

Journal of Social and Personal Relationships

<http://spr.sagepub.com>

Exploring intergenerational transmission of attachment style in young female adults and their mothers

Joseph H. Obegi, Thomas L. Morrison and Phillip R. Shaver
Journal of Social and Personal Relationships 2004; 21; 625
DOI: 10.1177/0265407504045891

The online version of this article can be found at:
<http://spr.sagepub.com/cgi/content/abstract/21/5/625>

Published by:



<http://www.sagepublications.com>

On behalf of:

[International Association for Relationship Research](#)

Additional services and information for *Journal of Social and Personal Relationships* can be found at:

Email Alerts: <http://spr.sagepub.com/cgi/alerts>

Subscriptions: <http://spr.sagepub.com/subscriptions>

Reprints: <http://www.sagepub.com/journalsReprints.nav>

Permissions: <http://www.sagepub.co.uk/journalsPermissions.nav>

Citations <http://spr.sagepub.com/cgi/content/refs/21/5/625>

Exploring intergenerational transmission of attachment style in young female adults and their mothers

Joseph H. Obegi, Thomas L. Morrison, & Phillip R. Shaver

University of California, Davis

ABSTRACT

We examined intergenerational transmission of attachment organization in the context of adult romantic relationships. Similarities and differences in adult attachment style between young female adults and their parents were investigated. Results generally supported the hypothesis that mothers' adult attachment organization, but not fathers', is related to daughters' adult attachment organization. This relationship was detected at both categorical and dimensional levels. The Avoidance dimension of the Experiences in Close Relationships Questionnaire, which reflects the degree of discomfort with physical and emotional closeness in romantic relationships, was the strongest predictor of daughters' attachment organization. Mothers' Avoidance predicted daughters' Avoidance. Mothers high in Avoidance were also more likely to be divorced, separated, or unmarried.

KEY WORDS: adult romantic attachment • avoidance • intergenerational transmission

Research on intergenerational transmission of attachment has furthered our understanding of relational continuity across generations (van IJzendoorn, 1995). Most of this research has focused on infant–parent relationships. In the present study, we explored a new domain of attachment-related continuities – the continuity of attachment organization between parents and their adult daughters in the context of adult romantic relationships. Because intergenerational transmission of attachment in

All correspondence concerning this article should be addressed to Joseph H. Obegi, Alliant International University, Clinical Psy.D. Program, 10455 Pomerado Road, San Diego, CA 92131, USA [e-mail: jhobegi@mac.com]. Linda Acitelli was the Action Editor on this article.

Journal of Social and Personal Relationships Copyright © 2004 SAGE Publications
(www.sagepublications.com), Vol. 21(5): 625–638. DOI: 10.1177/0265407504045891

infant–parent relationships is well established, the evidence and theoretical mechanisms related to it are discussed first.

Intergenerational transmission in the context of infant–parent relationships

Traditionally, intergenerational transmission of attachment is said to have occurred when a parent's cognitive model of relationships corresponds with the quality of the infant–parent relationship. A number of studies have documented this phenomenon (Benoit & Parker, 1994; Fonagy, Steele, & Steele, 1991; Main, Kaplan, & Cassidy, 1986; van IJzendoorn, 1995; for a review see Hesse, 1999). Specifically, researchers have documented a high degree of parent-to-infant matching between the parent's cognitive models of attachment, assessed by the Adult Attachment Interview (AAI; Main et al., 1986), and the infant's attachment classification, as classified by the Strange Situation paradigm (Ainsworth, Blehar, Waters, & Wall, 1978). A meta-analysis of the predictive validity of the AAI found a 75% correspondence across secure–insecure categories of attachment (van IJzendoorn, 1995).

The mechanism thought to be responsible for the transmission of attachment organization from parents to children, at least in part, is the quality of caregiving shaped by parents' models of attachment (van IJzendoorn, 1995). Bowlby (1969/1982) proposed that these models of attachment guide behavior in close relationships. In infant–parent relationships, they guide a parent's behavior toward the infant and, as a result, influence the infant's own developing attachment model (Steele & Steele, 1994). Accordingly, AAI classifications are associated with theoretically consistent caregiving styles. For example, mothers classified as secure/autonomous tend to be responsive to their infant's signals, supportive of their infant's efforts, and emotionally warm (Crowell, O'Connor, Wollmers, Sprakin, & Rao, 1991).

Intergenerational transmission in the context of adult romantic relationships

Unlike the infant–parent attachment literature, there are no data in the adult attachment literature that demonstrate continuity of attachment organization. That is, no known study has investigated the correspondence between parents and their children in terms of adult romantic attachment. There are, however, both good theoretical reasons and converging empirical evidence to suggest that continuity is possible in this domain.

