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UNIVERSITY OF OKLAHOMA

GRADUATE COLLEGE

THE RELATIONSHIP OF ATTACHMENT STYLE TO
PERSONALITY FACTORS AND FAMILY INTERACTION PATTERNS

A Dissertation

SUBMITTED TO THE GRADUATE FACULTY

in partial fulfillment of the requirements for the

degree of

Doctor of Philosophy

By

Marci M. Leveridge
Norman, Oklahoma
1998

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THE RELATIONSHIP OF ATTACHMENT STYLE TO
PERSONALITY FACTORS AND FAMILY INTERACTION PATTERNS

A Dissertation APPROVED FOR THE
DEPARTMENT OF EDUCATIONAL PSYCHOLOGY

BY

Chair

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To Eric, who moved from innocence to necessary uncertainty, beginning to find his own special path;

And to Tony, who listened to me and cleaned the kitchen, who rubbed my shoulders and did the laundry, who comforted me and put gas in my car, who always found a way to love me.

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Abstract

This study examined the relationship of adult attachment style to various personality factors and family interaction patterns. Participants in the study were 227 undergraduate students who completed the Attachment Style Questionnaire, the Minnesota Multiphasic Personality Inventory-2, and the Structural Family Interaction Scale-Revised. Regression analyses were used to explore the relationships of theory-consistent personality and family factors to each of three attachment styles. The avoidant attachment style was found to be associated with somatic complaints, social isolation, family disengagement, and family conflict avoidance, emphasizing the more covert expressions of affect associated with this style. However, the expectation that the avoidant interactional style represents an internalization of the relationship to a primary caregiver in childhood was not strongly supported. The anxious/ambivalent attachment style was associated with both anxiety and depression, the overt expressions of affect, and was also associated with the presence of cross-generational triads in the family. Other family factors, however, showed no statistically significant relationship to the style; possible explanations for this are discussed in light of attachment theory and other studies of adult attachment style. The secure style showed the anticipated relationships with maladaptive personality patterns. It was inversely related to depression, anxiety, somatic complaints, and social isolation. Of the maladaptive family patterns examined,

however, the secure style showed a significant inverse relationship only with family conflict avoidance. The lack of association between secure attachment and the factors of spousal conflict resolution and parent-child cohesion are discussed in light of other research on family interaction and the nature of the instruments used in the study.

The Relationship of Attachment Style to Personality Factors and Family Interaction Patterns

Introduction

Attachment theory proposes that early attachment relationships between a child and his or her caretakers is a strong force in the formation of the individual's images of the self in relation to others. Bowlby (1969, 1973, 1980) proposed that parents' responsiveness to the infant's or young child's distress, as well as their consistent availability in threatening situations, provide the infant with a secure base. From this base, the child can develop normally, learning through exploration and processing stress and negative emotions in a context of support. Early experiences within this realm enable the young child to create a "working model", an internal image of the self as related to others. This type of working model is thought to shape a stable, habitual style of responding to significant others and to stressful situations. This habitual way of responding is referred to as adult attachment style.

Attachment theory has much to offer to the field of psychology as it ties cognition to affect in the formation of personality. The existence of an inborn, physiologically-based system that is dedicated to attachment, as well as the survival value of such a system is suggested by some empirical and sociological studies (Sroufe & Waters, 1977). This system is operating when the child is in a period of preverbal learning (i.e., sensation-based memories with little or no verbal organization), and then

the importance of consistency in the child's experience becomes apparent. When verbal learning is built into this system, cognitive interpretations of events are either assimilated into the existing structure built through the attachment system, or (more rarely) the existing structure is modified to accommodate new information (Bretherton, Ridgeway, & Cassidy, 1990). As the child matures and increases social interaction, his or her ideas of the self in relation to others become more formalized elaborations of these early structures. As the patterns become more formalized and more habitual, they form the basis of the individual's daily thoughts, actions, and interactions with others. This is the essence of personality.

Attachment theory can also add to our understanding of the family system. Bowlby's original theory included emphases on both the attachment system, characterized by behaviors such as crying, that increase proximity to the caregiver, and on a nurturance system characterized by caregiving behaviors. Berman and Sperling (1994) proposed that the caregiving system is an integral component and a direct outgrowth of the attachment system. The attachment behavior of the parent is shaped by the responsiveness and reactivity of the infant. Added to this system are the caregivers' attachments to others in the family that may involve similar dynamics of intensity and longevity.

Heard (1982) has described specific ways in which families may encourage secure or insecure attachment. Effective caregivers may provide age-appropriate proximity, remaining accessible to children and spouse during times of threat, and they may

encourage age-appropriate exploration from this secure base. Ineffective caregiving, on the other hand, may be either (a) underactive, fear-evoking, and unresponsive, as in disengaged families, or (b) overactive, fear-evoking and impinging, as in enmeshed families. In triangulated families, open conflict between parents is avoided by redirecting anger (or the energy usually dedicated to it) towards a symptomatic child. In such cases, parents may be exhibiting their own attachment behavior; that is, neither can assuage the other's needs, and that interferes with their caregiving capacities. The child also exhibits his or her own attachment behavior. The system stabilizes with each member suffering from a degree of unassuaged behavior resulting in an inability to explore from a secure base. In either case, attachment-seeking is never assuaged, thereby setting up (a) exaggerated, proximity-seeking behavior (pleading, nagging, provocation), (b) reverting to whatever past compliant behavior has elicited interaction with caregivers or avoidance of attachment arousal, or © avoidance of and withdrawal from caregivers.

In the therapeutic arena, attachment theory offers three primary benefits. First, it offers an additional tool for understanding those clients who seek our services. Persons with insecure attachment styles appear to be more prone to depression (Armsden, McCauley, Greenberg, Burke, & Mitchell, 1991), unsatisfactory relationships with others (Feeney & Noller, 1990), and certain personality disorders (Livesly & Shroeder, 1991; Sperling, Sharp & Fishler, 1991). The attachment mechanism is likely to be an etiological factor in these conditions, influencing the development of schemata concerning the self in relation to others and the "lens" through which social interactions

are viewed. If attachment constructs can be integrated with more traditional approaches to therapy, the client's core issues may be made more accessible during treatment.

In addition, attachment theory may have specific implications for family therapy. Specific parenting styles have been associated with the development of certain attachment types in children (Ainsworth, Blehar, Waters, & Wall, 1978). Numerous studies (Ainsworth & Eichberg, 1991; Fonagy, Steele, & Steele, 1992; Grossmann & Grossmann, 1991) have found that adults' organization of their thoughts and feelings about their own parents is directly related to the behaviors they exhibit when serving as attachment figures for their own children, and that this "internal working model" of attachment predicts the attachment behaviors of their children. For these reasons, the family may serve as an ideal level of intervention. Using a structural family systems approach (Minuchin & Fishman, 1981), attachment may be addressed within the executive subsystem (i.e., between husband and wife) as well as between parent(s) and child(ren). This is best accomplished, of course, when elements of attachment theory can be directly tied to elements of family systems theory.

Attachment Theory

The central idea of attachment theory is that human beings possess a behavioral system, adapted through the process of evolution and natural selection, that is designed to keep vulnerable infants in close proximity to their caretakers, especially in dangerous situations. The system includes a set of behaviors, including crying, clinging to the caregiver, and other signals, that have evolved as responses to impending danger.

According to Bowlby (1969, 1980), these behaviors recede when danger seems unlikely, and the infant is able to explore the environment independently and thus acquire new knowledge. However, when the caregiver's accessibility is questionable, the attachment system is activated and healthy exploration activities decrease.

As a result of repeated attachment-related experiences, the young child develops an "internal working model", consisting of accumulated knowledge about the self, attachment figures, and attachment relationships. The formation of this model follows the same brain processes that are used to organize information and construct cognitive schemata, but the working model is thought to include emotion and defense responses as well as cognitive descriptions (Bretherton, 1985; Main, Kaplan, & Cassidy, 1985). The working model is thought to function largely outside of awareness and to provide the person with a template for anticipating and interpreting the intentions and behaviors of others, especially significant others.

During infancy and early childhood, working models are thought to be somewhat flexible and responsive to changes in the environment. In this developmental stage, Piaget's model of accommodation is useful; working models may tend to accommodate to new information about the self, the environment, and attachment figures. However, as the child grows older, working models become more established and the child is more likely to assimilate new experiences into that model, processing attachment-relevant information in terms of the existing system rather than restructuring the system. Thus, as the accumulated attachment experiences become more organized and complex, they

become more resistant to change (Bowlby, 1980).

Some of the first and most significant research concerning attachment theory was performed by Ainsworth, Blehar, Waters, and Wall (1978). They utilized a naturalistic laboratory procedure called the Strange Situation, which consists of a standard series of eight episodes. Twelve-month-old infants are observed in an unfamiliar playroom, where they are given an opportunity to explore toys as well as to interact with an unfamiliar adult in the presence and in the absence of the mother. The infant's behavior when reunited with the mother after a time of separation serves as the basis for classifying infants according to three basic patterns of attachment, one secure and two insecure. Most attachment researchers believe that these three general attachment styles (described below) represent different working models of the self-in-relation.

The most common pattern discovered by Ainsworth was the "secure" style. In such cases, the child showed signs of distress when the parent left him or her alone with a stranger, sought out the mother upon her return, held her for a period of time, and then returned to exploration and play in the mother's presence. Subsequent studies have identified infants and children as "secure" in about sixty per cent of the samples utilized (Campos, Barrett, Lamb, Goldsmith, & Steinberg, 1983). Outside the Strange Situation, securely attached children are more likely to interact well, explore their environment, and show emotional resiliency (Bowlby, 1988).

Ainsworth also identified two types of insecure attachment. In the Strange Situation, the so-called "avoidant" style is characterized by distress during separation

followed by lack of acknowledgment or rejection of the mother when she returns. Rather than seeking proximity to their mothers, avoidant children keep their attention directed toward toys or other external objects, apparently to divert their attention from their desire to establish contact with the parent. These children tend to be more anxious and fearful at home, and angry or attention-seeking at school (Bowlby, 1988).

Anxious/ambivalent children, on the other hand, show a high level of distress during separation followed by a mixture of approach and rejection behaviors when the mothers return. These infants cry more than others, are distressed before the mother actually leaves, and seem inconsolable. When the parent returns, the infant is so preoccupied with the caregivers' availability that he does not explore and play freely even with the parent present. Outside the Strange Situation, these children tend to be clinging, fearful of the environment, and emotionally labile.

Through a series of home visits, Ainsworth et al. (1978) concluded that primary caregivers of the three types of children differed in their behaviors. Caregivers of secure infants are generally sensitive and responsive to their infants' signals during feeding, face-to-face play, physical contact, and distress episodes. However, the typical caregiver of an avoidant infant is rejecting and tends to rebuff or deflect the child's bids for closeness, especially for bodily contact. The primary caregiver of an anxious/ambivalent infant responds inconsistently to her infant's signals, sometimes being unavailable or unresponsive, and sometimes being overly affectionate or intrusive.

Various studies have examined attachment as related to the interaction between

the infant and the caregiver. In a study of high-risk mother-infant dyads (Crittenden, 1985), bidirectional effects of attachment were found, in which the mother initiated maltreatment but both mother and infant behaved in ways that maintained the maltreatment situation. Isabella and Belsky (1991) also studied the interactions of mothers and infants in a less extreme population; they found that mothers' responsiveness to their infants was intrusive in infants later classified as anxious/avoidant (analogous to anxious/ambivalent) in the Strange Situation, and underinvolved in infants later classified as anxious/resistant (analogous to avoidant). Egelund and Farber (1984) found similar results, except that the anxious/resistant pattern appeared to be a result of both poor caretaking and a poorly functioning newborn, the latter being assessed by observations of nurses in the newborn nursery. Thus, the reciprocal nature of the attachment relationship must be acknowledged.

Additional categories of attachment style have been proposed. A third category of insecure attachment is labeled "D" (disorganized/disoriented) by Main et al. (1985) and "A/C" by Crittenden (1985). These infants show signs of contradictory behaviors in the Strange Situation, such as approaching the caregiver with head averted or suddenly freezing in midapproach. They may have caregivers with unresolved traumas regarding attachment, or caregivers who are abused, depressed, or extremely neglectful.

Classification according to attachment style yields results that appear to be relatively stable through childhood and adolescence. Waters (1978) found that 96% of his subjects received the same attachment classifications at twelve and eighteen months

of age. Grossmann and Grossmann (1991), using a modification of the Strange Situation, found eighty-six per cent convergence between their ratings of six-year-olds and the ratings of the same children during infancy.

Through childhood, these attachment ratings have been found to be related to specific types of behavior. In children aged 3-1/2, for example, the quality of attachment at age fifteen months was related to Q-sort measure of social competence and ego strength/effectance (Waters, Wippman, & Sroufe, 1979), with secure children performing best. In addition, two-year-olds observed by Pastor (1981), exhibited social behavior patterns specific to their attachment type. Secure children were more oriented toward both their mothers and their playmates, whereas avoidant children withdrew from conflict and anxious/ambivalent children tended to socialize less with peers and maintain very close proximity to their mothers. Similar patterns according to attachment style were found in three-year-olds.

The child development literature also gives some evidence for the development of the self-other cognitive representation of the working model. Main et al. (1985) found differences in conversational patterns according to attachment style, and Kaplan and Main (1985) found differences in family drawings according to attachment classifications. In these studies, secure children consistently demonstrated more direct expression of their feelings, whereas avoidant children showed more distant relationships between family members.

When attachment patterns do change during childhood, it is usually related to

changes in the caregiving environment. For example, Egelund and Farber (1984) found that changes from either avoidant or anxious groups to secure attachment tended to be associated with the development of caregiving skills among young, originally immature or incompetent mothers. Conversely, in an extension of this study (Erickson, Sroufe, & Egelund, 1985), children who had originally been classified as secure but later developed behavior problems had mothers who appeared able to provide consistent care during infancy, but seemed unable to cope with the changing needs of their growing children.

Given this support for continuity of attachment in childhood, many researchers have proposed that attachment style has correlates in adulthood. It was thought that the most logical correlate would be found in adult romantic relationships, since these attachments can mimic the intensity of the parent-child bond and have potential to produce a relationship of similarly long duration. From this basis, the investigation of adult attachment has expanded to include general interpersonal relationships as well as parenting relationships and a variety of coping and behavioral aspects.

A major contribution to the classification of adult attachment was made by Hazan and Shaver (1987). Drawing on the three basic attachment styles described in the child development literature, they devised a descriptive paragraph for each style, reproduced (from Hazan & Shaver, 1987, p. 515) below:

Secure

I find it relatively easy to get close to others and am comfortable depending on them and having them depend on me. I don't often worry about being abandoned or about someone getting too close to me.

Avoidant	I am somewhat uncomfortable being close to others; I find it difficult to trust them completely or to allow myself to depend on them. I am nervous when anyone gets too close, and often love partners want me to be more intimate than I feel comfortable being.
Anxious/Ambivalent	I find that others are reluctant to get as close as I would like. I often worry that my partner doesn't really love me or won't want to stay with me. I want to merge completely with another person, and this desire sometimes scares people away.

Hazan and Shaver (1987) used these paragraphs to apply attachment theory to adult functioning in the area of romantic love. Readers of a Colorado newspaper were asked to select the one description most applicable to their feelings about close relationships, and to complete other self-report measures. Of initial interest was the fact that classification according to attachment style (using the forced-choice paragraphs shown above) yielded proportions similar to those found in children, namely 56% secure, 25% avoidant, and 19% anxious/ambivalent. No differences according to gender were found. In addition, subjects with different self-designated attachment styles were found to differ in the way they described their most important love relationship. Secure lovers had longer-lasting relationships (10.02 years compared with 4.86 for anxious/ambivalent and 5.97 for avoidant subjects) and described them as happy, friendly, and trusting, characterized by acceptance of their partners despite the partner's faults. Avoidant lovers were characterized by fear of intimacy, emotional highs and lows (although their positives were never as high as those for anxious/ambivalents), and jealousy.

Respondents with different attachment styles also showed differences in their mental models of "the course of romantic love over time." Secure lovers said that romantic feelings wax and wane but at times reach the intensity experienced at the start of the relationship and that in some relationships romantic love never fades. Avoidant lovers said that the kind of head-over-heels romantic love depicted in books and movies does not exist in real life, romantic love seldom lasts, and it is rare to find a person with whom one can really fall in love. Anxious/ambivalent subjects said that it is easy to fall in love and that they frequently feel themselves beginning to fall, although (like the avoidant subjects) they rarely find "real love." Like secure lovers, anxious/ambivalent subjects said that romantic feelings wax and wane over the course of the relationship.

In the past few years, many other self-report measures have been devised based on the Hazan and Shaver prototype. Feeney (1991) based some research on slightly modified versions of the descriptive paragraphs, to which subjects responded with a Likert scale rating. This was done in an attempt to capture the variability in degree of attachment style, noting that a person may possess some characteristics of more than one style. To further refine the construct, some researchers (Feeney, Noller, & Hanrahan, 1994; Collins & Read, 1990) have developed assessments of attachment style in which respondents rate individual statements, usually based on the original, forced-choice paragraphs.

Bartholomew and Horowitz (1991) expanded the number of attachment style classifications, emphasizing two underlying dimensions: models of the self (positive or

negative) and models of others (positive or negative). These dimensions result in the definition of four types of attachment style. The secure person has a positive view of self and others, whereas the “preoccupied” person (similar to other descriptions of anxious/ambivalent) has a negative model of self and a positive model of others. The avoidant category is divided into two types. The fearful-avoidant person, with a negative view of both self and others, has a sense of unworthiness and avoids close involvement with others in order to protect herself against anticipated rejection by others. The dismissive-avoidant person, who has a positive view of self but negative view of others, has a sense of love-worthiness combined with a negative disposition toward others and avoids close relationships to protect herself against disappointment and maintain a sense of independence and invulnerability.

