
Rewards and Costs in Adolescent Other-sex Friendships: Comparisons to Same-sex Friendships and Romantic Relationships

Laura Shaffer Hand and Wyndol Furman, *University of Denver*

Abstract

This study used a social exchange framework to examine the features of non-romantic other-sex (OS) friendships compared with same-sex (SS) friendships and romantic relationships. High school seniors (N = 141) completed open-ended interviews about the benefits and costs of having OS friendships, SS friendships, and romantic relationships in general. As expected, perspective taking, learning about the other sex, and meeting the other sex were seen as rewards of OS friendships more often than for SS friendships and romantic relationships. Confusion about the nature of the relationship was seen as a cost of OS friendships more often than of SS friendships and romantic relationships. Intimacy, support, and companionship were mentioned less often as rewards of OS friendships than romantic relationships. Adolescents also completed questionnaires about their own specific relationships of each type. Their OS friendships were perceived as less supportive than their other two relationships; OS friendships were also seen as having fewer negative interactions than romantic relationships. Our findings expand the application of social exchange theory and lend empirical support to prior speculations about OS friendships and their importance in adolescents' social worlds.

Keywords: other-sex friendships; same-sex friendships; romantic relationships; social exchange theory

Introduction

Social exchange theory is one of the most commonly used frameworks for studying close relationships. The core idea of social exchange models is that individuals in all relationships are driven by efforts to maximize rewards and minimize costs (Thibaut & Kelley, 1959). A few social exchange theory researchers have identified the different rewards and costs in relationships. For example, companionship, happiness, and feeling loved or providing love are the most important rewards in adult romantic relationships, whereas stress and worry about the relationships, social and non-social sacrifices, and increased dependence are the most important costs (Safilios-Rothschild, 1976). The identification of such rewards and costs can yield valuable information about the nature of these relationships and the functions they serve.

Correspondence should be addressed to Wyndol Furman, University of Denver, 2155 S. Race St., Denver, CO, USA. Email: wfurman@nova.psy.du.edu

Although social exchange theory has proven valuable in research on adult relationships, it has not been used commonly as a framework for studying children's and adolescents' relationships. In fact, theorists have noted that the theory has been developmental in nature (Graziano, 1984). To the best of our knowledge, only Laursen and Jensen-Campbell (1999) have used the framework to examine the rewards and costs of adolescent relationships, and theirs was a conceptual (vs. empirical) analysis of adolescent romantic relationships. In the present article, we examine the costs and benefits of adolescents' other-sex (OS) friendships and compare them to two other types of peer relationships: same-sex (SS) friendships and romantic relationships. Such an examination provides important information about the functions of these relationships, their distinct features, and the similarities to and differences from adult OS friendships.

Other-sex Friendships

In childhood, most friendships are with peers of the same gender (Maccoby, 1990). In adolescence, OS friendships and then romantic relationships begin to become more common and ultimately join SS relationships as key features of adolescents' social networks (Connolly, Craig, Goldberg, & Pepler, 2004). These close OS relationships are thought to foster self-exploration (Erikson, 1950) and lay foundations for adult relationships (Reis, Lin, Bennett, & Nezelek, 1993). Recently, investigators have begun to empirically investigate the role of romantic relationship in adolescence (see Collins, 2003), but as of yet, we know little about the nature of adolescent non-romantic OS friendships.

A few studies have compared OS friendships to SS friendships. On the whole, boys and girls perceive SS friends as more significant than OS friends (Lempers & Clark-Lempers, 1993). Adolescents experience greater self-affirmation in SS friendships than OS friendships (Lempers & Clark-Lempers, 1993), but they engage in more empathic perspective taking in OS friendships (Miller, 1990). They also report less companionship and support with OS friends than SS friends in 10th grade (Kuttler, La Greca, & Prinstein, 1999). By 12th grade, however, levels of support are similar in the two types of friendships (Kuttler et al., 1999).

The results of these few studies should be interpreted with caution because only Kuttler et al. (1999) distinguished between non-romantic OS friendship and romantic OS relationships. When asked to identify OS friends, adolescents often include romantic partners as well as non-romantic friends (Bukowski, Sippola, & Hoza, 1999). Thus most of the studies described above actually investigated OS relationships. As a consequence, we do not know if the findings apply to romantic relationships, OS friendships that are non-romantic in nature, or both (Furman & Shaffer, 1999). One study showed that even early adolescents differentiate between OS friendships and romantic relationships (Connolly, Craig, Goldberg, & Pepler, 1999); specifically, their OS friendships were marked by the single relational benefit of affiliation, whereas their romantic relationships were marked by multiple rewards: affiliation, intimacy, and passion. Little else has been done to identify distinguishing characteristics of the various types of OS relationships and the functions these different relationships serve for adolescent development (Sippola, 1999). Distinguishing between the rewards and costs of OS friendships and romantic relationships is key if we are to better understand the substantial transformations in adolescent peer networks and their implications for identity and relational skill development (Furman & Shaffer, 1999).

