



# **Extending the four-category model of adult attachment: An interpersonal model of friendship attachment**

**Ronald D. Welch & Melissa E. Houser**

*Denver Seminary, USA*

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ABSTRACT

Relationships among adult friendship attachment styles and levels of hope, self-disclosure, relationship satisfaction, and trust were studied to assess their validity as explanatory factors in friendship attachments in a cross-section of 268 undergraduate students at a small, private university. Significant relationships were found between attachment styles and hope, self-disclosure, and relationship satisfaction. Specifically, securely attached individuals showed significantly more hope, self-disclosure, and relationship satisfaction than individuals with fearful attachment styles. In addition, individuals with fearful attachment styles showed significantly less hope, self-disclosure, and relationship satisfaction than individuals with secure, dismissing, or preoccupied attachment styles.

KEY WORDS: attachment • friendship • hope • relationship satisfaction • self-disclosure • interpersonal

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Adult attachment theory is a growing domain of research within the study of relationships (Bartholomew & Horowitz, 1991; Hazan & Shaver, 1987) initially developed by Bowlby (1969). The study of adult attachment has elucidated how attachment patterns often carry over from childhood to adulthood and with moderate similarity in different relationships (Buist, Reitz, & Dekovic, 2008; Furman, 2001; Grabill & Kerns, 2000), while a wealth of individual and interpersonal factors contribute to these attachments

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All correspondence concerning this article should be addressed to Ronald D. Welch, Division of Counseling, Denver Seminary, 6399 South Santa Fe Drive, Littleton, CO 80120, USA [e-mail: ron.welch@denverseminary.edu]. Sandra Metts was the Action Editor on this article.

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(Engels, Finkenauer, Meeus, & Dekovic, 2001). These factors have been studied in a variety of ways, but a clear pattern of their influence has not been identified. This research has grown more quickly within the realm of romantic relationships which are thought to best approximate parent–child attachments in relation to caretaking behaviors (Hazan & Shaver, 1987). Specific research on friendship attachment is expanding as evidence suggests that secure friendships are instrumental in influencing secure romantic attachments and that these adult relationships can serve as a primary attachment for individuals without a current romantic partner (Fraley & Davis, 1997).

This study expands attachment theory from parent–child and romantic relationships to friendship by developing a model proposing four factors which influence the security of attachment in friendships. Such an extension is important because during late adolescence and early adulthood, unless a romantic partner is present, the central relationship in a person's life is often a friendship. The seminal research in attachment of Ainsworth, Blehar, Waters, and Wall (1978) has been expanded from parent–child to romantic relationships, but the factors that shape adult friendship attachments have not been considered sufficiently. The present study proposes a model including relationship satisfaction, hope, self-disclosure, and trust that can lead to a better understanding of social issues, including adult peer pressure, relationship expectations, and attachment transfer. This research can also provide insight into clinical perspectives on interventions to aid insecurely attached clients, while clarifying factors that affect internal working models of attachment.

### **Attachment theory**

Bowlby's (1969) observation that infants reacted strongly when separated from their mothers laid a foundation for modern attachment research. Ainsworth et al. (1978) expanded this theory by identifying three childhood attachment styles which provide a foundation for adult attachment styles. Ainsworth described secure individuals who experience a caregiver as offering a secure base for exploration, anxious-ambivalent individuals who seek contact but are unable to appropriately receive it, and anxious-avoidant individuals who ignore contact from both caregivers and strangers. Based upon this attachment framework, numerous authors have applied attachment theory to adult attachment relationships (Bartholomew & Horowitz, 1991; Hazen & Shaver, 1987; Overall, Fletcher, & Friesen, 2003). Exploration of adult attachment began primarily within romantic relationships (Hazan & Shaver, 1987), but was later extended to friendship (Bartholomew & Horowitz, 1991; Fraley & Davis, 1997).

### **A model of adult attachment**

Bartholomew and Horowitz's (1991) model of adult attachment utilized views of self or other as follows: secure (+ self; + other), preoccupied (– self;

+ other), dismissive (+ self; – other), and fearful (– self; – other). Attachment is typically measured along dimensions of attachment anxiety and intimacy avoidance, with individuals who are anxious about attachment displaying a negative view of self and those who avoid intimacy displaying a negative view of others. Preoccupied, dismissing, and fearful attachment styles are all seen as insecure.

