3-way interaction among participant sex, RII, and status of opposite-sex friend, F(3,159)=3.2, p<0.5. Univariate follow-up analyses of these three ratings also produced significant interactions of sex, RII, and status. The relevant means and results of the univariate tests are presented in Table 6.

The pattern of means for these three ratings were quite similar. Compared to high-RII women, low-RII women found interactions with nonromantic opposite-sex friends to be more intimate, enjoyable, and responsive, whereas no significant differences existed between low-RII and high-RII women for interactions with romantic partners. A very different pattern emerged for men. Compared to high-RII men, low-RII men found interactions with their romantic part-

^{3.} Although no participant indicated that he or she did not have a heterosexual orientation or that he or she had a same-sex romantic partner, and although campus surveys have indicated consistently that less than 10% of students are not heterosexual, it is possible that some participants were not heterosexual. Therefore, it is possible that some of these analyses confound sexual orientation, gender relationship, and nature of relationship; however, no other analytic strategy was feasible given the descriptions participants provided of their personal relationships.

ners to be more intimate, enjoyable, and responsive, whereas the reverse was true for participants who had interactions with opposite-sex close friends who were not designated as romantic partners.

The MANOVA of the two ratings of the socio-instrumental component of interaction produced a marginally significant interaction of sex, RII, and status of opposite-sex best friend, F(2,160) = 2.3, p = .10, and in the univariate follow-up analysis of confidence this interaction was significant, F(1,165) =4.6, p < .05. For women, the pattern of these means was virtually identical to the patterns of the three socio-emotional ratings described above. Compared to high-RII women, low-RII women were more confident in interactions with nonromantic opposite-sex friends (Ms = 7.37, 6.67 for low-RII and high-RII women, respectively), while there were no significant differences between low-RII and high-RII women for interactions with romantic partners (Ms = 7.42, 7.45 for low-RII and high-RII women, respectively). For men the pattern was different. In romantic relationships, men who were low in perceived risk in intimacy were more confident than those who were high (Ms = 7.62, 6.70 for low-RII and high-RII)men, respectively). In contrast, for men who were not involved in romantic relationships, confidence in interaction with close opposite-sex friends did not vary as a function of perceived risk in intimacy (Ms = 7.67, 7.48for low-RII and high-RII men, respectively).

In the post-study interviews, participants also indicated who their best same-sex friend was, and for some participants the most frequently mentioned same-sex co-interactant (operational best friend) was described as a best same-sex friend. Analyses that compared interactions with operational best friends who were also described as best friends to interactions with operational best friends who were not described as best friends did not reveal any significant interactions between RII and the description given of operational best friends. Therefore, these analyses are not presented.

Discussion

Results of the present study supported the general hypothesis that people who perceived greater risk in intimacy would have more limited social interactions, findings that are consistent with predictions derived from social penetration theory (Altman & Taylor, 1973) and from attachment theory (Bowlby, 1969). Men and women who perceived greater risk had fewer interactions per day and interacted with fewer oppositesex others than did those who perceived less risk. The social interactions of people who perceived greater risk in intimacy were clearly limited in a socio-emotional sense as well. Generally speaking, compared to people who perceived less risk in intimacy, those who perceived greater risk in intimacy reported that their interactions were less intimate and less enjoyable, and that their co-interactants were less responsive to their needs and feelings.

As expected, the association between perceptions of risk in intimacy and socio-emotional aspects of social interaction varied as a function of the gender similarity of participants and their co-interactants. In general, men's socio-emotional reactions to interactions with same-sex others varied more as a function of perceived risk in intimacy (low-RII men reported these interactions were more rewarding than did high-RII men) than men's reactions to interactions with opposite-sex others. In contrast, women's socioemotional reactions to interactions with opposite-sex others varied more as a function of perceived risk in intimacy (low-RII women reported these interactions as more rewarding than did high-RII women) than women's reactions to interactions with same-sex others. Similar patterns were found when the analyses focused on only close friends. These results support the hypothesis that male co-interactants would make the socioemotional costs of social interaction more salient. If an individual is generally concerned about being hurt by others (someone with a high RII score), this concern appears to be drawn out by men more than it is by women.

