Developmental Differences in Adolescents' and Young Adults' Use of Mothers, Fathers, Best Friends, and Romantic Partners to Fulfill Attachment Needs

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Adolescents and young adults (three age groups: 12–15, 16–19, and 20–28 years) reported their use of parents, and peers to fulfill attachment functions (proximity-seeking, safe haven, and secure base.) The use of each target figure varied with age and attachment function. Mothers were an important source of security across this age range. They were used as secure base consistently more than fathers or peers for all age groups, and regardless of whether or not participants had romantic partners; but were used less for proximity and safe haven by the two older groups. Best friends were used most and more than others as a safe haven; but were used less by young adults (vs. early adolescents) and by older adolescents with romantic partners. Romantic partners were used most and more than others for proximity; but were used less by early adolescents than by older participants. Fathers were selected less than other targets for all attachment functions. Those with romantic partners turned to them more than to others, and young adults selected their romantic partners as much as friends for safe haven. Those insecurely attached to mother turned to her less and to romantic partners more than did those securely attached. Implications for developmental changes in adolescent attachments are discussed.

KEY WORDS: attachment needs; attachment security; mothers; fathers; best friends; romantic partners; development; cross-sectional.

INTRODUCTION

Attachment theory (Bowlby, 1979, 1988) is a useful framework for understanding close relationships across the lifespan. However, only recently have researchers (Fraley and Davis, 1997; Hazan and Zeifman, 1994;

Trinke and Bartholomew, 1997) begun to examine the functions of attachment in adolescents and adults, and no research has examined this systematically across the adolescent and emerging adult age range. Allen and Land (1999) argue that adolescence is an important transitional period for the development of attachment relations. They suggest that "... moodiness, changing relationships, tension, and growing emotional and behavioral independence from parents... may all conspire to create a chronic state of activation of the attachment system" (p. 324). One goal of the present study was to explore the normative developmental pattern of attachment functions in close interpersonal relationships in a large sample of adolescents and young adults.

Attachment theory postulates that human beings are born with an attachment behavioral system necessary for survival in which the goal is to maintain a feeling of security (Feeney and Collins, 2001). When the system is activated, usually when one is distressed, one seeks protection and comfort from the primary caregiver (Bowlby,

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1980). Attachment needs are generally defined in terms of three components: proximity-seeking, where the individual seeks to be physically close to the attachment figure, resists separation and is distressed when separated; secure base, which involves using the attachment figure as a base from which to venture out and explore the environment; and safe haven, which involves a threatened or frightened person seeking the attachment figure for comfort, support, and reassurance (Ainsworth, et al., 1978). The present study examined age differences in use of parents (mothers and fathers) and peers (close friends and romantic partners) to fulfill each of these three components of attachment from early adolescence to young adulthood.

Several authors (e.g., Erikson, 1950; Furman and Buhrmester, 1992; Furman and Wehner, 1994; Sullivan, 1953) have stressed the importance of different key figures in satisfying emerging social needs during different stages of development. How these roles and functions change has implications for adolescents' evolving experience and expression of attachment needs. While parents are key figures during infancy and pre-school, providing security and companionship, peers emerge during the school years and replace parents as major sources of companionship and acceptance. Close friendships provide opportunities from preadolescence onward for extensive self-disclosure and validation of one's perspectives and value. From preadolescence through adolescence and adulthood, intimacy and then sexual needs, and hence romantic partners, become increasingly important.

Adolescents struggle to become more autonomous from parents, and tend to turn more to peers for support and guidance. In particular, adolescents' concerns about social acceptance and sexuality are more likely to be discussed with peers than with parents. Consistent with this, Furman and Buhrmester (1992) found that parents were perceived to be sources of support less in early and middle adolescence compared with in elementary school. Same-sex friends were seen as sources of support more during adolescence than preadolescence, with respect to intimacy and affection, but not for other provisions (i.e., reliable alliance, companionship, nurturance, enhancement of worth, or instrumental help). Adolescents' improved abilities in logical/abstract reasoning and differentiation of self and others promote their recognition that different figures may meet some aspects of attachment needs better than others (Allen and Land, 1999). Thus, adolescents might continue to view parents as consistent sources of security, while coming to view friends and romantic partners as better able to meet other aspects of their attachment needs (i.e., safe haven: reassurance and guidance with respect to problematic peer relationships).

Furman and Wehner (1994) stress that romantic partners are likely to fulfill primarily sexual and affiliative needs until mid to late adolescence. However, they suggest that both same- and opposite-sex friends, and then romantic partners begin to emerge as attachment figures during adolescence. Sexual attraction in romantic relationships might increase the desire to maintain contact (i.e., the proximity-seeking component of attachment) with this potential attachment figure, which in turn might promote their use for other components (i.e., safe haven and secure base; Hazan and Zeifman, 1994.)

A transfer of attachment functions from parents to peers also involves a transformation of these functions from a hierarchical form (parents support and offer care) to a reciprocal one (both members support and receive care). During adolescence, youth must learn skills related to offering care to peers, and to sensitivity and perceptiveness in determining appropriate times to depend on them. In comparison with attachments in infancy, adolescents' attachments are far less necessary for physical survival. However, parents and peers might offer valuable support for social and emotional adjustment. In addition, attachment figures might serve a soothing function when adolescents become stressed, which enables youth to reduce the intensity of their emotional reactions and thus to engage in more effective problem solving.

