

# Can men and women be just friends?

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APRIL L. BLESKE AND DAVID M. BUSS

*University of Texas at Austin*

## Abstract

We tested evolution-based hypotheses about (1) sex differences in perceived benefits and costs of opposite-sex friendship and (2) differences in perceived benefits of same-sex friendships and opposite-sex friendships. In the Preliminary Study ( $N = 400$ ), an act nomination procedure was used to identify the benefits and costs of same-sex friendships and opposite-sex friendships. In Study 1, a total of 231 participants (100 men, 131 women) evaluated the frequency of occurrence of 100 benefits and costs in their closest same-sex friendship or opposite-sex friendship. In Study 2, a total of 229 participants (92 men, 137 women) evaluated how beneficial and how costly each would be if it were to occur in their closest same-sex friendship or opposite-sex friendship. Results supported several key hypotheses. Men perceived sex with their opposite-sex friends as more beneficial than did women. Women reported receiving protection from their opposite-sex friends more often than did men, and they perceived the protection as highly beneficial. Both men and women reported receiving information from opposite-sex friends about how to attract mates, and they perceived this information as beneficial. The discussion focuses on whether these benefits reflect an evolved psychology of opposite-sex friendship, or instead are incidental by-products.

Much of human social interaction occurs within the context of enduring relationships, such as kinships, mateships, and friendships. From an evolutionary perspective, kinships and mateships are important because of their direct links with inclusive fitness (Hamilton, 1964): kin carry copies of our genes, and mates are our reproductive partners. Friendships, however, are more puzzling from an evolutionary perspective. Friends do not share copies of our genes, nor do we generally reproduce with our friends. Around the world, however, people form friendships that last for days, years, and even a lifetime. This requires explanation.

In principle, friendships can provide a bounty of benefits that historically may have been linked directly or indirectly with reproduction. Friends may offer us food and shelter or take care of us when we are ill, thus helping to solve adaptive problems of survival. Friends may introduce us to potential mates, helping to solve an adaptive problem of reproduction. Friends may also inflict costs on us by betraying our confidences to enemies, competing for access to the same resources, and even competing for the same mates. As illustrated by Brutus and Caesar, friends can cost us our lives.

One of the complexities of friendship is that some characteristics of friendship are perceived as both beneficial and costly. The friendship literature, for example, is inconsistent on the role of sexuality in opposite-sex friendship. More than half of men and some women report sexual attraction to their friends (Kaplan & Keys, 1997), and both sexes experience ambiguity about the sexual boundaries in their opposite-sex friendships (Swain 1992). Monsour, Beard,

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The authors thank Barry Friedman, Martie Haselton, and Todd Shackelford for their helpful comments on earlier versions of this article.

Portions of this article were presented at the annual convention of the Human Behavior and Evolution Society, Tucson, Arizona, June 1997.

Address correspondence to April L. Bleske, Department of Psychology, University of Texas, Austin, TX 78712. E-mail: bleske@mail.utexas.edu.

Harris, and Kurzweil (1994) proposed that such sexual attraction and ambiguity are challenges or costs of opposite-sex friendship. Some men and women report, however, that they are valuable additions to friendship (Bell, 1981; Sapadin, 1988). The current investigation, guided by a theoretical base of evolutionary principles, tests predictions about differences between men's and women's perceptions of how beneficial or costly sexuality is in opposite-sex friendships.

Evolutionary approaches to relationships, of which friendship is one type, focus on the special benefits derived from these relationships. In examining opposite-sex friendships, the benefits men and women derive may differ. In posing the question, "Can men and women be just friends?," the answer may not be the same for both sexes.

Men and women are predicted to differ psychologically in domains in which they recurrently faced different adaptive problems over human evolutionary history. In the domain of human mating, and potentially friendship, several psychological differences between the sexes may be the result of a sex difference in minimum obligatory parental investment. Women face a minimum investment of 9 months of gestation, in addition to subsequent lactation. Men require a mere act of sex to provide opportunity for the passage of their genes into the next generation; thus, the direct reproductive benefits of gaining sexual access to a variety of mates would have been higher for men than for women (Symons, 1979; Trivers, 1972). In social contexts in which some short-term matings were possible, ancestral men who engaged in short-term sexual encounters with a variety of women would have been more reproductively successful, on average, than those ancestral men who did not (Buss, 1994). Men have, therefore, evolved a strong desire for sexual access to a variety of members of the opposite sex. The current investigation suggests that opposite-sex friendship may be one vehicle through which men gain sexual access. Thus, our first hypothesis is as follows:

H1: *For men, more than for women, one function of opposite-sex friendship is to provide sexual access to the opposite sex.*

We test this hypothesis with the following predictions:

Prediction 1a: *Men will perceive the potential for sexual access to an opposite-sex friend as more beneficial than will women.*

Prediction 1b: *Men will report experiencing unreciprocated attraction toward an opposite-sex friend more often than will women.*

If one function of opposite-sex friendship is to provide men with sexual access to the opposite sex, men may request sexual access to their opposite-sex friend more often than do women, and thus we expect that men will be denied sexual access to their opposite-sex friend more often than will women. Men are predicted to perceive the *failure* to obtain sexual access to their opposite-sex friend as more costly than will women.

Prediction 1c: *Men will report being denied sexual access to their opposite-sex friend more often than will women.*

Prediction 1d: *Men will perceive being denied sexual access to their opposite-sex friend as more costly than will women.*

Hypotheses 2 and 3 also follow from the logic of parental investment. Women, as the sex with greater obligatory investment, have recurrently faced the adaptive problems of securing resources and protection for themselves and their offspring. Over the course of our evolutionary history, those women who were able to secure resources (e.g., food, material goods) and protection from men would have been more successful than those women who were unable to secure resources and protection for them and their potential offspring. Thus, women are hypothesized to have an evolved opposite-sex friendship psychology that includes a preference for friends who are able and willing to offer them resources and protec-

tion, or who have future prospects of an ability to offer such benefits.

H2: *For women, more than for men, a function of opposite-sex friendship is to provide resources.*

H3: *For women, more than for men, a function of opposite-sex friendship is to provide protection.*

We test these hypotheses with the following predictions:

Prediction 2a: *Women will perceive receiving economic resources, such as cards, gifts, and paid evenings out, from an opposite-sex friend as more beneficial than will men.*

If women have evolved to desire economic resources from their male friends, the friendships they preserve should be those that offer such benefits.

Prediction 2b: *Women will report receiving economic resources, such as cards, gifts, and paid evenings out, from an opposite-sex friend more often than will men.*

Prediction 3a: *Women will perceive receiving protection from an opposite-sex friend as more beneficial than will men.*

Prediction 3b: *Women will report receiving protection from an opposite-sex friend more often than will men.*

Hypothesis 4 proposes that people's perceptions of opposite-sex and same-sex friendships differ. Men and women may perceive opposite-sex friends differently from same-sex friends in part because opposite-sex friends are able to provide unique, "inside" information about the opposite sex (Bell, 1981; Hacker, 1981; Sapadin, 1988). Specifically, we propose that opposite-sex friends may offer information about what members of the opposite sex desire in a mate and how to attract them.