Each of these attachment styles has a different friendship presentation. Securely attached individuals display high levels of intimacy, warmth, and balance of control, while preoccupied individuals present with high levels of self-disclosure, reliance on attachment figures, and negative self-image (Bartholomew & Horowitz, 1991). Dismissing individuals are high in self-confidence and low in emotional expressiveness (Bartholomew & Horowitz, 1991). Lastly, fearful individuals are low in self-confidence, assertiveness, self-image, and balance-of-control, while showing little self-disclosure or reliance on attachment figures as a secure base (Bartholomew & Horowitz, 1991). Furman (2001) observed that securely attached individuals value co-operation and mutuality in friendships, preoccupied individuals become self-sacrificial and display extreme anger and discomfort in friendships, and dismissing individuals are highly autonomous, investing minimally in friendships and minimizing their importance.

### **Internal working models of attachment in friendships**

In discussing Bowlby's (1969) concept of working models, Ainsworth (1989) asserted that internal working models are mental representations of past relational patterns, learned early in life and reenacted in later relationships, which guide individuals in their current relationships. The term "working" model implies room for change, but self-fulfilling expectations generally lead to perpetuation (Grabill & Kerns, 2000). During times of change, attachment patterns can become unstable and working models must be updated to allow individuals to continue developing accurate assumptions (Bowlby, 1969; Kobak & Hazan, 1991). Individuals have global working models for general attachment relationships, more specific models for individual relationships, and specific models for individual differences found in each relationship. The research that follows will describe this hierarchy of working models for attachment relationships in which each working model informs the others.

Changes in the level of security that working models create can occur as a function of experience, but not necessarily age (Furman, 2001). Individuals may strengthen or weaken these models due to positive or negative experiences with attachment figures. Their behavior is shaped by these models, eliciting responses from others that are consistent with the current models they utilize (Furman, 2001). Brumbaugh and Fraley (2006) found that anxious individuals implemented both global and relationship-specific representations of working models, while avoidant individuals implemented working models based on characteristics of their past partners.

Furman's (2001) study, which compared relationships of participants with parents, friends, and romantic partners, examined working models of friends.

He found a high correspondence in working models of two different friendships across participants. This was based upon the high consistency between participant reports of their own behavior and their friends' behavior in each relationship with regards to factors such as communication, providing and seeking support, and satisfaction. Furman (2001) reported that working models of friendship were moderately related to working models of romantic relationships and relationships with parents.

During adolescence and early adulthood, individuals may experience problems in their relationships due to their choices of friends, but one function of secure working models is to help individuals learn from these mistakes when choosing subsequent friends who will better meet their needs (Furman, 2001). Buist et al. (2008) stated that the quality of adolescent attachment is best explained by internal working models, while others have found that insecure adolescents showed less context-specific sensitivity and relied more heavily on their established working models (Mikulincer & Selinger, 2001). Greenwood, Pietromonaco, and Long (2008) stated that fictional characters may even offer anxiously attached college-age females more secure attachment than some real life relationships. Parental attachment also influences social skill development and subsequent relational competence in friendships and romantic relationships (Engels et al., 2001).

Working models have some consistency, but differ from relationship to relationship. While parental relationships influence friendship interactions and friendships subsequently influence romantic relationships, these new types of relationships provide new and more egalitarian contexts for attachment experiences and close relationships (Miller & Hoicowitz, 2004). In adulthood, attachment appears to be driven less by biological needs, such as physical nurture and sustenance, and more by interpersonal needs, such as trust, self-disclosure, hope, and relationship satisfaction. Variations in relationship-specific attachment security may be accounted for by factors that define relationships and their participants (Buist et al., 2008).

### **Attachment transfer**

In the attachment transfer process, primary attachments and attachment behaviors are transferred to a new relationship over a period of time based on previous working models and the unique factors of new relationships. A number of authors have explored connections between parent-child attachments and friendship attachments (Engels et al., 2001; Miller and Hoicowitz, 2004). Fraley and Davis (1997) reported that high levels of trust and caring in friendships facilitated attachment transfer, while also noting that attachment behaviors transfer hierarchically. The attachment transfer process occurs in late adolescence and early adulthood, but Fraley and Davis (1997) found that complete transfer of all attachment functions to a meaningful friendship attachment may take approximately five years.