Prior research (Fraley and Davis, 1997; Hazan and Zeifman, 1994; Trinke and Bartholomew, 1997) has offered support for the transfer of attachment-related functions from parents to peers. Using an interview measure of four components of attachment (proximity-seeking, safe haven, separation protest, secure base), with a crosssection of over 100 children and adolescents ranging in age from 6 to 17, Hazan and Zeifman found evidence that the components of attachment were transferred from parents to peers in a particular order: proximity-seeking first, then safe haven and finally secure base. They suggested that peer attachments are explored from the parental base of security. Despite these interesting findings, their value is limited by the minimal methodological information provided, the relatively small sample size for the broad age range examined, the failure to examine potential gender differences, and the failure to distinguish between mother and father, and between friend and romantic partner attachment. Thus, one goal of the present study is to replicate Hazan and Zeifman's findings using a large, cross-sectional sample ranging from early adolescence to young adulthood. In addition, the present study extends their model, by examining mother, father, best friend, and romantic partner separately as attachment figures, rather than categorizing targets as either parent or peer; and by exploring gender as a potential moderator. These distinctions are important since associations in adolescence between quality of attachments to different figures (e.g., mothers, fathers, friends, and romantic partners) are only moderate even when using parallel methods of assessment (Crowell and Treboux, 1995; Furman et al., 2002). As well, research has suggested that adolescentfather (but not mother) relationships may be more distant, especially for girls (Paterson et al., 1994). Thus, girls (vs. boys) may turn less to fathers for attachment functions, and this may vary with age. In addition, frequent findings indicate that by early adolescence girls' friendships are characterized by more intimacy than those of boys (e.g., Brendgen et al., 2001; Bukowski et al., 1994; Furman and Buhrmester, 1992), and this gender difference might be reflected in girls' (vs. boys) greater use of best friends for attachment functions.

Several researchers have examined evidence for transfer of attachments (and related functions) to peers in young adults. Fraley and Davis (1997), using Guttman scale analyses with a sample of 20-year-olds, replicated Hazan and Zeifman's (1994) findings concerning the order of the transfer of the attachment-related functions. For those without long-term romantic relationships, close friends were found to serve as the primary attachment figures. Trinke and Bartholomew (1997) investigated university students' use of multiple attachment relationships and the relative importance of different figures for the various components of attachment. Overall, participants with romantic partners ranked them most highly as attachment figures, followed by mothers, fathers, and best friends. Interestingly, those participants who did not have a close romantic partner, ranked their mothers most highly, then fathers, and finally peers. Peers were ranked higher for safe haven than secure base functions, while parents were ranked higher for secure base than safe haven. Mothers in particular, seemed to have a special attachment position in the hierarchy, even for these young adults. This research suggests that the relative importance of different target figures for young adults varies as a function of whether they have romantic partners. The present study examines this factor across adolescence as well as early adulthood.

HYPOTHESES

The research just cited suggests interesting patterns of use for different aspects of attachment with different target figures across childhood and adolescence (Hazan and Zeifman, 1994) and in young adulthood (Fraley and Davis, 1997; Trinke and Bartholomew, 1997). However, none of these studies focussed on the adolescent period

specifically, when important changes in attachment are expected, as well as on the young adulthood stage when such changes might be expected to be consolidated. The present study also extends prior research by examining potential differences in the use of attachment figures as a function of gender and presence of romantic partners. In sum, we examined adolescents' and young adults' reports of how key potential attachment figures were used to fulfill the three main attachment functions, and whether this differed developmentally, with gender and presence/absence of romantic partners as potential moderators.

We expected that across this age range, parents would continue to be used as a secure base, while they would be turned to less by older adolescents and young adults for proximity and for safe haven (i.e., reassurance). Consistent with earlier findings, we expected peers to become increasingly important during this period and, thus, to find friends and romantic partners used more for attachment functions (Hazan and Zeifman, 1994). That is, we expected that close friends would fulfill attachment functions (particularly proximity-seeking and safe haven) from early adolescence onward, that in middle adolescence, romantic partners would begin to do so (particularly proximity-seeking); and that the order of transfer of the attachment-related functions would be comparable to that found previously (Fraley and Davis, 1997; Hazan and Zeifman, 1994). In addition, we expected that girls more than boys would turn to close friends for attachmentrelated functions, and that boys would turn to fathers more than would girls. Finally, we expected those with romantic partners to turn to them more than to other target figures by young adulthood.

A second goal of this study was to explore the role of security of attachment in the transfer of attachment to peers. For a late adolescent sample (M = 17 years), Freeman and Brown (2001) found using a projective measure, that general attachment style (i.e., quality of attachment to close others in general, rather than to a specific target) predicted choice of primary attachment figures. Adolescents with romantic partners who were classified as securely attached selected mothers as primary attachment figures significantly more than other targets (i.e., fathers, best friends, or romantic partners), while insecurely attached teens selected boy/girlfriends and best friends significantly more than parents. Security of attachment to mother has been suggested as important in determining the individual's later security and success in forming other relationships, and their use to satisfy attachment needs (Ainsworth and Bowlby, 1991). Lieberman et al. (1999) found that secure attachment was a predictor of closer, more secure friendships in late childhood and early adolescence. Thus, the timing and degree of transfer of the attachment-related components may depend on one's attachment security.

Because mothers have been found to be children's primary attachment figures most often, the present study examines security of attachment with mothers as a factor in the potential transfer of attachment to peers. Those securely attached to mother were expected to use her as a secure base from which to explore comfortably and develop close friendships throughout adolescence, and romantic relationships from middle adolescence and older. Thus, for these teens, we predicted that mothers would continue to be turned to often, particularly for this attachment function. Alternatively, those insecurely attached to mothers would be less likely to maintain her as a primary attachment figure, and consistent with Freeman and Brown's (2001) findings with late adolescents, might turn to peers in order to compensate for this poor quality of maternal relationship. Thus, we predicted that insecurely attached teens would use mothers less, even for secure base, and would turn to peers significantly more than would secure teens.