All of these studies also involved adolescents' ratings of seeming rewards and costs provided by the researchers rather than rewards and costs generated by the adolescents themselves. Researchers' lists may inadvertently omit important rewards and costs or overemphasize less salient ones. Finally, all but Connolly et al. (1999) examined perceptions of a specific relationship rather than general conceptions of different types of relationships. Specific perceptions and general conceptions may differ, especially as OS relationships are just emerging in adolescence. Specific relationships may not have all the rewards or costs that adolescents think that a relationship of that type could have.

Rewards and Costs

Based on social exchange theory, we hypothesized that individuals would turn to OS friends for rewards that are less readily obtained in other existing relationships. For example, OS friendships provide opportunities to gain a different perspective and to learn about the other sex (Furman & Shaffer, 1999; Sippola, 1999). OS friends can serve as informants about the ways of their gender, thus helping demystify OS interactions and strengthen connections between the gender-segregated worlds of childhood that come together in adolescence. Having an OS friend may increase one's understanding of behaviors and communication styles of members of the other sex. We also hypothesized that OS friendships would be seen as providing unique opportunities to prepare heterosexual adolescents for romantic relationships. Specifically, they afford opportunities to build OS interaction skills (Sippola, 1999) as well as expose adolescents to potential partners (Connolly, Furman, & Konarski, 2000). Adolescents' OS friendships themselves may be tinged with romantic interest and sexual attraction, as such feelings exist in many adult OS friendships (Kaplan & Keys, 1997; Monsour, Harris, Kurzweil, & Beard, 1994). Some sexual activity may also occur, as it does in many college undergraduates' OS friendships (Afifi & Faulkner, 2000; Bleske & Buss, 2000). On the other hand, because OS friendships are still a relatively new type of relationship and likely to entail less interdependency, we hypothesized that intimacy, support, and companionship would not be seen as benefits as often as in SS friendships and perhaps even romantic relationships.

Based on social exchange theory, we also hypothesized that OS friendships would have costs reflecting their distinct nature. Specifically, the adult literature suggests that OS friendships may be laden with the tasks of defining the relationship and convincing others of the non-romantic nature of the relationship (O'Meara, 1989). We also hypothesized that the romantic and sexual feelings characteristic of adolescent OS friendships make the relationship confusing, especially if they are not mutual. One person may hope that the relationship becomes a romantic one, whereas the other may want a platonic friendship. To date, however, these hypotheses remain untested as they primarily stem from anecdotal evidence or findings concerning adult OS friendships.

Gender Differences in OS Friendships

Girls and boys may differ in their experiences of OS friendships and thus, these relationships may have different rewards and costs for the two genders. Gender differences exist in the perceived importance of social exchange elements in college

students' friendships. For example, women viewed long-term romantic potential as a cost and men viewed long-term romantic potential and the potential for sex as more beneficial (Bleske & Buss, 2000). In adolescence, girls rate their close SS and OS friends as more intimate and supportive than boys (Kuttler et al., 1999). Aside from these studies, however, little is known about gender differences in OS friendships. As for SS friendships, adolescent girls consistently rate theirs higher than boys on support, admiration, affection, companionship, intimacy, and satisfaction (Buhrmester & Furman, 1987; Lempers & Clark-Lempers, 1993). Accordingly, we hypothesized that more boys than girls would mention physical attraction and a way to meet the other sex as rewards of OS friendships, whereas more girls would mention intimacy, support, and companionship as rewards of OS friendships.

The Current Study

The purpose of the study was to use a social exchange perspective to compare the rewards and costs of adolescent non-romantic OS friendships with those of SS friendships and romantic relationships. High school seniors were interviewed about what they saw as advantages and disadvantages of having OS friendships, SS friendships, and romantic relationships. They were also asked to rate the relationship qualities of their most important relationship with a peer in each of these categories. We chose to focus on students who were in their last year of high school and approaching the end of adolescence because it is not until then that OS peers begin to hold the same importance as SS peers in adolescents' social networks (Lempers & Clark-Lempers, 1993). Also, youth typically have gained more romantic experience by then and are therefore likely to make clearer distinctions between OS friendships and romantic relationships. Whereas high school seniors are close in age to more commonly studied college student populations, Laursen and Jensen-Campbell (1999) persuasively argue that they are different developmentally. The overall peer domain is different in high school as it is more constrained by school and grade than the broader college peer domain. Most high school students still live at home and are subject to more parental monitoring of friendships and romantic relationships. Finally, high school students have shorter, less interdependent peer relationships than college students and therefore may have different rewards and costs in their relationships.

Hypotheses

- (1) Perspective taking, learning about the OS and meeting the OS will be seen as rewards of OS friendships more often than for SS friendships and romantic relationships. Intimacy, support, and companionship will be mentioned less often as rewards of OS friendships.
- (2) Adolescents will mention confusion about the nature of the relationship as a cost of OS friendships more often than of SS friendships and romantic relationships.
- (3) More boys than girls will mention physical attraction and a way to meet the other sex as rewards of OS friendships, whereas more girls will mention intimacy, support, and companionship as rewards of OS friendships.
- (4) Participants will report less support and fewer negative interactions in their own most important OS friendships than in their most important SS friendships and romantic relationships.