Throughout attachment transfer, different attachment figures fulfill different attachment functions (Markiewicz, Lawford, Doyle, & Haggart, 2006).

Peers fulfill safe haven and proximity-seeking functions, while parents meet secure base functions, which transfer last (Fraley & Davis, 1997; Markiewicz et al., 2006). Best friends were used more than others as a safe haven, while romantic partners were used most for proximity, particularly among older participants (Markiewicz et al., 2006). Miller and Hoicowitz (2004) added that previous parental attachments predicted friendship outcomes, while romantic attachments more reliably predicted romantic relationship outcomes.

Previous insecure attachment to parents affects rates of attachment transfer and the quality of new attachments. Regardless of age, participants who were insecurely attached to their mothers turned less to their mother and more to romantic partners for a secure base (Markiewicz et al., 2006). Freeman and Brown (2001) noted that secure adolescents most often selected mothers as the primary attachment figure, while insecure adolescents preferred romantic partners and best friends. Markiewicz, Doyle, and Brendgen (2001) found that security of adolescents' attachment to friends was predictive of friendship quality, while Miller and Hoicowitz (2003) discovered that avoidance scores for parental attachment predicted significant variation in college-age friendship outcomes.

Attachment appears to be moderately stable over time, with attachment representations remaining stable in 60–70% of individuals, but some fluidity is seen based on differences in applications of working models (Scharfe & Cole, 2006; Zhang & Labouvie-Vief, 2004). Buist et al. (2008) found few longitudinal changes in attachment, while noting that differences in quality of attachment were related to working models and relationship-specific characteristics. Scharfe and Cole (2006) added that distress and relationship status can moderate attachment stability, clarifying that when situational factors (i.e., relationship status or anxiety) became more permanent, they can lead to changes in attachment stability.

In light of varying results in attachment transfer research, a few concluding comments are offered. First, although attachment transfer can occur in less than five years, this is often due to relationships being characterized by insecurity and a resulting unconscious desire to change primary attachments to increase security (Freeman & Brown, 2001). Second, some studies which did not support attachment bonds in friendships (i.e., Cassidy & Shaver, 2002; Furman, 2001) were conducted with participants who were still primarily attached to their parents or who had relatively short-term, affiliative friendships. Lastly, research that indicates attachment is a biologically activated behavioral system (Ainsworth, 1989) has primarily focused on childhood attachment in which biological survival is a greater factor than interpersonal needs and is therefore less relevant to adult attachment bonds.

### **An interpersonal model of friendship attachment**

Hope, relationship satisfaction, self-disclosure, and trust have all been found to be related to friendship attachment, but their effects have not been studied simultaneously. Numerous authors have addressed these individual

constructs in friendship attachments (Fraley & Davis, 1997; Freeman & Brown, 2001; Mikulincer & Selinger, 2001). Research clarifying individual relationships between each of these factors and friendship attachment follows. These factors were chosen due to their demonstrated relationship to friendship attachment and the authors' belief that they can work in concert, mutually enhancing effects, to produce secure attachment.

Secure adult friendship attachment can be defined as a bond that involves high levels of hope for both self and relationship, high levels of trust in others, high levels of self-disclosure, and high levels of satisfaction with the relationship. The degree of attachment security will reflect what impact these factors have had on attachment bonds. Bartholomew and Horowitz's (1991) four-category model of adult attachment can be extended through these explanatory factors to a manifestation of relationship-specific attachments. Hope and relationship satisfaction are primarily related to view of self, while trust and self-disclosure are primarily related to view of others.