In sum, in a large sample ranging in age from young adolescence (12 years) to young adulthood (28 years), developmental differences in girls' and boys' use of attachment-related functions with parents (mother and father) and peers (best friend and romantic partner) for those with and without romantic partners were examined. In addition, we investigated associations of attachment security to mothers with use of these target figures to meet attachment needs.

METHOD

Participants

Participants consisted of 682 students grouped into three age categories: 314 (182 female) 12-15 years; 185 (120 female) 16–19 years; 183 (108 female) 20–28 years. These samples were recruited from two English-language public high schools, two junior colleges, and a university in a large Canadian urban area. For the youngest participants (age 12-13) both the adolescents and the parents gave written consent, and for the older participants (age 14 and over, consistent with Canadian provincial law) consent was obtained from the participants only. High school students and those in junior colleges were approached in their classrooms (social science courses for junior colleges), and the names of those returning consent forms were entered in a draw to win prizes. University students were recruited from booths set up on the university campus, and were each paid 15 dollars for their participation. Those over the age of 28 (n = 5) were excluded from analyses.

Most participants (71%) endorsed one ethnic background: either English-Canadian (37%), European (24%), French-Canadian (5%), Latin American (1.5%), African (1.5%), Asian (3%) or other (3%). Those who identified having two or more ethnic backgrounds were generally of mixed Canadian and European origins. Socio-economic status (SES) was derived from information on the educational level, occupation, job activities and employment of the parent(s) as reported by the participants on the general information questionnaire; and was representative of the Canadian population, ranging from low to high middle-class (Blishen et al., 1987; Hollingshead, 1975). The predominant educational level for both mothers and fathers was the equivalent of grade 12. The predominant occupation was medium business owners, minor professionals and technical workers. The majority of the sample (78%) was from two-parent families, of which 90% were intact, and the remaining 22% from single-parent (mainly mother only) families. The three age groups were comparable in ethnicity and family structure. About 35% (N = 276, 185 female) of the participants reported having a romantic partner: 23.5% of 12–15-years-olds, 41.5% of 16-19-year-olds, and 52% of 20-28-year-olds. Most participants (93%) reported having a same-sex best friend.

Measures

General Information Questionnaire

This questionnaire was used to obtain age, sex, grade, school attended, parents' marital status, and information relevant to ethnicity and socio-economic status (i.e., parental education, occupation, job activities).

The WHOTO Questionnaire

This questionnaire (Hazan et al., 1991) consists of three questions for each of three attachment-related functions. The proximity- seeking items were: "Who is the person you most like to spend time with? Who is the person you don't like to be away from? Who is the person you miss most when you are not with him/her?" The safe haven items were: "Who is the person you most want to be with when you are feeling upset or down? Who is the person you can tell anything to?" Finally, the secure base items were: "Who is the person you feel you can always count on? Who is the person you feel will always be there for you? Who is the person who would do almost anything for you?"

For each of the nine questions the participants were asked to "choose one person from the following list: mother, father, best friend, girlfriend/boyfriend, yourself, or other." They were also told that if more than one person was appropriate for a particular question, they should feel free to list more than one, but to write *first* the person who they believed fit best for each of the questions. In most cases (about 75%), participants indicated only one person for each question. However, those who indicated a second choice for any item were more likely to be older and female.

Only the first name written for each question was used in these analyses. However, a second set of analyses was conducted which included the second choices, and the pattern of results remained the same. Scores for each of the three attachment functions were calculated for each of four attachment figures: mother, father, best friend, romantic partner. Scores represented the number of times (0–3) participants indicated that target figure as fulfilling that function. Internal consistency (alpha) for proximity-seeking, safe haven and secure base, respectively was .64, .55, and .69 for mother; .60, .46, .70 for father; .57, .59, .55 for best friend; and .75, .67, .72 for romantic partner. Internal consistency was also examined separately for each age group, and no consistent pattern of differences occurred.

Additional validity information is provided by Fraley and Davis (1997). They found the extent to which the attachment-related components were used for particular persons to be positively correlated with participants' attachment security to that person, and with composite measures of mutual trust/intimacy and mutual caring/support ratings of that relationship. As well, they found a test-retest reliability of .77 over a one month period for a subset of 28 dating couples.

In the present study, mothers and best friends were selected by about three quarters of participants for providing for at least one function (73.5, and 72.3% for mothers and best friends, respectively), and by about half of the participants for two or more functions (50.7 and 49.8%, respectively). Fathers were selected by only about a third of the participants for any functions (32.1%), and by only 13.5% for two or more functions. Romantic partners were selected by 40% of participants for at least one function, and by about 22.8% for two or more attachment-related functions.

Adolescent Security of Attachment

The relationship questionnaire (RQ), adapted from Bartholomew and Horowitz (1991) provides self-report

ratings of four attachment styles: secure, dismissing, preoccupied, and fearful, and self-categorization into one
predominant style. For self-categorization, participants
chose one of four paragraphs to best describe their relationship with mother. For example, participants indicated whether the following paragraph (secure) typified
their relationship with mother: "It is easy for me to become emotionally close to my mother. I am comfortable
depending on my mother and having my mother depend
on me. I don't worry about being alone or having my
mother not accept me." For the present study, participants
were categorized into secure (security self-categorization)
and insecure (dismissing, preoccupied, or fearful selfcategorization) mother attachment groups.