In addition, perceptions of risk in intimacy played a similar role in same-sex and mixed-sex interactions. More specifically, for men there were sharp differences in socio-emotional reactions as a function of risk in intimacy in same-sex and mixed-sex interactions, but not in reactions to opposite-sex interactions. For women, there were sizable differences as a function of perceived risk in intimacy in reactions to opposite-sex interactions, whereas differences in reactions to same-sex and mixed-sex interactions were much smaller. This similarity in socio-emotional reactions to same-sex and mixed-sex interactions is consistent with research on social comparison theory. Mixed-sex interactions present a mix of same-sex and opposite-sex norms to guide them, and as a consequence, people are more likely to be uncertain as to how to behave in mixed-sex interactions than in same-sex or oppositesex interactions. Uncertainty is a motivating force for social comparison (Festinger, 1954); therefore, social comparison processes are more likely to be activated in mixed-sex interactions than in same-sex or opposite-sex interactions. Furthermore, considerable research has demonstrated that people tend to compare themselves to similar others (e.g., Goethals & Darley, 1987; Wheeler & Koestner, 1984), and same-sex individuals are likely to be perceived as more similar to oneself than opposite-sex individuals. Consequently, given the uncertainty and the attendant social comparison that are likely in mixed-sex interactions, people will be more likely to attend to their same-sex co-interactants than their opposite-sex co-interactants for guidance. Thus, same-sex norms would be a stronger influence than opposite-sex norms on individuals' behaviors in mixed-sex interactions, making reactions to same-sex and mixedsex interactions similar.

An important advantage of the diary technique used in this study is its ability to measure interactions that occur within different types of relationships, and measures of interactions within close opposite-sex relationships suggested that perceptions of

risk in intimacy play different roles for men and women in these relationships. For women who were not romantically involved, those who perceived greater risk in intimacy reported that interactions with their close opposite-sex friends were less socio-emotionally rewarding than did those who perceived less risk in intimacy, a finding similar to the pattern described earlier. In contrast, for women who were romantically involved, perceptions of risk in intimacy were unrelated to socio-emotional evaluations of interactions with their romantic partners. These differences also may be consistent with sex-role stereotypes. In romantic relationships, the role of "woman as caretaker" may overwhelm individual differences in women's perceptions of risk in intimacy; women are assigned a role that requires them to manage the intimacy in a relationship. In contrast, in opposite-sex nonromantic friendships, norms and expectations about behavior are relatively unclear (Argyle & Henderson, 1984; Shotland & Craig, 1989), and individual differences such as perceptions of risk in intimacy may have a greater influence on the nature of such relationships.

A very different pattern occurred for men. For men who were romantically involved, those who perceived greater risk in intimacy reported that interactions with their romantic partners were less socioemotionally rewarding than did those who perceived less risk in intimacy. Men, who stereotypically are presumed not to be affectively oriented in the first place, and who also perceive intimacy as risky, may be particularly uncomfortable when they are in relationships that have strong norms calling for high levels of intimacy. Interestingly, the opposite pattern emerged for men who were not romantically involved: High-RII men found interactions with their close oppositesex friends to be more rewarding than did low-RII men. The norms associated with nonromantic relationships may not create strong pressures toward intimacy, and, in turn, men who perceived risk in intimacy may have been able to relax because they

felt less threatened in nonromantic situations. In contrast, low-RII men may have been relatively dissatisfied with these more superficial, nonromantic relationships.

The analyses of the two measures of socio-instrumentality were consistent with expectations. People who perceived greater risk in intimacy were less confident in and believed they had less influence over their social interactions in general. Similar to the results describing the socio-emotional aspects of interaction, romantically noninvolved females and romantically involved males who perceived greater risk in intimacy felt less confident in their interactions than did their counterparts who perceived less risk. The anxiety of individuals who perceived greater risk in intimacy appears to have undermined their sense of control over the progress of their interactions.

In sum, people who perceive intimacy as riskier seem to have less rewarding social interactions, and this is more likely to be the case for women when they are interacting with men (i.e., in their opposite-sex interactions) and for men when they are participating in interactions in which other men are present (i.e., same-sex and mixed-sex interactions). These results complement the findings of Wheeler et al. (1983), who found a negative relationship between loneliness and the quality and quantity of people's interactions with women. In combination, the findings of these two studies suggest that, although the constructs of loneliness and perceptions of risk in intimacy may share theoretical roots (they both concern how closely people relate to others), the constructs manifest themselves in social interaction in very different ways. Loneliness seems to be related to contact with women, whereas risk in intimacy seems to be related to contact with men.