H4: *For men and women, a function of opposite-sex friendship, more than of same-sex friendship, is to provide information about the opposite sex.*

Same-sex friends may be less likely than opposite-sex friends to hold "inside" information about the opposite sex. Moreover, to the degree that same-sex friends do hold such information, intrasexual rivalry between them may deter them from sharing it. If gaining knowledge about opposite-sex mating desires has helped men and women to be more successful at mating, men and women should perceive such information as highly beneficial. We therefore predict the following:

Prediction 4a: *Men and women will report receiving information about the opposite sex more often from an opposite-sex friend than from a same-sex friend.*

Prediction 4b: *Men and women will perceive the potential for receiving information about the opposite sex as more beneficial from an opposite-sex friend than from a same-sex friend.*

# Preliminary Study: Identifying the Benefits and Costs of Same-Sex Friendships and Opposite-Sex Friendships

The goal of this study was to identify the range of benefits and costs that men and women perceive as important in their same-sex and opposite-sex friendships. Toward this end, we developed an act nomination procedure (Buss & Craik, 1983), in which we asked participants to list for us the benefits and costs of same-sex friendship and opposite-sex friendship.

## Method

**Participants.** Participants were 400 undergraduates enrolled in a large state university. The study was completed as a 5-minute, in-class activity, and thus no demographic information was requested of the participants.

**Nomination of benefits and costs.** Half of the participants were asked to think of the most important same-sex friendship that they currently had or had had in the past; half were asked to think of the most important opposite-sex friendship. The instructions were brief: Participants were asked to

list the 10 most important *benefits* or *advantages* of the friendship for them (one page of space provided), followed by the 10 most important *costs* or *disadvantages* (one page of space provided). Half of the participants completed the lists in reverse order, that is, costs before benefits. Participants were urged to be as specific and thorough as possible as they made their lists.

*Classification of benefits and costs.* After a large and diverse set of benefits and costs was identified by the participants, the first author generated a full list of benefits and costs, eliminating redundancies. Then, the authors and one other researcher independently categorized the items. If two out of three judges agreed, an item was retained in a specific category. To test the hypotheses detailed above, the first author selected several prototypical items from the relevant categories. Then, the second author and one other researcher independently selected prototypical items from each of the relevant categories. If two of three judges agreed on prototypicality, an item was included on the questionnaire. For example, three distinct yet related items were used to test the first prediction under Hypothesis 1: (1) We had sexual intercourse, (2) He (She) let me have sex with him (her), and (3) We had sexual contact just short of sexual intercourse. Various items that were unrelated to the current hypotheses were added to the questionnaire as filler items. The authors limited the questionnaire list to 100 items for fear of losing participant interest. Categories for Hypotheses 1 through 4 were represented by anywhere between two and five items. If only two items comprised a category or were judged as prototypical of a category, those two items were used on the questionnaire to represent the category. We did not generate new items outside of the act nomination procedure so as to ensure an equal number of items per category; rather, we used only the act nominations that participants themselves had generated.

After data collection was complete for each study, reliability analyses were per-

formed on all categories, for each friendship type. Table 1 lists each category, its respective items as represented in the questionnaires, and its alpha reliability coefficients if the category was represented by more than one item on the questionnaire. In both studies, all participants responded to the same items (pronouns were adjusted to fit the sex of target and actor). Several items relevant to same-sex friendship, such as competing for a dating partner, were included on questionnaires that requested participants to reflect on an opposite-sex friendship. Several items relevant to opposite-sex friendship, such as desiring sexual access to a friend, were included on questionnaires that requested participants to reflect on a same-sex friendship. Thus, we expected participants to perceive some nominations as irrelevant to their friendship and to respond with the option "Not Applicable."

Below we describe the methods of two separate empirical studies that succeeded the act nomination procedure. We consolidate the findings of the two studies into one Results section. Study 1 provides a frequency analysis of the nominated benefits and costs, and Study 2 provides a benefit-cost analysis of the nominated benefits and costs. The data from Study 1 reflect men's and women's reports of actual behavioral occurrences of benefits and costs in their closest same-sex and opposite-sex friendships. These behavioral reports are less closely tied than those of Study 2 to men's and women's evolved friendship psychology, and they are best interpreted as complex products of men's and women's evolved desires. The finding that men often provide their women friends with protection, for example, is potentially the complex product of men's desire for sexual access coupled with women's preference for a long-term mate capable of providing protection.

The data from Study 2 pertain to men's and women's *perceptions* of how beneficial and how costly different aspects of friendships would be if they were to occur in a close friendship. The benefit-cost analysis

in Study 2 explores whether men and women perceive certain events in friendship as desirable or undesirable, independent of their frequency of occurrence. Although sexual intercourse may actually be an infrequent occurrence in opposite-sex friendship, for example, we predict that men will perceive the potential for its occurrence as more beneficial than will women. As Symons (1979) noted, desire for a low-frequency event can evolve if the event has large fitness consequences.

### Study 1: Perceived Frequency of Benefit and Cost Occurrences in Friendship

The first goal of Study 1 was to test predicted *sex* differences in the reported frequency of received benefits in opposite-sex friendship (Hypotheses 1 through 3). The second goal was to test predicted *friendship* differences in the reported frequency of benefit and cost occurrences (Hypothesis 4).

#### Method

**Participants.** One hundred thirty-one female and 100 male undergraduates, none of whom had participated in the preliminary study, served as participants. They ranged from 17 to 31 years of age, with an average of 19.24 years. Fifty-five percent of subjects were Caucasian, 20% Asian American, 17% Hispanic, 5% African American, and 3% "Other" (e.g., American Indian). Participants received research credit as a partial requirement for a course in introductory psychology. The authors dropped the data from three homosexual participants. To maximize sample size, the authors retained the data from three participants who were unsure of their sexual orientation.

**Design.** The design was a  $2 \times 2$  factorial. The first factor was sex of rater (male, female), and the second factor was type of friendship (same-sex, opposite-sex). Half of men and half of women were asked to respond to items about their closest same-sex friendship. The remaining men and women

were asked to respond to items about their closest opposite-sex friendship.

**Measure.** We constructed a 100-item measure to assess the perceived frequency of occurrence of the benefits and costs (see Table 1 for a list of items). Items linked to the hypotheses were randomly distributed in the questionnaire among other benefit and cost items that were not relevant to the hypotheses.

**Procedure.** Participants were tested in groups ranging from 2 to 25. First, a short biographical section asked for participants' age, sexual orientation, and romantic relationship status. Second, participants were asked to give a specific estimate of how many same-sex and opposite-sex individuals during the past year they had considered to be their close friends. Third, participants were asked to think of their closest or most important same-sex (opposite-sex) friend and, keeping that person in mind, evaluate *how often* each of the 100 items were or had been an aspect of the friendship. Participants were provided with a 7-point Likert scale, with 0 = Never to 6 = Very often. Participants were also given the option to respond with NA = "Not Applicable" if they felt that the test item did not apply to the target friendship.

### Study 2: Perceived Benefits and Costs of Friendship

The first goal of this study was to test predicted *sex differences* in perceived benefit and cost of potential qualities of opposite-sex friendship (Hypotheses 1 through 3). The second goal of this study was to test predicted *friendship differences* in perceived benefit and cost of potential qualities of friendship (Hypothesis 4).