The RQ correlates moderately with attachment styles determined by interview (Bartholomew and Horowitz, 1991), and provides a rapid assessment of attachment quality. Scharfe and Bartholomew (1994) report test-retest reliability about .60 across 8 months. The validity of the RQ is supported by research indicating that it correlates as expected with measures of self-concept, interpersonal functioning, and representations of family relationships (Bartholomew and Horowitz, 1991; Griffin and Bartholomew, 1994; Horowitz *et al.*, 1993).

All participants in the two older age groups, and about half those in the youngest age group completed the RQ. This instrument was not available for approximately half of the youngest age group, because a different attachment measure was used. Thus, analyses involving this measure reflect the smaller cell size in the youngest age group.

Procedure

Participants completed a variety of questionnaires related to their relationships with family and friends. In small groups of approximately 16, high school students participated during two class periods scheduled at the teachers' convenience. For the junior colleges, testing took place during one class period, and for the university samples, outside of class time, at the students' convenience.

RESULTS

Overview of Analyses

Two sets of mixed-model ANOVA's were conducted in order to address the following questions: Do adolescents/young adults use particular targets more/less than others for different attachment functions, and does this vary with their age group and/or presence of romantic partnerships? Does security of attachment to mother predict the timing and extent of transfer of attachment to peers?

The first ANOVA (N = 682) examined the extent to which the participants in each age group indicated that the target figures fulfilled specific attachment-related functions. Thus, we conducted a 3 (age group) \times 2(sex) \times 2 (romantic partner—present vs. none) × 3 (attachment function—proximity-seeking, safe haven, secure base) × 4 (target—mother, father, best friend, and romantic partner) mixed analysis of variance, with the first three factors between-subject and the last two within-subject variables. Although the data were slightly positively skewed, because cell sizes were reasonably proportionate, the sample size was very large, and analysis of variance is very robust with respect to skewness, ANOVAs were conducted (Tabachnick and Fidell, 1996). Because scores for target figures violated the assumption of independence, a strict level of significance (p < .01) was required.

The second set of analyses explored the role of attachment security with mother in relation to the use of different target figures for attachment functions. Participants for whom both self-categorization of attachment on the RQ and scores on the WHOTO were available numbered 524: young (N = 159; 12-15 years), middle (N = 184;16–19) and late adolescence/early adulthood (N = 181, 20-28 years). Self-categorizations on the RO were used to group participants into secure (N = 336) and insecure (i.e., preoccupied, dismissing, or fearful, N = 188) groups. Mixed-model ANOVA's, 3 (age group) × $2 \text{ (sex)} \times 2 \text{ (romantic partner)} \times 3 \text{ (attachment func$ tion) × 2 (insecure vs. secure attachment to mother), were performed separately for each target figure, again with the scores for the attachment functions as the dependent variables.

Age and Gender Differences in Use of Mother, Father, Best Friend and Romantic Partner

Results of the age group by sex by romantic partner by attachment function by target $(3 \times 2 \times 2 \times 3 \times 4)$ ANOVA (N = 682) indicated significant effects (all p < .001, unless otherwise indicated) for a number of main effects and interactions which are described below. Target (F = 73.54, df = 3, 2010), romantic partner (F = 9.88, df = 1, 670, p < .01), and attachment function (F = 29.92, df = 2, 1340) main effects were qualified by two and three-way interactions.

A target by sex (F = 4.20, df = 3, 2010, p < .01) interaction indicated that as predicted, boys used fathers

more and girls used best friends more. The target by function by sex (F = 3.80, df = 6, 4020, p < .01) interaction further indicated that this was particularly so with respect to the safe haven function: Boys (M = .31) turned to fathers for safe haven significantly more than did girls (M = .12), and girls (M = 1.18) used best friends significantly more for safe haven than did boys (M = .91).

A significant target by age group (F = 14.07, df = 6, 2010) interaction indicated that mothers were turned to significantly more by the youngest age group (M = 1.08) and about the same by the two older groups (M's = .77, .70). Best friends were turned to significantly more by the youngest group (M = .94), then by the older adolescents (M = .75), and least by the young adult group (M = .56). Romantic partners were turned to significantly more by the young adult group (M = .81) and the middle adolescents (M = .62) than by the young adolescents (M = .22).

A very strong target by attachment function (F=131.91, df=6, 4020) interaction was found. Comparisons across targets and across functions indicated the following: Mothers were selected most for secure base and significantly more than other targets for this function. Best friends were selected most for safe haven and significantly more than other targets for this function. Romantic partners were selected significantly more for proximity than were parents for this function. (See Table I for means and standard deviations.) However, this pattern must be qualified by the significant three-way interactions described below.

The target by function by age group (F = 4.10,df = 12, 4020) effect indicated the following pattern: Mothers were used more than other targets for secure base, and this did not vary significantly across age groups. However, they were used less for both proximity and safe haven by the two older groups compared with the youngest one. Fathers were used about the same (and low throughout) across age groups for safe haven and secure base, but less for proximity by the two older groups. The oldest group used best friends significantly less for all three functions than did the youngest group, and the youngest group used them more for secure base compared with both older groups. The youngest group used the romantic partners significantly less than the two older groups for all three functions. The romantic partners were used more for safe haven by each consecutively older age group. In the oldest group the romantic partner was used more than the other targets for proximity, and was similar to the best friend for safe haven use. (See Table I for means and standard deviations.)