The present results may also shed some light on the reason for the consistent finding (Nezlek et al., 1983; Reis & Wheeler, 1991) that all-male interactions are less intimate than interactions involving women (women's same-sex and men's and women's opposite-sex interactions). Assuming that

men make risks in intimacy more salient, in all-male interactions risk in intimacy concerns will be the most salient, and intimacy would be lower. This explanation does not replace or contradict other explanations for this finding; rather, it complements them.

On a more theoretical level, the focus of the perceptions of risk in intimacy construct is similar to the focus of other constructs. including McAdams's (1980) intimacy motive McAdams (1980, 1982) defined the intimacy motive as a preference or readiness for close, warm, and communicative interactions with others, and research on this motive has produced results similar to those found in the present study. For example, people who scored high in intimacy motivation reported being more satisfied with their interactions and feeling emotionally closer to others than did those who scored low in intimacy motivation (McAdams & Constantian, 1983). Although the present results parallel these findings, there are important conceptual differences between intimacy motivation and the perception of risk in intimacy. McAdams (1982; McAdams & Constantian, 1983) suggests that, although other constructs (e.g., the need for affiliation) may involve concerns about rejection, the intimacy motive explicitly does not. Given that the definition of the perception of risk in intimacy construct explicitly includes concerns about rejection, it follows that the perception of risk in intimacy does not necessarily represent the opposite pole of the intimacy-motive continuum. In fact, an individual might have a strong intimacy motive but might also avoid intimacy because he or she perceives intimacy to be dangerous

Many of the concerns of attachment theory (Bowlby, 1969) are also relevant to the construct of perceived risk in intimacy, and it seems reasonable to assume that individuals' perceptions of the risk inherent in intimacy represent an important component of their attachment style. Indeed, recent advances in the area have identified a number of dimensions that may underlie attachment styles. For example, Collins and Read (1990)

presented data that suggested that people with different attachment styles have different mental models of themselves and others. And Bartholomew (1990) described the fearful-avoidant attachment style as characterizing someone who "desire[s] social contact and intimacy, but experience[s] pervasive interpersonal distrust and fear of rejection" (p. 164), a characterization consistent with the above description of an individual who simultaneously is high in McAdams's intimacy motive and perceives great risks in intimacy. Given the global scope of attachment theory, more research is needed to explicate the numerous differences (e.g., in perceptions of risk in intimacy and intimacy motivation) that probably exist among attachment styles to provide a thorough understanding of how and why people approach or avoid close relationships with others.

Finally, the present study provided further confirmation of the value of using a social interaction diary to study intimacy and other aspects of social interaction. Few laboratory or observational methods would have permitted the comparisons among different types of interactions (e.g., those with strangers vs. friends vs. lovers) that the diary made possible. The present results suggest that the specific outcomes of more narrowly focused experiments would depend to a large degree on the gender, gender-similarity, and nature of the relationships of the participants in each study, because the effects of perceived risk in intimacy varied considerably as a function of these three factors. Moreover, it is unlikely that laboratory or observational methods would be able to examine the broad range of social events included by the diarykeepers in this study (e.g., lovemaking, arguments, etc.), and when studying intimacy, it is particularly important to include such mean-

ingful occasions. It is not clear how the results of a study that excluded such psychologically meaningful events would differ from those found in the present study; however, it is likely that the generalizability of the results of such a study would be limited by the universe of activities under consideration. The methods and theories used to study interpersonal relations need to be just as multifaceted as relationships themselves. The present diary method provided insights that a more traditional laboratory study could not, but the control and precision possible in a laboratory can provide insights that a self-report diary cannot. Both types of research are needed.

Although it is clear that people who perceive more risk in intimacy have less intimate and enjoyable interactions, the ways in which they manage their social interactions need to be investigated further. For example, the present study demonstrated that relative to people who perceive less risk in intimacy, those who perceive more risk have fewer interactions that last 10 minutes or longer. However, it may be that those who perceive greater risk have as many (or more) short, superficial interactions (e.g., with grocery clerks, car mechanics, and classmates). Additionally, people who perceive greater risk in intimacy are likely to manage their longer interactions by limiting their self-disclosures to others; future research is necessary to determine the extent to which they do limit their disclosures and whether they do so by limiting the amount, breadth, and/or depth of their disclosures. Finally, the relationships among perceptions of risk in intimacy and other constructs such as loneliness, the motivation toward intimacy, and styles of attachment need to be explored so that the common and unique aspects of each can be more clearly understood.