#### Method

**Participants.** One hundred thirty-seven female and 92 male undergraduates, none of whom had participated in the preliminary or first study, served as participants. Sub-

**Table 1.** Summary of categories, their individual items, and reliability coefficients for resultant composite variables in Study 1 and Study 2

Category	Item	Study 1 (Frequency alpha)		Study 2 (Cost/Benefit alpha)	
		SSF	OSF	SSF	OSF
Sexual Access <sup>b</sup>	<i>Hypothesis categories</i>				
	We had sexual contact just short of sexual intercourse.				
	He let me have sex with him.	*	.90	.84	.89
	We had sexual intercourse.				
Can't Reciprocate Attraction <sup>c</sup>	He wanted to date me, but I didn't want to date him.	*	.84	.21	.74
	I could not reciprocate the romantic feelings he had for me.				
Denied Sexual Access <sup>c</sup>	He denied me sex.	*	.79	*	.83
	He refused to have sex with me.				
	He gave me flowers and cards.	.61	.75	.68	.77
	He bought me gifts.				
Resource Gain <sup>b</sup>	He paid for me when we went out.				
	He ran errands for me.				
	He walked me to my car at night.				
	He protected me.	.74	.77	.77	.76
Protection <sup>b</sup>	I felt safer in dangerous situations when I was with him.				
	He took care of me when another guy was being too sexually aggressive toward me.				
	He watched over me in any situation.				
	He gave me good advice about guys.	.72	.78	.84	.83
Information About the Opposite Sex <sup>b</sup>	He helped me understand the opposite sex.				
	He told me what men want and like in a romantic partner.				
	He gave me advice on how to attract men.				
	I got an idea of what guys want by hanging out with him.				
Jealousy in Own Mate <sup>c</sup>	He made my boyfriend jealous.	.71	.88	.82	.88
	I felt like I had to hide our friendship from my boyfriend.				
	My boyfriend tried to compete with him.				

Sexual Rivalry <sup>c</sup>	She flirted with my boyfriend. She dated a guy that I liked.	.63	*	.77	.89
LT Mate Potential <sup>b</sup>	We competed to attract men. There was the possibility of a future relationship beyond friendship.	*	.62	.60	.74
No LT Mate Potential <sup>c</sup>	He saw everything I could ask for in a romantic partner. He saw me as "just a friend." He saw me as a friend rather than as a romantic partner. He wanted to be "just friends."	.74	.88	.67	.87
Cruel/Mean Behavior <sup>c</sup>	<i>Other categories</i>				
	He was condescending toward me. He made public jokes at my expense. He belittled me in front of others. He made fun of me in public. I felt physically unattractive in comparison to him. My self-esteem went down when I was with him because he was so physically attractive. My self-esteem went down when I was around him because he was so popular.	.86	.72	.90	.86
Upward Social Comparison <sup>c</sup>	He made me feel insecure about my worth. He looked down on me. People thought I was a bad person because I was friends with him.	.81	.70	.82	.87
Lowered Self-Worth <sup>c</sup>	Others disliked me because I was friends with him. People treated me with respect because I was his friend. Others liked me because I was his friend. He boosted my self-esteem by complimenting me. My self-esteem went up when I was around him because he was so popular.	.61	.67	.88	.88
Decreased Social Status <sup>c</sup>	He boosted my ego. He made me feel attractive to the opposite sex. He helped me feel more confident in romantic relationships.	.50	.68	.79	.88
Increased Social Status <sup>b</sup>		.70	.59	.70	.82
Self-Esteem Boost <sup>b</sup>		.79	.74	.77	.66

**Table 1.** (Continued)

Category	Item	Study 1 (Frequency alpha)		Study 2 (Cost/Benefit alpha)	
		SSF	OSF	SSF	OSF
Desirability Assessment <sup>c</sup> Enhanced Mate Value Appraisal <sup>c</sup> Giving Resources <sup>c</sup>	He told me which men I could and could not attract.	.64	.60	.78	.76
	He told me which men would like me or not.				
	He told me I deserved better than the guy I was with.	.85	.88	.75	.61
	He told me my boyfriends weren't good enough for me.				
	I spent a lot of money on him.	.65	.72	.39	.49
Talk Openly <sup>b</sup>	I paid for him when we went places.				
	He could tell me anything.	.81	.83	.76	.72
	I could tell him anything, even things I couldn't tell my girlfriends.				
Networking <sup>b</sup>	We talked about the details of each other's sex lives.				
	I could talk to him about anything.				
	He could talk about everything and anything with me.				
	He introduced me to his friends.	.67	.76	.73	.78
	He helped me meet other guys.				
Decreased Mating Opportunity <sup>c</sup>	He set me up with men.				
	He arranged for me to go on dates with his friends.				
	He scared away guys from talking to me.	.40	.72	.86	.86
	I didn't talk to guys when I was around him.				
	It was harder for me to meet new guys when he was around.				
Confusion Over Relationship Status <sup>c</sup>	It was difficult to meet his friends because they thought I was dating him.				
	He refused to let me date his friends.				
	I wanted to date him but didn't know how he felt about me.	*	.79	.81	.81
	It was hard to determine whether we were going to stay friends or move on to a romantic relationship.				
	I got confused over the status of our relationship.				
Taboo Subjects <sup>c</sup>	Our feelings for each other got in the way of the friendship.				
	I could not discuss other men with him for fear of losing him.	*	.67	.67	.46
	I felt guilty if I talked about other men around him.				



Jealousy in Friend's Mate <sup>c</sup>	I made his girlfriend jealous. His girlfriend got jealous of the time I spent with him. His girlfriend paid more attention to him when I spent a lot of time with him.	.52	.91	.69	.72
Sexual Control <sup>b</sup>	I prevented him from having sex with other people. I had a say in who he had sex with. I kept him from having sex with anyone but me.	.59	.73	.44	.71
	<i>Miscellaneous items from questionnaire, with relevant category label</i>				
Annoyance Over No Sex	It annoyed me that he wouldn't have sex with me.				
Dinner Companion	He went out to dinner with me.				
Downward Social Comparison	I felt physically attractive in comparison to him.				
Friend Invoked Jealousy	He talked about other girls to make me jealous.				
Friend Respected by Others	He was respected by other people.				
Giving Time to Help Friend	I gave up my time to help him, no matter how busy I was.				
Mate-Seeking Partner	We went out together to meet men.				
Mate Stealing	She took sexual advantage of my boyfriend while I was away.				
Monetary Favors	I leant him money.				
Negative Mate Value Assessment	He told me I wasn't good enough for a certain guy.				
No Sexual Control	I felt like I had no control over who he had sex with.				
Jealous of Other People	I was jealous of the other girls in his life.				
Own Love Not Reciprocated	I was in love with him, but he was not in love with me.				
Promiscuity	He had sexual intercourse with my friends.				
Romantic Involvement	He had a girlfriend.				
Time Demands	Our friendship demanded a lot of my time.				

*Note:* \*Reliability analysis was bypassed for scales with variance less than 1. Reliabilities presented are averaged across the sexes, within each friendship type. In Study 2 reliabilities, (b) in category column represents a benefit reliability, and (c) in category column represents a cost reliability. Items listed in the table are written from a female perspective. All items are taken from an opposite-sex friendship survey, except the items within Sexual Rivalry, Mate Seeking Partner, and Mate Stealing which are taken from a same-sex friendship survey. In the actual study, participants completed surveys with pronouns appropriate to sex of rater and sex of target friend.

jects ranged from 17 to 27 years of age, with an average of 19.03 years. Seventy-two percent of subjects were Caucasian, 13% Asian American, 8% Hispanic, 4% African American, and 2% Pacific Islander. Participants received research credit as a partial requirement for a course in introductory psychology. The authors dropped the data from three homosexual participants and two bisexual participants; data were retained from three participants who were unsure of their sexual orientation.