A target by romantic partner (F = 75.03, df = 3, 2010) interaction indicated that the use of targets was

 Table I.
 Means and Standard Deviations for Use of Mothers, Fathers, Best Friends, and Romantic Partners (4) by Attachment Function (3) by Age Group (3)

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Target		Mother			Father			Best friend		Roi	Romantic partner	ľ
Function	PS	$\rm SH$	SB	PS	SH	SB	PS	SH	SB	PS	SH	SB
Young adolescents $N = 314$.88 ^{ax} (.98)	$.74^{ay}$ (.90)	$.88^{ax}$ (.98) $.74^{ay}$ (.90) 1.49^{x} (1.12)	.28 ^z (.64)	$.28^{z}$ (.64) $.21^{z}$ (.53) $.31^{z}$ (.71) .	.31 ^z (.71)	.93 ^{ax} (.91)	.93ax (.91) 1.25ax (1.07)	(16.) (69°).	.47 ^{ay} (.88)	$.16^{az}$ $(.50)$.16 ^{az} (.52)
Middle adolescents $N = 185$.51 ^{by} (.84)	47 ^{by} (.81)	1.26^{x} (1.23)	$.15^{2}$ (.46)	$.15^{2}$ $(.44)$.40³ (.83)	.73 ^y (.89)	1.14^{x} (1.06)	$.42^{\text{by}}$ $(.75)$	1.08 ^{bx} (1.18)	.48 ^{by} (.83)	.38 ^y (.83)
Young adults $N = 183$.40 ^{by} (.78)	.45 ^{by} (.76)	1.31^{x} (1.25)	$.11^{2}$ (.42)	$.20^{2}$ $(.51)$.377 (.77)	.48 ^{by} (.84)	.84 ^{bx} (.96)	.33 ^{by} (.70)	1.36 ^{bx} (1.28)	(96.) xq69.	.49 ^{by} (.89)
Total $N = 682$.66 ^y (.92)	.593 (.85)	1.37^{x} (1.18)	$.20^{y}$ $(.55)$.19 ^y (.50)	.35 ^y (.76)	.77 (.91)	1.11^{x} (1.05)	$.52^{y}$ (.83)	$.87^{x}$ (1.15)	.39 ^y (.78)	.31 ^y (.74)

Note. PS: proximity-seeking, SH: safe haven, SB: secure base. Means with different superscripts a, b, c significantly differ (p < .05) for comparisons across targets within each age group and function. Standard deviations are indicated within parentheses.

different for those with vs. without romantic partners. As expected, those with partners used them more. This finding was further qualified by the target by function by romantic partner (F = 13.31, df = 6,4020) interaction. Those with romantic partners (compared to those without) used mothers less for proximity and secure base, best friends less for proximity and safe haven, and romantic partners more for all three functions. Mothers were still used more than others for secure base, however, regardless of romantic partner status. Those without romantic partners used best friends most for safe haven, while those with these partners used them as much as friends for this function. Those with romantic partners used them most for proximity, while those without used mothers and friends most for this. (See Table II for means and standard deviations.)

A target by age by romantic partner (F = 3.02, df = 6, 2010, p < .01) interaction indicated that those with romantic partners turned to them significantly more at all three age groups, compared with those not in these relationships, as would be expected. Those with romantic partners (vs. those without them) also turned to best friends significantly less in the two older groups, and less to mothers in the youngest and oldest groups. The largest difference in use of romantic partners for those who had them was between young and middle adolescent groups. (See Table III for means and standard deviations.)

Security of Attachment to Mother and Use of Target Figures

Four mixed-model ANOVA's, 3 (age group) × 2 $(sex) \times 2$ (romantic partner) $\times 3$ (attachment function) × 2 (attachment security—insecure vs. secure attachment to mother), were conducted, one for each of the four target figures. Only those significant findings involving the attachment security factor will be discussed, in order to avoid redundancy with the previous analysis. Results of the ANOVA for mothers as target figures indicated a main effect of attachment security (F = 65.66, df = 1, 500, p < .001), such that those insecurely attached to mother used her significantly less (M = .47,SD = 1.21) than did adolescents securely attached to mother (M = 1.01, SD = .94). A function × attachment security interaction (F = 6.36, df = 2, 1000, p < .01) qualified this finding, such that the difference between secure and insecure groups was largest for the secure base function.

Attachment security with mother did not predict how adolescents used fathers or best friends. In order to test whether insecurely attached teens *form* romantic relation-

ships at an earlier age than do those securely attached, an age group × attachment security Chi-Square was conducted on the proportion of participants who reported having a romantic partner. Results indicated no significant age differences in the proportion of secure vs. insecure participants forming romantic relationships. However, attachment security was a significant predictor of use of romantic partners for attachment functions, as described below.

For romantic partners, a main effect of attachment security (F = 21.55, df = 1, 500, p < .001) indicated that those insecurely attached to mother were more likely to turn to romantic partners (M = .82. SD = 1.12) than were those securely attached (M = .54, SD = .82). A significant attachment security × romantic partner interaction (F = 12.72, df = 1, 500, p < .001), showed that this effect was much greater for those with a romantic partner (M's = .90, 1.42, SD's = 1.44, 1.74) than for those without one (M's = .19, .25, SD's = 1.08, 1.56, for secure, insecure, respectively).