First, a central proposition of attachment theory as applied to adult romantic relationships is that the same biological system, the attachment behavioral system (Bowlby, 1969/1982), governs behavior in both infant–parent and adult romantic relationships (Fraley & Shaver, 2000). In other words, individual differences in infant–parent relationships are likely to be similar to individual differences in romantic relationships. Indeed, in a comparison of the infant and adult romantic attachment literatures, Cassidy (2000) noted striking resemblances in behavior between infants

and adults who share conceptually similar attachment organizations. Moreover, Bowlby (1988) outlined a developmental model in which patterns of infant attachment, in conjunction with environmental and genetic factors, are probabilistically related to later outcomes.

Second, internal working models used to guide behavior with romantic partners are believed to be extrapolations of models developed in infancy (Bowlby, 1973; Fraley & Shaver, 2000). This requires that models remain at least somewhat stable over time, an idea put forth by Bowlby (1988). There is emerging evidence for the relative stability of internal working models from infancy to young adulthood (Waters, Merrick, Treboux, Crowell, & Albersheim, 2000; Hamilton, 2000, Hazan & Shaver, 1987), as well as across middle adulthood (Klohnen & Bera, 1998; Klohnen & John, 1998). Thus, children can potentially preserve models transmitted to them by their parents well into adulthood and use them to negotiate interactions with romantic partners. For example, Crowell and her colleagues (2002) found that partners' models, as assessed by the AAI, were significantly related to their support-seeking and support-giving behaviors with each other.

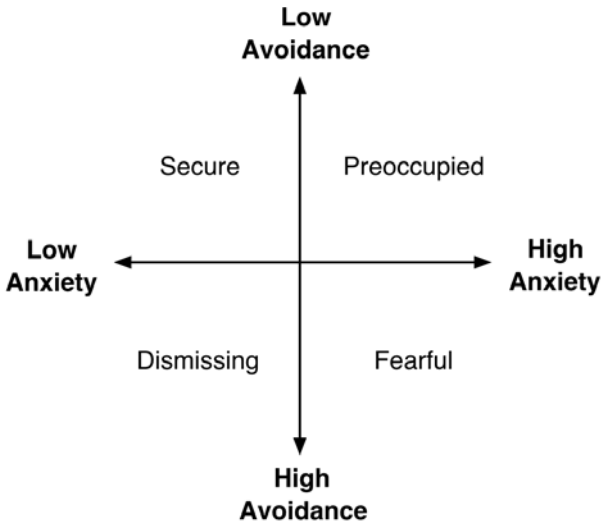
Third, observational learning (Bandura, 1986) may also contribute to continuity in adult romantic attachment. As Cassidy (2000) notes, the parents' marriage is the first romantic relationship a child encounters, and children may learn 'what it means to be a romantic partner by closely observing the parents' marriage' (p. 125). Children may imitate aspects of the marriage they have witnessed to be rewarding if they find their parents to be attractive models.

Thus, it is reasonable to speculate that parents and children with the same attachment organization in the context of infant–parent relationships, given similar life histories, may also be similar to one another in the context of adult romantic relationships. Researchers of adult romantic attachment have provided the theoretical and measurement tools necessary to make this comparison.

Measuring adult romantic attachment

Research on adult romantic attachment has generally focused on the conscious beliefs adults hold about their behavior in romantic relationships (Shaver, Belsky, & Brennan, 2000). Using self-report measures, researchers have identified two dimensions that underlie four adult patterns, or styles, of romantic attachment: *secure*, *preoccupied*, *dismissing*, and *fearful* (see Figure 1) (Brennan, Clark, & Shaver, 1998). The first dimension, Avoidance, concerns the degree to which a person seeks or avoids physical and psychological closeness, and also how comfortable a person feels depending on others for support. The second dimension, Anxiety, concerns apprehension about abandonment, rejection, and low self-worth. As depicted in Figure 1, *secure* adults typically describe themselves as comfortable with closeness and intimacy (low Avoidance) and relatively confident in their romantic partners' availability and acceptance of them (low Anxiety). The psychological opposite of the *secure* style is the *fearful* style; *fearful* adults

FIGURE 1
Four-category, two-dimensional model of adult attachment (adapted from Bartholomew, 1990).



rate themselves high on both dimensions. Preoccupied adults describe themselves as extremely eager to establish closeness and intimacy, but as having doubts about the availability of their romantic partners. The psychological opposite of the *preoccupied* style is the *dismissing* style. Dismissing adults report being uncomfortable with physical and psychological intimacy (high Avoidance) and unconcerned about abandonment (low Anxiety). Thus, the self-report tradition provides the means to compare parents and their adult children in terms of their attachment orientations with respect to romantic relationships.