**Design.** The design was a  $2 \times 2$  factorial. The first factor was sex of rater (male, female), and the second factor was type of friendship (same-sex, opposite-sex). Half of men and half of women were asked to respond to items about their closest same-sex friendship. The remaining half was asked to respond to items about their closest opposite-sex friendship.

**Measure.** We used the 100-item measure from Study 1 to assess the perceived benefit and cost of the nominated benefits and costs (see Table 1). Items linked to the hypotheses were randomly distributed in the questionnaire among other benefit and cost items that were not relevant to the hypotheses.

**Procedure.** Participants were tested in groups ranging from 2 to 25. The procedure was similar to that of Study 1. In Study 2, however, participants were asked to think of their closest or most important same-sex (opposite-sex) friend and, keeping that person in mind, rate *how beneficial* and *how costly* each of the 100 items would be if they were to occur in their friendship. Participants were provided with two 7-point Likert scales, one ranging from 0 = Not at all beneficial to 6 = Very beneficial, and the other from 0 = Not at all costly to 6 = Very costly. Participants were asked to give both a benefit rating and a cost rating for each test item. Participants were given the option to respond with NA = "Not Applicable" if they believed the test item did not apply to the target friendship.

## Results: Study 1 and Study 2

**Friendship networks.** Study 1 participants reported an average of 4.96 close same-sex friends (range = 0 to 25), and 3.70 close opposite-sex friends (range = 0 to 20). Participants had significantly more close same-sex friends than close opposite-sex friends ( $t(230) = 6.04, p < .0001$ ). Study 2 participants reported an average of 6.39 close same-sex friends (range = 1 to 44), and 4.03 close opposite-sex friends (range = 0 to 20). Participants had significantly more close same-sex friends than close opposite-sex friends ( $t(228) = 7.37, p < .0001$ ). No sex differences in friendship networks were revealed in either study.

**Recoding.** Not applicable (NA) responses were recoded as zeroes. Any item that participants perceived as not applicable to their friendship was thus interpreted in the data analysis as an event that never occurred (Study 1), or an event that was not at all costly or not at all beneficial (Study 2). The results did not differ significantly when NA responses were omitted from the analyses.

**Reliabilities.** Reliability composites for Study 1 and Study 2, for each friendship type, are displayed in Table 1. An alpha level of .05 was used for all statistical tests.

**Descriptive results.** Table 2 displays the 10 most common qualities of same-sex friendship, by category, as reported by men and women. Table 3 displays the 10 most common qualities of opposite-sex friendship, by category, as reported by men and women. Several qualities of friendship were common in both men's and women's same-sex and opposite-sex friendships: having a friend who is respected by others, being able to talk openly with a friend, having a dinner companion, receiving a boost to self-esteem from a friend, providing help to a friend, and having a friendship that lacks long-term romantic relationship potential. Other categories were commonly reported by both men and women in *same-sex* friendships: doing favors for a friend, having a friend with

**Table 2.** *Most frequent aspects of same-sex friendship, by category, for men (n = 50) and for women (n = 66)*

Rank	Men		Women	
	Category	Mean (SD)	Category	Mean (SD)
1	Friend Respected by Others	4.20 (1.43)	Talk Openly	4.82 (1.03)
2	Talk Openly	3.87 (1.48)	Friend Respected by Others	4.53 (1.22)
3	Romantic Involvement	3.80 (2.03)	Giving Time to Help Friend	3.86 (1.40)
4	Dinner Companion	3.40 (1.55)	Dinner Companion	3.74 (1.75)
5	No LT Mate Potential	3.30 (2.38)	Romantic Involvement	3.52 (2.19)
6	Giving Time to Help Friend	3.10 (1.64)	No LT Mate Potential	2.86 (2.37)
7	Mate-Seeking Partner	2.62 (2.01)	Self-Esteem Boost	2.62 (1.16)
8	Monetary Favors	2.28 (1.33)	Mate-Seeking Partner	2.61 (2.04)
9	Networking	2.01 (1.01)	Networking	2.40 (1.10)
10	Self-Esteem Boost	1.70 (1.17)	Monetary Favors	2.24 (1.43)

Note: LT = Long-term.

whom to meet members of the opposite sex, having a friend who has a romantic partner, and having a friend to introduce them to the opposite sex. Other categories were common for both men and women in *opposite-sex* friendships: Having a friendship with potential for a long-term romantic relationship, and receiving information about the opposite sex.

Table 4 displays the 10 most beneficial qualities of same-sex friendship, by category, as reported by men and women. Table 5 displays the 10 most beneficial qualities of opposite-sex friendship, by category, as re-

ported by men and women. Several qualities of friendship were perceived as highly beneficial by both men and women in both same-sex and opposite-sex friendships: having a friend who is respected by others, being able to talk openly with a friend, receiving a boost to self-esteem from a friend, receiving information about the opposite sex, having a dinner companion, and providing help to a friend. Having a friend with whom to meet members of the opposite sex was perceived as highly beneficial to both men and women in same-sex friendships. Gaining social status from being friends

**Table 3.** *Most frequent aspects of opposite-sex friendship, by category, for men (n = 50) and women (n = 65)*

Rank	Men		Women	
	Category	Mean (SD)	Category	Mean (SD)
1	Dinner Companion	4.04 (1.78)	Friend Respected by Others	4.46 (1.54)
2	Friend Respected by Others	4.02 (1.55)	Dinner Companion	4.11 (3.32)
3	Talk Openly	4.01 (1.39)	Talk Openly	3.85 (1.38)
4	Giving Time to Help Friend	3.84 (1.77)	Giving Time to Help Friend	3.55 (1.66)
5	No LT Mate Potential	3.06 (2.16)	Protection	3.06 (1.45)
6	Self-Esteem Boost	2.98 (1.11)	Self-Esteem Boost	2.84 (1.27)
7	Information About the Opposite Sex	2.87 (1.54)	Information About the Opposite Sex	2.83 (1.42)
8	LT Mate Potential	2.77 (1.58)	No LT Mate Potential	2.71 (2.00)
9	Giving Resources	2.66 (1.79)	LT Mate Potential	2.53 (2.12)
10	Time Demands	2.46 (2.00)	Resource Gain	2.35 (1.52)

Note: LT = Long-term.

**Table 4.** *Most beneficial aspects of same-sex friendship, by category, as perceived by men (n = 46) and women (n = 69)*

Rank	Men		Women	
	Category	Mean (SD)	Category	Mean (SD)
1	Friend Respected by Others	4.46 (1.56)	Talk Openly	4.96 (1.12)
2	Talk Openly	4.26 (1.32)	Friend Respected by Others	4.67 (1.93)
3	Mate-Seeking Partner	3.72 (2.06)	Dinner Companion	4.36 (1.54)
4	No LT Mate Potential	3.68 (2.18)	Giving Time to Help Friend	4.30 (1.65)
5	Networking	3.13 (1.74)	Mate-Seeking Partner	3.87 (2.20)
6	Self-Esteem Boost	3.07 (1.67)	Protection	3.72 (1.51)
7	Information About the Opposite Sex	2.99 (1.83)	No LT Mate Potential	3.67 (2.19)
8	Increased Social Status	2.75 (2.02)	Self-Esteem Boost	3.51 (1.39)
9	Giving Time to Help Friend	2.74 (1.89)	Information About the Opposite Sex	3.26 (1.45)
10	Dinner Companion	2.70 (1.93)	Networking	3.10 (1.47)

Note: LT = Long-term.

with someone was perceived as highly beneficial for men in both same-sex and opposite-sex friendships. Receiving protection was perceived as highly beneficial for women in both same-sex and opposite-sex friendships, and also beneficial for men in opposite-sex friendships. Having a friend to introduce them to the opposite sex was perceived as beneficial to men and women in same-sex friendships, and to women in opposite-sex friendships. Receiving resources

was perceived as a beneficial aspect of opposite-sex friendship for both men and women. All lists, except men's opposite-sex friendship, included the *lack* of long-term mate potential as one of the 10 most beneficial aspects of friendship. The potential for a long-term mateship was perceived as beneficial to men in opposite-sex friendships.