Other researchers have elaborated upon the ways in which love relationships differ according to attachment style. Feeney and Noller (1990) replicated many of the findings of Hazan and Shaver. In addition, they found that the mental model statements dealing with general view of the self and human relationships discriminated among the three attachment styles much more powerfully than did those items dealing specifically with beliefs about romantic love. Others (Mikulincer & Nachson, 1991) found that both secure and anxious/ambivalent people showed more self-disclosure than avoidant people. Simpson, Rholes, and Nelligan (1992) found that in anxiety-provoking situations, secure women used their partners as a source of comfort, whereas avoidant women tended to retract from their partners. In addition, securely attached men offered greater emotional

support than did avoidant men. No significant effects emerged for the anxious attachment style, perhaps reflecting the ambivalence inherent in this style that makes detection of consistent responses difficult.

The extent to which the parent-child relationship serves as a prototype for romantic relationships was examined by Owens, Crowell, Pan, Treboux, O'Connor, and Waters (1995). Results from engaged couples indicated that there was a significant concordance (56%) between attachment style based on parent-child interaction and attachment in their current relationship. However, this concordance was only moderate, and there was evidence that the romantic relationship was co-constructed, so that the attachment style participants with secure partners were more likely, and those with insecure partners were less likely, to report secure models of the relationship.

A number of studies have addressed the effect of attachment style on intrapersonal factors (although by definition in attachment theory, concepts of self can never be completely separated from concepts of others). Numerous studies (Feeney & Noller, 1990; McCormick & Kennedy, 1994) have found that securely attached adults score higher on measures of self-esteem. Kobak and Sceery (1988) found that a secure group reported little distress, whereas a dismissing group (analogous to avoidant) reported more loneliness and a preoccupied group (analogous to anxious) reported high levels of personal distress.

Affect regulation has also been investigated as a correlate of attachment style. In the previously cited study by Kobak and Sceery, the secure group was rated as more

ego-resilient, less anxious, and less hostile. The dismissing group was rated low on ego-resilience, and the preoccupied group was viewed as both less ego-resilient and more anxious. Ego under-control, a factor related to emotional expressiveness, did not discriminate among the attachment groups. However, in their studies of repressive defensiveness, Mikulincer and Orbach found quite different results. They examined the tendency to avoid awareness of negative affect and impulses along with the level of manifested anxiety. In their 1990 study, securely attached people showed moderate defensiveness and low anxiety and were able to easily access negative memories without being overwhelmed by the spread of this dominant emotion to nondominant emotions. Anxious-ambivalent people readily accessed negative memories, could not repress negative affect, and could not inhibit emotional spreading. Avoidant people reported high levels of defensiveness and anxiety but showed low accessibility to negative memories. The generalizability of these findings is limited by the very homogeneous nature of the sample (all Jews and native Hebrew speakers at an Israeli university); nevertheless, they provide an interesting link between the intrapersonal and interpersonal functioning of persons in the three attachment groups.

The findings of this study interface with previous studies of avoidant persons in two important ways. First, the construct of repressive defensiveness, with its emphasis on physiological manifestations of repressed anxiety, replicates the findings of Sroufe and Waters (1977) of increased cardiac arousal (i.e., increased heart rate) in avoidant infants while they act as if they are not bothered by their mothers' departure. Similarly,

Dozier and Kobak (1992) found that college students who scored as more avoidant on the Adult Attachment Interview produced stronger skin conductance responses during the interview when providing the kinds of answers generally viewed as defensive distortions or denials. Repressive defensiveness also appears related to findings concerning adult attachment as measured by Main et al. (1985) and Bartholomew and Horowitz (1991), in which dismissing adults (a subgroup of avoidants) remembered parents as having been vaguely good, and yet cannot provide specific examples to support this generalization. Bartholomew and Horowitz, in particular, found that dismissing adults provided a mix of positive and negative descriptions of their parents, generally stating that parents provided adequate care but indirectly characterizing them as having been rejecting or otherwise less-than-ideal. Taken together, these components of repressive defensiveness suggest that anxiety is experienced by avoidant subjects but may be expressed only indirectly on self-report measures.

Relationship of Attachment Style to Personality Characteristics

The concept of attachment appears to be highly related to ideas concerning individual personality. Like personality, attachment style is thought to be relatively stable over time and across situations. In addition, both personality and attachment style appear to involve both the intrapersonal world that includes concepts of the self and the world and the expression of those concepts in interpersonal relationships. Although the precise relationship between the two constructs has not been well established, some studies have attempted to tease out their similarities and differences.

Shaver and Brennan (1992) investigated the relationship of adult attachment style to personality dimensions measured by the NEO Personality Inventory (NEO-PI; Costa & McCrae, 1985). Previous studies of the NEO-PI had suggested that five global traits were measured by the instrument: Neuroticism (proneness to experience unpleasant and disturbing emotion), Extroversion (preference for social interaction and lively activity), Openness to Experience (receptiveness to new ideas, approaches, and experiences), Agreeableness (selfless concern for others and trusting, generous sentiments), and Conscientiousness (organization and achievement). As the authors expected, secure subjects were less neurotic and more extroverted than insecure subjects; they were also significantly more agreeable than avoidant subjects. Anxious subjects were slightly more neurotic, extroverted, and agreeable than avoidant subjects, but differences between the two insecure groups were not statistically significant.

The study also examined facet subscales of the so-called "Big Five" traits. Two subscales of the Neuroticism trait, Anxiety and Impulsiveness, showed differences. On the Anxiety subscale, anxious-ambivalent subjects scored higher than avoidant subjects who in turn scored higher than secure subjects. On the Impulsiveness subscale, anxious-ambivalent subjects scored higher than secure subjects but avoidants' scores fell in between so they did not differ significantly from either group. Rather complex results were found in the subscales of Extroversion. No differences were found in the Activity and Excitement Seeking subscales, which are thought to tap the arousal-related temperament aspect of extroversion. Gregariousness was higher in the secure group

than in the combined insecure groups. On the Warmth scale, both secure and anxious-ambivalent subjects scored higher than avoidant subjects. On the Assertiveness scale, secure subjects scored higher than anxious-ambivalents and avoidants fell in between, again not differing significantly from either of the other groups. On the Positive Emotions subscale, secure subjects scored higher than avoidants and anxious-ambivalents fell in between. Among the subscales of the Openness to Experience scale, Openness to Feelings was lower in avoidant subjects than in either secure or anxious subjects. From these findings, the authors concluded that, whereas both insecure attachment types are anxious, anxious-ambivalents are more likely than avoidants to experience and express anxiety. In addition, they found evidence that the social, but not arousal, aspects of extroversion are associated with attachment and security and that avoidant, but not secure or anxious-ambivalent, individuals suppress attachment-related feelings.

The five major NEO-PI scales could not discriminate significantly among all three attachment types. However, multiple regression analyses were used to explore the ability of NEO-PI variables to predict scores on the three attachment-style rating scales. A secure style was best predicted by low Neuroticism and high Extroversion (especially low Anxiety and high Warmth subscales). An avoidant style was predicted by low scores on Agreeableness and high scores on Neuroticism (especially the Depression subscale) and by low scores on the Openness to Feelings subscale. The predictors for the anxious-ambivalent rating were less strong, but high scores on Neuroticism and the

Depression subscale, as well as low scores on Openness to Values, made statistically significant predictions.

The results of this study contribute significantly to the understanding of attachment style as related to personality. A sufficiently large sample was used, allowing statistical analysis of as many as 20 variables, and modest to moderate relationships consistent with theory were found. In particular, the presence of depression among both insecure groups, as well as the feeling-suppression among avoidant individuals and lack of openness to values among anxious-ambivalents was consistent with previous work in child and adult attachment. Overall, attachment styles were found to be meaningfully related to personality traits and facets, but while the personality constructs are intentionally general, the attachment style constructs are relationship specific.

The attachment construct has also been studied in relationship to personality disorders. West, Keller, Links, and Patrick (1993) studied attachment in psychiatric outpatients who were identified using the Millon Clinical Multiaxial Inventory (MCMI) as having borderline personality disorder (BPD). Although a number of instruments were administered to the subjects in the study, only four scales were found to be related to BPD. These four scales, all from the Reciprocal Attachment Questionnaire, included secure base, feared loss, compulsive caregiving, and angry withdrawal, where lower scores indicate more secure attachment. All exhibited linear trends. Subjects with no evidence of borderline disorder had the lowest means on the attachment scales, i.e., their means were 10.7 for secure base, 13.2 for feared loss, 24.6 for compulsive care-seeking,

and 23.1 for angry withdrawal. Those in the intermediate range had intermediate attachment scores of 11.9 for secure base, 15.0 for feared loss, 27.5 for compulsive care-seeking, and 25.6 for angry withdrawal. Those with pronounced borderline disorder had the highest attachment score means of 13.2 for secure base, 18.0 for feared loss, 29.0 for compulsive care-seeking, and 28.8 for angry withdrawal. The authors concluded that borderline personality disorder possesses the extreme manifestations of anxious attachment as indicated by the high level of feared loss and low sense of secure base. These factors result in behavioral patterns through which the individual attempts to limit his or her anxiety, vacillating between the extremes of compulsive caregiving and angry withdrawal that are clinically characteristic of borderline personality disorder. The conclusions support the relationship of attachment to personality development, and seem particularly appropriate for a personality disorder defined primarily by tumultuous interpersonal relationships. The generalizability of these findings is limited, however, because the attachment scales utilized require that respondents have a current, adult attachment figure who is not a member of the family of origin; this factor is certainly not present for all persons with the disorder. In addition, all borderline subjects were female. The gender bias in the diagnosis of borderline personality disorder is the subject of ongoing debate and may have significant implications for the role of attachment in the genesis of the disorder.

Sheldon and West (1990) studied attachment pathology as related to low social skills in persons with avoidant personality disorder. Persons who had been given a

diagnosis of avoidant personality disorder (by consensus following an observed 90-minute interview) were given a 25-item questionnaire yielding information on three scales: Desire for an Attachment Relationship, Fear of an Attachment Relationship, and Lack of Social Skills. Results indicated that desire for an attachment relationship is not correlated with either Fear of an Attachment relationship or Low Social Skills. A moderate correlation was found between Low Social Skills and Fear of an Attachment Relationship. Although the study suffered from notable methodological problems, including selection of subjects and use of untested scales, it provides preliminary support for the idea that attachment security is distinct from general sociability. Desire for, but fear of, an attachment relationship may be more relevant to avoidant personality disorder than lack of social skills or social comfort.

Relationship of Attachment to Family Structure and Function

If attachment style is related to longstanding personality traits, it seems highly likely that attachment will also be related to family life, the environment in which personality develops and in which interaction with the attachment figure takes place. This section will outline the empirical evidence that supports this relationship.

Perhaps the most important link between attachment style and family is the transmission of attachment style through the generations. A vivid representation of this fact is found in studies utilizing the Adult Attachment Interview (AAI), which is coded in terms of both attachment-related experiences that adults recall and the adults' current state of mind. The AAI predicts with about 80% accuracy how a parent's infant child

will be classified in the Strange Situation (Ainsworth & Eichberg, 1991; Fonagy, Steele, & Steele, 1992; Grossmann & Grossmann, 1991; Main et al., 1985). This suggests that parents' organization of their thoughts and feelings about their own parents is directly related to their availability and consistency as attachment figures for their own children.

As previously noted, specific behaviors by parents influence the development of an attachment bond with their offspring. Isabella and Belsky (1991) found that mother-child dyads in which insecure attachment developed were characterized by interactions in which mothers were minimally involved, unresponsive to infant signals, or intrusive. Crowell and Feldman (1988) studied mothers' internal models of relationships, based on descriptions of their own childhood relationships, and described them as detached, preoccupied, or secure. Children's behaviors were found to correspond to their mother's internal models. In addition, Crittenden (1985) found that infants classified as "disorganized" in the Strange Situation tended to have mothers who were depressed, disturbed, or abused.

Some researchers have specifically addressed the issue of family conflict as related to attachment. As previously mentioned, Lewis and Feiring (1991) found that conflicted families (as identified by the Family Environment Scale) were much more likely than nonconflicted families to have children with signs of psychopathology. In addition, children identified as securely attached at age 12 months were significantly less likely to develop psychopathology by age 6, even when family conflict was present. For insecurely attached male children, later development of psychopathology appeared to be

dependent on exposure to stress within the family environment. Thus family cohesion/conflict resolution appears to be related to, but not redundant with, attachment. Notably, however, results for female children were not significant. No explanation is given for this finding.

Along these lines, some researchers have attempted to identify family patterns that are associated with attachment pathology. For example, Latty-Mann and Davis (1988) hypothesized that adult children of alcoholics (ACOAs) are disproportionately represented in the "A/C" or disorganized attachment style group. Using an instrument that asked self-identified ACOAs to rate the extent to which each of Hazan and Shaver's descriptions was self-characteristic, they found that ACOAs were four times as likely as a control group of non-ACOAs to have mixed pictures of elevation on both the anxious and avoidant descriptions, thus supporting their claim. A major flaw in this study, however, was its use of ACOAs attending an ACOA conference who may have been more disturbed than those who did not attend and/or may have been more predisposed to answer questions in the manner that result in the A/C classification.

Brennan, Shaver, and Tobey (1991) studied ACOAs in relation to the previous work and with respect to both Hazan and Shaver's three- and Bartholomew's four-category models of attachment styles. As in the Latty-Mann and Davis study, ACOAs scored high on both avoidant and anxious-ambivalent scales of the Hazan and Shaver measure, but on Bartholomew's measure they fell predominantly into the fearful-avoidant category. The odds of being classified as fearful-avoidant were over three times greater

for the ACOA group than for the non-ACOA group. In addition, the odds of being classified as fearful avoidant were 1.7 times greater for the group whose parents were problem drinkers than the no-problem group. This study, unlike the Latty-Mann work, used a general population of college students, and parents' drinking status was determined through simple questionnaires, lending further support for the previously discovered patterns. Consistent with attachment theory, the evidence suggested that parents who drink to excess are less likely to form healthy attachments with their children, presumably because of their inconsistent and/or abusive behavior.

Jong (1992) considered attachment, family loss patterns, and suicidality in late adolescents. Students with a history of suicidality exhibited both the lowest security of attachment, as well as the least degree of individuation in their current relationships with their parents. They were similar to both depressed nonsuicidal and control students on attachment and level of individuation from peers but rate their parents, particularly their mothers, as emotionally absent in childhood to a significantly higher degree than the other two groups. Students with a history of suicidality did not report a higher incidence of parental loss through separation and divorce, but rather they reported a significantly higher degree of other manifestations of family instability (parental arguing, worrying that the family would split up, parental threats to separate) than did normals. Males with a history of suicidality had fewer attachment figures available when growing up, as well as lower mean scores for current attachment to parents. Taken together, findings of this study suggest that adolescents' vulnerability to suicide is increased by the absence of

parents as emotionally available attachment figures.

This association of family dynamics with attachment is similar to the relationship of personality variables with attachment. Literature examining both children and adults supports the idea that attachment, occurring within the family system, is related to factors such as family conflict and chaos. Child development studies have suggested that caretakers who are rejecting and physically distant may produce avoidant infants, and caregivers who are inconsistent and intrusive may produce anxious/ambivalent infants. However, the mechanisms of how patterns of family relating contribute to the development of attachment style is not known. Similarly, some personality traits have been related to specific attachment styles. Both types of insecure attachment are associated with depression and anxiety, but anxious-ambivalent persons are more likely to express this distress overtly while avoidant persons are more likely to be defensive, repress their emotions, and avoid close relationships. The ways in which such factors are measured within widely-used clinical conceptualizations have not been established. The present study will bring together these related factors in a way that is meaningful and helpful to the clinician.

Statement of the Problem

At its most basic level, the present study attempts to utilize attachment theory as a link between our understanding of individual personality and family systems. It proposes that attachment underlies the development of personality, and that attachment both influences and is perpetuated by family systems. More specifically, this study will

investigate the relationship of particular components of the family system and longstanding personality traits to attachment style. The study will also serve to generate new hypotheses regarding the relationships between attachment, personality style, and family systems.

Research Questions

The present study addressed the following questions:

1. Will personality factors and family interaction patterns be related to the avoidant attachment style in ways that are consistent with current understanding of adult attachment style? Specifically, will the MMPI-2 scales indicating defensiveness (K scale), somatic complaints (Scale 1), depression (Scale 2), and social isolation (Scale 0), and the SFIS-R scales indicating disengagement, parental estrangement, and family conflict avoidance, be associated with ASQ scales suggesting avoidant attachment style?
2. Will personality factors and family interaction patterns be related to the anxious/ambivalent attachment style in ways that are consistent with current understanding of adult attachment style? Will the MMPI-2 scales indicating depression (Scale 2), and anxiety (Scale 7) be associated with ASQ scales suggesting anxious/ambivalent attachment style? Will the SFIS-R scales indicating rigidity, enmeshment, unresolved spousal conflict, and cross-generational triads be associated with ASQ indicators for the anxious/ambivalent attachment style?

3. Will personality factors and family interaction patterns show relationships to the secure attachment style that are consistent with adult attachment theory? Will the SFIS-R scales reflecting parent-child cohesion and spousal conflict resolution show positive relationships to secure attachment as measured by the ASQ, while scales reflecting conflict avoidance show a negative relationship to secure attachment? Will the MMPI-2 scales indicating depression (Scale 2), anxiety (Scale 7), somatic complaints (Scale 1), and social isolation (Scale 0) show a negative association with secure attachment style as measured by the ASQ?

Method

This study consisted of participants completing paper-and-pencil, self-report instruments designed to measure attachment style, personality, and family characteristics. Participants also completed a brief demographics questionnaire.