Two issues bear on attachment-related comparisons between adults and their parents: measurement strategies and gender. Measurement strategies in attachment research have been studied by Fraley and Waller (1998). On theoretical and statistical grounds, these researchers have proposed that the underlying structure of the construct of attachment style is dimensional rather than categorical. They argue that measuring attachment in terms of categories underestimates continuities in attachment and results in measurement fuzziness that may obscure relationships between variables. They suggest using dimensional measures, not categorical ones.

Gender may also play a role in the transmission of adult romantic attachment, although its exact influence is unclear. In infancy, mothers appear to play a predominant role in shaping the attachment of their children; mothers' models of attachment are more strongly related to infant attachment than are fathers' models (van IJzendoorn, 1995). A common explanation for this result is that mothers in Western countries bear more responsibility for caregiving and, as a result, have a stronger influence on

their children's attachment patterns. The relationship between parental gender and adult attachment is less clear. For example, both maternal and paternal characteristics appear to be related to adult attachment (Collins & Read, 1990; Frazier, Byer, Fischer, Wright, & DeBord, 1996; Hazan & Shaver, 1987; Mickelson, Kessler, & Shaver, 1997), while perceptions of the same-sex parent's caregiving is associated with caregiving characteristics in romantic relationships (Carnelley, Pietromonaco, & Jaffe, 1996). Other findings suggest that the opposite-sex parent may shape young adults' developing attitudes about romantic partners (Collins & Read, 1990; Frazier et al., 1996).

The current study

This study explores similarities and differences between young female adults and their parents in terms of their adult attachment organization in romantic relationships. It addresses an implicit attachment theory, one that has not been the subject of research: namely, that stability in attachment may lead parents and their children to exhibit similar orientations toward romantic relationships. Owing to the overrepresentation of women in the participant pool used for our study, male participants were not included. We used two self-report measures of adult attachment to obtain both traditional categorical assignments and the newer dimensional scores. Categorical measurement allowed us to compare our results with those of previous studies and assess the degree of intergenerational transmission at a categorical level. Dimensional measures allowed us to increase the precision of measurement. Although available evidence is ambiguous regarding the role of gender and generational continuities in adult romantic attachment, based on studies of infant-parent attachment (e.g., van IJzendoorn, 1995), we expected variables related to the mother to be better predictors than variables related to the father in all analyses. Two hypotheses were examined. First, across two broad categories of adult attachment (secure and insecure), the adult attachment styles of parents, especially those of mothers, were expected to predict their adult daughter's attachment style. Second, parents' scores on adult attachment dimensions, especially those of the mother, were expected to predict their adult daughter's scores on the same adult attachment dimensions.

Method

Participants

Eighty-seven female participants were recruited from various undergraduate courses in human development at the University of California, Davis. Their mean age was 21.5 years ($SD = 3.1$), and they were mostly juniors or seniors (seniors = 68.6%, $n = 59$, juniors = 29.1%, $n = 25$; sophomores = 2.3%, $n = 2$, unidentified = 1.1%, $n = 1$). All described themselves as exclusively heterosexual. Ninety-one percent lived outside the homes of their parents. The mean time away from home was 3.6 years ($SD = 3.1$). Family size ranged from 1 to 9. Regarding ethnicity, 57.5% of participants were Caucasian ($n = 50$), 21.8%

Asian/Pacific Islander ($n = 19$), 14.9% Chicano/Latino ($n = 13$), 2.3% Native American ($n = 2$), 2.3% African American ($n = 2$), and 1.1% undescribed ($n = 1$). Regarding the marital history of participants' biological parents, 71.3% of the participants had parents who were still alive and still married ($n = 62$), 21.8% had parents who were divorced, unmarried, or separated ($n = 19$), 2.3% had experienced the death of one parent ($n = 2$), and 4.6% were undescribed ($n = 4$).

Measures

Participants and their parents completed two measures of adult attachment. The first was the Relationship Questionnaire (RQ) developed by Bartholomew and Horowitz (1991). It has been widely used in studies of adult attachment. The RQ consists of four single-paragraph descriptions, one for each of four attachment styles (*secure, preoccupied, dismissing, fearful*). Each item is rated on a 7-point scale ranging from *Not at all like me* to *Very much like me*. The RQ yields a single prototype and four continuous scores, one for each attachment style. The second measure was the Experiences in Close Relationships questionnaire (ECR), a 36-item measure derived by factor analysis from all previous self-report measures of adult attachment (Brennan et al., 1998). Items are rated on a 7-point scale ranging from *Disagree strongly* to *Agree strongly*. The ECR yields a score for each of the two attachment dimensions, Avoidance and Anxiety. In addition to completing the attachment measures, participants were asked to answer a number of demographic questions (concerning age, sex, ethnicity, birth order, years away from home, year in school, sexual orientation, and parental marital history).