Table 6 displays the 10 most costly aspects of same-sex friendship, by category, as reported by men and women. Table 7 dis-

**Table 5.** *Most beneficial aspects of opposite-sex friendship, by category, as perceived by men (n = 46) and women (n = 68)*

Rank	Men		Women	
	Category	Mean (SD)	Category	Mean (SD)
1	Talk Openly	4.37 (1.20)	Dinner Companion	4.75 (1.55)
2	Information About the Opposite Sex	4.20 (1.62)	Friend Respected by Others	4.50 (2.03)
3	Self-Esteem Boost	4.08 (1.36)	Protection	4.43 (1.30)
4	Friend Respected by Others	4.04 (1.75)	Talk Openly	4.39 (1.27)
5	Dinner Companion	3.74 (1.86)	Information About the Opposite Sex	4.12 (1.53)
6	LT Mate Potential	3.27 (2.06)	Self-Esteem Boost	3.99 (1.25)
7	Giving Time to Help Friend	3.26 (1.91)	No LT Mate Potential	3.42 (2.21)
8	Resource Gain	3.21 (1.55)	Resource Gain	3.29 (1.83)
9	Increased Social Status	2.79 (2.13)	Giving Time to Help Friend	3.12 (1.80)
10	Protection	2.67 (1.40)	Networking	2.99 (1.67)

Note: LT = Long-term.

**Table 6.** *Most costly aspects of same-sex friendship, by category, as perceived by men (n = 46) and women (n = 69)*

Rank	Men		Women	
	Category	Mean (SD)	Category	Mean (SD)
1	Cruel/Mean Behavior	2.51 (2.03)	Cruel/Mean Behavior	2.59 (2.24)
2	Giving Time to Help Friend	2.35 (1.70)	Lowered Self-Worth	2.33 (2.49)
3	Lowered Self-Worth	2.22 (2.30)	Negative Mate Value Assessment	2.25 (2.42)
4	Monetary Favors	2.20 (2.13)	Sexual Rivalry	2.09 (1.91)
5	Mate Stealing	2.09 (2.80)	Mate Stealing	2.01 (2.68)
6	Time Demands	2.04 (1.91)	Time Demands	1.84 (1.75)
7	Sexual Rivalry	1.99 (1.78)	Giving Time to Help Friend	1.77 (1.59)
8	Jealousy in Own Mate	1.78 (1.95)	Enhanced Mate Value Appraisal	1.77 (1.70)
9	Negative Mate Value Assessment	1.76 (2.21)	Upward Social Comparison	1.77 (1.83)
10	Promiscuity	1.67 (2.24)	Desirability Assessment	1.76 (2.11)

plays the 10 most costly aspects of opposite-sex friendship, by category, as reported by men and women. Several aspects of friendship were perceived as costly by both men and women in both types of friendships: receiving cruel or mean behavior from a friend, providing help to a friend, feelings of lowered self-worth due to a friend, devoting time to a friend, and being told by a friend that he or she is not good enough for a cer-

tain opposite-sex individual. Sexual rivalry and mate stealing were perceived as costly to both men and women in same-sex friendships. Being jealous of other people in a friend's life, being confused over the friend-romantic status of the relationship, and being in love with a friend who does not reciprocate were perceived as costly to both men and women in opposite-sex friendships. Lending a friend money, having a

**Table 7.** *Most costly aspects of opposite-sex friendship, by category, as perceived by men (n = 46) and women (n = 68)*

Rank	Men		Women	
	Category	Mean (SD)	Category	Mean (SD)
1	Giving Time to Help Friend	2.96 (1.90)	Jealous of Other People	2.75 (2.99)
2	Jealous of Other People	2.70 (2.20)	Cruel/Mean Behavior	2.63 (2.24)
3	Confusion Over Relationship Status	2.69 (1.63)	Giving Time to Help Friend	2.56 (1.90)
4	Lowered Self-Worth	2.51 (2.39)	Confusion Over Relationship Status	2.54 (1.95)
5	Own Love Not Reciprocated	2.43 (2.66)	Time Demands	2.41 (1.89)
6	Taboo Subjects	2.42 (1.73)	Lowered Self-Worth	2.40 (2.68)
7	Friend Invoked Jealousy	2.41 (2.12)	Decreased Mating Opportunity	2.34 (1.80)
8	Time Demands	2.41 (2.09)	Own Love Not Reciprocated	2.29 (2.61)
9	Cruel/Mean Behavior	2.33 (1.94)	Negative Mate Value Assessment	2.29 (2.66)
10	Negative Mate Value Assessment	2.33 (2.36)	Can't Reciprocate Attraction	2.28 (2.28)

sexually promiscuous friend, and having a same-sex friend elicit jealousy in their girlfriends were perceived as costly by men in same-sex friendships. Being told by a friend that she deserves better than the man she is with, feeling physically unattractive in comparison to a friend, and being told by a friend which men she could or could not attract were perceived as costly by women in same-sex friendships. Feeling guilty talking about women with a friend and having a friend who talks about other men to make them jealous were perceived as costly to men in opposite-sex friendships. Decreased opportunity to meet men when a friend is around and having a friend toward whom one cannot reciprocate his romantic interests were perceived as costly to women in opposite-sex friendships.

*Sexual access* In support of Hypothesis 1, categorical-level analyses revealed that men evaluated the potential for having sex with their close opposite-sex friend as more beneficial than did women (male  $M = 1.97$ ,  $SD = 2.14$ ; female  $M = .74$ ,  $SD = 1.48$ ;  $t(73) = 3.39$ ,  $p < .001$ ,  $d = .34$ ). This effect was found for each of the items comprising this category.

Our second prediction for this hypothesis was that men more often than women would report experiencing attraction toward their opposite-sex friend with no attraction in return. This prediction was indirectly supported. Compared to men, women more often reported having an opposite-sex friendship in which their friend was romantically attracted to them but in which they were not romantically attracted to their friend (male  $M = .86$ ,  $SD = 1.38$ ; female  $M = 1.68$ ,  $SD = 2.06$ ;  $t(111) = -2.57$ ,  $p < .05$ ,  $d = .24$ ).

Our third prediction was also supported by the frequency analysis. Men were denied sexual access to their opposite-sex friends more often than were women (male  $M = .65$ ,  $SD = 1.43$ ; female  $M = .03$ ,  $SD = .15$ ;  $t(50) = 3.04$ ,  $p < .01$ ,  $d = .39$ ). The fourth prediction was not supported. Men did not perceive the failure to receive sexual access to their opposite-sex friend as any more

costly than did women ( $p = .33$ ). Both men and women rated the items associated with restricted sexual access as relatively low in cost. In sum, three of the four empirical tests provided moderate support for Hypothesis 1.