Sample

Participants were 237 undergraduate college students who, as part of their coursework in psychology and education, received course credit or extra credit for participating in experiments. Data from twelve participants were excluded due to results that were found to be invalid on the measures utilized. The remaining sample included 81 males and 144 females, aged 18 to 51 years, with a median age of 20. Other demographic characteristics of the sample are summarized in Table 1.

Measures

Attachment Style Questionnaire (ASQ). The Attachment Style Questionnaire (Feeney, Noller, & Hanrahan, 1994) is a 40-item instrument. Subjects respond to items on a Likert scale rating from 1 (totally disagree) to 6 (totally agree). Responses are used to obtain scores on five scales, including Confidence, Discomfort with Closeness, Need for Approval, Preoccupation with Relationships, and Relationships as Secondary. Previous principal-components analysis of the questionnaire resulted in both a three-factor solution, corresponding to Hazan and Shaver's (1987) conceptualization and a five-factor solution, upon which the above scales were based (after items that were factorially complex were removed). In the five-factor solution, Anxiety is divided into Need for Approval and Preoccupation with Relationships, and Avoidance is divided into Discomfort with Closeness and Relationships as Secondary. The Confidence Scale is associated with a Secure attachment style.

The Attachment Style Questionnaire has satisfactory psychometric properties (Feeney, Noller, & Hanrahan, 1994). For the five scales of Confidence, Discomfort with Closeness, Need for approval, Preoccupation with Relationships, and Relationships as Secondary, coefficient alphas were .80, .84, .79, .76, and .76, respectively. For the three factors, Security, Avoidance, and Anxiety, coefficient alphas were .83, .83, and .85, respectively. Test-retest reliabilities (over a 10-week period) ranged from .67 to .78 for the five factors and from .74 to .80 for the three factors.

Convergent and divergent validity, in which the scales were correlated with each

other and with other attachment style measures, were also found to be satisfactory. In pairwise correlations between the three scales of the Attachment Style Questionnaire, Security correlated negatively with Avoidance ($r = -.49$) and with Anxiety ($r = -.29$). However, Avoidance correlated positively with Anxiety ($r = .35$). This is consistent with other attachment instruments that use Likert ratings, and appears to reflect the difficulty in differentiating the two insecure types. However, when the three scales of the ASQ were correlated with Likert ratings of the Hazan and Shaver paragraphs, differences consistent with theory were found. For example, the ASQ Avoidance Scale had correlations of .44 and .16 with ratings of the Avoidant and Anxious/Ambivalent paragraphs, respectively, and the ASQ Anxiety Scale had correlations of .04 and .57 with ratings of the Avoidant and Anxious/Ambivalent paragraphs. Similarly, when subjects were divided into secure, avoidant, and anxious/ambivalent groups according to Hazan and Shaver's forced-choice measure, group means of the ASQ scales were consistent with their choice of paragraphs; i.e., the group of those who chose the Anxious/Ambivalent paragraph had the highest mean scores on the ASQ Anxiety scale, etc. The Avoidance scale showed the smallest difference between avoidant and anxious/ambivalent groups.

In its present form, the ASQ is not used to divide persons into groups according to attachment style (Feeney, 1997). Rather, it is used to explore the dimensions of attachment, the degree to which an individual possesses certain attachment style

characteristics, and the degree to which those characteristics are related to other factors of interest.

Structural Family Interaction Scale-Revised (SFIS-R). The Structural Family Interaction Scale (Perosa & Perosa, 1990) is a self-report measure that contains 83 statements representing family interactions described in the structural family model of Minuchin (1974). Participants are asked to respond using a 4-point Likert scale of agreement ranging from A (very true) to D (very false).

The SFIS-R is composed of eight scales, three of which assess system wide family dynamics. The Enmeshment/Disengagement scale contains items that assess the degree of support, responsiveness, involvement, and sense of differentiation family members experience in relation to boundaries. A high score represents enmeshment. The Flexibility/Rigidity scale measures the degree to which the family is able to adapt in response to either increasing autonomy in developing youth or situational stress affecting the family. A high score on this scale indicates greater flexibility. The Family Conflict Avoidance/Expression scale includes items that assess the degree to which family members avoid or express differences that may lead to arguments. A high score on this scale represents conflict avoidance.

Five scales assess the quality of parent-child interactions. The Mother-Child Cohesion/Estrangement scale and the Father-Child Cohesion/Estrangement scale reflect the participant's perception of the degree to which each parent, respectively, provides nurturance and resolves differences with the child so that both parent and child feel close

to each other. A high score on these scales indicates greater cohesion. The Spouse Conflict Resolved/Unresolved scale includes items that measure the degree to which conflicts between spouses are satisfactorily resolved (the lack of such resolution being a precursor to the development of pathological triads). A high score indicates problem resolution. The Overprotection/Autonomy scale taps the degree to which one or both parents encourage a child to think independently so that she or he feels confident making decisions and expressing ideas; a high score on this scale indicates overprotection. The Cross-Generational Triads/Parent Coalition scale contains items that reflect the degree to which boundaries between parents and child are crossed to form rigid patterns of communication as a way for parents to avoid dealing with marital difficulties between themselves. Previous published articles (Perosa & Perosa, 1993) have stated that a high score on this scale indicates that a cross-generational triad is characteristic of the family being assessed. However, current scoring criteria (Perosa, 1997) indicate that a low score demonstrates the presence of cross-generational triads.

The revised version is based on a factor analysis of the Structural Family Interaction Scale (Perosa, Hansen, & Perosa, 1981). The development of the original instrument involved giving a pool of 200 items to six family therapists, who rated them according to their fit in categories corresponding to the elements of Minuchin's Structural Family Therapy. Of this original pool, 95 items were selected, which were selected by at least four of the six counselors as fitting in a particular category. Overall inter-rater reliability for the selected items was .950. This original questionnaire was

given to fifty families, and examination of interscale correlations were used to develop the 85-item Structural Family Interaction Scale. Data from several studies using the SFIS were used in factor analysis of the instrument, resulting in the SFIS-R.

Alpha coefficients for the scales of the SFIS-R have ranged from .71 to .93 in past studies, and they were computed for the present sample. The seven subtests used were Enmeshment/Disengagement, Cross-Generational Triads, Father-Child Cohesion/Estrangement, Family Conflict Avoidance/Expression, Spouse Conflict Resolved/Unresolved, Flexibility/Rigidity, and Mother-Child Cohesion/Estrangement. Their respective values for Cronbach's alpha were .77, .78, .77, .85, .77, .79, and .79. Test-retest reliability on a college sample ranged from .80 to .92. Interscale correlations range from .32 to .61, suggesting some overlap of constructs. As evidence of external validity, the original SFIS has differentiated problem-free adolescents from those with learning disabilities (Perosa & Perosa, 1982), anorexia and bulimia (Kramer, 1983) emotional problems (Walrath, 1984), and suicidal ideation (Mitchell & Rosenthal, 1992). The revised version has been used to identify family characteristics linked with identity achievement in developing youth (Perosa, Perosa, & Tam, 1987), and has discriminated incest families from another clinical family control group and a nonclinical family control group (Utesch, 1989).

The Minnesota Multiphasic Personality Inventory (MMPI-2). The Minnesota Multiphasic Personality Inventory-2 (Butcher, Dahlstrom, Graham, Telegen, & Kramer, 1989) represents a restandardization of the MMPI (Hathaway & McKinley, 1951), which

is the most widely used and researched objective personality instrument (Greene, 1991).

This restandardization occurred in the late 1980's, and included the use of a more geographically and culturally diverse population sample. In addition, a few items were added and deleted because of changing cultural mores and language. The resulting MMPI-2 consists of 567 items to which the participant responds "true" or "false."

Scoring of the MMPI-2 yields a profile with validity scales and clinical scales.

The validity scales are used to determine the respondent's level of defensiveness as well as her or his tendency to report distress and to maintain consistency and truthfulness in responses. Specifically, the L (Lie) scale measures the tendency of some individuals to distort their responses by claiming that they are excessively virtuous, while the F scale detects a tendency to exaggerate one's maladjustment or psychological symptoms. High scores on the F scale may indicate malingering, symptom exaggeration as a "cry for help", severe psychopathology, different cultural background, or disorientation. Profiles with F scores above 80 should be interpreted with caution. The K scale is a measure of test defensiveness, i.e., the tendency to deny problems. Two additional measures of validity, VRIN and TRIN, assess the tendency for some individuals to respond in an inconsistent manner to items that should, to be consistent, be endorsed in a similar way.

The validity scales were utilized in different ways in this study. VRIN and TRIN scores were used to eliminate invalid profiles, most likely to occur in this sample because of some participants' tendency to hurry or to lack investment in the task. The K scale was used in data analysis, because of a hypothesized relationship between denial of affect

and the avoidant attachment style. Profiles with high L or F scores were interpreted cautiously; they were not summarily excluded because anonymity of the study removes motivation to appear either excessively virtuous or excessively disturbed.

The 10 basic clinical scales are used as indices of personality factors such as hypochondriasis, chronic depression, dramatic physical complaints, anger, adherence to traditional gender roles, interpersonal sensitivity or hypersensitivity, chronic anxiety, disturbed thoughts, activity level, and social isolation. In clinical settings, the overall configuration of these scales, as well as scores on various subscales, are used in interpreting the basic themes of the client's personality.

Four clinical scales--1, 2, 7, and 0-- were used for analysis in the present study. Scale 1 identifies those persons with vague physical complaints, who tend to lack psychological mindedness, are generally pessimistic, and express hostility covertly. Such features are hypothesized to be associated with an avoidant attachment style. Scale 2 measures symptoms of depression, characterized by a generalized poor morale, lack of hope in the future, and dissatisfaction with one's own status. Both anxious/ambivalent and avoidant individuals are thought to be prone to these symptoms. High scorers on scale 7 are tense, anxious, indecisive, and have feelings of insecurity that may be overwhelming at times. These symptoms are proposed correlates with anxious attachment style. Scale 0 assesses social introversion, in which the individual is uncomfortable in social interactions and withdraws from such interactions; high scorers on this scale may be self-deprecating and generally maladjusted as well as being socially

isolated, and are proposed to have characteristics of the avoidant attachment style. The remaining clinical scales may be examined in the future as a basis for generating further hypotheses that are beyond the scope of the present study.

The reliability of the MMPI-2 subscales has been demonstrated through many standardization and replication studies. The test-retest reliability coefficients for the K scale on the MMPI-2 are .84 for men and .81 for women over a one-week interval (Butcher, et al., 1989). For scale 1, test-retest reliabilities are .85 for men and .85 for women over a one-week interval. For this same interval, reliabilities for Scale 2 are .75 for men and .77 for women, and for Scale 7 are .89 for men and .88 for women. For Scale 0, reliabilities are the highest at .92 for men and .91 for women.

Procedure

Undergraduate students in psychology and education were asked to volunteer for the study, in order to obtain experimental credit or extra credit in their courses. Participants, in groups of varying sizes, completed a number of pencil-and-paper instruments. The experimental packet included a demographics questionnaire, the Attachment Style Questionnaire (ASQ), the Structural Family Interaction Scale-Revised (SFIS-R), and the Minnesota Multiphasic Personality Inventory-2 (MMPI-2). Participants' responses were anonymous; their self-report instruments were identified by number only. The order of presentation of the instruments within the packets was randomly varied.

The principal investigator or an assistant familiar with the procedure was present during the completion of the instruments, to give directions and answer any questions that arose. Informed consent forms were signed and maintained separately prior to the distribution of the other materials, so that the self-report measures will be identified only by an assigned number (all material within a packet having the same number). Students were asked to allow three hours for completion of the measures; however, most finished the assessments in about two hours.

Results

Analyses of the data obtained in this study were tailored to the research questions posed previously, through multiple regression. Multiple regression is a multivariate technique for determining the relationship between a dependent variable and a combination of several independent (often correlated) variables (Borg & Gall, 1989). It provides estimates of both the magnitude and statistical significance of relationships among variables.

In the present study, three regression analyses were performed, with dependent variables corresponding to scores on the ASQ. The "Confidence" scale of the ASQ was used as a measure of secure attachment style. Scores on the "Need for Approval" and "Preoccupation with Relationships" scales were combined to form a measure of anxious/ambivalent attachment, and scores on the "Discomfort with Closeness" and "Relationships as Secondary" were combined to form a measure of avoidant attachment.

Combining the scales in this way is consistent with the three-factor solution obtained during development of the ASQ, wherein the three constructs central to Hazan and Shaver's (1987) conceptualization of adult attachment were found to be present in the measure (Feeney, Noller, & Hanrahan, 1994).

The independent variables were the personality and family characteristics measured by the MMPI-2 and the SFIS-R. The eleven independent variables were scores on scales K (defensiveness), 1 (hypochondriasis), 2 (depression), 7 (psychasthenia), and 0 (social isolation) of the MMPI-2, and the Enmeshment/Disengagement, Conflict Avoidance/Expression, Parent-Child Cohesion/Estrangement, Flexibility/Rigidity, Spouse Conflict Resolved/Unresolved, and Cross Generational Triads/Parent Coalition scales of the SFIS-R.

For the present study, an all-possible-subsets approach to regression was utilized. This approach offers at least two significant advantages over stepwise (including forward selection and backward elimination) regression as explained by Thompson (1995). First, stepwise regression does not necessarily identify the best set of predictors for a given model size. At any given step, stepwise regression answers the question, "Given the predictors already entered in the model, which additional one will most improve the analysis?" This yields a situation-specific conditional answer. In contrast, the all-possible-subsets approach determines which set of predictors will work best together, resulting in the best fitting model and the least error.

A second advantage of the all-subsets approach is that it eliminates the stepwise

methods' tendency to maximize sampling error. At any given step, the determination of which single variable will be entered may be based on infinitesimally small differences. These small differences may merely reflect idiosyncrasies of the sample, rather than differences related to the underlying constructs being tested. When the model is based instead on the all-subsets approach that emphasizes maximizing R^2 , results are more likely to be replicable.

All subsets regression was used as the starting point for choosing appropriate variables in the model, and additional regression methods were used to provide further information. Initial choices were based on obtaining the highest possible R^2 for the model, while using the $C(p)$ statistic (proposed by Mallows, 1973) to measure the total squared error of the model. Because the total squared error is a measure of the error variance plus the bias introduced by not including important variables in a model, $C(p)$ may indicate when variable selection is deleting too many variables (Freund & Littell, 1991).

For any given number of selected variables, larger $C(p)$ values indicate equations with larger error mean squares. For any subset model with p variables, when $C(p)$ is greater than $p + 1$, the model is considered to be overspecified, and when $C(p)$ is less than $p - 1$, it is considered to be underspecified. Mallows recommends selecting the subset size where the minimum $C(p)$ first approaches the number of independent variables plus one, starting from the full model. This procedure, using the criterion $p < C(p) < p + 1$, was used to select the model for analysis for each research question.

To address the issue of collinearity among the independent and dependent variables, a correlation matrix showing relationships among those variables was obtained (see Table 2). Only one correlations above .70 were found, that being a .702 correlation between the SFIS-R scales measuring spousal conflict and cross-generational triads. In addition, squared multiple correlations for the independent variables were computed by performing eleven regressions, with each of the independent variables serving as a dependent variable and with the other independent variables serving as predictors (see Table 3). The finding of several squared multiple correlations above 0.60 suggested some collinearity problems. However, since the purpose of the study was to delineate the effects of these specific variables in clinically meaningful ways, the decision was made to retain variables in their original format and not combine or remove variables.

The first research question concerned possible relationships of avoidant attachment style with the MMPI-2 variables of defensiveness (K scale), somatic complaints (Scale 1), depression (Scale 2), social isolation (Scale 0), as well as the SFIS-R variables of family disengagement, parental estrangement and family conflict avoidance. On the basis of R^2 and $C(p)$, a six-variable model was chosen, which had the highest R^2 of .364 (see Table 4). The $C(p)$ for this model was 6.824, which was greater than the number of variables but less than the number of variables plus one. This model included defensiveness, somatic complaints, social isolation, family disengagement, parental estrangement, and family conflict avoidance. The regression equation for this model, indicated four variables to be statistically significant; social isolation, family

disengagement, and family conflict avoidance were statistically significant with positive regression coefficients, and defensiveness was statistically significant with a negative regression coefficient. Somatic complaints and parental estrangement were not statistically significant (see Table 5).

At this point, the theorized relationships of the variables were considered in further examination of the models. The somatic complaints variable was considered an important component because of several studies linking the avoidant style to repressive defensiveness. The parental estrangement variable was considered theoretically meaningful as an expression of the internal working model of relationships. However, it should not be included in the model if it is not a strong predictor, because the theory of how the parent-child relationship is elaborated upon to affect later attachment style should be investigated further. Therefore, because the purpose of the present study was to find a strong, parsimonious set of predictors for attachment style, the best five-variable model for the avoidant style was examined. This model had a slightly lower R^2 of .358, and its $C(p)$ of 6.649 fell just outside the range of number of variables plus one. The regression equation for the best five-variable model (see Table 6) indicated that somatic complaints, social isolation, family disengagement, and family conflict avoidance were statistically significant with positive regression coefficients, and defensiveness was statistically significant with a negative regression coefficient. Because of the closeness of statistics for these two models, and because they contained five of the same variables, it was felt that they described avoidant attachment in ways that were theoretically

meaningful. Therefore, the more parsimonious five-variable model, which excluded parental estrangement, was chosen as the final one.

The second research question concerned the relationship of anxious/ambivalent attachment style with the MMPI-2 variables of depression (Scale 2), and anxiety (Scale 7), and the SFIS-R variables of family rigidity, family enmeshment, unresolved spousal conflict, and cross-generational triads. The best five-variable model was chosen for examination, because it had the highest R^2 (0.369) combined with a $C(p)$ statistic (5.203) that fell between the number of variables and the number of variables plus one (see Table 7). This five-variable model included the measures of depression, anxiety, unresolved spousal conflict, family rigidity, and cross-generational triads. The regression equation for this model, however, indicated that only the variables of depression, anxiety, and cross-generational triads were statistically significant (see Table 8.)