Methods

Participants

The participants were 141 12th grade high school students who were part of a larger project on adolescent relationships (M age = 17 years, 11 months, SD = 5.89 months). The present sample was 57 percent girls and was ethnically diverse (63 percent, White; 15 percent, African American; 1 percent, Latino; 3 percent, Asian American; and 2 percent, other). Almost all adolescents in this study reported having at least one current non-romantic OS friend (94 percent), although a few did not (6 percent). Half of the participants were in an exclusive romantic relationship at the time of the study (ranging in length from 1 to 48 months, M = 14.5 months, SD = 10.24 months); 19 percent were casually dating, and 31 percent were not dating or rarely dating. Similarly, 52 percent of the girls and 61 percent of the boys were sexually active, which approximates the 61.9 percent and 60.5 percent in the youth risk behavior survey (<http://apps.nccd.cdc.gov/yrbss/index.asp>). Ninety-eight percent of the adolescents identified themselves as heterosexual.

Procedure

The participants were recruited from a suburban and an urban school district in a large metropolitan area via letters sent to family homes and advertisements placed in school newspapers. Interested adolescents completed two packages of questionnaires at home and participated in a series of sessions at the university laboratory that included audiotaped interviews about friendships and romantic relationships used for the current project. Interviews and the distribution of questionnaire packets were spaced at least one week apart to reduce carryover effects. Participants were paid a total of \$60–\$80 depending on the number of sessions completed in the larger study, with some adolescents participating in observation sessions that were not used for the current project in addition to the interviews.

Measures

Interviews. One interview asked what adolescents liked or saw as advantages of OS and SS friendships and what they disliked or saw as disadvantages of each of them. Another interview asked the same set of questions about romantic relationships. All participants completed these interviews regardless of their current relationship status as the questions referred to these types of relationships in general rather than specific friends or partners. The questions were open-ended and allowed for multiple responses. The order of the two interviews was counterbalanced across participants, as was the order of questions about SS and OS friendships in the friend interview.

Responses were coded into 17 categories of rewards (see Table 1) and 13 categories of costs (see Table 2). These were derived by adapting Feiring's (1996) system to include categories suggested by the adult literature to be relevant to OS friendships. The first author and two undergraduate coders classified responses. Interrater agreement was assessed for 33 percent of the transcripts selected at random. As shown in Tables 1 and 2, all the categories had good levels of interrater agreements (κ = .60–1.00) except the two 'other' categories (Cicchetti & Sparrow, 1981). Given the low agreement, low frequency (4 percent of responses), and lack of substantive meaning of the 'other' categories, they were omitted from subsequent analyses.

Table 1. Categories Used to Code Benefits Described in Peer Relationship Interviews

Benefit	Example	Kappa
Learn about other sex	'Help understand about opposite sex.'	.78
Perspective taking	'See their point of view, as opposed to the one you are intimate with.'	.82
Meet other sex	'Can meet girls.'	1.00
Intimacy	'Being able to share emotions and more feelings with them.'	.60
Support	'You always have someone to turn to if you need help.'	.79
Companionship	'Can hang out and be cool.'	.72
Positive personality	'They're more fun to be around, more free-spirited.'	.86
Physical attraction	'Someone cute to look at.'	.86
Compatibility	'They're more interested in athletics, so it matches my interests more.'	.69
Physical intimacy	'Lay down and hold.'	.93
Personal fulfillment	'Self-esteem booster.'	.84
Love/romance	'Someone to love, and someone to love you.'	.91
Different relationship	'Different kind of love and caring from him than from anyone else.'	.80
Social status	'The recognition others give me for having opposite sex friends.'	.91
Trust	'There's a little more trust.'	.94
Other	'Disagreements not as serious, because not so deep.'	.52
Nothing	'I can't think of any.'	1.00

Network of Relationships Inventory (NRI; Furman & Buhrmester, 1985). A 24-item version of the NRI was used to assess characteristics of specific close relationships, including participants' most important OS friendship, SS friendship, and romantic relationship in the last year. Six three-item scales assessed different facets of support: reliable alliance, enhancement of worth, instrumental help, companionship, affection, and intimacy. Two three-item scales assessed facets of negative interactions: conflict and annoyance. Prior research has found that the six support scales for each relationship load on one factor and the two negative interaction scales for each relationship load on a second factor (Furman, 1996). Cronbach alphas for the two factors for the three relationship types ranged from .88 to .97.

Results

Differences in Rewards and Costs of the Three Relationship Types

Tables 3 and 4 show the percentages of participants who gave responses in each category of rewards and costs of having OS friendships, SS friendships, and romantic

Table 2. Categories Used to Code Costs Described in Peer Relationship Interviews

Cost	Example	Kappa
Confusion	'They might like you, and that could ruin the whole friendship.'	.85
Others misunderstand	'If you have a (other-sex) friend, people misjudge the friendship.'	.84
Lack of intimacy	'Not as emotional connection.'	.75
Lack compatibility	'Different experiences.'	.69
Jealousy	'There can be competition and jealousy.'	.91
Lack perspective	'A lot of questions about guys they can't answer.'	.92
Limits autonomy	'Not as much time for self.'	.80
Risk	'Possibility of hurting person or them hurting me.'	.77
Negative personality	'Narrow-mindedness.'	.86
Lack of trust	'Less willing to trust people.'	.97
Negative interactions	'You get in petty arguments or fights.'	.77
Other	'Don't like scary movies.'	.53
Nothing	'I can't think of any.'	1.00

relationships. We assessed differences in frequency of category endorsement across the three relationship types using Cochran's Q tests. Cochran's Q test is designed to assess differences in proportions on dichotomous variables obtained from dependent samples (Siegel, 1956). When there was a significant difference among the three relationships, follow-up analyses were conducted comparing the pairs of relationship types. Fishers' etas squared were calculated as estimates of effect size (Serlin, Carr, & Marascuilo, 1982). The sections that follow focus on comparisons between OS friendships and other relationships, but comparisons between SS friendships and romantic relationships are also presented in Tables 3 and 4.