Finally, an interaction of age group × function × attachment security \times romantic partner (F = 5.09, df = 4, 1000, p < .001) further qualified the findings above. For those without romantic partners, they did not turn to these figures often, and this did not vary significantly by age group, attachment security or function. Significant differences did occur for those with romantic partners: Those in the oldest group (i.e., late adolescents/young adults) who were insecurely (vs. securely) attached to mother turned to romantic partners significantly more for secure base and for safe haven. For those in the middle adolescent group, teens turned to romantic partners for proximity significantly more than for safe haven or secure base regardless of attachment security. In the oldest group, this was only true for those securely attached to mothers; that is, insecurely attached young adults turned to romantic partners for all three functions to a similar degree. (See Table IV for means and standard deviations for those with romantic partners.)

DISCUSSION

Results of this study underscore the importance of describing normative changes in specific components of attachment in close relationships across adolescence and young adulthood. The extent to which particular attachment functions were fulfilled by mothers, fathers, best friends, and romantic partners varied as a function of the age of the participants. In addition, adolescents reported that each of these relationship figures was most important for one particular component of attachment. Furthermore,

Table II. Means and Standard Deviations (*N* = 682) for Use of Mothers, Fathers, Best Friends, and Romantic Partners (4) by Attachment Function (3) by Those With vs. Without Romantic Partners (2)

Target			Mother			Father			Best friend		Ro	Romantic partner	ı
Function		PS	HS	SB	PS	PS SH SB	SB	PS	HS	SB	PS	SH SB	SB
Without RP $N = 406$ M (SD) $.73^{ax}$ (.98) $.61^b$ (.88) 1.54^{ax} (1.17) $.24^{cx}$ (.64) $.22^c$ (.51) $.39^b$ (.79) 91^{ax} (.94) 1.21^{ax} (1.07) $.48^b$ (.81) $.44^{bx}$ (.78)	M (SD)	.73 ^{ax} (.98)	.61 ^b (.88)	1.54 ^{ax} (1.17)	.24 ^{cx} (.64)	.22° (.51)	.39 ^b (.79)	91 ^{ax} (.94)	1.21^{ax} (1.07)	.48 ^b (.81)	.44 ^{bx} (.78)	$.15^{cx}$ (.41) $.05^{bx}$ (.29)	.05 ^{bx} (.29)
With RP $N = 276$	M (SD)	.43 ^{by} (.77)	.46 ^b (.79)	$M (\mathrm{SD}) .43^{\mathrm{by}} (.77) .46^{\mathrm{b}} (.79) 1.08^{\mathrm{ay}} (1.16) .09^{\mathrm{cy}} (.34) .18^{\mathrm{c}} (.49) .32^{\mathrm{c}} (.71) .51^{\mathrm{by}} (.77) .87^{\mathrm{ay}} (.99)$.09 ^{cy} (.34)	.18° (.49)	.32° (.71)	.51 ^{by} (.77)	.87 ^{ay} (.99)	.50° (.86)	$.50^{\circ}$ (.86) 1.56^{ay} (1.22) $.79^{ay}$ (.99) $.72^{by}$ (.99)	.79 ^{ay} (.99)	.72 ^{by} (.99)
Note. PS: proximity-seeking, SH: safe haven, SB: secure base, RP: romantic partner. Means with different superscripts a, b, c differ significantly (p < .05) for comparisons across targets within	eking, SH:	safe haven,	SB: secure b	ase, RP: romar	itic partner. I	Means with	different sup	erscripts a, b	, c differ significa). > <i>q</i>) ylun	(5) for compari	sons across ta	argets within
attachment function and romantic partner groups. Means with different superscripts x, y, are significantly different $(p < .05)$ across romantic partner groups within targets and function. Standard	d romantic	partner grou	ips. Means v	vith different su	perscripts x,	y, are signif	icantly diffe	rent $(p < .05)$	across romantic	partner gro	ups within targe	ets and functi	on. Standard

(9) ard hin deviations are indicated within parentheses.

		•						
Target Romantic partner	Mother Yes	Mother No	Father Yes	Father No	Best friend Yes	Best friend No	Romantic partner Yes	Romantic partner No
Young adolescents $N = 314$.84 ^a (.78)	1.12 ^{bx} (.73)	.19 (.42)	.30 (.50)	.91 ^x (.80)	.99 ^x (.72)	.60 ^{ax} (.80)	.12 ^b (.28)
Middle adolescents $N = 185$.62 (.68)	.85 ^y (.82)	.18 (.36)	.27 (.51)	.59 ^{ay} (.57)	.91 ^b (.70)	1.10 ^{ay} (.78)	.26 ^b (.53)
Young adults $N = 183$.58a (.64)	.89 ^b (.79)	.18 (.36)	.27 (.52)	.39 ^{ay} (.49)	.74 ^{by} (.74)	1.32 ^{ay} (.87)	.26 ^b (.46)

Table III. Means and Standard Deviations (N = 682) for Use of Mothers, Fathers, Best Friends, and Romantic Partners (4) by Age Group (3) by those With Vs. Without Romantic Partners (2)

Note. Means with different superscripts a, b significantly differ (p < .05) for comparisons across romantic partner status within target and age group. Means with different superscripts x, y, z significantly differ (p < .05) across age groups within target and romantic partner status. Standard deviations are indicated within parentheses.

whether or not participants had formed romantic relationships proved to be an important factor in the use of different persons for attachment functions. Finally, the security of attachment with mother was a significant predictor of the extent to which she and romantic partners were used for attachment functions.