Again, in the interest of obtaining a parsimonious model, the theoretical meaning of the variables were considered. Family interaction variables have been proposed, but not demonstrated as correlates of attachment style. Since the purpose of the present study was to examine whether such relationships can indeed be demonstrated, models that excluded some of these variables were examined. The best four-variable model was examined next; it contained the same personality variables of depression and anxiety, but only family rigidity, and cross-generational triads as family interaction variables. Its R^2 value was slightly decreased at 0.367, and its $C(p)$ value of 3.723 fell just below the number of variables in the model. The regression equation for this model (see Table 9),

however, indicated that only the variables of depression, anxiety, and cross-generational triads were statistically significant. Consistent with the examination of models containing fewer family interaction variables, the best three-variable model, which contained the variables of depression, anxiety, and cross-generational triads, was examined. The R^2 value for this model was slightly lower than the best four-variable model (.3553 versus .3697 when standardized regression solutions were computed; see Tables 9 and 10). Its $C(p)$ value fell slightly below the number of variables, but was lower than the four-variable model, indicating less error. The regression equation for this three-variable model (see Table 10) indicated that the same three measures of depression, anxiety, and cross-generational triads were statistically significant, suggesting that this model is probably includes the most meaningful variables.

The third research question concerned the relationship of secure attachment style to adaptive personality and family characteristics. Negative relationships with depression, anxiety, somatic complaints, social isolation, and family conflict avoidance were proposed, while positive relationships with parent-child cohesion and spousal conflict resolution were proposed. On the basis of R^2 and $C(p)$, a five-factor model was chosen (see Table 11), which included the independent variables corresponding to depression (Scale 2), anxiety (Scale 7), somatic complaints (Scale 1), social isolation (Scale 0), and family conflict avoidance. The regression equation for this model was computed, with the results shown in Table 12. In this analysis, the variables corresponding to anxiety, social isolation, and family conflict avoidance were statistically

significant, and depression and somatic complaints were not significant. In the interest of finding the most parsimonious combination of predictors for secure attachment, the models excluding these statistically insignificant variables were examined. Because an absence of somatic complaints might not predict secure attachment in the same way that a presence of somatic complaints predicts avoidant attachment, the four-variable model that included all of the previous variables except somatic complaints was examined. This model a slightly lower R^2 than the five-variable model, and its $C(p)$ was lower than those for the other four-variable models, both of which were greater than the number of variables plus one. The regression equation for the four-variable model (see Table 13) indicated that depression, anxiety, social isolation, and family conflict avoidance were statistically significant. The values for all parameter estimates were negative.

Because of gender differences in attachment style suggested in the literature, additional analyses were performed to check for differences in scores according to gender. The final regression model for each research question was examined with gender added as an additional predictor (see Table 14). The process of adding gender as an additional predictor over and above those variables already identified is analogous to an analysis of covariance (ANCOVA). Thus, the null hypothesis to be tested is whether gender adds any predictive power after controlling for those variables already specified. This is accomplished by using hierarchical regression. The avoidant attachment style was the only scale for which gender was a significant predictor, and the only style for which gender produced a significant increase in R^2 (see Table 15). The negative value for the

gender parameter is consistent with higher avoidant scores for males, since males were coded as "0" and females were coded as "1".

Discussion

The purpose of the present study was to perform a preliminary investigation of the relationship between adult attachment style and clinically-relevant concepts of personality and family interaction. The research questions proposed specific relationships among these constructs. First, the relationship of avoidant attachment style to the personality factors of defensiveness (K scale), somatic complaints (Scale 1), depression (Scale 2), and social isolation (Scale 0), as well as the family factors of disengagement, parental estrangement, and family conflict avoidance, were given as a starting point for relating these constructs. Anxious attachment style, on the other hand, was proposed to have a relationship with depression (Scale 2) and anxiety (Scale 7) as personality factors, and with rigidity, enmeshment, unresolved spousal conflict, and cross-generational triads as family constructs. Secure attachment style was thought to be negatively associated with the more pathological aspects of both personality and family interaction, namely depression, anxiety, somatic complaints, social isolation, and family conflict avoidance. Secure attachment was thought to be positively associated with parent-child cohesion and spousal conflict resolution.

Regression analyses relating the variables in these ways indicated considerable support for integration of their underlying constructs into a clinically relevant understanding of adult attachment. The measure of avoidant attachment style was found to be associated with defensiveness (K scale), somatic complaints (Scale 1), social isolation (Scale 0), family disengagement, and family conflict avoidance; these five variables accounted for 35.9% of the variation in avoidant attachment scores. The largest standardized weight in the regression was for social isolation ($B = .3699$), followed by family conflict avoidance ($B = .1944$) and defensiveness ($B = -.1910$). Lower weights were seen for family disengagement ($B = .1715$) and somatic complaints ($B = .1070$).

The association of somatic complaints (Scale 0) with this style, though of less weight in this equation, may capture the subtle expression of emotional distress that persons with an avoidant attachment style exhibit. This finding is consistent with previous studies (Sroufe & Waters, 1977) of children with avoidant attachment, who react to separation with the same physical correlates of emotional arousal, especially increased heart rate, as do other children. However, the avoidant children do not show overt behavioral signs that might increase appropriate attention from others and therefore result in less distress. The finding is also consistent with a study of adults (Dozier & Kobak, 1992) who demonstrated avoidant styles during the Adult Attachment Interview by restricting their recall of attachment memories and downplaying the importance of such experiences. Despite their efforts to deactivate

the attachment system, their physiological reactions, in this case skin conductance levels, increased. This suggests that physiological reactions to stress may remain unassuaged in these individuals. Because overt expression of affect is restricted, the physiological reactions may be selectively attended to by these individuals.

In another study, adults with avoidant attachment style (Mikulincer & Orbach, 1995) were found to demonstrate more covert than overt signs of anxiety and emotional distress. This occurred despite the internal experience of distress, in what the authors referred to as "undifferentiated defensiveness." The resulting covert expression of affect may explain the lack of statistically significant association of the depression subscale with avoidant style, since elevation of that subscale (especially in a nonclinical population) would depend on endorsement of at least some items stating depressed affect. In a nonclinical population, where symptoms are generally less extreme, the indirect emotional expressions of avoidant persons would be more likely to be manifested in somatic complaints than in overt depression.

The elements of family disengagement and conflict avoidance add another dimension to our understanding of persons with avoidant attachment style. First, it is consistent with theory about the genesis of the style. It seems logical that families that are uninvolved with and unsupportive of individual members, and that avoid expressing their differences, would foster a climate in which avoidant attachment style would develop. This theory of attachment style genesis is consistent with Ainsworth's (1978) observations that mothers of avoidant infants tend to rebuff or deflect their infants bids

for proximity, and Crittenden's (1985) observations that mothers who neglected their children (by legal criteria) had children who were classified as avoidant in the Strange Situation. However, the idea that this interactional style is internalized as a working model of relationships, that the relationship with a particular primary caregiver serves as a cognitive-affective basis for other relationships, was not supported by the present study. Parent-child cohesion/estrangement, the degree to which a parent is perceived as having provided support and nurturance to a child, was thought to provide a glimpse of the adult's internal working model of the relationship. This factor had no significant relationship to scores on the measure of avoidant attachment style. Therefore, it may be the overall attachment environment, perhaps involving many aloof attachment figures, that affects the degree to which persons develop an avoidant attachment style.

The family interaction findings are also informative in that they are coupled with social isolation in their association with the avoidant style. It seems likely that the family serves as the most basic vehicle for social learning about relationships, and that the capacity for intimacy (or for expressing intimacy adaptively within relationships) may not have been learned in persons with the avoidant style. It also seems likely that the family may serve as an effective tool for understanding and intervention with persons experiencing the subtler forms of distress such as somatic complaints. The emergence of social isolation as the variable with the highest beta weight may give an indication of the most overt expression of the avoidant attachment style, whatever its underlying etiological. Additional studies differentiating social isolation by preference

from lack of social skills would further elucidate the relationship of these constructs to avoidant attachment.

The negative relationship of defensiveness with the avoidant style raises questions concerning the interpretation of the K scale. The K scale was proposed to be positively associated with the avoidant style because high scores indicate that the respondent is not admitting to problems. Indeed, high K score scores have been associated with lower profile elevations and peaks on scales 1, 2, and 3 (Dahlstrom, Welsh, & Dahlstrom, 1972). This would be consistent with present theories of adult attachment, which suggest that the avoidant style is reflected in the lack of overt expression of affect as discussed above. In addition, a previous study using the ASQ (Feeney, Noller, & Hanrahan, 1994) indicated that persons who endorsed the Hazan and Shaver (1987) paragraph describing the avoidant style also tended to endorse many items on the Confidence scale of the ASQ. However, several previous researchers (Heilbrun, 1961; Smith, 1959; Sweetlund & Quay, 1953) have reported that the K scale in a normal population is a measure not of defensiveness but of personality integration and healthy adjustment. In a similar way, both Tyler and Michaelis (1953) and Yonge (1966) reported that in a normal college student sample, the K scale was significantly negatively related to scales 1, 2, 8, and 0, on which high scores indicate psychopathology. Thus there is general consensus that, in nonclinical populations, having a healthy set of defenses is an appropriate means of coping with daily stressors, and the association of avoidant style with lower K scores could be consistent with the

maladjustment of these individuals. However, the overlap of high Confidence scores on the ASQ between secure and avoidant persons is not easily dismissed, especially because of its consistency with the overall picture of the avoidant person as one who does not admit problems.

One possible integration of these findings may lie in the relationship of the K scale to other MMPI-2 scales, particularly Scale 0 (Social Isolation). The K scale contains seven items also found on Scale 0, and six of these are scored in the opposite direction. A significant portion of the negative correlation between these two scales is explained by this overlap alone. Since social isolation shows the strongest association with the avoidant style, and since low K scores reflect at least to some extent an endorsement of social isolation items, a coherent picture of the avoidant style begins to emerge. Social isolation is acknowledged, but the overt expression of negative affect associated with that isolation, as measured by depression items (Scale 2), is denied. Low scores on the K scale may thus tap this aspect of maladjustment and vulnerability in individuals with an avoidant attachment style.

The anxious attachment style, on the other hand, was associated with different sorts of variables. Depression (Scale 2), anxiety (Scale 7), and cross-generational triads accounted for 35.6% of the variation in anxious attachment scores. Anxiety showed the strongest association in this regression equation ($B = .3336$), underscoring the relationship of anxiety as a personality trait with anxiety within and about relationships. Depression showed the next strongest relationship ($B = .2495$),

compatible with theory. The weakest association, a negative one ($B = -.1846$), was seen for cross-generational triads, indicating that the presence of cross-generational triads is associated with the anxious attachment style.

Anxiety and depression, both overt expressions of affect, were related to higher scores on the measure of anxious/ambivalent attachment. This is consistent with previous work (Mikulincer & Orbach, 1995), linking this style to an inability to repress negative affect when responding to emotional memories, and an inability to inhibit the spread of negative affect to other activities.

Family variables, however, showed few theoretically consistent relationships to anxious/ambivalent attachment. The only variable that was statistically significant in its relationship to the style was the presence of cross-generational triads. This factor is consistent with Heard's (1982) characterization of triads as a means whereby the parents exhibit their own attachment behavior, and do not meet each other's attachment needs. These needs override their caregiving capacities, and the child receives varying amounts and appropriateness of nurturance depending on the unmet attachment needs of the parent(s). The child's needs for attachment are met only intermittently, a scenario consistent with the development of an anxious/ambivalent attachment style.

This lack of consistent trends in the family interaction patterns associated with this style may be explained by the ambivalence that many authors describe as both an important component and a confounding element. For example, Simpson, Rholes, &

Nelligan (1992) found no significant effects for the anxious style in their study of the interaction of couples. As these authors state, “anxiously attached persons need and desire proximity yet fear they will not receive as much of it as they desire because previous attachment figures have not been consistently available... Internal conflict is acted out...in conflicted, contradictory behavior... Tendencies to both approach and withdraw from the partner effectively counterbalance each other” (p. 444). Similarly, if the working model of the family contains a pattern so inconsistent as to *lack* a pattern, specific family interaction styles may not emerge in a group sample. Additional studies, perhaps exploring combinations of enmeshment, rigidity, and unresolved spousal conflict may yield more information about the family structure that contributes to the anxious/ambivalent style.

The secure attachment style showed the anticipated relationships with maladaptive personality patterns and with family conflict avoidance. It was inversely related to depression (Scale 2), anxiety (Scale 7), social isolation (Scale 0), and family conflict avoidance. These variables accounted for 48.12% of the variation in scores on the measure of secure attachment. The strongest association with secure attachment ($B = -.4495$) was the lack of social isolation, with the other variables being of similar beta weights ($B = -.1551$, $B = -.1421$, $B = -.1453$).

The inverse relationship of measures of maladaptive patterns with the secure style is consistent with numerous studies, which have shown the secure attachment style to be less associated with anxiety (Priel & Shamei, 1995), depression (Shaver &

Brennan, 1992), and eating disorders (Kenny & Hart, 1992) and more associated with the ability to receive social support from the environment (Priel & Shamei, 1995) than are either of the insecure types. The strongest negative association was with social isolation, underscoring the role of attachment style in interpersonal relationships. Again, further studies relating secure attachment and social isolation to social skills would be informative.

The contribution of family factors to the secure style is more difficult to measure. For several scales of the SFIS-R, no relationship was proposed because of the bipolar nature of the scales. For example, the Enmeshment/Disengagement scale assesses a continuum from underinvolvement to overinvolvement, where both extremes are maladaptive and more adaptive families score in mid-range. On such a measure, secure attachment should have no relationship. For this reason, relationships were proposed only for scales that were unidirectional, including parent-child cohesion, spousal conflict resolution, and family conflict avoidance. Of these, only family conflict avoidance was significantly related to the secure style. Its inverse relationship suggested that the generalized open expression of conflict within the home was associated with secure attachment, and, by extension, with the development of appropriate intimacy in adult life.

The lack of association shown between secure attachment and other family interaction patterns is open to interpretation. Lack of resolution of spousal conflict was not found to be significantly related to the anxious style. It may be that healthy

relationships between parents are not essential for the development of attachment. Indeed, Olivas and Stoltenberg (in press) found no significant differences in attachment style between children of divorced versus married parents. Other studies (Jong, 1991) have indicated that while attachment pathology, such as emotional unavailability of the parent, is related to severe psychological symptoms, it was not related to the incidence of parental loss through divorce or separation. Other family dimensions, such as parental arguing and threats to separate, appear to be salient factors in the development of psychological distress, but the exact relationship of these factors to attachment style is not yet clear.

The lack of association with parent-child cohesion is similarly difficult to explain. Items on this subscale include "[Parent] responds when a child needs help or support" and "[Parent] is too busy with his own life to give attention to a child." Items such as these would seem to tap the internal working model of attachment between child and caregiver, emphasizing those factors of nurturing and constancy that are the basis of the secure style. However, the subscales also contain several items such as "[Parent] and a child compromise to settle their differences" and "In my family [parent] and a child can talk over differences and settle them fairly." These items, in dealing with conflict and problem-solving, may relate to the nurturing interaction as described in previous studies (Erickson, Sroufe, & Egeland, 1985) where mothers of insecurely attached children were found to have difficulty in resolving conflicts and in fostering their children's autonomy. However, because they deal with more cognitively-

elaborated aspects of the working model, and because they were designed to measure an aspect of family functioning rather than attachment, their fit with the attachment construct may not be demonstrable. It should be noted, however, that the lack of cohesion, including both nurturance and problem-solving, is measured as estrangement and is significantly associated with the avoidant style.

The present study found significant gender related effects in the scores on the avoidant scale after controlling for defensiveness, somatic complaints, social isolation, disengagement, and family conflict avoidance. In many studies, such differences have not been found. Researchers such as Hazan and Shaver (1987), Brennan, Shaver, and Tobey (1991) and Shaver and Brennan (1992) found no gender differences on the measure of attachment style, although they utilized analysis of variance rather than hierarchical regression in making this determination. When differences have been found, however, they seem to demonstrate a propensity for males to score higher on avoidant dimensions, consistent with findings in the present study. Bartholomew and Horowitz (1991), for example, found that males were rated higher on the "dismissing" dimension, and Olivas (1995) found that males scored higher on the "relationships as secondary" dimension. Some authors (Collins & Read, 1990) conducted their analyses separately on men and women, but found similar patterns of results. Such separate analyses were not possible in the present study, because of the small number of male participants relative to the number of variables being investigated. Replication of this study might well include comparisons of regression models for males and females.

The present study makes several unique contributions to the understanding of attachment style. First, it delineates specific aspects of the two insecure styles. Rather than merely differentiating insecure from secure styles, it describes particular personality and family factors that are identifiable with each. Specifically, it underscores the differences in affect expression associated with the two styles, and explores different family interaction patterns for each. While the delineation of family patterns is incomplete, especially for the anxious style, directions for future study are gained by this preliminary exploration.

Finally, the present study provides greater flexibility in our application of the principles of attachment theory. Unlike Hazan and Shaver's (1987) forced-choice paragraphs, the ASQ provides variability according to different items that describe components of each attachment style. In addition, Likert ratings of the items capture more of the variability within each style; they help us measure the "degree" of each type of attachment. The use of regression models to explain the variability in each of the attachment style scores, rather than comparing groups separated according to attachment style, allows for the coexistence of aspects of more than one attachment style within an individual. This helps us understand how various factors within an individual may relate to each other, and to make clinical judgments accordingly. This applicability is further enhanced by the inclusion of widely used constructs of personality and family interaction.