Adolescents' Descriptions of Rewards in Different Relationships

Significant differences among the three relationships were found on 13 of the reward categories (all Q s > 18, $ps < .001$, see Table 3). Consistent with our first hypothesis, follow-up comparisons revealed that adolescents were more likely to cite the reward of learning about the OS from OS friendships than from SS friendships or romantic relationships ($Q(1, N = 141) = 38.82, p < .001, \eta^2 = .28$ and $Q(1, N = 141) = 49.28, p < .001, \eta^2 = .35$, respectively). Similarly, they mentioned perspective taking as a reward of OS friendships more often than SS friendships or romantic relationships ($Q(1, N = 141) = 43.10, p < .001, \eta^2 = .31$ and $Q(1, N = 141) = 45.30, p < .001, \eta^2 = .32$, respectively). Adolescents were also likely to mention that the peer provided a connection to meet the other sex as a reward of OS friendships more so than of SS friendships or romantic relationships ($Q(1, N = 141) = 12.00, p < .01, \eta^2 = .09$ and $Q(1, N = 141) = 13.00, p < .01, \eta^2 = .09$, respectively).

Table 3. Rewards of Having OS Friendships, SS Friendships, and Romantic Relationships

Reward	OS friendships	SS friendships	Romantic relationships	<i>Q</i>
Learn about other sex	47 _a	11 _b	9 _b	71.24*
Perspective taking	39 _a	4 _b	4 _b	78.43*
Meet other sex	9 _a	1 _b	0 _b	24.15*
Intimacy	27 _a	67 _b	57 _c	47.19*
Support	12 _a	17 _a	58 _b	80.40*
Companionship	18 _a	21 _a	59 _b	64.53*
Positive personality	29 _a	8 _b	2 _c	48.16*
Physical attraction	9 _a	0 _b	1 _b	19.60*
Compatibility	18 _a	56 _b	5 _c	87.94*
Physical intimacy	0 _a	0 _a	25 _b	70.00*
Personal fulfillment	1 _a	1 _a	10 _b	18.47*
Love/romance	0 _a	0 _a	9 _b	26.00*
Different relationship	1 _a	0 _a	9 _b	20.46*
Social status	4	1	6	5.29
Trust	5	4	8	2.80
Nothing	2	2	2	.00

* $p < .001$.

Note: Scores are percentages reporting the feature. Those with differing letter subscripts within rows are significantly different at the $p < .05$ level.

OS = other sex; SS = same sex.

As predicted, adolescents were less likely to name intimacy as a reward of OS friendships than SS friendships and romantic relationships ($Q(1, N = 141) = 35.70, p < .001, \eta^2 = .25$ and $Q(1, N = 141) = 23.21, p < .001, \eta^2 = .16$, respectively). They also were less likely to report support and companionship as rewards in OS friendship than in romantic relationships ($Q(1, N = 141) = 53.48, p < .001, \eta^2 = .38$ and $Q(1, N = 141) = 42.05, p < .001, \eta^2 = .30$, respectively). Contrary to expectation, support and companionship were not more commonly mentioned for SS friendships than for OSF friendships.

In addition to the hypothesized ones, differences were found on a number of other dimensions. Positive personality traits was mentioned more often for OS friendships than for SS friendships or romantic relationships ($Q(1, N = 141) = 19.57, p < .001, \eta^2 = .14$ and $Q(1, N = 141) = 34.38, p < .001, \eta^2 = .24$, respectively). Physical attraction was seen as a reward of OS friendships more often than for romantic relationships as well as SS friendships ($Q(1, N = 141) = 8.07, p < .01, \eta^2 = .06$ and $Q(1, N = 141) = 13.00, p < .001, \eta^2 = .09$, respectively). On the other hand, compatibility or common interests were mentioned more often for SS friendships than for OS friendships ($Q(1, N = 141) = 37.45, p < .001, \eta^2 = .27$). In addition, physical intimacy, personal fulfillment and love or romance were mentioned relatively often as rewards of having romantic relationships but rarely for OS friendships ($Q(1, N = 141) = 35.00, p < .001, \eta^2 = .06$; $Q(1, N = 141) = 9.00, p < .01, \eta^2 = .25$ and $Q(1,$

Table 4. Costs of Having OS Friendships, SS Friendships, and Romantic Relationships

Cost	OS friendships	SS friendships	Romantic relationships	<i>Q</i>
Confusion	31 _a	1 _b	2 _b	80.32**
Others misunderstand	12 _a	5 _b	0 _c	20.86**
Lack of intimacy	11 _a	5 _{a,b}	2 _b	9.33*
Lack compatibility	11 _a	3 _b	2 _b	14.27*
Jealousy	12 _a	32 _b	8 _a	34.86*
Lack perspective	0 _a	18 _b	0 _a	52.00**
Limits autonomy	1 _a	0 _a	76 _b	212.02**
Risk	0 _a	0 _a	9 _b	26.00**
Negative personality	18 _a	27 _a	6 _b	21.97**
Lack of trust	5	9	4	3.90
Negative interactions	16	21	20	1.70
Nothing	14 _a	23 _b	7 _c	15.88**

* $p < .01$; ** $p < .001$.