Use of Parents for Attachment Functions

Mothers remain important attachment figures throughout adolescence and even into adulthood. They were selected most and more than others for fulfilling the secure base function of attachment. This occurred for all three age groups in this study, and regardless of whether or not participants reported having romantic partners. Furthermore, for those with poor quality mother-adolescent relationships (i.e., insecure attachments), the secure base function was most implicated. This suggests that mothers generally continue to play an important role in providing a basic sense of security and availability throughout this age range. The importance of parents, especially mothers, as sources of security has also been noted in samples of young adults using either multiple ratings of different at-

tachment figures (Trinke and Bartholomew, 1997), or the WHOTO (Fraley and Davis, 1997). The contribution of attachment to parents is expected to be most evident in fulfilling secure base functions (Waters and Cummings, 2000). On the other hand, older adolescents turned to mothers less for either support with particular concerns (i.e., safe haven) or for proximity, which might be indicative of processes leading ultimately to a decline in the mothers' place in the attachment hierarchy.

Fathers were chosen much less often than mothers (and less often than peers), but when chosen they served the secure base component of attachment across adolescence and early adulthood. This is consistent with other research (e.g., Trinke and Bartholomew, 1997) that fathers are ranked lower than mothers. Perhaps adolescents consider mothers to be the parental representatives, and assume that fathers will play a supportive role to her. Males chose their fathers significantly more than females did, as predicted, for safe haven (e.g., advice), consistent with findings that adolescent girls more than boys report experiencing less closeness with fathers (e.g., Paterson *et al.*, 1994). Boys (more than girls) may turn to fathers for advice with common gender concerns.

Table IV. Means and Standard Deviations (N = 230) of Romantic partner Use for Age group (3) by Function (3) by Attachment Security to Mother (2) for those With Romantic Partners

Age group	Attachment security	Proximity	Safe haven	Secure base
Young adolescents	Secure $N = 31$	1.16 (1.21)	.45 (.81)	.48 (.89)
N = 47	Insecure $N = 16$	1.56 (1.26)	1.00 (1.26)	1.13 (1.26)
Middle adolescents	Secure $N = 48$	1.50^{x} (1.09)	.73 ^y (.89)	.52 ^y (.92)
N = 84	Insecure $N = 36$	2.14^{x} (1.05)	.94 ^y (1.04)	.94 ^y (1.10)
Young adults	Secure $N = 60$	2.00^{x} (1.12)	.81 ^{ay} (.97)	.52 ^{ay} (.91)
N = 99	Insecure $N = 39$	1.97 (1.22)	1.51 ^b (1.10)	1.38 ^b (1.09)

Note. Means with different superscripts a, b differ significantly (p < .05) across attachment security. Means with different superscripts x, y differ significantly (p < .05) across attachment functions within each age and attachment security group. Standard deviations are indicated within parentheses.

Use of Best Friends and Romantic Partners for Attachment Functions

Best friends (more than other targets) were found to serve as safe havens (i.e., support, comfort, and reassurance), and more than for proximity or secure base. As expected, girls turned to best friends for this type of support significantly more than did boys. This is consistent with prior literature that suggests that women tend to base their friendships more on intimacy and emotional sharing than do men (Huyck, 1982). Overall, best friends were used less for attachment functions by the middle adolescent and particularly by the oldest groups compared with the early adolescents. This is not consistent with the view that attachment is transferred from parents to best friends in late adolescence and young adulthood. However, it is possible that such a transfer occurred by early adolescence, and that older participants had begun to transfer attachments to romantic partners if they had them. Consistent with this view, those with romantic partners turned to best friends significantly less in the two older groups, but not in the younger group where romances were likely of shorter durations. In addition, romantic partners may have begun to replace best friends for both proximity and safe haven attachment functions, since older adolescents/ young adults turned to romantic partners for safe haven as much as to friends.

Distinguishing between attachment and affiliation is important conceptually (e.g., Hazan and Zeifman, 1994; Sheldon and West, 1989; Weiss, 1986, 1998) particularly when considering close friendships as potential attachment figures. Attachment is characterized by the provision of comfort, security, and protection; while affiliation provides stimulation, exploration and expansion of interests, pleasure, and a sense of alliance. The use of best friends as a safe haven suggests that best friends may be more than affiliative relationships, since they are sought out for support and comfort during this age period. Proximityseeking may reflect more emphasis on shared activities, and thus may be more indicative of shared interests, pleasure, and exploration. However, the fact that friends were chosen less often for all functions as age group increased, is not consistent with the view that attachments are transferred from parents to friends during this period, or that friends assume a higher place in adolescents' attachment hierarchies.

Consistent with our expectations, significantly more use of romantic partners for proximity-seeking and safe haven attachment functions occurred between the early and middle adolescence groups. This was particularly so for proximity, which showed the largest difference across these two age groups. Romantic relationships become

more normative as adolescents get older, as reflected in the higher proportion of the older adolescents reporting having and turning to romantic partners. Spending time with partners and missing them when separated seem to be the early quality of attachment reflected in these relationships. This pattern is consistent with previous findings that the attachment-related functions are transferred from parents to peers in a particular order, with proximityseeking transferred first (Fraley and Davis, 1997; Hazan and Zeifman, 1994). Those who reported having romantic partners also reported turning to them significantly more than to others, and more in the two older groups. This is consistent with the view that a transfer of attachment to romantic partners begins to occur by middle adolescence for those with these relationships. However, mothers are used significantly more than romantic partners for secure base even for those with these partners, and for all age groups to the same high degree.