The study also has several limitations. The use of a young, nonclinical sample

limits both the generalizability of findings and the variability in scores. The number of clinically elevated profiles was too limited to perform separate statistical analyses; it is not known whether the same relationships of variables hold true at extremes of the ranges. For these reasons, it is suggested the future explorations of these relationships include both clinical and nonclinical participants.

In addition, the interpretability of findings may be limited by the collinearity among the independent variables. In particular, the collinearity among the measures of family interaction may suppress the effects of family interactions that may otherwise be clinically meaningful.

Conclusions

The present study found significant relationships between attachment styles and several personality and family factors. Avoidant attachment style was associated with indirect affect expression as measured by somatic complaints, while anxious/ambivalent attachment style was associated with more overt expressions of depression and anxiety. Avoidant attachment style was also related to social isolation, a disengaged style of family interaction, and avoidance of family conflict. Family factors were not significantly related to either the anxious/ambivalent or secure styles. More precise delineation of family factors related to the latter styles is warranted.

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TABLES

Table 1

Demographic Characteristics of Sample

Group	Gender		
	Male	Female	Total
	Ethnicity		
Caucasian	59 (26.22%)	107 (47.56%)	166 (73.78%)
African American	7 (3.11%)	15 (6.67%)	22 (9.78%)
Native American	5 (2.22%)	9 (4.00%)	14 (6.22%)
Asian	8 (3.56%)	4 (1.78%)	12 (5.33%)
Hispanic	2 (0.89%)	8 (3.56%)	10 (4.44%)
	Marital Status		
Never Married	63 (28.0%)	109 (48.44%)	172 (76.44%)
Married	15 (6.6%)	26 (11.56%)	41 (18.22%)
Divorced	3 (1.33%)	9 (4.00%)	12 (5.33%)

Note: Options of "Widowed" and "Separated" were also offered, but were not endorsed by any subjects in this study.

Table 2

Intercorrelations Between Variables

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	
14														
1. AVOIDANT 0.115	-	-0.520	0.453	-0.446	0.156	0.404	0.524	0.432	-0.050	0.254	-0.242	-0.103	-0.277	-
2. SECURE 0.259		-	-0.561	0.332	-0.191	-0.564	-0.652	-0.487	0.283	-0.276	0.271	0.170	0.247	
3. ANXIOUS 0.208			-	-0.427	0.087	0.502	0.538	0.539	-0.154	0.219	0.189	-0.171	-0.300	-
4. K 0.053				-	0.081	-0.349	-0.590	-0.279	-0.044	-0.118	0.154	0.032	0.129	
5. HS 0.152					-	0.402	0.125	0.408	-0.146	0.101	-0.191	-0.202	-0.193	-
6. D 0.129						-	0.656	0.635	-0.243	0.193	-0.213	-0.173	-0.168	-
7. SI 0.137							-	0.528	-0.121	0.192	-0.196	-0.076	-0.169	-
8. PT 0.169								-	-0.097	0.120	-0.245	-0.104	-0.221	-
9. END									-	-0.586	0.560	0.509	0.378	0.693
10. FCAE										-	-0.577	-0.530	-0.494	-0.535
11. PCCE											-	0.586	0.543	0.586
12. SCRU												-	0.702	0.501
13. TRI 0.519													-	
14. RIG														-

K=defensiveness; D=depression; HS=somatic complaints; PT= anxiety; SI=social isolation; FCAE=family conflict avoidance/expression; PCCE=parent-child cohesion/estrangement; SCRU=spouse conflict resolved/unresolved; END=enmeshment/disengagement; RIG=rigidity; TRI=cross-generational triads

Table 3

Squared Multiple Correlations of Independent Variables

Variable	Squared Multiple Correlation
Defensiveness	0.0481
Somatic Complaints	0.3030
Depression	0.6571
Social Isolation	0.6322
Anxiety	0.5008
Family Enmeshment/Disengagement	0.6134
Family Conflict Avoidance	0.4820
Parent-Child Cohesion/Estrangement	0.5289
Spouse Conflict Resolved/Unresolved	0.5829
Cross-generational Triads	0.5674
Family Rigidity	0.6013

Table 4

All-Subsets Regression for Avoidant Attachment Style

Number in Model	R ²	C(p)	Variables in Model
4	0.347	8.569	K HS SI FCAE
4	0.346	8.901	K SI END FCAE
4	0.340	10.836	K D SI FCAE
5	0.358	6.649	K HS SI END FCAE
5	0.354	8.267	K HS END PCCE FCAE
5	0.353	8.328	K D SI END FCAE
6	0.364	6.824	K HS SI END PCCE FCAE*
6	0.361	7.703	K D SI END PCCE FCAE
6	0.361	7.972	K HS D SI END FCAE

Note: Only the three best models are presented for each model number of predictors due to space limitations. All possible models were examined.

* Model chosen for analysis

K=defensiveness; D=depression; HS=somatic complaints; PT= anxiety; SI=social isolation; FCAE=family conflict avoidance/expression; PCCE=parent-child cohesion/estrangement; SCR=spouse conflict resolved/unresolved; END=enmeshment/disengagement; RIG=rigidity; TRI=cross-generational triads

Table 5

Regression Analysis for Avoidant Attachment Style.: Best Six-Variable Model

Degrees of Freedom	F Value	Probability > F	R ²	Adj. R ²
6	20.124	0.0001	0.3640	0.3459

Variable	Parameter Estimate	Standardized Estimate	T for H ₀ : Parameter=0	Probability > T
Defensive	-0.2256	-0.1910	-2.689	0.0077*
Somatic	0.1158	0.1070	1.856	0.0648
Social Isolation	0.3868	0.3699	5.240	0.0001*
Disengagement	0.2314	0.1715	2.325	0.0210*
Parent Estrangement	-0.2048	-0.0989	-1.351	0.1780
Fam. Conflict Avoid.	0.3734	0.1944	2.635	0.0090*

Table 6

Regression Analysis for Avoidant Attachment Style: Best Five-Variable Model

Degrees of Freedom	F Value	Probability > F	R ²	Adj. R ²
5	23.692	0.0001	0.3585	0.3433

Variable	Parameter Estimate	Standardized Estimate	T for H ₀ : Parameter=0	Probability > T
Defensive	-0.2408	-0.2039	-2.890	0.0042*
Somatic	0.1274	0.1177	2.059	0.0407*
Social Isolation	0.3864	0.3695	5.224	0.0001*
Disengagement	0.1851	0.1372	1.977	0.0494*
Fam. Conflict Avoid.	0.4398	0.2290	3.301	0.0011*

* Statistically significant at p=.05

Table 7

All-Subsets Regression for Anxious Attachment Style

Number in Model	R ²	C(p)	Variables in Model
3	0.367	2.102	D PT TRI
3	0.353	6.393	D PT RIG
3	0.348	8.008	D PT SCR U
4	0.367	3.723	D PT RIG TRI
4	0.367	3.783	D PT SCR U TRI
4	0.366	4.095	D PT END TRI
5	0.369	5.203	D PT SCR U RIG TRI *
5	0.369	5.346	D PT END RIG TRI
5	0.367	5.772	D PT END SCR U TRI

Note: Only the three best models are presented for each model number of predictors due to space limitations. All possible models were examined.

* Model chosen for analysis

K=defensiveness; D=depression; HS=somatic complaints; PT= anxiety; SI=social isolation; FCAE=family conflict avoidance/expression; PCCE=parent-child cohesion/estrangement; SCR U=spouse conflict resolved/unresolved; END=enmeshment/disengagement; RIG=rigidity; TRI=cross-generational triads

Table 8

Regression Analysis for Anxious Attachment Style: Best Five-Variable Model

Degrees of Freedom	F Value	Probability		
		> F	R ²	Adj. R ²
5	24.794	0.0001	0.3712	0.3562

Variable	Parameter	Standardized	T for H ₀ :	Probability
	Estimate	Estimate	Parameter=0	> T
Depression	0.2609	0.2560	3.578	0.0004*
Anxiety	0.3133	0.3422	4.714	0.0001*
Spouse Conflict	0.0999	0.0638	0.801	0.4241
Rigidity	-0.1126	-0.0470	-0.713	0.4769
Triads	-0.3352	-0.1930	-2.365	0.0189*

Table 9

Regression Analysis for Anxious Attachment Style: Best Four-Variable Model

Degrees of Freedom	F Value	Probability > F	R ²	Adj. R ²
4	30.938	0.0001	0.3697	0.3577

Variable	Parameter Estimate	Standardized Estimate	T for H ₀ : Parameter=0	Probability > T
Depression	0.2582	0.2534	3.551	0.0005*
Anxiety	0.3169	0.3461	4.786	0.0001*
Spouse Conflict	0.0802	0.0512	0.660	0.5100
Triads	-0.3617	-0.2083	-2.648	0.0087*

Table 10

Regression Analysis for Anxious Attachment Style: Best Three-Variable Model

Degrees of Freedom	F Value	Probability > F	R ²	Adj. R ²
3	39.862	0.0001	0.3553	0.3464

Variable	Parameter Estimate	Standardized Estimate	T for H ₀ : Parameter=0	Probability > T
Depression	0.2555	0.2495	3.550	0.0005*
Anxiety	0.3060	0.3336	4.695	0.0001*
Triads	-0.3198	-0.1846	-3.301	0.0011*

* Significant at p=.05

Table 11

All-Subsets Regression for Secure Attachment Style

Number in Model	R ²	C(p)	Variables in Model
4	0.482	3.406	D PT SI FCAE
4	0.476	5.603	D SI PCCE FCAE
4	0.476	5.688	D PT SI PCCE
5	0.485	4.043	D PT SI PCCE FCAE
5	0.483	4.849	D PT SI FCAE SCRU
5	0.482	5.206	D PT HS SI FCAE *

Note: Only the two best models are presented for each model number of predictors due to space limitations. All possible models were examined.

* = Model chosen for analysis

K=defensiveness; D=depression; HS=somatic complaints; PT= anxiety; SI=social isolation; FCAE=family conflict avoidance/expression; PCCE=parent-child cohesion/estrangement; SCRU=spouse conflict resolved/unresolved; END=enmeshment/disengagement; RIG=rigidity; TRI=cross-generational triads

Table 12

Regression Analysis for Secure Attachment Style: Best Five-Variable Model

Degrees of Freedom	F Value	Probability		
		> F	R ²	Adj. R ²
5	40.279	0.0001	0.4814	0.4694

Variable	Parameter	Standardized	T for H ₀ :	Probability
	Estimate	Estimate	Parameter=0	> T
Depression	-0.0829	-0.1487	-1.934	0.0544
Anxiety	-0.0700	-0.1383	-2.068	0.0399*
Social Isolation	-0.2490	-0.4435	-6.432	0.0001*
Somatic Complaints	-0.0075	-0.0128	-0.227	0.8207
Fam.Conflict Avoid.	-0.1487	-0.1447	-2.890	0.0042*

Table 13

Regression Analysis for Secure Attachment Style: Best Four-Variable Model.

Degrees of Freedom	F Value	Probability > F	R ²	Adj. R ²
4	50.556	0.0001	0.4812	0.4717

Variable	Parameter Estimate	Standardized Estimate	T for H ₀ : Parameter=0	Probability > T
Depression	-0.0859	-0.1551	-2.196	0.0364*
Anxiety	-0.0719	-0.1421	-2.201	0.0288*
Social Isolation	-0.2467	-0.4395	-6.605	0.0001*
Fam. Conflict Avoid	-0.1493	-0.1453	-2.911	0.0040*

*Significant at $p < .05$

Table 14

Final Regression Models with Gender added as a Independent Variable

Variable	Parameter Estimate	Standardized Estimate	T for H ₀ : Parameter=0	Probability > T
Avoidant Attachment Style				
Defensiveness	-0.2363	-0.2005	-2.919	0.0039*
Somatic Complaints	0.1240	0.1147	2.060	0.0407*
Social Isolation	0.3748	0.3591	5.212	0.0001*
Disengagement	0.2030	0.1506	2.228	0.0269*
Fam. Conflict Avoid.	0.4894	0.2534	3.749	0.0002*
Gender	-4.2134	-0.1844	-3.433	0.0007*
Anxious Attachment Style				
Depression	0.2575	0.2510	3.561	0.0005*
Anxiety	0.3040	0.3313	4.645	0.0001*
Triads	-0.3222	-0.1860	-3.313	0.0011*
Gender	-0.7240	-0.0323	-0.591	0.5554

Table 14

Final Regression Models with Gender added as an Independent Variable. (Continued)

Variable	Parameter Estimate	Standardized Estimate	T for H ₀ : Parameter=0	Probability > T
Secure Attachment Style				
Depression	-0.0834	-0.1505	-2.033	0.0433*
Anxiety	-0.0725	-0.1433	-2.212	0.0280*
Fam. Conflict Avoid.	-0.1522	-0.1471	-2.933	0.0037*
Social Isolation	-0.2486	-0.4430	-6.630	0.0001*
Gender	-0.4329	-0.0351	-0.717	0.4741

* Significant at $p < .05$

Table 15

Changes in R^2 with Gender Added as a Regressor for Each Attachment Style

Attachment Style	Change in R^2 with Gender Added	F-Value for Change in R^2	Probability >F
Avoidant	0.0338	11.7848	0.0007*
Anxious	0.0010	0.3193	0.5726
Secure	0.0011	0.4744	0.4917

*Significant at $p < .05$

APPENDIX:

PROSPECTUS

The Relationship of Attachment Style to Personality Factors and Family Interaction Patterns

Introduction

Attachment theory proposes that early attachment relationships between a child and his or her caretakers is a strong force in the formation of the individual's images of the self in relation to others. Bowlby (1969, 1973, 1980) proposed that parents' responsiveness to the infant's or young child's distress, as well as their consistent availability in threatening situations, provide the infant with a secure base. From this base, the youngster can develop normally, learning through exploration and processing stress and negative emotions in a context of support. Early experiences within this realm enable the young child to create a "working model", an internal image of the self as related to others. This type of working model is thought to shape a stable, habitual style of responding to significant others and to stressful situations. This habitual way of responding is referred to as adult attachment style.

Attachment theory has much to offer to the field of psychology as it ties cognition to affect in the formation of personality. The existence of an inborn, physiologically-based system that is dedicated to attachment, as well as the survival value of such a system is suggested by some empirical and sociological studies

(Sroufe & Waters, 1977). This system is operating when the child is in a period of preverbal learning (i.e., sensation-based memories with little or no verbal organization), and then the importance of consistency in the child's experience becomes apparent. When verbal learning is built into this system, cognitive interpretations of events are either assimilated into the existing structure built through the attachment system or (more rarely) the existing structure is modified to accommodate new information (Bretherton, Ridgeway, & Cassidy, 1990). As the child matures and increases social interaction, his or her ideas of the self in relation to others become more formalized elaborations of these early structures. As the patterns become more formalized and more habitual, they form the basis of the individual's daily thoughts, actions, and interactions with others. This is the essence of personality.

Attachment theory can also add to our understanding of the family system. Bowlby's original theory included emphases on both the attachment system, characterized by behaviors such as crying, that increase proximity to the caregiver, and on a nurturance system characterized by caregiving behaviors. Berman and Sperling (1994) proposed that the caregiving system is an integral component and a direct outgrowth of the attachment system. The attachment behavior of the parent is shaped by the responsiveness and reactivity of the infant. Added to this system are

the caregivers' attachments to others in the family that may involve similar dynamics of intensity and longevity.

Heard (1982) has described specific ways in which families may encourage secure or insecure attachment. Effective caregivers may provide age-appropriate proximity, remaining accessible to children and spouse during times of threat, and they may encourage age-appropriate exploration from this secure base. Ineffective caregiving, on the other hand, may be either (a) underactive, fear-evoking, and unresponsive, as in disengaged families, or (b) overactive, fear-evoking and impinging, as in enmeshed families. In triangulated families, wherein open conflict between parents is avoided by redirecting anger (or the energy usually dedicated to it) towards a symptomatic child, parents may be exhibiting their own attachment behavior. Neither can assuage the other's needs, and that interferes with their caregiving capacities. The child also exhibits his or her own attachment behavior. The system stabilizes with each member suffering from a degree of unassuaged behavior resulting in an inability to explore from a secure base. In either case, attachment-seeking is never assuaged, thereby setting up (a) exaggerated, proximity-seeking behavior (pleading, nagging, provocation), (b) reverting to whatever past compliant behavior has elicited interaction with caregivers or avoidance of attachment arousal, or © avoidance of and withdrawal from caregivers.

In the therapeutic arena, attachment theory offers three primary benefits.

First, it offers an additional tool for understanding those clients who seek our services. Persons with insecure attachment styles appear to be more prone to depression (Armsden, McCauley, Greenberg, Burke, & Mitchell, 1991), unsatisfactory relationships with others (Feeney & Noller, 1990), and certain personality disorders (Livesly, Shroeder, & Jackson, 1990; Sperling, Sharp & Fishler, 1991). The attachment mechanism is likely to be an etiological factor in these conditions, influencing the development of schemata concerning the self in relation to others and the "lens" through which social interactions are viewed. If attachment constructs can be integrated with more traditional approaches to therapy, the client's core issues may be made more accessible during treatment.

In addition, attachment theory may have specific implications for family therapy. Specific parenting styles have been associated with the development of certain attachment types in children (Ainsworth, Blehar, Waters, & Wall, 1978). Numerous studies (Ainsworth & Eichberg, 1991; Fonagy, Steele, & Steele, 1991; Grossmann & Grossmann, 1991) have found that adults' organization of their thoughts and feelings about their own parents is directly related to the behaviors they exhibit when serving as attachment figures for their own children, and that this "internal working model" of attachment predicts the attachment behaviors of their

children. For these reasons, the family may serve as an ideal level of intervention. Using a structural family systems approach (Minuchin & Fishman, 1981), attachment may be addressed within the executive subsystem (i.e., between husband and wife) as well as between parent(s) and child(ren). This is best accomplished, of course, when elements of attachment theory can be directly tied to elements of family systems theory.