Note: Total percentages with differing letter subscripts within rows are significantly different at the $p < .01$ level.

OS = other sex; SS = same sex.

$N = 141$) = 13.00, $p < .001$, $\eta^2 = .09$, respectively). Adolescents cited the distinct nature of the relationship as a reward of romantic relationships more often than as a reward of OS friendships ($Q(1, N = 141) = 9.31$, $p < .01$, $\eta^2 = .07$).

Adolescents' Descriptions of Costs in Different Relationships

Significant differences among the three relationships occurred in 10 categories (all $Qs > 9$, $ps < .01$, see Table 4). As hypothesis two predicted, confusion about the nature of the relationship was expressed more often as a cost of having OS friendships than of having SS friendships or romantic relationships ($Q(1, N = 141) = 43.00$, $p < .001$, $\eta^2 = .30$ and $Q(1, N = 141) = 41.00$, $p < .001$, $\eta^2 = .30$, respectively). Similarly, others' misunderstanding of the nature of the relationship was also named as a cost of OS friendships more often than of SS friendships or romantic relationships ($Q(1, N = 141) = 5.56$, $p < .05$, $\eta^2 = .04$ and $Q(1, N = 141) = 17.00$, $p < .001$, $\eta^2 = .12$ respectively). Consistent with hypothesis one, lack of intimacy was seen as a cost of OS friendships more often than of romantic relationships ($Q(1, N = 141) = 9.00$, $p < .01$, $\eta^2 = .06$).

Differences were also found on other costs. Adolescents were more likely to cite a lack of compatibility as a drawback to having OS friendships than they were to having SS friendships or romantic relationships ($Q(1, N = 141) = 8.00$, $p < .01$, $\eta^2 = .06$ and $Q(1, N = 141) = 8.90$, $p < .01$, $\eta^2 = .06$). On the other hand, adolescents more commonly mentioned jealousy as a cost of SS friendships than of OS friendships ($Q(1, N = 141) = 20.51$, $p < .001$, $\eta^2 = .15$). They were also more likely to say that the absence of a different perspective was a cost of SS friendships than of OS friendships

($Q(1, N = 141) = 26.00, p < .001, \eta^2 = .18$). The majority of adolescents reported that having romantic relationships limits autonomy in some way or another, whereas this cost was never mentioned for OS friendships ($Q(1, N = 141) = 106.00, p < .001, \eta^2 = .75$). Some adolescents mentioned risk or vulnerability as a cost of romantic relationships, but none of them mentioned this in reference to OS friendships ($Q(1, N = 141) = 13.00, p < .001, \eta^2 = .09$). Negative personality traits were seen as a cost of romantic relationships more often than of OS friendships ($Q(1, N = 141) = 9.32, p < .01, \eta^2 = .07$). Finally, the response of nothing in regard to costs was more common for OS friendships than for romantic relationships, but was less common than for SS friendships ($Q(1, N = 141) = 4.17, p < .05, \eta^2 = .03$ and $Q(1, N = 141) = 4.50, p < .05, \eta^2 = .03$, respectively).

Gender Differences

Gender differences for each cost and reward within relationship type were examined using Chi Square analyses; this were calculated as estimates of effect size. Table 5 shows the percentages of boys and girls who cited rewards and costs for which there were gender differences in at least one relationship type. This section of the article focuses on gender differences in OS friendships, but gender differences for SS friendships and romantic relationships are also presented in Table 5.

As predicted, boys were more likely than girls to mention a way to meet members of the other sex and physical attraction as rewards of having OS friendships ($X^2(1, N = 141) = 3.93, p < .05, \phi = -.17$, and $X^2(1, N = 141) = 6.61, p < .05, \phi = -.22$,

Table 5. Gender Differences in Reported Rewards and Costs of Having OS Friendships, SS Friendships, and Romantic Relationships

	OS friendships		SS friendships		Romantic relationships	
	Boys percent	Girls percent	Boys percent	Girls percent	Boys percent	Girls percent
<i>Rewards</i>						
Perspective taking	46	34	2	5	10 _a	0 _b
Meet other sex	15 _a	5 _b	2	0	0	0
Intimacy	30	25	54 _a	78 _b	64	51
Compatibility	7 _a	28 _b	64	50	3	6
Positive personality	16 _a	39 _b	7	9	2	3
Physical attraction	16 _a	4 _b	0	0	0	3
<i>Costs</i>						
Negative interact	23 _a	10 _b	21	21	16	23
Lack of intimacy	5	15	12 _a	0 _b	2	3
Jealousy	13	10	21 _a	40 _b	8	8

Note: Percentages with differing letter subscripts within rows and relationship types are significantly different at the $p < .05$ level.