Indirect support for the hypothesis that sex is perceived as a benefit of opposite-sex friendship for men more than for women comes from men's and women's reported frequencies of sexual intercourse in their opposite-sex friendships. Twenty-two percent of men reported that they and their close opposite-sex friend had had sexual intercourse sometimes or often, whereas 10.8% of women reported that they and their close opposite-sex friend had had sexual intercourse sometimes or often. This result suggests that men may be more likely to pursue sex in their friendships. It also suggests that men may be more likely to categorize a sex partner as a close friend.

Further indirect support for this hypothesis comes from a correlation between (a) the frequency with which men reported that their female friend desired a romantic relationship with them but they did not desire the same with their friend, and (b) the frequency with which they reported having had sex with their friend ( $r = .64$ ,  $p < .0001$ ). This correlation was not significant for women ( $r = -.13$ ,  $p = .31$ ). The correlation for men was significantly different from the correlation for women ( $z = 3.24$ ,  $p < .01$ ). This result suggests that men, but not women, may take advantage of the sexual opportunities that might arise when a friend is sexually attracted to them.

*Resource provisioning.* Hypothesis 2 was not supported. At the categorical level, women were not more likely than men to receive resources from their opposite-sex friends ( $p = .38$ ). Because this result was surprising, we analyzed the category of Resource Gain (see Table 1) in further depth by analyzing each of the individual items. The item "He (She) paid for me when we went out" showed a pattern different from the other items. Women received more frequent paid outings from their opposite-sex

friend than did men (male  $M = 1.74$ ,  $SD = 1.75$ ; female  $M = 3.14$ ,  $SD = 2.11$ ;  $t(113) = -3.79$ ,  $p < .0001$ ,  $d = .36$ ). Women received paid outings from both their opposite-sex friends and same-sex friends more often than did men (male  $M = 1.43$ ,  $SD = 1.61$ ; female  $M = 2.35$ ,  $SD = 1.99$ ;  $F(1, 227) = 16.21$ ,  $p < .0001$ ;  $d = .26$ ).

The predicted sex difference in perceived benefit of receiving resources from an opposite-sex friend was not supported at either the categorical level or the individual item level. Both women and men perceived it as beneficial to have an opposite-sex friend who paid for them when they went out together, who gave them gifts, flowers, and cards, or who ran errands for them (category  $p = .80$ ). Both women and men perceived the receipt of resources from their opposite-sex friend as more than moderately beneficial.

Item-level analyses of variance (ANOVAs) revealed an interaction between sex and friendship type for perceived benefit of receiving certain resources. On the one hand, women perceived it as beneficial to receive gifts and flowers and cards from either a same-sex friend (SSF) or opposite-sex friend (OSF) (Gifts  $p = .75$ , Flowers and cards  $p = .74$ ). Men, on the other hand, perceived it as more than somewhat beneficial to receive gifts, flowers, or cards from an opposite-sex friend, but less than somewhat beneficial to receive such benefits from a same-sex friend (Gifts: OSF  $M = 3.85$ ,  $SD = 1.89$ ; SSF  $M = 1.83$ ,  $SD = 1.99$ ;  $t(90) = 5.00$ ,  $p < .0001$ ,  $d = .52$ . Flowers and cards: OSF  $M = 3.02$ ,  $SD = 2.28$ ; SSF  $M = .20$ ,  $SD = .83$ ;  $t(56) = 7.91$ ,  $p < .0001$ ,  $d = .91$ ). Both men and women perceived it as more beneficial to receive a paid night out from their opposite-sex friends than from their same-sex friends (OSF  $M = 3.04$ ,  $SD = 2.23$ ; SSF  $M = 1.57$ ,  $SD = 1.97$ ;  $t(227) = 5.26$ ,  $p < .0001$ ,  $d = .28$ ).

**Protection.** In support of Hypothesis 3, the frequency analysis suggested that women received protection from their opposite-sex friends more often than did men (male  $M = 1.65$ ,  $SD = 1.23$ ; female  $M = 3.06$ ,  $SD =$

$1.45$ ;  $t(113) = -5.49$ ,  $p < .0001$ ,  $d = .53$ ). Four of the five Protection items displayed this effect. Women's opposite-sex friends protected them, walked them to their car at night, and watched over them in any situation more often than did men's opposite-sex friends. Women also reported feeling safe in dangerous situations when with their opposite-sex friend more often than did men. Both sexes, however, rated one item, "He(She) took care of me when another guy(girl) was being too sexually aggressive toward me," as an infrequent event in their opposite-sex friendship (male  $M = .78$ , female  $M = 1.17$ ,  $p = .24$ ).

The benefit-cost analysis supported Hypothesis 3. Women evaluated the potential for receiving protection from an opposite-sex friend as more beneficial than did men (male  $M = 2.67$ ,  $SD = 1.40$ ; female  $M = 4.43$ ,  $SD = 1.30$ ;  $t(112) = -6.88$ ,  $p < .0001$ ,  $d = .65$ ). This effect held for all individual items in the Protection category. The magnitude of the sex difference in perceptions of protection is also apparent from the lists of the 10 most beneficial aspects of opposite-sex friendship (see Table 5), in which protection ranks third for women and tenth for men. In sum, men's and women's perceptions of receiving protection from an opposite-sex friend differ in the predicted direction in all relevant tests. Importantly, men evaluated the potential for having a friend walk them home at night or take care of them if another female was being sexually aggressive as more beneficial when the protection came from an opposite-sex friend than from a same-sex friend (Walk home: OSF  $M = 2.37$ ,  $SD = 2.24$ ; SSF  $M = 1.13$ ,  $SD = 1.86$ ;  $t(87) = 2.89$ ,  $p < .01$ ,  $d = .30$ . Protect from sexual aggressor: OSF  $M = 2.33$ ,  $SD = 2.13$ ; SSF  $M = .59$ ,  $SD = 1.33$ ;  $t(75) = 4.70$ ,  $p < .0001$ ,  $d = .50$ ).

Women also received protection from their *same-sex* friends more often than did men (male  $M = 1.14$ ,  $SD = 1.04$ ; female  $M = 2.08$ ,  $SD = 1.28$ ;  $t(113) = -4.38$ ,  $p < .0001$ ,  $d = .65$ ) and perceived the potential for receiving protection from a *same-sex* friend as more beneficial than did men (male  $M = 2.07$ ,  $SD = 1.40$ ; female  $M =$

3.72,  $SD = 1.51$ ;  $t(113) = -5.91$ ,  $p < .0001$ ,  $d = .57$ ). Hence, regardless of the sex of the friend who offered protection, women perceived protection as more beneficial (male  $M = 2.37$ ,  $SD = 1.43$ ; female  $M = 4.07$ ,  $SD = 1.45$ ;  $F(1, 225) = -81.02$ ,  $p < .0001$ ,  $d = .59$ ). In sum, protection appears to be a benefit women receive from both same-sex and opposite-sex friends.