Procedure

Participants were offered course credit for participating in the study. They were given the option of taking one of two questionnaire packets. The first packet consisted of three manila envelopes, one for the participant and one for each of her parents. Each envelope contained the appropriate sets of measures. For single-parent families, a second packet option was offered; it consisted of two manila envelopes, one for the participant and the other for the participant's parent. Participants were given the option of returning their completed and sealed packets to their course instructor or to the primary investigator's campus mailbox. Parents were given the option of returning their completed and sealed questionnaire packets by mail (appropriate postage was included) or through their children. Course credit was not contingent upon parents completing a questionnaire.

Results

Two similar sets of analyses were conducted. The first included a subset of the sample ($n = 56$) that contained complete family sets (daughter, biological mother, and biological father). Relationships between father variables and daughters' adult attachment were both small (r s with an absolute value $< .1$) and not statistically significant in all analyses, but statistical power was low ($1 - \beta = .64$ or less for detecting 'medium' effect sizes; Cohen, 1992). Therefore, another set of analyses was conducted, this time focusing exclusively on daughters and mothers. In these analyses, the usable sample size increased to $n = 87$ pairs. The results of these analyses are presented here. All analyses were conducted with an alpha level of .05.

TABLE 1
Distribution of adult attachment styles

RQ	N = 87	
	D (%)	M (%)
Secure	59.8	57.5
Fearful	25.3	21.8
Preoccupied	11.5	8.0
Dismissing	2.3	10.3
Unidentified	1.2	2.3

Note. RQ = Relationship Questionnaire; D = daughters; M = mothers. Unidentified refers to participants who skipped the RQ in their questionnaires.

Distribution of attachment styles and dimensions

Table 1 summarizes the distributions of attachment styles, as classified by the RQ, for daughters and mothers. The RQ yielded distributions of attachment styles for daughters and mothers similar to those found in Mickelson et al.'s (1997) nationally representative sample of the U.S. (secure = 59%, avoidant = 25.2%, and anxious = 11.3%; Mickelson et al., 1997).

The means and standard deviations of the dimensions of adult attachment, as derived from the ECR, were also calculated. Daughters had a mean of 2.69 ($SD = 1.04$) on the Avoidance dimension and a mean of 3.72 ($SD = 1.14$) on the Anxiety dimension. Mothers had a mean of 2.66 ($SD = 1.11$) on the Avoidance dimension and a mean of 3.16 ($SD = 1.20$) on the Anxiety dimension. The internal-consistency reliabilities of the Avoidance and Anxiety scales for the total sample were .93 and .91, respectively.

Analyses of daughters and mothers

Hypothesis 1. To test the hypothesis that there would be significant congruence between mothers and daughters across secure–insecure categories (*HI*), several statistics were calculated for the RQ: observed matches, expected matches, Cohen's Kappa, and a chi-square test of independence.

Table 2 presents the results for correspondence across secure–insecure categories and across four categories of the RQ between the attachment styles of daughters and their mothers. The insecure category was created by combining the fearful, preoccupied, and dismissing categories. The overall two-way match was 70% (52% expected by chance). This approximates the 75% observed match typically found in AAI studies (van IJzendoorn, 1995). Across four categories of the RQ, the percentage of mother–daughter matches was 56% (42% expected by chance), which is comparable to the 63% found in AAI studies (van IJzendoorn, 1995). Chi-square tests of association were significant for both two- and four-way tests, indicating that the adult attachment classifications of daughters and mothers were not independent. Post-hoc analyses of statistical power suggested that power was adequate for the medium to large effect sizes detected (two-way, $1 - \beta = .757$, $w = .362$; four-way, $1 - \beta = .860$, $w = .538$).