What are the implications of these findings for the question of transfer of attachments from parents to peers? Perhaps the notion of "transfer" obscures the reality that particular individuals may serve only some attachment functions, rather than all of them. That is, different categories of people may evoke different types of behavioral exchanges, and might not satisfy all attachment needs, and new attachment figures do not preclude retaining old ones. That parents are sought out less by older groups for their physical presence or for reassurance does not necessarily indicate that they are losing their unique roles as important attachment figures. In fact, as suggested previously, adolescents' improved cognitive abilities may enable them to recognize that different attachment-related functions might be more adequately met by different target figures. The meaning and functions of attachments during this developmental period likely change with adolescents' cognitive and emotional maturation. Thus, for example, adolescents may recognize the importance of friends for support with particular types of issues (safe haven), but anticipate that they will not be available unconditionally (secure base) as would parents. However, the secure base attachment function is most clearly tied to the core conceptual definition of attachment (Waters and Cummings, 2000), whereas the proximity-seeking and safe haven elements might be indicative of other social needs in addition to attachment. The importance of the secure base function should be incorporated in determining attachment hierarchies.

Security of Attachment to Mother.

Even when close emotional ties characterize a relationship, that relationship may not fulfil all

attachment needs adequately. Secure attachments involve expectations that the attachment figure will be available and dependable, and will likely respond sensitively if needed. Trinke and Bartholomew (1997) emphasized that desire for and actual use of attachment figures might be different; particularly for insecurely attached persons, for whom the emotional tie may be strong, but the expectation of satisfaction is low. The WHOTO is a self-report measure of actual use of targets for specific attachment-related functions, whereas the RQ is a measure of the quality of attachment security. Correlations among these measures were generally significant, but small.

Security of attachment to mother significantly predicted the extent to which she was selected for fulfilling attachment needs, particularly the secure base function. Those insecurely attached to mothers, turned to her less for secure base. If mother is a key source of security, this aspect of attachments might be most vulnerable to disturbances in the adolescent-mother attachment relationship. Interventions aimed at improving the quality of adolescent-mother relationships should focus on this key function of attachment quality.

While attachment security with mother did not predict use of either father or best friend for attachment needs, it did so for romantic partners. Those who had formed romantic relationships turned to them for satisfaction of attachment needs significantly more if insecurely (vs. securely) attached to mothers. This suggests that a compensatory process might be operating, such that those not able to adequately meet attachment needs with mothers may seek romantic partners for this purpose. However, since secure attachments to parents buffer adjustment in early romantic relationships (Doyle et al., 2003), the efforts to compensate might result in less healthy romantic relationships. Maturation processes, including increases in self awareness and self control, might play a role in the associations among attachment styles and actual behavior with attachment figures. For example, with increased age, those who expect to be rebuffed by an attachment figure might become more capable of choosing more satisfactory figures. In the present study, differences as a function of attachment security were greatest for the oldest groups, and might reflect such a process. In fact, our results did not support the view that insecurely (vs. securely) attached participants formed romantic relationships earlier. Thus, future studies should examine the quality of romantic relationships in further exploring whether security of attachment with mother contributes to the extent and timing of the transfer of attachment functions for those who do form romantic relationships.

Limitations and Future Directions

The conclusions drawn from this study must be qualified in light of a number of limitations, as discussed below. One limitation of the present study is its reliance on one instrument, the WHOTO questionnaire. This instrument uses self-reports, and is subject to the problems associated with this methodology, including response biases due to social desirability and/or lack of awareness. Thus, generalizations to actual behaviors or to unconscious aspects of attachment relationships are not warranted. In addition, the relatively low internal consistency of the subscales measuring each function suggests replications would be important to establish the reliability of these findings. However, the patterns of results reported here are consistent with other research on close relationships during adolescence or young adulthood using different methods and samples, supporting the view that this instrument is psychometrically sound. Our findings go beyond these other studies since they allow an examination of similar and additional questions for a sample with a broader age range using a consistent methodology. Nevertheless, future research would benefit from the use of additional measures of attachment functions, including behavioral assessments, as well as interview-based measures of attachment security (e.g., Adult Attachment Interview, Main et al., 1985).

A second limitation of this study concerns the sample, and its representativeness for different populations. Because participants were all drawn from educational institutions, generalizations to those not in these settings are not justified. For example, those young adults who are not in college may develop attachments in ways that differ from those who are in college. Financial dependence on parents may play a role in their continued importance as attachment figures. Future research should explore the generalizability of our findings to these other populations, as well as examine potential differences as a function of ethnicity. Another concern is the relatively small number of participants with romantic partners in each age group in this study. Future replications with larger samples with romantic partners, particularly at the youngest age group, would be important to establish the reliability of our findings. Finally, a larger sample of insecurely attached participants, allowing for the separate consideration of different types of insecure attachment to mother, would contribute to our understanding of the potential impact of these differences on the development of attachment relationships.

Our use of a cross-sectional design also limits conclusions about the causal nature of the associations found. Future research should use a longitudinal design in order to consider changes as a function of the age of participants, and to examine the role of child-mother attachment quality in the transfer of attachment to peers across adolescence. In addition, security of attachment to other potential attachment figures (e.g., fathers, grandparents, siblings) should be explored.

Overall, the present study demonstrates the importance of both parents (particularly mothers) and peers during the adolescent and young adult periods as sources of specific attachment functions. Different attachment figures appear to serve these specific functions at different developmental periods from early adolescence to early adulthood, and this pattern differs somewhat for boys and girls, those with vs. without romantic relationships, and those varying in attachment security to mother. This knowledge contributes to our understanding of the normative developmental patterns and meaning of attachments throughout the different stages of adolescence and young adulthood, and the potential roles of different attachment figures.

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