Definition of Terms

Attachment refers to a bond that occurs first between the infant and his or her caregiver(s). An inborn, survival-enhancing system is thought to exist, wherein the infant seeks proximity to the caregiver during threatening situations. Through a long series of interactions with the caregiver, the infant/child develops a concept of self in relation to others, which is then applied to other relationships that are as unique and irreplaceable as the parent-child relationship. This way of relating within intimate relationships is referred to as *attachment style*.

Attachment should not be confused with *affiliation*. Affiliative relationships are those that comprise the individual's friendship network and provide shared interests, similarity of circumstances, and a sense of community (Weiss, 1982). Attachment relationships are a subset of these. Attachment relationships are those

that are unique and irreplaceable, that are of an intimate and longstanding nature; it is these relationships that provide protection against psychiatric sequelae to stressful life events. Given these definitions, it is possible that a person may have a large number of affiliative relationships, but not have a secure attachment relationship. Conversely, it is possible that a person with a secure attachment style might have a narrow spectrum of affiliative relationships while maintaining a strong relationship with a spouse or other attachment figure.

For the purpose of this study, *personality* and *personality style* refer to those traits of an individual that remain relatively stable over time and across situations. They include characteristics of both the self concept and the style of relating to others, and, for the purposes of this study, are designated and measured by discrete criteria. The viewpoint, however, is that of one particular individual.

Family systems refers to the set of dynamic interactions that characterize family relationships. In this framework, various family members affect each other, and subsystems within the family affect both individual members and other subsystems. Minuchin's structural family therapy model, in particular, emphasizes the structure or organization of the family into subsystems, including the spousal subsystem, the executive (parental) subsystem, and the sibling subsystem (in which the children form a peer group). According to Minuchin, problems occur when

boundaries between the subsystems are either too *diffuse* (e.g., when one or both parents becomes too involved with a child, resulting in *enmeshment*) or too *rigid* (e.g., when members or subsystems have so little interaction that they are *disengaged*). Therapeutic change involves restructuring the family so that family members can better relate to one another.

Significance of the Study

The present study will clarify the relationship of attachment to personality and to elements of family systems. It will provide evidence for the importance of attachment in both theory and practice.

Building on recent evidence concerning the relationship of attachment to emotional adjustment, personality characteristics, and family factors, this study will tie specific attachment styles to instruments and techniques that are widely used in Counseling Psychology. By relating the self-in-relation concepts of attachment theory to both the individual's self concept-- reflected in personality measures-- and the individuals's most important relationships-- seen both in personality and family measures, this study will identify issues that arise in individual and family therapy formats. This can lead to both better understanding and more effective work with clients.

Limitations of the Study

The proposed study does not attempt to identify all aspects of attachment style, personality, and family systems. It cannot delineate the exact way in which the attachment bond influences the development of personality, nor can it completely describe the ways in which family interactions and attachment are intertwined. Because of its correlational nature, it can only describe the relative strengths of relationships among the variables being examined, and cannot posit causality.

The study is further limited by its population sample, which will be comprised of college students. The generalizability of the study's results will be necessarily limited by the restricted age range of the participants, as well as by any particular demographic characteristics that emerge in the sample of volunteer students.

Review of the Literature

Attachment Theory

The central idea of attachment theory is that human beings possess a behavioral system, adapted through the process of evolution and natural selection, that is designed to keep vulnerable infants in close proximity to their caretakers, especially in dangerous situations. The system includes a set of behaviors, including crying, clinging to the caregiver, and other signals, that have evolved as responses to impending danger. According to Bowlby (1969, 1980), these behaviors recede when danger seems unlikely, and the infant is able to explore the environment independently and thus acquire new knowledge. However, when the caregiver's accessibility is questionable, the attachment system is activated and healthy exploration activities decrease.

As the result of repeated attachment-related experiences, the young child develops an internal working model consisting of accumulated knowledge about the self, attachment figures, and attachment relationships. The formation of this model follows the same brain processes that are used to organize information and construct cognitive schemata, but the working model is thought to include emotion and defense responses as well as cognitive descriptions (Bretherton, 1985; Main, Kaplan, & Cassidy, 1985). The working model is thought to function largely outside of

awareness and to provide the person with a template for anticipating and interpreting the intentions and behaviors of others, especially significant others.

During infancy and early childhood, working models are thought to be somewhat flexible and responsive to changes in the environment. In this developmental stage, Piaget's model of accommodation is useful; working models may tend to accommodate to new information about the self, the environment, and attachment figures. However, as the child grows older, working models become more established and the child is more likely to assimilate new experiences into that model, processing attachment-relevant information in terms of the existing system rather than restructuring the system. Thus, as the accumulated attachment experiences become more organized and complex, they become more resistant to change (Bowlby, 1980).

Some of the first and most significant research concerning attachment theory was performed by Ainsworth, Blehar, Waters, and Wall (1978). They utilized a naturalistic laboratory procedure called the Strange Situation, which consists of a standard series of eight episodes. Twelve-month-old infants are observed in an unfamiliar playroom, where they are given an opportunity to explore toys as well as to interact with an unfamiliar adult in the presence and in the absence of the mother. The infant's behavior when reunited with the mother after a time of separation serves

as the basis for classifying infants according to three basic patterns of attachment, one secure and two insecure. Most attachment researchers believe that these three general attachment styles (described below) represent different working models of the self-in-relation.

The most common pattern discovered by Ainsworth was the "secure" style. In such cases, the child showed signs of distress when the parent left him or her alone with a stranger, sought out the mother upon her return, held her for a period of time, and then returned to exploration and play in the mother's presence. Subsequent studies have identified infants and children as "secure" in about sixty per cent of the samples utilized (Campos, Barrett, Lamb, Goldsmith, & Stenberg, 1983). Outside the Strange Situation, securely attached children are more likely to interact well, explore their environment, and show emotional resiliency (Bowlby, 1988).

Ainsworth also identified two types of insecure attachment. In the Strange Situation, the so-called "avoidant" style is characterized by distress during separation followed by lack of acknowledgment or rejection of the mother when she returns. Rather than seeking proximity to their mothers, avoidant children keep their attention directed toward toys or other external objects, apparently to divert their attention from their desire to establish contact with the parent. These children tend to be more anxious and fearful at home, and angry or attention-seeking at school (Bowlby,

1988).

Anxious/ambivalent children, on the other hand, show a high level of distress during separation followed by a mixture of approach and rejection behaviors when the mothers return. These infants cry more than others, are distressed before the mother actually leaves, and seem inconsolable. When the parent returns, the infant is so preoccupied with the caregivers' availability that he does not explore and play freely even with the parent present. Outside the Strange Situation, these children tend to be clinging, fearful of the environment, and emotionally labile.

Through a series of home visits, Ainsworth et al. (1978) concluded that primary caregivers of the three types of children differed in their behaviors. Caregivers of secure infants are generally sensitive and responsive to their infants' signals during feeding, face-to-face play, physical contact, and distress episodes. However, the typical caregiver of an avoidant infant is rejecting and tends to rebuff or deflect the child's bids for closeness, especially for bodily contact. The primary caregiver of an anxious/ambivalent infant responds inconsistently to her infant's signals, sometimes being unavailable or unresponsive, and sometimes being overly affectionate or intrusive.

Additional categories of attachment style have been proposed. A third category of insecure attachment is labeled "D" (disorganized/disoriented) by Main et

al. (1985) and "A/C" by Crittenden (1985). These infants show signs of contradictory behaviors in the Strange Situation, such as approaching the caregiver with head averted or suddenly freezing in midapproach. They may have caregivers with unresolved traumas regarding attachment, or caregivers who are abused, depressed, or extremely neglectful.

Classification of attachment styles has been elaborated further in adult samples. These classifications will be discussed in later sections.

Attachment During Childhood

Classification according to attachment style yields results that appear to be quite stable through childhood and adolescence. Waters (1978) found that ninety-six per cent of his subjects received the same attachment classifications at twelve and eighteen months of age. Grossmann and Grossmann (1991), using a modification of the Strange Situation for six-year-olds, found eighty-seven per cent convergence between their ratings and the ratings of the same children during infancy.

Throughout childhood, these attachment ratings have been found to be related to specific types of behavior. In children aged 3-1/2, for example, the quality of attachment at age fifteen months was related to Q-sort measures of social competence and ego strength/effectance (Waters, Wippman, & Sroufe, 1979). Secure preschoolers were more likely to be leaders among their peers, to initiate or suggest

activities, to be sensitive to their peers' problems, and to be sought out as play partners. Secure children also enjoyed learning new cognitive skills and were more likely to be self-directed, going after what they wanted. Insecure preschoolers, on the other hand, were more likely to be socially withdrawn, listening rather than engaging and observing rather than participating. Insecure children also tended to lack curiosity, and were more listless. The authors found these results to be especially striking because the children's mothers were not present when the assessments were made, suggesting that, even in these very early social interactions, attachment style generalizes beyond the realm of direct maternal influence.

Additional studies have examined sociability differences among the three attachment groups. Pastor (1981) assessed 62 two-year-olds who had been previously classified into attachment groups at 18 months of age. The toddlers in this study were assigned to free-play dyads such that members of each attachment group (secure, anxious/ambivalent, or avoidant) were paired with securely attached playmates. After thirty-minute observation periods (in which mothers of children were present in the playroom), secure children (when paired with other secures) were more sociable, more oriented toward both their mothers and their playmates, and more interested and engaged with their playmates than were members of either of the insecure groups. Avoidant toddlers were less likely to redirect their play activities

after struggling with their playmates over toys and tended to be distant from their mothers most often. The anxious toddlers tended to maintain close proximity to their mothers; they also were more likely than the other two groups to ignore offers made by the playmates, less likely to make social offers to the playmates, and less positive in their contacts with their mothers. Another study (also by Pastor, 1981) of dyad play found that three-year-olds had sociability differences related to the three attachment patterns and attributable to subjects' attractiveness as interaction partners. Playmates paired with secure children responded positively to them, whereas those paired with avoidant partners initiated fewer positive interactions with them. Children paired with anxious/ambivalent playmates were more disruptive of the other's play and directed more conflictual encounters with them.

In addition to these differences in social interaction according to attachment patterns, there is some evidence for the development of the self-other cognitive representation of the working model. Main et al. (1985) studied 40 families in which the children had been classified according to the Strange Situation at both twelve and eighteen months of age, and who were re-examined at age six. At the later age, fluency and balance of conversational patterns was greatest between secure children and their parents, whereas avoidant children and their parents tended to pause frequently and to talk with limited elaboration about impersonal topics (such as toys).

In responding to a hypothetical separation (i.e., when shown a series of pictures depicting a child's impending separation from parents), secure children tended to respond by expressing their feelings directly, whereas insecure children did not. Similarly, when shown a picture of themselves with their parents, secure children showed interest in the picture, smiling and talking about it. Insecure children, especially those classified as avoidant, tended to look away from the picture or to refuse to hold it.

Similarly, Kaplan and Main (1985) found differences in family drawings according to attachment classifications. Secure six-year-olds depicted family members as well individuated, close but not exaggeratedly close, and not always smiling. Avoidant children's pictures showed increased distance between family members, with all persons portrayed as smiling in similar ways.

Studies linking attachment classification in infancy to subsequent child performance has been criticized on several grounds. Lamb (1987) asserts that the associations between behavior in the strange situation and later behavior have been obtained largely in populations where the child's caretaking circumstances, whether good or bad, have been stable. Thus, he argues, behaviors may be due as much to *present* parent-child interactions as to earlier attachment to the parent. This problem is compounded by the fact that the attachment construct has been measured only in

the infancy period, and is not reassessed at the time later behavioral correlates are being measured.

These legitimate criticisms of attachment studies do not, however, undermine the theoretical concepts involved. The attachment system may be most readily observable during infancy, and indeed there may be a "critical period" in which parent-child interaction exerts an especially powerful influence on development of images of the self-in-relation. However, these images become imbedded in and elaborated upon by the interaction of experiences and cognitive development. Attachment in infancy cannot be proposed as a single, unalterable factor that determines the life course of an individual. Rather, it is proposed as one factor that influences the child's development. If caregiving is consistent with early attachment experiences, preverbal learning about the self-in-relation is reinforced as cognitive schemata are formed. However, if the quality of parent-child interaction changes, the child's internal working model of attachment can be expected to be at least elaborated upon and probably significantly changed.

Changes in Attachment during Childhood

When attachment patterns do change during childhood, it is usually related to changes in the caregiving environment. As part of a large longitudinal study, Egelund and Farber (1984) also studied attachment relationships in high-risk mothers-infant

pairs. With data collected prenatally and during the infants' first two years of life, they attempted to discriminate among the three basic attachment groups, as assessed in the Strange Situation. Of the 189 mother-infant pairs, sixty percent had stable classifications, with secure classifications most likely to be stable, followed by anxious and finally avoidant. Mothers whose infants were secure at twelve months but avoidant at eighteen months scored higher on aggression and suspiciousness and lower on measures of social desirability (administered prenatally and when the infants were three months old) than did mothers whose infants remained securely attached. Mothers in this change group were less educated and showed less interest in and understanding of infants, and more fear of motherhood. Similar factors were found for changes from secure to anxious attachment; in addition, mothers reported increases in life stress during this period. Changes from either avoidant and anxious groups to secure attachment tended to be associated with the development of caregiving skills among young, originally immature or incompetent mothers. In a later study utilizing this same high-risk sample, Erickson, Sroufe, and Egelund (1985) studied the subsequent behavior of 96 children. All of these children had as infants been classified according to attachment, and had received the same classification at both 12 and 18 months of age. These children were assessed at age 24 months, using videotapes of them with their mothers in a series of toll-using problem-solving tasks,

and at age 42 months they were observed in tasks that required the mothers to use some teaching strategies to enable the child to complete the task. Other environmental factors, including the degree of stimulation in the home and the occurrence of stressful life events were recorded. At age 4-1/2 to 5, these children were assessed by preschool teachers or daycare providers using behavioral checklists that identify socioemotional problems. Most children who developed behavior problems were originally classified as insecurely attached, but a small number of children who were originally classified as secure but later developed behavior problems. Mothers of these children appeared able to provide consistent care during infancy, but seemed unable to cope with the changing needs of their growing children. These mothers were less supportive of the children's problem-solving efforts and less able to structure tasks or set limits when their children reached 2 years of age. By age 3, the children's home environments lacked age-appropriate toys and other sources of stimulation, and by age 4, their mothers reported feeling confused or disoriented. Children's attachment behaviors also appeared to change during this period. Although they were similar to other securely attached children (who did not develop later behavior problems) at age 2, by age three and one-half, these children were less affectionate and more avoidant of their mothers.

Erickson, et. al. (1985) also found a small group of children originally

classified as insecure who functioned competently in preschool. No differences between these and other insecure children were seen at age 2, but by age 3-1/2, mothers of these children were more respectful of their children's autonomy, warm and supportive, less intrusive, and able to structure tasks and set limits. They also reported greater emotional and social support from friends and family than did mothers of insecure children who developed behavior problems.

Results of this study underscore some recurring complexities in the attachment classification research. First, the association between early attachment status and subsequent behavior was statistically significant, but rather weak. In addition, no significant differences between the two insecure groups could be identified; significance was found only when these two groups were combined. Finally, examinations of the "exceptions" to the predicted relationship revealed changes in parent-child interaction wherein parent behavior changes first, following by changes in the child's behavior, suggesting a "lag time" in which continued stimulation is required to change the internal working model.

In a later examination of this same sample, Sroufe, Egeland, and Kreutzer (1990) examined secure and insecure groups of children as they progressed through elementary school. Two groups were identified and examined. The first showed consistent positive early adaptation (based largely on attachment classification), but

then showed poor adaptation across assessments at 42 to 54 months. The second group showed poor adaptation in both the early and later periods. Through a series of regression analyses, attachment style was found to be a significant predictor of preschool adaptation, but assessments of the contemporary environment and stressors were better predictors of functioning in grades 1 and 3. However, when children were assessed at age 10 to 11, those with more secure early attachment were found to be more self confident and to have better social skills with peers.

One weakness in this study was a difference in the way in which behavior was assessed at age 10-11 as compared with assessments at grades 1 and 3. The earlier assessments were based on a composite of teacher rankings; whereas the later assessments were based on ratings by counselors at a day camp. Although the criteria were very similar, with only age-related differences, the environments were different. Nonetheless, this ambitious longitudinal study does give a glimpse of the complex interaction of attachment with other environmental influences, and suggests that the effects of early attachment could be affected by environmental conditions at any particular point in development, but that they are not lost.

Other authors have found evidence that early attachment interacts with later environmental changes and influences in predicting behavior and "psychopathology". Lewis and Feiring (1991) found that for both invulnerable (secure) and vulnerable

(insecure) children, security of attachment and environmental factors make independent contributions to later psychopathology, but that the interactions of these factors can also account for significant portions of behavioral differences. Very few (five per cent) of those originally classified as secure developed psychopathology by age six. However, about half of the families found to have significant conflict had children with psychopathology. In addition, secure attachment appeared to protect children from the effects of family conflict, and insecure attachment required exposure to family conflict in order to elicit psychopathology.

Attachment in Adults

Given this support for continuity of attachment in childhood, many researchers have proposed that attachment style has correlates in adulthood. It was thought that the most logical correlate would be found in adult romantic relationships, since these attachments can mimic the intensity of the parent-child bond and have potential to produce a relationship of similarly long duration. From this basis, the investigation of adult attachment has expanded to include general interpersonal relationships as well as parenting relationships and a variety of coping and behavioral aspects.