Hypothesis 2. To test the hypothesis that a mother's scores on the adult attachment dimensions of Avoidance and Anxiety would predict her daughter's

TABLE 2
Correspondence between daughters' and mothers' RQ classifications

Daughters' RQ	Mothers' RQ			
	Secure (N = 49)	Insecure (N = 35)		
Secure (n = 50)	37	13		
Insecure (n = 34)	12	22		
	Secure (N = 49)	Fearful (N = 19)	Preoccupied (N = 7)	Dismissing (N = 9)
Secure (n = 50)	37	5	4	4
Fearful (n = 22)	10	7	1	4
Preoccupied (n = 10)	2	6	2	0
Dismissing (n = 2)	0	1	0	1
	Across two categories		Across four categories	
Observed match	70%		56%	
Expected match	52%		42%	
Cohen's Kappa	.38		.24	
Chi-square	12.74 (df = 1), p < .0005		25.2 (df = 9), p < .005	

Note. RQ = Relationship Questionnaire. N = 84 for all analyses. Post-hoc power analyses for chi-squares: across two categories 1 - β = .942 (w = .385), across four categories 1 - β = .963 (w = .547).

scores (H2), two regression equations were constructed. Daughter's avoidance (dAVOIDANCE) and daughter's anxiety (dANXIETY) were the two criterion variables. Mother's Avoidance and Anxiety dimensions (mAVOIDANCE, mANXIETY) were predictor variables in both equations. In addition, several other variables were included to control for possible confounding effects. These included marital history (HISTORY) of the biological parents, years spent away from home (YEARS), and family size (SIZE). Because age was highly correlated with years away from home, an indicator of collinearity, age was omitted from the models. Marital history was treated as a dichotomous variable, with intact families coded as 1 and non-intact families (i.e., divorced, separated, or unmarried biological parents) coded as 0. These two equations can be written:

$$dAVOIDANCE = \text{constant} + b_1 mAVOIDANCE + b_2 mANXIETY + b_3 HISTORY + b_4 YEARS + b_5 SIZE \tag{1}$$

$$dANXIETY = \text{constant} + b_1 mAVOIDANCE + b_2 mANXIETY + b_3 HISTORY + b_4 YEARS + b_5 SIZE \tag{2}$$

To give the independent (mother) variables equal opportunity to explain variance in the criterion (daughter) variables, simultaneous regressions were performed.

Table 3 displays the zero-order correlations between the criterion and predictor variables. Several correlations are noteworthy. Mother Avoidance was moderately correlated with daughter Avoidance (r = .29, p < .01). This

TABLE 3
Correlations between daughters' and mothers' attachment dimensions and demographic variables

Variable	1	2	3	4	5	6	7
1. Daughter Avoidance	—	—	—	—	—	—	—
2. Daughter Anxiety	.06	—	—	—	—	—	—
3. Mother Avoidance	.29**	.05	—	—	—	—	—
4. Mother Anxiety	.03	-.01	.24*	—	—	—	—
5. Marital history	.07	.02	-.26*	-.05	—	—	—
6. Years from home	.01	.12	.08	.05	-.10	—	—
7. Family size	.13	-.11	-.09	.02	.08	.22*	—

Note. $N = 87$ for all correlations.

* $p < .05$; ** $p < .01$.

suggests that mothers who reported feeling uncomfortable with physical and emotional intimacy tended to have daughters whose reports were similar. Mother Avoidance was not associated with daughter Anxiety ($r = .05$). Mother Avoidance and marital history were moderately and negatively correlated ($r = -.26$, $p < .05$). That is, mothers high in Avoidance were more likely to have relationships that resulted in divorce or separation (although it is also possible that the divorce experience increased maternal avoidance). Brennan et al. (1998) found that Avoidance and Anxiety dimensions were independent ($r = .11$). In the present study, daughters' attachment dimensions were also uncorrelated ($r = .06$). However, mothers' attachment dimensions were moderately correlated ($r = .24$, $p < .05$).

Equation 1, which predicted daughter Avoidance, was significant, $F(3, 83) = 3.27$, $p = .024$, and accounted for 10.7% of the variance in daughter Avoidance (see Table 4). The only statistically significant predictor was mothers' Avoidance. Mother Anxiety and marital history were not significant predictors. Although interaction effects between variables were not hypothesized, such possibilities were explored, but no interaction effects were found. Power was moderate ($1 - \beta = .77$) for the medium effect size detected by Equation 1 ($f^2 = .149$). Equation 2, which predicted daughter Anxiety, was not significant.

TABLE 4
Summary of simultaneous regression analysis for Equation 1: Predicting daughters' avoidance score

Variable	b	β	t	Tol
Constant	1.376	—	—	—
Mother Avoidance	.333	.356*	3.20	.868
Mother Anxiety	-.048	-.055	-.516	.940
Marital history	.324	.143	1.319	.918
Years from home	-.011	-.034	-.319	.930
Family size	.102	.157	1.460	.931

Note. $R = .360$; $R^2 = .130$.

* $p < .005$.