OS = other sex; SS = same sex.

respectively). Girls were more likely than boys to list compatibility, and positive personality traits as rewards of having these relationships ($X^2(1, N = 141) = 10.09, p < .05, \phi = .27$, and $X^2(1, N = 141) = 8.39, p < .01, \phi = .24$, respectively). Contrary to expectations, no differences were found for intimacy. Boys were more likely to report that negative interactions were a cost of OS friendships $X^2(1, N = 141) = 4.41, p < .05, \phi = -.18$. Otherwise, there were no gender differences for costs of OS friendships.

Comparisons of Adolescents' Specific Relationship Perceptions

Next, we examined adolescents' perceptions on the NRI regarding rewards and costs of their most important OS friendships, SS friendships, and romantic relationships. We assessed mean differences using repeated measures ANOVAs with relationship type as a within-subjects variable and gender as a between-subjects variable. Analyses were restricted to those participants who had all three types of relationships ($N = 115$). In almost all instances, those participants who did not have all three types of relationships had not had a romantic relationship in the past year. We conducted a series of supplementary analyses comparing the SS and OS friendships of all participants, including those without recent romantic relationships ($N = 23$). The results were similar to those obtained in the analyses of participants who had all three relationships. We also conducted supplementary analyses to compare ratings by participants responding about current romantic relationships ($N = 69$) with those responding about past romantic relationships within the last year ($N = 46$). There were no significant differences, so those with current relationships were combined with those reporting about a past recent relationship.

A significant effect of relationship type was found for support ($M_{RR} = 3.95, M_{SSF} = 3.60, M_{OSF} = 2.99, F(2, 115) = 34.01, p < .01, \eta^2 = .23$). Simple contrasts revealed that romantic relationships were more supportive than SS friendships ($F(1, 115) = 7.34, p < .01, \eta^2 = .06$) which in turn were more supportive than OS friendships ($F(1, 115) = 38.58, p < .001, \eta^2 = .25$). Similarly, a significant effect of relationship type was found for negative interactions ($M_{RR} = 1.92, M_{SSF} = 1.62, M_{OSF} = 1.53, F(2, 115) = 11.29, p < .01, \eta^2 = .09$). Romantic relationships had more negative interactions than either SS friendships ($F(1, 115) = 12.12, p < .01, \eta^2 = .10$) or OS friendships ($F(1, 115) = 17.20, p < .001, \eta^2 = .13$), which did not differ. There were no main effects or interactions involving gender for either support or negative interactions.

Discussion

The current study used a social exchange theory perspective to understand the features and functions of adolescent OS friendships compared with SS friendships and romantic relationships. Social exchange theorists have focused on adult romantic relationships with no empirical applications to adolescent peer relationships. Adolescent peer relationship researchers have focused largely on features and functions of SS friendships and romantic relationships with relatively little examination of non-romantic OS friendships. We sought to bridge these gaps in the literature with the present study.

Social exchange theorists have emphasized the importance of identifying the specific rewards and costs of relationships (Graziano, 1984), but relatively few studies have delineated what the particular exchange elements are in different relationships. The present study contributed by demonstrating that adolescent OS friendships do indeed have rewards and costs that are distinct from other peer relationships. In fact,

OS friendships were found to differ from at least one of the two other relationships on 13 of the 16 categories of rewards and 10 of the 13 categories of costs. These differences may be instances of particularism in which the value attached to a reward is dependent on the particular person who provides the reward (Foa & Foa, 1974). Alternatively, they may reflect how salient and common the rewards and costs are in different relationships. In either case, these findings underscore the importance of examining the elements of social exchange in different relationships and considering OS friendships as a distinct relationship type, approaches seldom taken in either social exchange or peer relationship research to date (Furman & Shaffer, 1999; Sippola, 1999).

Adolescents' Descriptions of Rewards of OS Friendships

As hypothesized, adolescents mentioned perspective taking and learning about the other sex as rewards of OS friendships more often than for either SS friendships or romantic relationships. These findings lend empirical support to prior speculations about OS friendships and underscore their importance in the developmental processes of self-exploration and skill building. Many adolescents value OS friendships because they can learn from them and can benefit from the insights that come from an insider's vantage. By using their OS friendships to learn about the other sex and to access different perspectives, adolescents may gain new insights into the behaviors of their OS peers as well as into their own thoughts and actions, which may enhance their interpersonal skills with the other sex. Interestingly, adolescents were much more likely to cite learning about the other sex and perspective taking as rewards of OS friendships than of romantic relationships. Adolescents may feel they should act as if they already know how to interact with OS peers in romantic relationships.

The skills and insights from interactions in OS friendships may help heterosexual youth prepare for romantic relationships (Connolly et al., 2000; Sippola, 1999). These insights are likely precursors to rewards endorsed in emerging adulthood when college students report that OS friends provide information about how to attract mates (Bleske & Buss, 2000). Consistent with this idea and as expected, adolescents mentioned meeting members of the other sex as a benefit of these relationships more often than of other relationships. It should be noted, however, that only a small subset of the sample mentioned these two as rewards of having OS friendships. Most adolescents see these relationships as something more than a conduit to romantic relationships.