References

Altman, I., & Taylor, D. A. (1973). Social penetration: The development of interpersonal relationships. New York: Holt, Rinehart & Winston.

Argyle, M., & Henderson, M. (1984). The rules of

friendship. Journal of Social and Personal Relationships, 1, 211–237.

Bales, R. F. (1950). *Interaction process analysis*. Cambridge, MA: Addison-Wesley.

Bartholomew, K. (1990). Avoidance of intimacy: An attachment perspective. Journal of Social and Personal Relationships, 7, 147–178.
 Bentler, P. M. (1988). Comparative fit indices in structural equation modeling. Psychological Bulletin, 107, 238–246.

Bentler, P. M. (1989). EQS. Los Angeles: BMDP Sta-

Bowlby, J. (1969). Attachment and loss: Vol. 1. Attachment. New York: Basic Books.

Collins, N. L., & Read, S. J. (1990). Adult attachment, working models and adultionable on the control of the c

working models, and relationship quality in dating couples. Journal of Personality and Social Psychology, 58, 644-663.

Dean, A., & Lin, N. (1977). The stress-buffering role of Dean, A., & Lin, N. (1977). The stress-outering forcor social support: Problems and prospects for system-atic investigation. Journal of Nervous and Mental Disease, 165, 403-417.Epstein, S. (1979). The stability of behavior: I. On predicting most of the people much of the time. Journal of Personality and Social Psychology, 37, 1007, 1106.

Festinger, L. (1954). A theory of social comparison processes. *Human Relations*, 7, 117-140.

Goethals, G. R., & Darley, J. M. (1987). Social com-

parison theory: An attributional approach. In J. M. Suls & R. L. Miller (Eds.), Theories of group behavior. New York: Springer-Verlag.

Goffman, E. (1971). Relations in public. New York:

Basic Books

Handley, H. (Ed.). (1986). The lover's quotation book.

Handley, H. (Ed.), (1964).

New York: Penguin Books.

Hatfield, E. (1984). The dangers of intimacy. In V.J.

Parlace (Ed.). Communication, intimacy and close Derlega (Ed.), Con relationships (pp. 207-220). Orlando, FL: Aca-

Hays, R. B. (1989). The day-to-day functioning of close vs. casual friendships. Journal of Social and Per-sonal Relationships. 6, 21-38.
Hazan, C., & Shaver, P. (1987). Romantic love concep-

Hazan, C., & Shaver, P. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology*, 52, 511–524.
 Hendrick, C., & Hendrick, S. (1986). A theory and method of love. *Journal of Personality and Social Psychology*, 50, 392–402.
 Katz, D., & Kahn R. (1978). The social psychology of

organizations. New York: Wiley.

McAdams, D. P. (1980). A thematic coding system for the intimacy motive. Journal of Research in Personality, 14, 413–432.

ality, J.4, 413-432.
McAdams, D. P. (1982). Intimacy motivation. In A. J. Stewart (Ed.), Motivation and society (pp. 133-171). San Francisco: Jossey-Bass.
McAdams, D. P., & Constantian, C. A. (1983). Intimacy and affiliation motives in daily living: An experience sampling analysis. Journal of Personality and Social Psychology, 45, 851-861.
Nezlek, J. B. (1993a). Methodological and analytic is-

sues in conducting diary research. In J. Nezlek (Chair), Current research using social interaction diaries. Symposium conducted at the International Conference on Personal Relationships, Milwaukee,

Nezlek, J. B. (1993b). The stability of social interaction Journal of Personality and Social Psychology. Nezlek, J., & Wheeler, L. (1984). RIRAP: Rochester

Interaction Record Analysis Package. Psychologi-

cal Documents, 14, p. 6, fiche 2610.