In summary, the results of the regression analyses demonstrated some support for *H2*. Regarding daughter Avoidance, mother Avoidance emerged as the only substantial and statistically significant predictor (Equation 1). As in other studies (Hazan & Shaver, 1987), the marital history of biological parents failed to predict differences in their daughters' attachment.

Discussion

In the present study, we made two departures from previous investigations of intergenerational transmission of attachment. First, we focused on the attachment context of adult romantic relationships rather than infant–parent relationships. Second, we employed a dimensional measure of attachment in addition to a categorical one. Results generally supported the hypothesis that mothers' adult attachment organization, but not fathers', would be related to daughters' adult attachment organization.

A challenging theoretical issue is identifying the mechanism by which the observed similarity occurred. Because children do not participate in romantic relationships with their parents, it is unlikely that parents directly transmit their model of romantic partners in the same manner that they appear to transmit their model of infant–parent relationships (i.e., through interaction). At least two indirect avenues for continuity are possible. First, Collins and Read (1990) proposed that individuals possess a number of relationship-specific models, but that each is essentially a conservative revision of infant–parent models of attachment. As a result, models of romantic and infant–parent relationships can potentially share many elements (e.g., beliefs about and expectations of others, behavioral responses). If true, parents and children with similar infant–parent models may share similar orientations toward romantic partners. In this case, continuity is mediated almost exclusively by the preservation of early cognitive models of relationships and their ability to organize interpersonal experiences in similar ways across the lifespan. Although controversial (Fraleley & Shaver, 2000), some indirect evidence for this hypothesis exists (Crowell et al., 2002; Fraleley, 2002).

Second, social learning (Bandura, 1986) as a mechanism for intergenerational transmission of behaviors is supported in other areas of psychology (Andrews, Hops, & Duncan, 1997; Simons, Whitbeck, Conger, & Chyi-In, 1991). In the context of romantic relationships, children have ample opportunities to observe the marital interactions of their parents. The interactions involve numerous attachment-relevant domains including comfort-providing and comfort-seeking, emotional intimacy, and reliance on others for support. Thus, children have a large database from which they can construct ways of thinking, feeling, and behaving in romantic contexts. Social learning theory may also explain the gender pattern observed. Daughters in this sample may have judged themselves to be more similar to mothers and, as a result, may have been more likely to adopt the romantic orientation of their mothers.

Because the present design was cross-sectional rather than longitudinal, these explanations must be considered speculative. Other unmeasured factors may have mediated the association between mothers' and daughters' attachment. For example, similarities between mothers and daughters in terms of personality and temperament could account for the results. Current research suggests that neither personality nor temperament is redundant with attachment security (Shaver & Brennan, 1992; Vaughn & Bost, 1999), but modest associations between these constructs have been found.

Although some researchers have doubted the usefulness of self-report measures in studying the intergenerational transmission of attachment (Steele & Steele, 1994), the present study showed these measures to be valuable tools. Evidence for transmission was obtained for mothers and daughters using both categorical and dimensional measures of adult romantic attachment. The Relationships Questionnaire yielded a degree of matching similar to that found in AAI studies. The Experiences in Close Relationships questionnaire, a dimensional measure, yielded a more precise understanding of mother-daughter correspondence. Mothers who described themselves as more comfortable with physical and emotional closeness had daughters who described themselves similarly. Likewise, mothers who reported feeling more comfortable depending on others to meet their intimacy needs also had daughters who felt similarly. Mother Anxiety, a dimension that includes feelings of self-worth and concerns about abandonment, was unrelated to daughter Avoidance and Anxiety.

The importance of dimensional measures was further highlighted by two other findings. First, mothers who reported feeling uncomfortable with closeness or dependence were more likely to be divorced, separated, or unmarried. This suggests that persons uncomfortable with closeness may have difficulty sustaining intimate relationships. Second, the attachment dimensions were uncorrelated in daughters, but positively associated in mothers. These two dimensions are thought to be independent and have been found to be relatively uncorrelated (Brennan et al., 1998). This is significant because the ECR was standardized using an undergraduate sample with a median age of 18 years (Brennan et al., 1998). As far as we know, no information regarding the independence of the dimensions later in adulthood has been reported. If replicated in a longitudinal study, this finding suggests that the adult attachment dimensions may have a developmental course. As adults grow older, their beliefs about comfort with intimacy and worthiness to be loved without fear of loss may become more congruent with each other than they were in young adulthood.