### **Hope and friendship attachment**

Hope, defined by Dufault & Martocchio (1985, p. 380) as "a multidimensional dynamic life force characterized by a confident yet uncertain expectation of achieving a future good which, to the hoping person, is realistically possible and personally significant," is necessary to develop and sustain secure attachment across a variety of attachment relationships (Allen, 2004; Scoili & Biller, 2003). Secure peer attachment relationships are specifically linked to increased hopefulness (Moller, Fouladi, McCarthy, & Hatch, 2003). Hope is related to view of self through a perceived sense of self-efficacy (Bryant & Cvengros, 2004). In attachment relationships, hope for a relationship is developed through having needs met in previous relationships and viewing oneself as worthy, resulting in positive expectations and a positive self-concept. Dismissing people are able to maintain hope as they have a positive view of self, but fearful and preoccupied individuals, having a negative view of self, have difficulty maintaining high levels of hope. The relationship between hope and friendship attachment can be further clarified through Dufault and Martocchio's (1985) concept of particularized hope, in which the relationship with an attachment figure is the particular object, as this concept supports a view of hope as being expected satisfaction with the relationship.

While both hope and optimism seem related to attachment, hope is the more appropriate concept to study, as it more accurately characterizes a positive view of self that is representative of secure adult attachment. A primary difference between hope and optimism is that hope implies a sense of personal responsibility and self-efficacy, whereas optimism merely implies a positive appraisal of outcomes (Bryant & Cvengros, 2004). Personal responsibility and self-efficacy appear related to Bartholomew and Horowitz's (1991) concept of a positive view of self. An individual may need to believe in her/his own ability to affect the outcome of a relationship for hope to develop.

**Relationship satisfaction and friendship attachment**

Securely attached friends display high levels of relationship satisfaction (Bippus & Rollin, 2003). Those with a positive view of self expected to be treated well in a relationship and saw themselves as having worth. They reported having this expectation confirmed on a daily basis within their relationships, thus reinforcing their working models. Dismissing individuals avoided intimacy in relationships due to a negative view of others, but they maintained satisfaction with relationships when they were able to exert enough relationship control to maintain it in the manner they desired (Bartholomew & Horowitz, 1991; Grabill & Kerns, 2000). Securely attached individuals were highest in intimacy, while dismissing individuals were less likely to feel validated and cared for. Preoccupied individuals tended to desire greater closeness and had self-esteem issues which interfered with relationship satisfaction, while fearful individuals desired relationships but were afraid of closeness and rejection. In light of this research, relationship satisfaction appears to be high among secure and dismissing individuals who have more positive views of self, but lower among preoccupied and fearful individuals.

Relationship satisfaction is a necessary component of friendship attachment, but research on this point is somewhat inconsistent. In contrast to the research noted above that indicated that both secure and dismissive individuals demonstrate high levels of relationship satisfaction (Bartholomew & Horowitz, 1991; Grabill & Kerns, 2000), others have found that securely attached individuals exhibit greater relationship satisfaction than the three insecure attachment types (Bippus & Rollin, 2003). Secure individuals are more likely to learn from relationship mistakes and create a higher level of future satisfaction and success (Furman, 2001). Markewicz et al. (2001) found that secure friendship attachment predicted friendship quality, while comparing one's current relationship to other relationships has been found to be related to higher levels of insecurity in relationships (LeBeau & Buckingham, 2008). A high level of relationship satisfaction appears to enable individuals to maintain long-term relationships and develop an opportunity to establish attachment bonds.

**Self-disclosure and friendship attachment**

Secure attachment is significantly, positively related to self-disclosure in short-term adult relationships (Grabill & Kerns, 2000). Preoccupied individuals often self-disclose, while dismissing individuals have low levels of disclosure (Bartholomew & Horowitz, 1991). Those with positive views of others are generally comfortable enough to disclose, while fearful individuals holding a negative view of others may disclose much less (Grabill & Kerns, 2000). In addition, self-disclosure has been found to mediate avoidant and anxious attachment, as the act of reaching out to others may serve to reduce fears of abandonment (Chason, Bauminger, Finzi-Dottan, & Har-Even, 2008). Self-disclosure levels may vary in proportion to the security of the adult friendship attachment, but further longitudinal research would be necessary to support this claim.

Self-disclosure also appears to affect openness, honesty, and depth of attachment. McCroskey and Richmond (1977) focused on the degree to which private and personal information about the self is communicated specifically to one person. A lack of self-disclosure also creates distance from an attachment figure (McCroskey & Richmond, 1977). Preoccupied individuals can disclose too much and push attachment figures away (Bartholomew & Horowitz, 1991). A moderate level of self-disclosure, at least early in relationships, appears to serve one well in utilizing others to fulfill attachment functions.