A major contribution to the classification of adult attachment was made by Hazan and Shaver (1987). Drawing on the three basic attachment styles described in the child development literature, they devised a descriptive paragraph for each style,

reproduced (from Hazan & Shaver, 1987, p. 515) below:

Secure	I find it relatively easy to get close to others and am comfortable depending on them and having them depend on me. I don't often worry about being abandoned or about someone getting too close to me.
Avoidant	I am somewhat uncomfortable being close to others; I find it difficult to trust them completely or to allow myself to depend on them. I am nervous when anyone gets too close, and often love partners want me to be more intimate than I feel comfortable being.
Anxious/Ambivalent	I find that others are reluctant to get as close as I would like. I often worry that my partner doesn't really love me or won't want to stay with me. I want to merge completely with another person, and this desire sometimes scares people away.

In this original form, respondents were asked to select the description most applicable to their feelings about close relationships. In the past few years, many other self-report measures have been devised based on the Hazan and Shaver prototype. Feeney (1991) based some research on slightly modified versions of the descriptive paragraphs, to which subjects responded with a Likert scale rating. This was done in an attempt to capture the variability in degree of attachment style, noting that a person may possess some characteristics of more than one style. To further refine the construct, some researchers (Feeney, Noller, & Callan, 1994; Collins &

Read, 1990) have developed assessments of attachment style in which respondents rate individual statements, usually based on the original, forced-choice paragraphs.

Bartholomew and Horowitz (1991) expanded the number of attachment style classifications, emphasizing two underlying dimensions: models of the self (positive or negative) and models of others (positive or negative). These dimensions result in the definition of four types of attachment style. The secure person has a positive view of self and others, whereas the “preoccupied” person (similar to other descriptions of anxious/ambivalent) has a negative model of self and a positive model of others. The avoidant category is divided into two types. The fearful-avoidant person, with a negative view of both self and others, has a sense of unworthiness and avoids close involvement with others in order to protect herself against anticipated rejection by others. The dismissive-avoidant person, who has a positive view of self but negative view of others, has a sense of love-worthiness combined with a negative disposition toward others and avoids close relationships to protect herself against disappointment and maintain a sense of independence and invulnerability.

Bartholomew and Horowitz measured the above dimensions of attachment using both an interview technique (utilizing both subjects and their close friends), and a Likert rating of prototypic paragraphs. The authors presented an extensive data set, supporting the model by showing negative correlations between attachment styles at

opposing positions of the underlying dimensions. However, data concerning the use of the brief self-report measure raise questions concerning its utility. For example, the wording of the paragraphs of opposing positions contain obviously contrary themes. Again, separation of statements in the prototypic paragraphs, and allowing ratings of each, would allow better definition of attachment style.

Such an approach was utilized by Feeney, Noller, and Hanrahan (1994).

Using Bartholomew's dimensions of positive and negative views of self and others, they developed a series of statements thought to reflect the major features of both the three- and four-group models of attachment. Principle components analysis of the resulting instrument resulted in a five-factor solution, that was consistent with an elaboration of attachment theory. In addition to a secure factor, there were two anxious/ambivalent factors as well as two avoidant factors. This demonstrates the utility of individual statements indiscriminating attachment features more finely.

A number of other researchers (Mikulincer, Florian & Tolmacz, 1990) have utilized statements constructed by separating the items of Hazan and Shaver's descriptions. Some of these are used to measure specific types of adult attachment, such as that between romantic partners (West & Sheldon-Keller, 1994). Other self-report measures have been developed, sometimes proposing different subgroups for the insecure types. All of the studies cited in this review organize their ideas of adult

attachment around these three basic groups. Other studies that explore "attachment" appear to be exploring a somewhat different construct.

One idea that appears to be related to, but distinguishable from, attachment is that of affiliative style. Affiliative style seems to tap a characteristic of the individual who is generally open and comfortable with friends. The attachment relationship, on the other hand, is one that is "unique and irreplaceable" (Ainsworth, 1989) and creates a substantial level of distress when disrupted (Ainsworth, 1985). Thus, a gregarious person with an open affiliative style may have difficulty in close, attachment-related relationships and a quiet person with a long-term marriage and a single best friend may be said to be securely attached. By definition, the working model of the self-in-relation influences the way in which the individual approaches others in the social world and also affects the reactions of others toward him or her; because of this, attachment style may be tied to many diverse behaviors. However, the effects of attachment style are most evident in close long-term relationships or in those that offer the potential for becoming both intense and permanent.

One of the first applications of attachment theory to adult functioning was in the area of romantic love. In an extensive study, Hazan and Shaver (1987) used the results of various self-report measures answered by readers of a Colorado newspaper. Of initial interest was the fact that classification according to attachment style (using

the forced-choice paragraphs shown previously) yielded proportions similar to those found in children, namely 56% secure, 25% avoidant, and 19% anxious/ambivalent. No differences according to gender were found. In addition, subjects with different self-designated attachment styles were found to differ in the way they described their most important love relationship. Secure lovers had longer-lasting relationships (10.02 years compared with 4.86 for anxious/ambivalent and 5.97 for avoidant subjects) and described them as happy, friendly, and trusting, characterized by acceptance of their partners despite the partner's faults. Avoidant lovers were characterized by fear of intimacy, emotional highs and lows (although their positives were never as high as those for anxious/ambivalents), and jealousy. Respondents with different attachment styles also showed differences in their mental models of "the course of romantic love over time." Secure lovers said that romantic feelings wax and wane but at times reach the intensity experienced at the start of the relationship and that in some relationships romantic love never fades. Avoidant lovers said that the kind of head-over-heels romantic love depicted in books and movies does not exist in real life, romantic love seldom lasts, and it is rare to find a person with whom one can really fall in love. Anxious/ambivalent subjects said that it is easy to fall in love and that they frequently feel themselves beginning to fall, although (like the avoidant subjects) they rarely find "real love." Like secure lovers, anxious/ambivalent subjects

said that romantic feelings wax and wane over the course of the relationship.

Other researchers have elaborated upon the ways in which love relationships differ according to attachment style. Feeney and Noller (1990) examined attachment style in a population of undergraduates and found many results that replicated those of Hazan and Shaver. In addition, they found that avoidant subjects were more likely to report never having been in love and to indicate low intensity of love experience; whereas the anxious/ambivalent group obtained high scores on a number of scales reflecting their extreme approach to love (extreme self-sacrifice, and love addiction). Perhaps most significantly, the mental model statements dealing with general views of the self and human relationships discriminated among the three attachment styles much more powerfully than did those items dealing specifically with beliefs about romantic love. A strength of this study was its use of tapes of open-ended verbal descriptions, which were then coded as to content. The Hazan & Shaver paragraphs were given after these reports were completed, to avoid contamination. However, inter-rater reliabilities for the scales of content were not reported.

Further description of relationships according to attachment style comes from studies concerning self-disclosure and mutual support within couples. An Israeli study (Mikulincer & Nachson, 1991) found that both secure and anxious/ambivalent people showed more self-disclosure than avoidant people, and that they felt better

interacting with and were more attracted to a high-disclosing partner than a low disclosing partner. Avoidant people's self-disclosure and liking, on the other hand, were not affected by the level of disclosing of a partner. Simpson, Rholes, and Nelligan (1992) observed spontaneous behavior between dating couples when the female member of the dyad is confronted with an anxiety-provoking situation. Evaluation of each partner's behavior indicated that more securely attached women used their partners as a source of comfort and reassurance as their anxiety increased, whereas more avoidant women retracted from their partners both emotionally and physically. Both more secure and more avoidant women were calmed when their partners made supportive comments. However, securely attached men offered greater reassurance and emotional support (especially as the women's anxiety level increased) than did avoidant men. No significant effects emerged for the anxious attachment style, perhaps reflecting the ambivalence inherent in this style, that makes detection of consistent responses difficult.

The extent to which the parent-child relationship serves as a prototype for romantic relationships was examined by Owens, Crowell, Pan, Treboux, O'Connor, and Waters (1995). In this study, attachment style (based on parent-child interaction) was assigned according to the Adult Attachment Interview (AAI), and attachment within the romantic relationship was assigned using the Current Relationship

Interview (CRI), a new instrument designed to investigate how adults mentally represent their attachment to a dating or marriage partner. The engaged couples who participated in the study completed these two interviews as well as the Dyadic Adjustment Scale. Results indicated that there was a significant concordance (56%) between attachment style as measured by the AAI and relationship attachment as measured by the CRI. However, since this concordance is only moderate, it is possible that internal working models of the parent-child relationship are not the only models upon which romantic relationships are based. In addition, there was evidence that the romantic relationship was *co-constructed*; i.e., participants with secure (AAI) partners were more likely and those with insecure partners were less likely to report secure (CRI) models of the relationship. While these findings are interesting, the heavy reliance on the newly-developed CRI and largely descriptive statistics suggest that replications of this study be done, and limit the conclusions that can be drawn.

A number of studies have addressed the effect of attachment style on intrapersonal factors (although by definition in attachment theory, concepts of self can never be completely separated from concepts of others). Numerous studies have found that securely attached adults score higher on measures of self-esteem, including Feeney and Noller (1990) and McCormick and Kennedy (1994), all of whom found higher scores on Coopersmith's Self Esteem Inventory. In a study of college students,

Kobak and Sceery (1988) found that a secure group reported little distress whereas a dismissing group (analogous to avoidant) reported more loneliness and a preoccupied group (analogous to anxious) reported high levels of personal distress.

Affect regulation has also been investigated as a correlate of attachment style. In the previously cited study by Kobak and Sceery, subjects were evaluated for affect regulation using Q-sort ratings along the parameters of ego-resilient, ego-undercontrol, hostility, and anxiety. The secure group was rated as more ego-resilient, less anxious, and less hostile. The dismissing group was rated low on ego-resilience, and the preoccupied group was viewed as both less ego-resilient and more anxious. Ego-undercontrol, a factor related to spontaneity, emotional expressiveness, and ability to delay gratification, did not discriminate among the attachment groups. This may indicate that regulation of affective expression may be a cultural or socialization phenomenon rather than a reflection of quality of attachment.

Affect regulation was investigated by Mikulincer, Florian, and Tolmacz (1990) in the context of fear of personal death. Viewing fear of death as fear of the ultimate separation, these researchers found that anxious/ambivalent subjects exhibited stronger fear of death (as measured by the Death Anxiety Scale and the Fear of Personal Death Scale). Both anxious/ambivalent and avoidant subjects showed stronger fear of death at a low level of awareness (as measured by the Thematic

Apperception Test) than did secure subjects. More specifically, anxious subjects were more likely to fear the loss of their social identity in death, and avoidant subjects were more likely to fear the unknown nature of their death. Results of this study should be interpreted with some caution, due to rather low test-retest reliability (.51 to .91) of the Fear of Personal Death Scale and moderate Cronbach alphas (.54 and .61) for scales used to score the TAT. However, the exploration of this subject produced results consistent with the view that attachment styles influence the individual's affective responses to emotionally distressing situations, with avoidant subjects truncating the components of fear of death related to social rejection, and anxious subjects emphasizing these same components.

Priel and Shamai (1994) emphasized the intertwining between the intra- and interpersonal aspects of affect regulation and related these to attachment theory. As expected, they found that securely attached individuals are significantly less anxious and depressed than insecurely attached persons, that they perceive more social support in their environment and are more satisfied with it. The authors suggested that the internalization of basic caregiver-self distress-soothing interactions increases the individual's ability to regulate her own affect in distressing situations. In addition, the expectation of social support may actually improve the individual's ability to obtain help from others. Thus, the belief that others accept us for what we are

includes both internalized concepts of the self and interpersonal experiences and skills, both of which promote the development of feelings of personal control and self efficacy (Sarason et al., 1990).

Attachment style has also been related to the types of coping strategies chosen by individuals. In a study of Israeli students' reactions to the Iraqi missile attack on Israel during the Gulf War (Mikulincer, Florian, & Weller, 1993), anxious/ambivalent students reported more distress than did secure students. Avoidant students reported higher levels of somatization, hostility, and trauma-related avoidance than secure persons. In coping with the trauma, secure persons used more support seeking strategies, whereas anxious/ambivalent students used more emotion-focused strategies and avoidant persons used more distancing strategies. A confounding element in this study was the lack of information about students' actual experiences during the Gulf War. Differences in the intensity of experience across the attachment groups could, if present, account for some of the differences found in distress and coping.

Hazan and Shaver (1990) also found relationships between attachment style and behavior in the workplace. Securely attached individuals approached work with confidence, were relatively unburdened by fears of failure, and although they valued work they did not allow it to interfere with their relationships. Anxious/ambivalent

individuals, on the other hand, reported that love concerns often interfered with work performance. They frequently feared rejection, tended to slack off following praise, and had the lowest average income. Avoidant individuals used work activity to avoid social interaction. Although their average income was comparable to that of the securely attached individuals, they were less satisfied with their jobs, and were least likely to take enjoyable vacations.

Attachment style may also be related to behaviors that put the individual's physical health at risk. Women with higher levels of eating disorder showed higher levels of insecure attachment on the Bell Object Relations Inventory (Heesacker & Neimeyer, 1990). Shedler and Block (1990) and Walsh (1992) found that the least attached adolescent subjects were the most likely to use drugs as well as to become the most sexually active. Shedler and Block (1990) found that those who experimented with drugs (i.e., tried drugs one to eight times) were the most securely attached, presumably because they were secure enough to be open to experience drugs but did not need the artificial satisfaction of protracted use. Walsh, however, found that drug experimenters did not differ significantly from abstainers, but that sexual experimenters had a significantly lower attachment mean than virgins of both sexes. The authors considered these findings to be especially meaningful in the age of AIDS, when sexual and drug use habits have become increasingly risky.

Mikulincer and Orbach (1995) investigated the construct of repressive defensiveness as related to attachment style. This construct involves both the tendency to avoid awareness of negative affects and impulses and the level of manifested anxiety. By including both of these ideas, it attempts to discriminate among people who truly have low levels of anxiety, people who report low anxiety because they are able to repress anxious feelings, and people who report high anxiety despite their attempts to repress it. Researchers in the area of repressive defensiveness have found that repressors-- those who exhibit high levels of defensiveness with low levels of manifested anxiety-- are more distressed on physiological and behavioral measures than are the truly low-anxious people but report lower levels of subjective distress than do low anxious people. High anxious people show an intermediate level of anxiety reaction with no dissociation among the physiological, behavioral, and experiential (i.e., self-reported) components of anxiety.

In the Mikulincer and Orbach (1990) study, students were classified as secure, avoidant, or anxious-ambivalent style completed scales for repressive defensiveness and were asked to recall early personal emotional experiences. Securely attached people showed moderate defensiveness and low anxiety and were able to easily access negative memories without being overwhelmed by the spread of this dominant emotion to nondominant emotions. Anxious-ambivalent people readily accessed

negative memories, could not repress negative affect, and could not inhibit emotional spreading. Avoidant people reported high levels of defensiveness and anxiety but showed low accessibility to negative memories. The generalizability of these findings is limited by the very homogeneous nature of the sample (all Jews and native Hebrew speakers at an Israeli university); nevertheless, they provide an interesting link between the intrapersonal and interpersonal functioning of persons in the three attachment groups.

The findings of this study interface with previous studies of avoidant persons in two important ways. First, the construct of repressive defensiveness, with its emphasis on physiological manifestations of repressed anxiety, replicates the findings of Sroufe and Waters (1977) of increased cardiac arousal (i.e., increased heart rate) in avoidant infants while they act as if they are not bothered by their mothers' departure. Similarly, Dozier and Kobak (1992) found that college students who scored as more avoidant on the Adult Attachment Interview produced stronger skin conductance responses during the interview when providing the kinds of answers generally viewed as defensive distortions or denials. Repressive defensiveness also appears related to findings concerning adult attachment as measured by Main et al. (1985) and Bartholomew and Horowitz (1991), in which dismissing adults (a subgroup of avoidants) remembered parents as having been vaguely good, and yet cannot provide

specific examples to support this generalization. Bartholomew and Horowitz, in particular, found that dismissing adults provided a mix of positive and negative descriptions of their parents, generally stating that parents provided adequate care but indirectly characterizing them as having been rejecting or otherwise less-than-ideal. Taken together, these components of repressive defensiveness suggest that anxiety is experienced by avoidant subjects but may be expressed only indirectly on self-report measures.

Relationship of Attachment Style to Stable Interpersonal and Intrapersonal Traits

The concept of attachment appears to be highly related to ideas concerning individual personality. Like personality, attachment style is thought to be relatively stable over time and across situations. In addition, both personality and attachment style appear to involve both the intrapersonal world that includes concepts of the self and the world and the expression of those concepts in interpersonal relationships. Although the precise relationship between the two constructs has not been well established, some studies have attempted to tease out their similarities and differences.

Shaver and Brennan (1992) investigated the relationship of adult attachment style to personality dimensions measured by the NEO Personality Inventory (NEO-PI). Previous studies of the NEO-PI had suggested that five global traits were measured by the instrument: Neuroticism (proneness to experience unpleasant and

disturbing emotion), Extroversion (preference for social interaction and lively activity), Openness to Experience (receptiveness to new ideas, approaches, and experiences) Agreeableness (selfless concern for others and trusting, generous sentiments), and Conscientiousness (organization and achievement). As the authors expected, secure subjects were less neurotic and more extroverted than insecure subjects; they were also significantly more agreeable than avoidant subjects. Anxious subjects were slightly more neurotic, extroverted, and agreeable than avoidant subjects, but differences between the two insecure groups were not statistically significant.