Why does the Avoidance dimension stand out? Cross-sectional and longitudinal research provides indirect evidence that the Avoidance dimension may be more stable over time than the Anxiety dimension. In a cross-sectional study of a nationally representative sample, Mickelson et al. (1997) found that the proportion of persons with the avoidant style remained roughly equivalent across different age groups ranging from 15

to 54 years. In contrast, the preoccupied style was negatively correlated with age. A similar pattern was displayed in the present study; there were considerably more daughters than mothers who described themselves as preoccupied. In a longitudinal study of internal working models, Klohnen and John (1998) found substantial stability in scores for the avoidant prototype model across 25 years of adulthood, but a decrease in scores over time for the preoccupied prototype model. Citing each other's evidence, these two groups of researchers proposed that the preoccupied style becomes less common with age. In particular, it seems that individuals with a preoccupied attachment style may migrate toward attachment security over time. While secure and preoccupied styles are characterized by low Avoidance, the preoccupied style is also characterized by high Anxiety. If individuals with a preoccupied attachment style do migrate toward security, it seems likely that they might change on the Anxiety dimension rather than on the Avoidance dimension. Stability in Avoidance and instability in Anxiety over time could account for the Avoidance dimension's prominence in the present analyses.

Limitations

There are several important limitations to our study. First, the sample was one of convenience. It contained only college student women, making it important to repeat the study with men. Would mother Avoidance also predict son Avoidance, or would a role for fathers be detected? Second, other than marital history, we collected little descriptive data on the parents. Inclusion of variables such as age and current relationship satisfaction would have been informative. Third, future research should address sources of discontinuity as well as continuity. Researchers have found that the number of negative life events (e.g., loss, abuse) is related to changes in attachment security (Weinfield, Sroufe, & Egeland, 2000). In the present study, only the presence of parental divorce was controlled. Daughters who experienced several significant life events may be less likely to exhibit generational continuity with their mothers. In addition, Crowell, Fraley, and Shaver (1999) cited several sources of attachment development across the lifespan that were not included in the present study, namely, the history of peer and romantic experiences and the current adult attachment relationship. Including this information about participants should enable future investigators to account more adequately for variability in the transmission of adult attachment organization.

REFERENCES

- Ainsworth, M. S., Blehar, M. C., Waters, E., & Wall, S. (1978). *Patterns of attachment: A psychological study of the strange situation*. Hillsdale, NJ: Erlbaum.
- Andrews, J. A., Hops, H., & Duncan, S. C. (1997). Adolescent modeling of parent substance use: The moderating effect of the relationship with the parent. *Journal of Family Psychology, 11*, 259-270.

- Bandura, A. (1986). *Social foundations of thought and action*. Englewood Cliffs, NJ: Prentice Hall.
- Bartholomew, K. (1990). Avoidance of intimacy: An attachment perspective. *Journal of Social and Personal Relationships*, 7, 147–178.
- Bartholomew, K., & Horowitz, L. M. (1991). Attachment styles among young adults: A test of a four-category model. *Journal of Personality and Social Psychology*, 61, 226–244.
- Benoit, D., & Parker, K. C. H. (1994). Stability and transmission of attachment across three generations. *Child Development*, 65, 1444–1456.
- Bowlby, J. (1982). *Attachment and loss. Vol. 1. Attachment* (2nd ed.). New York: Basic Books. (Original work published 1969)
- Bowlby, J. (1973). *Attachment and loss. Vol. 2. Separation*. New York: Basic Books.
- Bowlby, J. (1988). *A secure base: Parent-child attachment and healthy human development*. New York: Basic Books.
- Brennan, K. A., Clark, C. L., & Shaver, P. R. (1998). Self-report measurement of adult romantic attachment: An integrative overview. In J. A. Simpson & W. S. Rholes (Eds.), *Attachment theory and close relationships* (pp. 46–76). New York: Guilford Press.
- Carnelley, K. B., Pietromonaco, P. R., & Jaffe, K. (1996). Attachment, caregiving, and relationship functioning in couples: Effects of self and partner. *Personal Relationships*, 3, 257–277.
- Cassidy, J. (2000). Adult romantic attachments: A developmental perspective on individual differences. *Review of General Psychology*, 4, 111–131.
- Cohen, J. (1992). A power primer. *Psychological Bulletin*, 112, 155–159.
- Collins, N. L., & Read, S. J. (1990). Adult attachment, working models, and relationship quality in dating couples. *Journal of Personality and Social Psychology*, 58, 644–663.
- Crowell, J. A., Fraley, R. C., & Shaver, P. R. (1999). Measurement of individual differences in adolescent and adult attachment. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (pp. 434–465). New York: Guilford Press.
- Crowell, J. A., O'Connor, E., Wollmers, G., Sprakin, J., & Rao, U. (1991). Mothers' conceptualizations of parent-child relationships: Relation to mother-child interaction and child behavior problems. *Development and Psychopathology*, 3, 431–444.
- Crowell, J. A., Treboux, D., Gao, Y., Fyffe, C., Pan, H., & Waters, E. (2002). Assessing secure base behavior in adulthood: Development of a measure, links to adult attachment representations, and relations to couples' communication and reports of relationships. *Developmental Psychology*, 38, 679–693.
- Fonagy, P., Steele, H., & Steele, M. (1991). Maternal representations of attachment during pregnancy predict the organization of infant-mother attachment at one year of age. *Child Development*, 62, 891–905.
- Fraley, R. C. (2002). Attachment stability from infancy to adulthood: Meta-analysis and dynamic modeling of developmental mechanisms. *Personality and Social Psychology Review*, 6, 123–151.
- Fraley, R. C., & Shaver, P. R. (2000). Adult romantic attachment: Theoretical developments, emerging controversies, and unanswered questions. *Review of General Psychology*, 4, 132–154.
- Fraley, R. C., & Waller, N. G. (1998). Adult attachment patterns: A test of the typological model. In J. A. Simpson & W. S. Rholes (Eds.), *Attachment theory and close relationships* (pp. 77–144). New York: Guilford Press.
- Frazier, P. A., Byer, A. L., Fischer, A. R., Wright, D. M., & DeBord, K. A. (1996). Adult attachment style and partner choice: Correlational and experimental findings. *Personal Relationships*, 3, 117–136.
- Hamilton, C. E. (2000). Continuity and discontinuity of attachment from infancy through adolescence. *Child Development*, 71, 690–694.
- Hazan, C., & Shaver, P. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology*, 52, 511–524.