### **Trust and friendship attachment**

Trust is a relevant factor in adult attachment relationships, as a positive appraisal of others is generally necessary to trust. Securely attached friends report higher levels of trust (Mikulincer, 1998). Preoccupied individuals expect others to be positive, desiring attachment relationships, even though they fear rejection. The negative view of others shared by dismissing and fearful individuals leads them to be cautious in developing trust. Mikulincer (1998) described trust in terms of dependability, indicating that an individual can trust others to be responsive to his or her needs and have positive expectations about availability. If an individual perceived an attachment figure to have these qualities, it seems more likely that secure attachment to that person would be possible.

Trust is a process of engaging in behaviors based on perceiving others as trustworthy, despite the fact that there is no certainty of how others will respond (Wheeless, 1977). If this choice to risk the attachment bond is rewarded with a positive response, both trust and the attachment bond will be strengthened. Individualized trust and self-disclosure were both significant aspects in interpersonal solidarity. An individualized trust perspective is most relevant to adult attachments, as specific behaviors displayed in the relationship would have greater effect on strengthening or weakening of the attachment.

### **Friendship attachment in college-age students**

There is ample evidence to support the importance and relevance of friendships for college-age students (Bartholomew & Horowitz, 1991; Bippus & Rollin, 2003; Mullis, Hill, & Readdick, 1999). As most college students have left home and parental figures are no longer in close proximity or as available to meet attachment needs, others must take on primary attachment roles and meet needs similar to those of the original attachment relationships. From the adolescent years on, friendships increase in importance, providing greater emotional support and affecting family interactions (Bartholomew & Horowitz, 1991; Patterson, Field, & Pryor, 1993). Changes in adolescent friendships, including increased trust and reciprocal self-disclosure, are similar to other attachment relationships (Zimmerman, 2004). Studying new friendships or investigating relatively new college peers may lead to a failure to identify friendship attachments (Grabill & Kerns, 2000;



Saferstein, Neimeyer, & Hagans, 2005). In addition, studying high school students who have not fully transferred attachment functions from parents to peers may also lead to this same result (Furman, 2001; Markiewicz et al., 2001; Zimmerman, 2004). College students' enduring high school friendships still play an important role in their lives, as they display the ability to fulfill attachment needs through long-distance interactions. Fraley and Davis' (1997) work supported using a college-age sample in studying friendship attachment by highlighting the importance of secure working models in college students.

## Predictions

This study predicted that relationship satisfaction, hope, self-disclosure, and trust would be significant elements in a model of friendship attachment. Further, it was expected that secure individuals would demonstrate high levels of all four factors, dismissing individuals would show high levels of hope and relationship satisfaction and low levels of trust and self-disclosure, preoccupied individuals would display high levels of trust and self-disclosure and low levels of hope and relationship satisfaction, and fearful individuals would respond with low levels of all four factors (see Figure 1).

## Method

### Participants

Participants were 268 undergraduate students selected from a cross-section of classes from different departments and class levels at a small, private

**FIGURE 1**  
**Predicted Relationships**

	<u>Positive View of Self</u>	<u>Negative View of Self</u>
	<u>Secure Attachment</u>	<u>Preoccupied Attachment</u>
<u>Positive</u>	Hopeful	Hopeless
<u>View of</u>	Satisfied	Dissatisfied
<u>Others</u>	Trusting	Trusting
	Self-Disclosive	Self-Disclosive
	<u>Dismissing Attachment</u>	<u>Fearful Attachment</u>
<u>Negative</u>	Hopeful	Hopeless
<u>View of</u>	Satisfied	Dissatisfied
<u>Others</u>	Distrusting	Distrusting
	Non-disclosive	Non-disclosive

Christian university. Although 20 participants (7.5%) did not complete demographic items, those who did were 37.9% male and 62.1% female and ranged in age from 18 to 58 with a mean age of 20.1 years old ( $SD = 3.04$ ). Participants were primarily Caucasian (84.7%), 7.7% Hispanic, 1.2% African-American, 1.2% Asian, 1.6% Native American, and 3.6% other ethnicities. Participants' length of friendships were fairly lengthy (49.8% greater than ten years and 29.6% five to ten years), with the remainder ranging from one to five years (15.8%) to less than one year in length (4.9%).