*Information about the opposite sex.* In support of Hypothesis 4, men and women received advice about opposite-sex mating desires from their opposite-sex friends more often than from their same-sex friends (OSF  $M = 2.85$ ,  $SD = 1.47$ ; SSF  $M = 1.88$ ,  $SD = 1.09$ ;  $t(209) = 5.66$ ,  $p < .0001$ ,  $d = .62$ ). Men and women also reported that receiving information about the opposite sex from an opposite-sex friend was more beneficial than receiving such information from a same-sex friend (OSF  $M = 4.15$ ,  $SD = 1.56$ ; SSF  $M = 3.15$ ,  $SD = 1.61$ ;  $t(227) = 4.78$ ,  $p < .0001$ ,  $d = .32$ ). For both men and women, gaining information about the opposite sex ranked among the top 5 most beneficial aspects of opposite-sex friendship, and among the top 10 most beneficial aspects of same-sex friendship. In sum, the information benefit of friendship appears to be supported across all relevant empirical tests.

*Other findings that support a link between friendship and mating.* Several other results suggested that same-sex and opposite-sex friendships may facilitate men's and women's mating strategies. Men and women reported that their same-sex friends frequently provided them with the benefit of "Networking," people through whom they could be introduced to other members of the opposite sex (see Table 2). Another frequent benefit of same-sex friendships was having a friend with whom to go out and meet members of the opposite sex. This benefit fell in the top five most beneficial aspects of same-sex friendship for both men and women (see Table 4).

Men and women reported that sometimes their opposite-sex friendships had potential for becoming a long-term romantic

relationship (see Table 3). The sexes differed, however, in their pursuit of a long-term romantic relationship in opposite-sex friendship. For men (see Table 5) the potential for a romantic relationship with their friend ranked 6<sup>th</sup> in their list of top benefits, whereas the *lack* of romantic potential did not make the list. For women, the *lack* of potential for a romantic relationship with their opposite-sex friend ranked 7<sup>th</sup> in their list of top benefits, whereas the potential for a romantic relationship did not make the list (Table 5).

Other results suggested that friendships can interfere with men's and women's mating strategies. Both men and women reported that competition to attract members of the opposite sex was a costly aspect of same-sex friendship (see Table 6). They also reported that costs of opposite-sex friendship included feeling jealous of their friend's other opposite-sex friends, feeling confused over the status of their relationship, and having their own love not reciprocated (see Table 7). For women, a decreased ability to meet other men when their opposite-sex friend was around ranked among the top 10 costs of opposite-sex friendship (Table 7). Finally, men and women perceived it as more costly ( $M = 1.70$ ,  $SD = 1.56$ ) than beneficial ( $M = .75$ ,  $SD = .98$ ) to have an opposite-sex friend evoke jealousy in their romantic partner (paired  $t(233) = 9.48$ ,  $p < .0001$ ,  $d = .37$ ), suggesting that opposite-sex friendships may lead to conflict in men's and women's romantic relationships (Table 7).

These findings may help to clarify why men and women tend to have more same-sex friends than opposite-sex friends. Although opposite-sex friendships can offer a number of direct benefits, they carry costs. Opposite-sex friends are less likely than same-sex friends to introduce each other to members of the opposite sex and are less likely to go out together to meet potential mates. Moreover, opposite-sex friends sometimes report feeling unreciprocated attraction, confusion over the status of their relationship, and jealousy toward each other's other opposite-sex friends. Such costs rarely arise in same-sex friendships.



## Discussion

### *Benefits and costs of friendship*

The current studies suggest that same-sex friendships and opposite-sex friendships offer several common benefits. These benefits include having a respected friend, being able to talk openly with a friend, receiving a boost to self-esteem, receiving information about the opposite sex, and having a companion. Same-sex friendships and opposite-sex friendships also entail common costs, such as being treated with cruelty, being obligated to help a friend, feeling low in self-worth due to a friend, having one's time demanded, and being told by a friend that one is not good enough for a certain mate. These aspects of friendship, common to both men and women in same-sex and opposite-sex friendship contexts, replicate and extend findings from previous work on costs and benefits of friendship (e.g., Argyle & Furnham, 1983; Davis & Todd, 1985; Hays, 1988; Rusbult, 1980; see Fehr, 1996, for a review). These results suggest that, in many domains, men and women experience friendship similarly. It is in light of these similarities that the sex and friendship differences stand out.

**Sexual access.** We hypothesized that for men more than for women one function of opposite-sex friendship is to provide sexual access to the opposite sex. Men do perceive the potential for gaining sexual access to their opposite-sex friends as more beneficial than do women—the most critical test of the hypothesis. Other support for Hypothesis 1 comes from our finding that men who reported that their friend was attracted to them and that they were unable to reciprocate the attraction were also more likely to report that they had had sex with their friend. This finding suggests that men may take advantage of opportunities to have sex with a female friend, even if they are not attracted to her.

Men also reported being denied sexual access to their opposite-sex friends more often than did women, although twice as many men as women also reported that

they had had sex with their friend. It is reasonable to infer that men report being denied sexual access to their opposite-sex friends more often simply because they request sexual access to their opposite-sex friends more often.

Despite support for our hypothesized sex difference, sex is clearly not the only motivator for men. For example, men rated companionship, self-disclosure, and gaining information about the opposite sex as higher in benefit than sex.

One finding failed to support Hypothesis 1—women and men in Study 2 did not differ in their perceptions of how costly it would be to be denied sexual access to an opposite-sex friend. Both men and women perceived the potential for rejection as relatively low in cost. Two factors might explain why men overall did not perceive sexual rejection as more costly than did women. First, the costs to men of initiating sexual encounters are low, particularly when compared to the benefits they reap when their initiations are accepted. For women, the *benefits* of engaging in a short-term sexual encounter may be low, particularly when compared to the potential costs—reputational damage, pregnancy without an investing father, or abuse from a jealous mate (Buss, 1994; Buss & Shackelford, 1997). Women might therefore be less likely than men to initiate short-term sexual encounters with an opposite-sex friend.

Second, when selecting a short-term sex partner, men's threshold of acceptance for physical attractiveness lowers substantially (Buss & Schmitt, 1993; Kenrick, Sadalla, Groth, & Trost, 1990). Given that men initiate sexual encounters more often, and have a lower threshold of acceptance for short-term sex partners, women *should* perceive it as costly to be rejected. Not only might they suffer reputational damage and other costs due to their initiation of the sexual encounter, they might also perceive the rejection as a negative appraisal of their desirability as a sex partner.

The results of this investigation suggest that, relative to women, men also perceive the potential for a long-term romantic rela-

tionship with their friend, which may include sexual access, as a benefit. Although both men and women reported that the potential for a romantic relationship sometimes occurs in their opposite-sex friendships, the potential for romance ranked among men's 10 most beneficial aspects of opposite-sex friendships, whereas the *lack* of romantic potential ranked among women's 10 most beneficial aspects of opposite-sex friendships. Although our original hypothesis implied that men might be interested in short-term sex, the data suggest that men may perceive short-term or long-term mateship potential as more beneficial than do women. Future work using the Sociosexuality Orientation Inventory (SOI; Simpson & Gangestad, 1991) might clarify individual differences in perceptions of long-term and short-term mateship benefits of opposite-sex friendship.