In fact, the findings provide relatively little support for the idea that OS friendships are simply unrealized romantic relationships. If this were the case, we would have expected the two relationship types to have more similar patterns of rewards and costs. Instead, romantic relationships were more often characterized by rewards of intimacy, support, companionship, love, and physical intimacy. This pattern is consistent with the behavioral systems conceptualization that romantic relationships involve the integration of the attachment, affiliation, sexual, and caretaking systems (Furman & Wehner, 1994). The diversity of rewards of romantic relationships is in contrast to OS friendships, which seem to serve more affiliative purposes. The findings are also consistent with our hypothesis that OS friendships entail less interdependency and thus have fewer rewards associated with them.

One interesting exception to this pattern in the current findings was the more frequent reference to physical attraction as a reward of OS friendships than of romantic

relationships. Adolescents may take this reward for granted in romantic relationships and thus have been less likely to state it in our interviews.

The seemingly low interdependency in OS friendships may account for the unexpected finding that positive personality characteristics were more commonly seen as a reward of OS friendships than the other relationships. Individuals may be more likely to refer to the characteristics of the other person than the relationship itself when the degree of interdependency is low.

We also predicted that intimacy, support, and companionship would be mentioned less often as rewards of OS friendships than of SS friendships. Intimacy was mentioned much less often, but differences were not found for the other two characteristics. The absence of differences, however, was not because they were seen as common rewards of OS friendships but instead because less than a quarter of the sample mentioned them as rewards for SS friendships. By the end of high school participants seem more likely to emphasize these rewards in romantic relationships than in their friendships.

Adolescents' Descriptions of Costs of OS Friendships

Many of the costs of OS friendships were the complements of the rewards. For example, just as intimacy was less commonly mentioned as a reward of OS friendships than the other relationships, a lack of intimacy was seen as a cost of OS friendships more often than romantic relationships. Additionally, and consistent with expectations, adolescents reported that confusion about the nature of the relationship was a cost of OS friendships more often than they did for SS friendships and romantic relationships. Exploration and relationship building can be a confusing process. As has been proposed for adult OS friendships (O'Meara, 1989), adolescent OS friends are indeed faced with the difficult task of defining their relationship and find this costly when there is uncertainty or imbalance in the relationship (Reeder, 2000). Relatively few adolescents mentioned another major cost proposed by adult scholars—others misunderstanding the nature of the relationship (O'Meara, 1989). In adolescence, romantic relationships are deeply embedded in the peer culture (Brown, 1999); adolescents' interests (or lack thereof) may be communicated readily to their peers and thus may be relatively clear. Hence, defining the nature of OS friendships within the relationships themselves may be a more salient task for adolescents than convincing others of the non-romantic nature of the relationships.

Nearly three times as many adolescents cited jealousy as a cost of SS friendships than of OS friendships. The jealousy participants described was different from the jealousy surrounding time spent with other peers noted in children and early adolescents (Parker, Low, Walker, & Gamm, 2005; Selman & Schultz, 1990). Adolescents in our study named such costs as competing with their SS friends for romantic partners and trying to outdo each other in appearance or material possessions. SS friends compete in the establishment of their broader social identities, whereas OS friends struggle to define their identities within the relationship.

Gender Differences

Gender differences in the current findings suggest that OS friendships serve somewhat different functions for boys and girls in adolescence than they do in emerging adulthood (see Bleske & Buss, 2000). Girls may enjoy the different personas and styles of affiliation offered by their male peers. Such relationships may provide girls with

opportunities to express their own interests and the characteristics that Western culture defines as more stereotypically male. Thus, OS friendships may serve stronger self-development functions for girls. Boys, on the other hand, were more likely to endorse rewards of OS friendships that are related to dating, suggesting that OS friendships may play a greater role in romantic relationship development for boys. Contrary to common speculation, boys were only half as likely to mention intimacy as a reward for OS friendships as for SS friendships. These findings were surprising given common speculation that boys might be more likely to seek intimacy in their friendships with girls given consistent findings that boys' SS friendships are marked by lower intimacy than those of girls (Buhrmester & Furman, 1987; Furman & Buhrmester, 1985; Lempers & Clark-Lempers, 1993).

Finally, past research on social exchange elements in close relationships has found numerous gender differences, but most studies have examined only one relationship at a time. In the present study, we did not find any gender differences that characterized all three types of relationships. A disproportionate number of gender differences found were specific to the rewards of having OS friendships, suggesting that these relationships may be more likely than other peer relationships to serve different purposes for girls and boys. The absence of consistent gender differences across relationships underscores the importance of examining the particular relational contexts in which gender differences do and do not occur. An important issue for subsequent work will be to better understand why gender differences emerge in some relationships and not others.

Comparisons of Adolescents' Specific Relationship Perceptions

In addition to obtaining adolescents' open-ended descriptions of rewards and costs of different types of peer relationships, we collected their ratings of specific characteristics in their actual relationships of all three types. Doing so enabled us to understand the general peer context of social exchange in OS friendships more completely than previous work comparing these relationships to either SS friendships or romantic relationships but not both. Our findings are consistent with earlier findings suggesting that OS friendships generally are less supportive and perhaps less interdependent than other peer relationships (Connolly et al., 1999; Lempers & Clark-Lempers, 1993). Whereas affiliative features were salient and moderately present in OS friendships, adolescents' close SS friendships and romantic relationships serve these functions to a greater extent. OS friendships and SS friendships were similar with regards to negative characteristics and had less negativity than romantic relationships. Despite the confusion noted by adolescents in OS friendships, these are not particularly conflict or annoyance-ridden relationships, especially in contrast with romantic relationships.