## Measures

Participants completed a set of measures as part of a larger study. Measures were chosen based on their effectiveness in measuring relevant constructs and on their previously demonstrated reliability and validity.

**Relationship Structures questionnaire.** The Relationship Structures (RS) questionnaire, developed by Fraley, Niedenthal, Marks, Brumbaugh, and Vicary (2006), and first used in research is a dimensional scale that rates attachment in terms of avoidance and anxiety. Separate scores are developed for anxiety and avoidance, as this dimensional style is thought to provide the most accurate description of attachment. Scores on these two dimensions are then used to create a categorical attachment style. Only the Friends subscale (RS-F), with four anxiety items and six avoidance items, was used. It rates best friends on a scale of 1 (*strongly disagree*) to 7 (*strongly agree*) for various attachment behaviors (e.g., "it helps to turn to this person in times of need" and "I talk things over with this person"). While a relatively new measure, data on reliability and validity are promising (in the present study, avoidance  $\alpha = .85$  and anxiety  $\alpha = .82$ ).

The RS is a more appropriate instrument than either the Experiences in Close Relationships – Revised Questionnaire (ECR-R) (Fraley, Waller, & Brennan, 2000) or the Experiences in Close Relationships Questionnaire (ECR) (Brennan, Clark, & Shaver, 1998). The RS was developed to examine attachment in several close relationships while the ECR and ECR-R do not discriminate between different attachment relationships. The RS was chosen due to its ability to specifically measure attachment dimensions within friendships and to accurately assess friendship attachment on both anxiety and avoidance dimensions.

**Relationship Satisfaction Scale.** The Relationship Satisfaction Scale (Burns, 1995) is a seven item measure designed to evaluate close relationships. This scale was originally used to assess marital satisfaction, but it has also been used to assess relationship satisfaction with parents, siblings, and friends. Each item is accompanied by a seven-point scale ranging from 0 (*very dissatisfied*) to 6 (*very satisfied*) where higher scores indicate greater satisfaction. For example, participants were asked to rate "satisfaction with your role in the relationship" ( $\alpha = .90$ ).

**Herth Hope Index.** The Herth Hope Index (HHI) (Herth, 1992) is a 12-item instrument developed from the 30-item Herth Hope Scale (HHS)

(Herth, 1991). Each item is accompanied by a four-point scale ranging from 1 (*strongly disagree*) to 4 (*strongly agree*). Items include general statements regarding self and relationships (e.g., "I feel all alone"). Both Herth instruments explore three dimensions including Temporality and Future, Positive Readiness and Expectancy, and Interconnectedness. As the present study is interested in general hope, and as internal consistency was acceptable in this study ( $\alpha = .83$ ), items were summed to create a single hope score.

**Miller Self-disclosure Index.** The Miller Self-disclosure Index is a 10-item measure that rates disclosure on a five-point scale from 0 (*discuss not at all*) to 4 (*discuss fully and completely*) (Miller, Berg, & Archer, 1983). Participants were asked to respond to the scale regarding their closest friend (e.g., "What I like and dislike about myself";  $\alpha = .89$ ).

**Rotter Interpersonal Trust Scale.** The Rotter Interpersonal Trust Scale (Rotter, 1967) is a 25-item scale which measures trust related to two factors: trust of people in close relationships and trust of institutions and society as a whole (Robinson, Shaver, & Wrightsman, 1991). Although it does not tap trust in a specific friendship, it was selected based on the expectation that it would tap into an individual's overall working model of trust in relationships. Items are accompanied by 1 (*strongly agree*) to 5 (*strongly disagree*) scales (e.g., "Hypocrisy is on the increase in society";  $\alpha = .75$ ).