Nezlek, J., Wheeler, L., & Reis, H. (1983). Studies of social interaction. In H. Reis (Ed.), Naturalistic approaches to studying social interaction. New directions for methodology of Social and Behavioral Science, No. 15, (pp. 57-75), San Francisco: Jossey-

Perlman, D., & Fehr, B. (1987). The development of intimate relationships. In D. Perlman & S. Duck (Eds.), Intimate relationships: Development, dy-, and deterioration (pp. 13-42). Newbury Park, CA: Sage Pilkington, C. J. (1989). The interpersonal implications

of adult romantic attachments, In K. Davis (Chair). New directions in attachment theory. Symposium conducted at the Iowa/International Conference on

conducted at the lowa/International Contreence on Personal Relationships, Iowa City, Iowa. Pilkington, C. J., & Richardson, D. R. (1988). Perceptions of risk in intimacy. *Journal of Social and Personal Relationships*, 5, 503–508. Reis, H. T., & Wheeler, L. (1991). Studying social interaction using the Rochester Interaction Record. In M. Zanna (Ed.), Advances in experimental social psychology, Vol. 24 (pp. 270–318). Orlando, El. Academic Press.

FL: Academic Press.

Sarason, I. G., Pierce, G. R., & Sarason, B. R. (1990).

Social support and interactional processes: A triadic hypothesis. Journal of Social and Personal Re-lationships, 7, 495-506.
Shotland, R. L., & Craig, J. M. (1988 p. 29). Can men

women differentiate between friendly and exually interested behavior? Social Psychology

Quarterly, 51, 66-73.
Spence, J. T. (1984). Masculinity, femininity, and gender-related traits: A conceptual analysis and cri-tique of current research. Progress in Experimental Personality Research, 13, 1–97. Steck, L., Levitan, D., McLane, D., & Kelley, H. H.

(1982). Care, need, and conceptions of love. Journal of Personality and Social Psychology, 43, 481–491. Wheeler, L., & Koestner, R. (1984). Performance

evaluation: On choosing to know the related attrib-utes of others when we know their performance. Journal of Experimental Social Psychology, 20,

Theeler, L., & Nezlek, J. (1977). Sex differences in social participation. Journal of Personality and So-cial Psychology, 35, 742–754. Wheeler, L., Reis, H. T., & Nezlek, J. (1983). Loneli-

ness, social interaction, and sex roles. Journal of Personality and Social Psychology, 45, 943-953.

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Gender and working models of attachment: Consequences for perceptions of self and romantic relationships

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Abstract

Several theorists have proposed that differential socialization experiences lead men and women to differ in the importance they assign to relationships and in how they interpret and respond to relationships. To explore this idea, this study examined whether men and women who reported similar attachment experiences responded differently to information about the same kind of relationship. Men and women with secure, preoccupied, or avoidant models of attachment imagined themselves in a relationship with a hypothetical partner who displayed secure, preoccupied, or avoidant behavior. As predicted, avoidant men and preoccupied wome displayed secure, preoccupied, or avoidant condition, as predicted, a result in the security toward whose attachment models exaggerated gender-role stereotypes, expressed the most negativity toward themselves and the relationship. Women also were more likely than men to apply specific information about the imagined relationship to general beliefs about their own relationships. In addition, men and women whose attachment models matched the partner's behavior responded more favorably to the relationship if they both expressed security, but less favorably if they both expressed security, but less favorably if they both expressed avoidance. Findings for gender and partner matching closely paralleled those for couples in long-term relationships and support the idea that the meaning and consequences of attachment models must be considered within the context of gender roles.

Past interactions with significant others are likely to exert a continuing influence on the way in which men and women think about and behave in their close relationships. Bowlby (1969, 1973, 1980, 1988) has argued that people develop beliefs and expectations about others, or "internal working models," on the basis of early childhood experiences with a primary caregiver. These working models, if not altered or substantially updated, are thought to guide percep-

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tions and interpretations of others' behavior from infancy through adulthood.

Hazan and Shaver (1987; Shaver, Hazan, & Bradshaw, 1988) extended Bowlby's attachment theory to the study of adult love relationships, and they described three styles of adult attachment that correspond to those identified by Ainsworth (Ainsworth, Blehar, Waters, & Wall, 1978) in her work with infants. Securely attached adults reported being comfortable with closeness, interdependence, and trusting others. Anxious-ambivalent (preoccupied) adults reported difficulty getting as close to others as they would like and worried about being abandoned by their partner.1 Avoidant

^{1.} Following Bartholomew and Horowitz (1991), we chose to use the term "preoccupied" rather than "anxious-ambivalent" (Hazan & Shaver, 1987) because this group is characterized more by preoccupation with relationships than ambivalence about them (Brennan & Shaver, in press).