Alternative explanations could account for the sex difference in perceived benefit of sexual access in friendship. One explanation might be that men have a heightened desire for sexual access that operates across contexts, and thus leads men to desire sexual access from their opposite-sex friends. For example, it may be that men are socialized to "oversexualize" the world (Abbey, 1991; Monsour, 1997; Werking, 1997a), including their opposite-sex friends (but see Haselton & Buss, 2000). If true, these explanations raise the following questions: Why are men more than women socialized to sexualize their relationships with the opposite sex? Why do men who are not sexually attracted to their female friends report having had sex with them? If men are socialized to perceive members of the opposite sex as potential sex partners (and women socialized to perceive them as potential marriage partners), why do men in the current investigation judge the potential for a *long-term* romantic relationship with their friend as more beneficial than women do? To our knowledge, socialization theories do not offer complete explanations for these questions.

**Resource provisioning.** The current series of studies does not provide support for the

hypothesized resource function of opposite-sex friendship for women. Women did not receive flowers, cards, or gifts from their opposite-sex friends any more often than did men, although they did receive paid outings from their friends more often. Women did not perceive the receipt of resources from their opposite-sex friends as more beneficial; rather, both sexes perceived the receipt of such resources from an opposite-sex friend as very beneficial.

One explanation for the failure of this hypothesis may rest with the similar economic status of our samples—college students with little or no income. In the typical college population, both men and women believe they are in economic need and, thus, both men and women may perceive it as beneficial to receive material resources from others. Alternatively, the provision of material resources might not be a sex-linked benefit of friendship. Future research might test these alternatives by using a sample of young adults with variable incomes.

**Protection.** In support of Hypothesis 3, women in our sample perceived the potential for receiving protection from their opposite-sex friends as more beneficial than did men. They also reported receiving protection from their opposite-sex friends more often. Women, however, viewed protection as highly beneficial regardless of who offered it. It is unclear whether women would perceive protection as a cue to mate potential if provided by an opposite-sex friend, although comparative evidence suggests males who offer protection are more likely to receive sexual access. In baboons, females form long-lasting "special friendships" with males from whom they receive protection and feeding ground. In return, these females offer occasional sexual access (Smuts, 1985). Future studies could investigate the protection function of opposite-sex friendship in humans by determining whether friendships that provide protection are more likely than friendships that do not to develop into short-term or long-term mateships.

Men perceived it as more beneficial to

have a female friend walk them to their car or protect them from a sexually aggressive person than to have a male friend perform such acts. It is possible that men read items such as "He (She) walked me to my car at night" to imply a romantic interest or emotional protection (e.g., companionship) from their friend, rather than physical protection. To avoid confounding emotional and physical protection, as well as romantic interest, future studies should investigate actions that clearly imply physical protection, actions that clearly imply emotional protection, and actions that clearly imply romantic interest.

*Information about the opposite sex.* Men and women both reported receiving information about the opposite sex, such as how to attract the opposite sex, from both same-sex friends and opposite-sex friends, but more so from opposite-sex friends. They also evaluated it as more beneficial to receive information about the opposite sex from an opposite-sex friend than from a same-sex friend. The present studies thus support the hypothesis that a benefit of opposite-sex friendship is to provide information about the opposite sex. Members of the opposite sex are likely to have more abundant, and more accurate, information to offer.

#### *Compatibility with other theories of general relationship functioning*

The predictions tested in these studies were generated *a priori* from an evolutionary psychological perspective. Alternative theories of interpersonal relationships, such as interdependence theory (Rusbult, 1980; Rusbult & Buunk, 1993) and the theory of communal and exchange relationships (Clark & Mills, 1979), are theories of *general* relationship functioning. The current evolutionary perspective acknowledges the importance of exchange in friendship (Cosmides, 1989; Kenrick & Trost, 1997; Trivers, 1971), and thus is compatible with these theories. The general theories, however, tend not to specify what value people assign to particular

commodities of exchange, nor how these commodities might be differentially valued by men and women. An evolutionary perspective on friendship contributes by making specific predictions about the benefits and costs in particular relationship contexts and how these benefits and costs might be differentially valued by men and women.

#### *Methodological concerns and directions for future research*

The current research carries several important limitations. First, the research deals with self-reports of benefits received from friends as well as perceptions of how beneficial various items are judged to be. Although this is a reasonable first step in this largely unexplored domain, future research could use alternative data sources, such as observer reports, to verify the patterns of results discovered here. Second, the current studies used undergraduate participants, who may not be representative of men and women more generally. And third, the current studies explore only a single culture. Future studies could explore other cultures, other age groups, and noncollege samples to determine the generality of the results found in the current studies.

A sample of older, mated individuals, for example, might offer new insights into the psychology of friendship. It is important to determine whether the benefits of opposite-sex friendship found in the current samples, such as sexual access and advice about the opposite sex, apply to people who are involved in a committed romantic relationship. The costs of opposite-sex friendships discovered in the current studies, such as unreciprocated attraction and confusion over relationship status, may be even more costly to mated men and women. If these speculations are correct, they may partially explain the decrease in people's number of opposite-sex friends upon marriage (Adams & Blieszner, 1995; see Werking, 1997b, for a review).

Future studies could also examine whether people's perceptions of their close same-sex and opposite-sex friendships dif-

fer from their perceptions of their casual friendships. We suspect that people perceive their casual friendships as lacking some of the benefits found in close friendships, such as having a mate-seeking partner, a person to confide in, and a person who offers advice about how to attract the opposite sex. Moreover, some potential costs of same-sex friendships, such as competition for mates, may occur more frequently between casual same-sex friends.

### *Is there an evolved opposite-sex friendship psychology?*

Results of the current investigation are consistent with the hypothesis that men and women have an evolved opposite-sex friendship psychology. According to this hypothesis, opposite-sex friendship may be an evolved strategy by which men have gained sex, women have gained protection, and both sexes have gained information about the opposite sex. The hypothesis that something is a proper function of opposite-sex friendship carries a conceptual implication that opposite-sex friendship evolved in part because it contributed to the solution to a particular adaptive problem that was faced recurrently over human evolutionary history.

An alternative explanation is that the benefits derived from opposite-sex friendships are by-products of other evolved psychological mechanisms. Men's greater perceived benefit of sex with opposite-sex friends, for example, may be a by-product of their evolved desire for sexual variety. According to this explanation, men's desire for sex with opposite-sex friends is a novel application of an already existing adaptation—their evolved desire for sexual variety.

In the current investigation, our initial

hypothesis proposed that opposite-sex friendships evolved to solve the adaptive problems men and women have faced over evolutionary history. This hypothesis implies that opposite-sex friendships were a common feature of human ancestral environments. It requires that the benefits of engaging in opposite-sex friendships, on average, exceeded the costs. If these benefits of friendship had net reproductive payoffs over human evolutionary history, then a psychology of opposite-sex friendship could have evolved.

Evidence for evolved design for opposite-sex friendships ideally should include answers to these questions: (1) Do men and women desire friends who can offer the relevant benefit? (2) Do they select friends preferentially using this criterion? (3) Do they feel more invested in friends who provide this benefit? (4) Do they feel dissatisfied with and break off friendships that fail to provide this benefit when the situation calls for it? (5) Do they perceive this as an important benefit derived from friendship? (6) Do the sexes differ in the predicted ways in their perceptions of the importance of this benefit? (7) Do the above design features show cross-cultural universality?

Finally, the current studies provide evidence bearing on only some of these standards, such as perceptions of benefit, frequency of receiving benefit, and sex differences in perceptions of benefit and reported frequencies. Future studies must determine whether sexual access and protection are evolved functions of friendship for men and women, respectively, or whether these perceived benefits are a by-product of men's and women's evolved mating desires. Can men and women be just friends? The answer appears to depend on the sex of the person you ask.

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