## Results

Data were analyzed utilizing discriminant function analysis and multivariate analysis of variance (MANOVA) procedures. Discriminant analysis was utilized to analyze the degree to which independent variables of relationship satisfaction, hope, self-disclosure, and trust predicted attachment style. MANOVA was utilized as an additional analysis to compare differences between groups of individuals with different attachment styles on each factor. For analyses requiring a high/low comparison, a median split procedure was utilized for all instruments. Attachment style classification was conducted through coding participants with low anxiety and low avoidance scores as secure ( $n = 69$ ), participants with high anxiety and low avoidance scores as preoccupied ( $n = 41$ ), individuals with low anxiety and high avoidance scores as dismissing ( $n = 32$ ), and participants with high anxiety and high avoidance scores as fearful ( $n = 69$ ) based upon Bartholomew and Horowitz's established four-category model.

### Predicting attachment group membership

Discriminant function analysis results support three of the four proposed factors in the authors' interpersonal model of adult friendship attachment, with trust being the only non-significant variable. The overall Wilks' lambda was significant,  $[\lambda] = .607$ ,  $\chi^2 (12, N = 211) = 102.87$ ,  $p < .001$  for functions 1–3. The model correctly classified 55% of the overall attachment style groups. Specifically, this model predicted 75.4% of the securely attached

group, 41.5% of the preoccupied group, 18.8% of the dismissing group, and 59.4% of the fearful group (detailed tables available on request).

### **Attachment, satisfaction, disclosure, hope, and trust**

Multivariate analysis of variance results also indicated that attachment group membership influenced the set of dependent variables  $F(12, 540) = 9.35, p < .001, \eta_p^2 = .15$ . Follow-up ANOVAs indicated main effects for adult friendship attachment style on relationship satisfaction  $F(3, 207) = 24.99, p < .001, \eta_p^2 = .27$ . Post hoc analyses (Tukey's HSD; see Table 1) indicated, first, that secure individuals reported greater relational satisfaction, and fearful individuals less relational satisfaction, than other groups. The dismissing and preoccupied groups did not differ from one another. Second, adult friendship attachment styles differed significantly on self-disclosure  $F(3, 207) = 20.95, p < .001, \eta_p^2 = .23$ . In this case, fearful individuals reported disclosing less than all other groups. In addition, secure individuals reported more disclosure than preoccupied individuals. Again, the dismissing and preoccupied groups did not differ. Third, friendship attachment style exerted a main effect on hope  $F(3, 207) = 16.05, p < .001, \eta_p^2 = .19$ . Fearful individuals reported less hope than all other groups (that did not differ from one another). Finally, friendship attachment styles did not differ in terms of trust.

## **Discussion**

As described earlier in this paper, adult attachment theory, initially developed by Bowlby (1969), has clarified the ways in which attachment patterns can carry over from childhood to adulthood (Buist et al., 2008; Furman, 2001; Grabill & Kerns, 2000). This study helps clarify the ways in which interpersonal aspects of adult friendships are factors in the levels of secure attachment seen in these relationships. This research adds to the expansion of attachment research from parent-child and romantic attachments to the area of friendships.

These results support the proposed extension of attachment theory past romantic and parent-child relationships to friendship through developing

**TABLE 1**  
**Attachment group differences on relational satisfaction, self-disclosure, hope, and trust**

Dependent variable	Secure	Preoccupied	Dismissing	Fearful
Relational satisfaction	38.61 <sub>A</sub>	34.02 <sub>B</sub>	34.72 <sub>B</sub>	30.10 <sub>C</sub>
Self-disclosure	36.16 <sub>A</sub>	33.54 <sub>AB</sub>	31.84 <sub>B</sub>	28.20 <sub>C</sub>
Hope	42.14 <sub>A</sub>	40.27 <sub>A</sub>	41.25 <sub>A</sub>	37.45 <sub>B</sub>
Trust	80.39 <sub>A</sub>	84.63 <sub>A</sub>	81.69 <sub>A</sub>	83.45 <sub>A</sub>
<i>N</i>	69	41	32	69

*Note:* Within each row, means lacking a common subscript differ significantly ( $p < .05$ ).

a model of adult friendship attachment. Three of these four proposed factors, relationship satisfaction, hope, and self-disclosure, were found to be significantly related to attachment style and to significantly predict adult friendship attachment style. For individuals without a romantic partner or children, friendships are often the central relationships in their lives, and this research clarifies processes by which secure friendships are formed.