- Hesse, E. (1999). The adult attachment interview: Historical and current perspectives. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (pp. 395–433). New York: Guilford Press.
- van IJzendoorn, M. H. (1995). Adult attachment representations, parental responsiveness, and infant attachment: A meta-analysis on the predictive validity of the adult attachment interview. *Psychological Bulletin, 117*, 387–403.
- Klohnen, E. C., & Bera, S. (1998). Behavioral and experiential patterns of avoidantly and securely attached women across adulthood: A 31-year longitudinal perspective. *Journal of Personality and Social Psychology, 74*, 211–223.
- Klohnen, E. C., & John, O. P. (1998). Working models of attachment: A theory-based approach. In J. A. Simpson & W. S. Rholes (Eds.), *Attachment theory and close relationships* (pp. 115–140). New York: Guilford Press.
- Main, M., Kaplan, N., & Cassidy, J. (1986). Security in infancy, childhood, and adulthood: A move to the level of representation. In I. Bretherton & E. Waters (Eds.), *Growing points of attachment theory and research. Monographs of the Society for Research in Child Development, 50*, 67–104.
- Mickelson, K. D., Kessler, R. C., & Shaver, P. R. (1997). Adult attachment in a nationally representative sample. *Journal of Personality and Social Psychology, 73*, 1092–1106.
- Shaver, P. R., Belsky, J., & Brennan, K. A. (2000). The Adult Attachment Interview and self-reports of romantic attachment: Associations across domains and methods. *Personal Relationships, 7*, 25–43.
- Shaver, P. R., & Brennan, K. A. (1992). Attachment styles and the 'Big Five' personality traits: Their connections with each other and with romantic relationship outcomes. *Personality and Social Psychology Bulletin, 18*, 556–545.
- Simons, R. L., Whitbeck, L. B., Conger, R., & Chyi-In, W. (1991). Intergenerational transmission of harsh parenting. *Developmental Psychology, 27*, 169–171.
- Steele, H., & Steele, M. (1994). Intergenerational patterns of attachment. In K. Bartholomew & D. Perlman (Eds.), *Advances in personal relationships: Vol. 5. Attachment processes in adulthood* (pp. 93–120). London: Jessica Kingsley.
- Vaughn, B. E., & Bost, K. K. (1999). Attachment and temperament: Redundant, independent or interacting influences on interpersonal adaptation and personality development? In J. Cassidy & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (pp. 198–225). New York: Guilford Press.
- Waters, E., Merrick, S., Treboux, D., Crowell, J., & Albersheim, L. (2000). Attachment security in infancy and early adulthood. *Child Development, 71*, 684–689.
- Weinfield, N. S., Sroufe, L. A., & Egeland, B. (2000). Attachment from infancy to early adulthood in a high-risk sample: Continuity, discontinuity, and their correlates. *Child Development, 71*, 695–702.