Companionship and support were as likely to be mentioned as benefits of OS friendships as SS friendships, but ratings of support in adolescents' own particular OS friendships were lower than ratings for SS friendships. Such findings suggest that adolescents recognize that OS friendships could be as supportive as SS friendships, but they have not necessarily developed such close, interdependent relationships.

Implications, Limitations, and Future Directions

The current study contributes to the literature by being one of the first studies to apply social exchange theory to the empirical study of adolescent peer relationships. Social

exchange researchers have focused their work on adult relationships and adolescent relationship researchers have only recently begun to consider using social exchange models in their work. The current study shows that this can be done effectively and opens the door for further applications. The comparison of three relationships is also noteworthy, especially given the limited research on OS friendships.

The use of two methodologies in this study allowed for the examination of adolescents' perceptions of their relationships in both abstract and concrete ways. The open-ended relationship interviews identified salient social exchange elements of the different types of relationships more generally, whereas the relationship-specific questionnaires assessed perceptions of costs and rewards of relationships with specific important OS friends, SS friends, and romantic partners. Such parallel comparisons are rare in both literatures.

The findings suggest that adolescents recognize the potential support and companionship that could be provided in OS friendships, even when their own OS friendship was not as supportive. At the same time, the findings also indicate that the standard relationship quality measures may not capture the relationship benefits most salient in adolescent OS friendships. For example, it would be interesting to see how much adolescents report learning from their own relationships with different peers or how confused they feel in each type of relationship. These have been suggested to be rewards and costs of OS friendships, but they had not been empirically examined until this study where they were identified by allowing adolescents to generate their own descriptions of rewards and costs of relationships. Future social exchange theory and adolescent peer relationship research might utilize categories generated from adolescents' responses to create measures assessing the extent and relative importance of each reward and cost. Such measures could then make it possible to examine the different profiles of rewards and costs for different relationship types.

The present study was also one of the first empirical examinations of social exchange processes among high school rather than college students. Because more people attend high school than go on to attend college, the use of this sample enabled us to survey a broader range of individuals' experiences and avoid some of the selection bias inherent in college samples. Even the high school participants who go on to attend college are more diverse than typical college samples because they go on to attend a range of colleges rather than a single institution. In addition to these sampling advantages, high school participants are in a different developmental context as discussed previously.

Such developmental factors might also contribute to social exchange perceptions, but the cross-sectional design of this study precluded exploration of possible developmental changes in perceived rewards and costs. Longitudinal work could help identify the similarities and differences in the social exchange functions served by OS friendships at different points in adolescence and early adulthood and would enable the exploration of how these friendships resemble and differ from other peer relationships across adolescence and early adulthood.

A number of other issues need further examination, as well. The present study is a fairly small, cross-sectional sampling of mostly heterosexual 12th grade adolescents residing in a USA metropolitan area. The limited sample size hindered generalizability and hindered the examination of ethnic differences despite the diversity of the sample. Just as our findings and those of others have yielded some gender differences in social exchange elements, there may well be ethnic differences influencing adolescents' perceptions of relationship costs and rewards. Similarly, regional and cross-cultural

factors such as taboos against premarital sex or limitations on dating might impact what youth see as rewards and costs of different peer relationships, especially OS friendships and romantic relationships. We know of no studies examining ethnic, regional or cultural differences in perceptions of relationship rewards and costs and propose that this could be fertile area for future research.

Almost all participants in this study were heterosexual. Peer relationships might have different salient costs and rewards for sexual minority youth. For instance, OS friendships may serve as arenas for lesbian, gay, and bisexual youth to realize their sexual orientation or to mask it from a larger audience (Diamond, 2000). Thus, an examination of social exchange elements in relationships of sexual minorities is likely to yield a somewhat different picture than that which emerged in this article.

This study compares OS friendships to other types of peer relationships, but it does not examine how they impact and are impacted by SS friendships and romantic relationships. Close relationships do not occur in a vacuum and it is likely that the rewards and costs of each relationship impact those of others. Future work will need to examine how the features and functions of OS friendships explored here are actually linked to other types of peer relationships. Past work has shown associations between the number of OS friendships and the likelihood of romantic relationships (Connolly et al., 2000). A natural extension of this work and the current study would be further examination of how the rewards and costs experienced in OS friendships predict the likelihood and quality of adolescents' romantic relationships.

Conclusion

The present study is the first of which we are aware to apply social exchange theory to an empirical investigation of adolescent peer relationships. The findings shed light on the nature and functions of adolescents' relatively unexamined OS friendships as compared with SS friendships and romantic relationships. Adolescent OS friendships present a paradox in that they provide both insight and confusion about OS interactions. These rewards and costs distinguish OS friendships from SS friendships and romantic relationships and support the proposal that OS friendships have something unique to offer in the world of peer adolescent relationships; they are an entity of their own.

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