The extension of previous attachment research through creating a model of friendship attachment is significant for several reasons. First, these findings show that secure individuals do not just display low levels of anxiety and avoidance in terms of their view of self, as suggested by Bartholomew and Horowitz (1991), but they display higher levels of hope, self-disclosure, and relationship satisfaction. In addition, fearful individuals do not simply display higher levels of anxiety and avoidance, but they respond with lower levels of hope, self-disclosure, and relationship satisfaction. These factors may provide a basis for an explanation of Ainsworth's (1989) assertion that relational patterns learned early in life and reenacted in later relationships are the working models upon which attachment is based.

Current research findings are consistent with Bartholomew and Horowitz' (1991) report that secure individuals show high levels of intimacy and fearful individuals display low self-disclosure. More specifically, this research highlights protective factors associated with secure friendships that may shelter one against the inherent dangers present in insecure friendships. Such dangers could include disruption in interpersonal relationships, negative expectations about the future, and higher levels of depression. Insecure friendships may actually be a risk factor in developing insecure romantic relationships, when seen in light of attachment transfer processes.

One of the most salient implications of this current study is that the proposed friendship attachment factors may serve as initiating and maintaining forces in levels of attachment. For instance, hope may serve to create and/or maintain low levels of anxiety and avoidance in secure friendships, thereby allowing a person to assess relationships as generally safe and to maintain consistently positive expectations about the future. These factors could create a protective envelope that shields individuals from negative relational experiences, such as depression.

This research also provides insight into the attachment transfer process described by Fraley and Davis (1997). The attachment process may be transferred from parent-child relationships to best friends, romantic partners, or sequentially to both types of relationships, through interpersonal factors discovered in this study. Further research on levels of relationship satisfaction, hope, and self-disclosure may show that levels of these factors play a causal role in attachment security and facilitate increased stability in friendships.

Clarifying reasons behind the development of secure and insecure friendships also provides insight into potential interventions that could help make preoccupied, dismissing, or fearful friendships more secure. Furman (2001) clarified that insecurely attached individuals do have significant difficulties in relationships, but did not identify an underlying interpersonal construct that creates these interpersonal problems. Understanding ways in which hope, self-disclosure, and relationship satisfaction are related to secure

friendships may provide insight into the interventions necessary to help insecure friendships become more secure. In essence, individuals may be able to learn to overcome attachment difficulties through specific interventions targeting interpersonal constructs that undergird attachment systems.

### **Limitations and future directions**

This study highlights a need to more clearly differentiate the four attachment categories. Dismissing and preoccupied groups were more difficult to predict than were more polarized fearful and secure groups. This was likely the case because, in terms of anxiety and avoidance, dismissing and preoccupied individuals are high in one factor and low in the other, while fearful and secure individuals are either high in both or low in both. In addition, the median split procedure is dependent on the specific sample drawn. While dismissing and preoccupied individuals contain risk factors, they also have protective factors in the model.

Trust is an important component of secure friendships (Mikulincer, 1998), yet this was not supported by the current study. Rather than viewing these current findings as contradicting previous research, it may be more appropriate for future research to utilize an individualized measure of trust that allows specific analysis of trust levels in the attachment relationship. For this study, a generalized measure of trust was selected, because we thought that secure individuals' internal working models would include trust across many relationship types. However, the chosen instrument referred to strangers and the greater society, which do not appropriately fit attachment paradigms. Other measures in this study that were individualized yielded stronger results.

The significant relationship between length of friendship and attachment style also deserves further investigation. As stated earlier, complete transfer of all attachment functions to a meaningful friendship attachment may take approximately five years (Fraley & Davis, 1997). The debate over whether or not friendships can constitute true attachment bonds is relevant to this finding. Seventy-nine percent of participants in the current study reported that their longest friendships were over five years, validating the assumption that while college students will have many recently established friendships, they are also able to sustain friendships which began in childhood and/or high school. As an individual matures, less direct proximity is necessary for an individual to use an attachment figure for security. There also appears to be a potential link between people who have sustained longer relationships and those who have lower levels of anxiety and avoidance. Further research in this area with varying lengths of friendships does appear warranted.

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