The study also examined facet subscales of the so-called "Big Five" traits. Two subscales of the Neuroticism trait, Anxiety and Impulsiveness, showed differences. On the Anxiety subscale, anxious-ambivalent subjects scored higher than avoidant subjects who in turn scored higher than secure subjects. On the Impulsiveness subscale, anxious-ambivalent subjects scored higher than secure subjects but avoidants' scores fell in between so they did not differ significantly from either group. Rather complex results were found in the subscales of Extroversion. No differences were found in the Activity and Excitement Seeking subscales, which are thought to tap the arousal-related temperament aspect of extroversion. Gregariousness was higher in the secure group than in the combined insecure groups.

On the Warmth scale, both secure and anxious-ambivalent subjects scored higher than avoidant subjects. On the Assertiveness scale, secure subjects scored higher than anxious-ambivalents and avoidants fell in between, again not differing significantly from either of the other groups. On the Positive Emotions subscale, secure subjects scored higher than avoidants and anxious-ambivalents fell in between. Among the subscales of the Openness to Experience scale, Openness to Feelings was lower in avoidant subjects than in either secure or anxious subjects. From these findings, the authors concluded that, whereas both insecure attachment types are anxious, anxious-ambivalents are more likely than avoidants to experience and express anxiety. In addition, they found evidence that the social, but not arousal, aspects of extroversion are associated with attachment and security and that avoidant, but not secure or anxious-ambivalent, individuals suppress attachment-related feelings.

The five major NEO-PI scales could not discriminate significantly among all three attachment types. However, multiple regression analyses were used to explore the ability of NEO-PI variables to predict scores on the three attachment-style rating scales. A secure style was best predicted by low Neuroticism and high Extroversion (especially low Anxiety and high Warmth subscales). An avoidant style was predicted by low scores on Agreeableness and high scores on Neuroticism (especially the Depression subscale) and by low scores on the Openness to Feelings subscale. The

predictors for the anxious-ambivalent rating were less strong, but high scores on Neuroticism and the depression subscale, as well as low scores on openness to values, made statistically significant predictions.

The results of this study contribute significantly to the understanding of attachment style as related to personality. A sufficiently large sample was used, allowing statistical analysis of as many as 20 variables, and modest to moderate relationships consistent with theory were found. In particular, the presence of depression among both insecure groups, as well as the feeling-suppression among avoidant individuals and lack of openness to values among anxious-ambivalents was consistent with previous work in child and adult attachment. Overall, attachment styles were found to be meaningfully related to personality traits and facets, but while the personality constructs are intentionally general, the attachment style constructs are relationship specific.

The attachment construct has also been studied in relationship to personality disorders. West, Keller, Links, and Patrick (1993) studied attachment in psychiatric outpatients who were identified using the Millon Clinical Multiaxial Inventory (MCMI) as having borderline personality disorder (BPD). Although a number of instruments were administered to the subjects in the study, only four scales were found to be related to BPD. These four scales, all from the Reciprocal Attachment

Questionnaire, included secure base, feared loss, compulsive caregiving, and angry withdrawal, where lower scores indicate more secure attachment. All exhibited linear trends. Subjects with no evidence of borderline disorder had the lowest means on the attachment scales, i.e., their means were 10.7 for secure base, 13.2 for feared loss, 24.6 for compulsive care-seeking, and 23.1 for angry withdrawal. Those in the intermediate range had intermediate attachment scores of 11.9 for secure base, 15.0 for feared loss, 27.5 for compulsive care-seeking, and 25.6 for angry withdrawal. Those with pronounced borderline disorder had the lowest attachment score means of 13.2 for secure base, 18.0 for feared loss, 29.0 for compulsive care-seeking, and 28.8 for angry withdrawal. The authors concluded that borderline personality disorder possesses the extreme manifestations of anxious attachment as indicated by the high level of feared loss and low sense of secure base. These factors result in behavioral patterns through which the individual attempts to limit his or her anxiety, vacillating between the extremes of compulsive caregiving and angry withdrawal that are clinically characteristic of borderline personality disorder. The conclusions support the relationship of attachment to personality development, and seem particularly appropriate for a personality disorder defined primarily by tumultuous interpersonal relationships. The generalizability of these findings is limited, however, because the attachment scales utilized requires that respondents have a current, adult attachment

figure who is not a member of the family of origin; this factor is certainly not present for all persons with the disorder. In addition, all borderline subjects were female. The gender bias in the diagnosis of borderline personality disorder is the subject of ongoing debate and may have significant implications for the role of attachment in the genesis of the disorder.

Sheldon and West (1990) studied attachment pathology as related to low social skills in persons with avoidant personality disorder. Persons who had been given a diagnosis of avoidant personality disorder (by consensus following an observed 90-minute interview) were given a 25-item questionnaire yielding information on three scales: Desire for an Attachment Relationship, Fear of an Attachment Relationship, and Lack of Social Skills. Results indicated that desire for an attachment relationship is not correlated with either Fear of an Attachment Relationship or Low Social Skills. A moderate correlation was found between Low Social Skills and Fear of an Attachment Relationship. Although the study suffered from notable methodological problems, including selection of subjects and use of untested scales, it provides preliminary support for the idea that attachment security is distinct from general sociability. Desire for, but fear of, an attachment relationship may be more relevant to avoidant personality disorder than lack of social skills or social comfort.

Relationship of Attachment to Family Structure and Function

If attachment style is related to longstanding personality traits, it seems highly likely that attachment will also be related to family life, the environment in which personality develops and in which interaction with the attachment figure takes place. This section will outline the empirical evidence that supports this relationship.

Perhaps the most important link between attachment style and family is the transmission of attachment style through the generations. A vivid representation of this fact is found in studies utilizing the Adult Attachment Interview (AAI), which is coded in terms of both attachment-related experiences that adults recall and the adults' current state of mind. The AAI predicts with about 80% accuracy how a parent's infant child will be classified in the Strange Situation (Ainsworth & Eichberg, 1991; Fonagy, et al., 1992; Grossmann & Grossmann, 1991; Main et al., 1985). This suggests that parents' organization of their thoughts and feelings about their own parents is directly related to their availability and consistency as attachment figures for their own children.

As previously noted, specific behaviors by parents influence the development of an attachment bond with their offspring. Isabella and Belsky (1991) found that mother-child dyads in which insecure attachment developed were characterized by interactions in which mothers were minimally involved, unresponsive to infant signals,

or intrusive. Crowell and Feldman (1988) studied mothers' internal models of relationships, based on descriptions of their own childhood relationships, and described them as detached, preoccupied, or secure. Children's behaviors were found to correspond to their mother's internal models. In addition, Crittenden (1985) found that infants classified as "disorganized" in the Strange Situation tended to have mothers who were depressed, disturbed, or abused.

Some researchers have specifically addressed the issue of family conflict as related to attachment. As previously mentioned, Lewis and Fairing (1991) found that conflicted families (as identified by the Family Environment Scale) were much more likely than nonconflicted families to have children with signs of psychopathology. In addition, children identified as securely attached at age 12 months were significantly less likely to develop psychopathology by age 6, even when family conflict was present. For insecurely attached male children, later development of psychopathology appeared to be dependent on exposure to stress within the family environment. Thus family cohesion/conflict resolution appears to be related to, but not redundant with, attachment. Notably, however, results for female children were not significant. No explanation is given for this finding.

Along these lines, some researchers have attempted to identify family patterns that are associated with attachment pathology. For example, Latty-Mann and Davis

(1988) hypothesized that adult children of alcoholics (ACOAs) are disproportionately represented in the "A/C" or disorganized attachment style group. Using an instrument that asked self-identified ACOAs to rate the extent to which each of Hazan and Shaver's descriptions was self-characteristic, they found that ACOAs were four times as likely as a control group of non-ACOAs to have mixed pictures of elevation on both the anxious and avoidant descriptions, thus supporting their claim. A major flaw in this study, however, was its use of ACOAs attending an ACOA conference who may have been more disturbed than those who did not attend and/or may have been more predisposed to answer questions in the manner that result in the A/C classification.

Brennan, Shaver, and Tobey (1991) studied ACOAs in relation to the previous work and with respect to both Hazan and Shaver's three- and Bartholomew's four-category models of attachment styles. As in the Latty-Mann and Davis study, ACOAs scored high on both avoidant and anxious-ambivalent scales of the Hazan and Shaver measure, but on Bartholomew's measure they fell predominantly into the fearful-avoidant category. The odds of being classified as fearful-avoidant were over three times greater for the ACOA group than for the non-ACOA group. In addition, the odds of being classified as fearful avoidant were 1.7 times greater for the group whose parents were problem drinkers than the no-problem

group. This study, unlike the Latty-Mann work, used a general population of college students, and parents' drinking status was determined through simple questionnaires, lending further support for the previously discovered patterns. Consistent with attachment theory, the evidence suggested that parents who drink to excess are less likely to form healthy attachments with their children, presumably because of their inconsistent and/or abusive behavior.

Jong (1992) considered attachment, family loss patterns, and suicidality in late adolescents. Students with a history of suicidality exhibited both the lowest security of attachment, as well as the least degree of individuation in their current relationships with their parents. They were similar to both depressed nonsuicidal and control students on attachment and level of individuation from peers but rate their parents, particularly their mothers, as emotionally absent in childhood to a significantly higher degree than the other two groups. Students with a history of suicidality did not report a higher incidence of parental loss through separation and divorce, but rather they reported a significantly higher degree of other manifestations of family instability (parental arguing, worrying that the family would split up, parental threats to separate) than did normals. Males with a history of suicidality had fewer attachment figures available when growing up, as well as lower mean scores for current attachment to parents. Taken together, findings of this study suggest that

adolescents' vulnerability to suicide is increased by the absence of parents as emotionally available attachment figures.

This association of family dynamics with attachment is similar to the relationship of personality variables with attachment. Literature examining both children and adults supports the idea that attachment, occurring within the family system, is related to factors such as family conflict and chaos. Child development studies have suggested that caretakers who are rejecting and physically distant may produce avoidant infants, and caregivers who are inconsistent and intrusive may produce anxious/ambivalent infants. However, the mechanisms of how patterns of family relating contribute to the development of attachment style is not known. Similarly, some personality traits have been related to specific attachment styles. Both types of insecure attachment are associated with depression and anxiety, but anxious-ambivalent persons are more likely to express this distress overtly while avoidant persons are more likely to be defensive, repress their emotions, and avoid close relationships. The ways in which such factors are measured within widely-used clinical conceptualizations have not been established. The present study will bring together these related factors in a way that is meaningful and helpful to the clinician.

Statement of the Problem

At its most basic level, the present study attempts to utilize attachment theory as a link between our understanding of individual personality and family systems. It proposes that attachment underlies the development of personality, and that attachment both influences and is perpetuated by family systems. More specifically, this study will investigate the relationship of particular components of the family system and longstanding personality traits to groups differentiated by their attachment style. The study will also serve to generate new hypotheses regarding the relationships between attachment, personality style, and family systems.

Research Questions

The proposed study will address the following questions:

1. Will personality factors and family interaction patterns be related to the avoidant attachment style in ways that are consistent with current understanding of adult attachment style? Specifically, will the MMPI-2 scales indicating defensiveness (K scale), somatic complaints (Scale 1), depression (Scale 2), and social isolation (Scale 0), and the SFIS-R scales indicating disengagement, parental estrangement, and family conflict avoidance be associated with ASQ scales suggesting avoidant attachment style?

2. Will personality factors and family interaction patterns be related to the anxious/ambivalent attachment style in ways that are consistent with current understanding of adult attachment style? Will the MMPI-2 scales indicating depression (Scale 2), and anxiety (Scale 7) be associated with ASQ scales suggesting anxious/ambivalent attachment style? Will the SFIS-R scales indicating rigidity, enmeshment, unresolved spousal conflict, and cross-generational triads be associated with ASQ indicators for the anxious/ambivalent attachment style?

3. Will personality factors and family interaction patterns show relationships to the secure attachment style that are consistent with adult attachment theory? Will the SFIS-R scales reflecting parent-child cohesion and spousal conflict resolution show positive relationships to secure attachment as measured by the ASQ, while scales reflecting conflict avoidance show a negative relationship to secure attachment? Will the MMPI-2 scales indicating depression (Scale 2), anxiety (Scale 7), somatic complaints (Scale 1), and social isolation (Scale 0) show a negative association with secure attachment style as measured by the ASQ?

Method

The proposed study will consist of participants completing paper-and-pencil, self-report instruments designed to measure attachment style, personality, and family characteristics. Participants will also complete a brief demographics questionnaire.

Sample

Participants will be undergraduate college students who, as part of their coursework in psychology and education, received course credit or extra credit for participating in experiments. Subjects will include both males and females, aged 18 and over, from a variety of cultural and ethnic backgrounds. Participants' responses will remain anonymous; their self-report instruments will be identified by number only.

A total sample size of about 250 will be needed in order to interpret the appropriate statistical operations with confidence.

Measures

The Attachment Style Questionnaire (ASQ; Feeney, Noller, & Hanrahan, 1994) is a 40-item instrument. Subjects respond to items on a Likert scale rating from 1 (totally disagree) to 6 (totally agree). Responses are used to obtain scores on five scales, including Confidence, Discomfort with Closeness, Need for Approval, Preoccupation with Relationships, and Relationships as Secondary. Principal-

components analysis of the questionnaire resulted in both a three-factor solution, corresponding to Hazan and Shaver's (1987) conceptualization and a five-factor solution, upon which the above scales were based (after items that were factorially complex were removed). In the five-factor solution, Anxiety is divided into Need for Approval and Preoccupation with Relationships, and Avoidance is divided into Discomfort with Closeness and Relationships as Secondary. The Confidence Scale is associated with a Secure attachment style.

The Attachment Style Questionnaire has satisfactory psychometric properties (Feeney, Noller, & Hanrahan, 1994). Coefficient alphas of the five-factor scales ranged from .76 to .85, and those for the three factors ranged from .83 to .85. Test-retest reliabilities (over a 10-week period) ranged from .67 to .78 for the five factors and from .74 to .80 for the three factors.

Convergent and divergent validity, in which the scales were correlated with each other and with other attachment style measures, were also found to be satisfactory. In pairwise correlations between the three scales of the Attachment Style Questionnaire, Security correlated negatively with Avoidance ($r = -.49$) and with Anxiety ($r = -.29$). However, Avoidance correlated positively with Anxiety ($r = .35$). This is consistent with other attachment instruments that use Likert ratings, and appears to reflect the difficulty in differentiating the two insecure types. However,

when the three scales of the ASQ were correlated with Likert ratings of the Hazan and Shaver paragraphs, differences consistent with theory were found. For example, the ASQ Avoidance Scale had correlations of .44 and .16 with ratings of the Avoidant and Anxious/ambivalent paragraphs, respectively, and the ASQ Anxiety Scale had correlations of .04 and .57 with ratings of the Avoidant and Anxious/Ambivalent paragraphs. Similarly, when subjects were divided into secure, avoidant, and anxious/ambivalent groups according to Hazan and Shaver's forced-choice measure, group means of the ASQ scales were consistent with their choice of paragraphs; i.e., the group of those who chose the anxious/ambivalent paragraph had the highest mean scores on the ASQ Anxiety scale, etc. The Avoidance scale showed the smallest difference between avoidant and anxious/ambivalent groups.

The Structural Family Interaction Scale-Revised (SFIS-R; Perosa & Perosa, 1990) is a self-report measure that contains 83 statements representing family interactions described in the structural family model of Minuchin (1974). Participants are asked to respond using a 4-point Likert scale of agreement ranging from A (very true) to D (very false).

SFIS-R is composed of eight scales, three of which assess system wide family dynamics. The Enmeshment/Disengagement scale contains items that assess the degree of support, responsiveness, involvement, and sense of differentiation family

members experience in relation to boundaries. A high score represents enmeshment. The Flexibility/Rigidity scale measures the degree to which the family is able to adapt in response to either increasing autonomy in developing youth or situational stress affecting the family. A high score on this scale indicates greater flexibility. The family Conflict Avoidance/expression scale includes items that assess the degree to which family members avoid or express differences that may lead to arguments. A high score on this scale represents conflict avoidance.

Five scales assess the quality of parent-child interactions. The Mother-Child Cohesion/Estrangement scale and the Father-Child Cohesion/Estrangement scale reflect the participant's perception of the degree to which each parent, respectively, provides nurturance and resolves differences with the child so that both parent and child feel close to each other. A high score on these scales indicates greater cohesion. The Spouse Conflict Resolved/Unresolved scale includes items that measure the degree to which conflicts between spouses are satisfactorily resolved (the lack of such resolution being a precursor to the development of pathological triads). A high score indicates problem resolution. The Overprotection/Autonomy scale taps the degree to which one or both parents encourage a child to think independently so that she or he feels confident making decisions and expressing ideas; a high score on this scale indicates overprotection. The Cross-Generational Triads/Parent Coalition scale

contains items that reflect the degree to which boundaries between parents and child are crossed to form rigid patterns of communication as a way for parents to avoid dealing with marital difficulties between themselves. A high score indicates that a cross-generational triad is characteristic of the family being assessed.

The revised version is based on a factor analysis of the Structural Family Interaction Scale (Perosa, Hansen, & Perosa, 1981). The development of the original instrument involved giving 200 items which six family therapists rated according to fit in categories corresponding to the elements of Minuchin's Structural Family Therapy. Of this original pool, 95 items were selected, which were selected by at least four of the six counselors as fitting in a particular category. Overall inter-rater reliability for the selected items was .950. This original questionnaire was given to fifty families, and examination of interscale correlations were used to develop the 85-item Structural Family Interaction Scale. Data from several studies using the SFIS were used in factor analysis of the instrument, resulting in the SFIS-R.

Alpha coefficients for the scales of the SFIS-R have ranged from .71 to .93. Test-retest reliability on a college sample ranged from .80 to .92, and interscale correlations range from .32 to .61. As evidence of external validity, the original SFIS has differentiated problem-free adolescents from those with learning disabilities (Perosa & Perosa, 1982), anorexia and bulimia (Kramer, 1983) emotional problems

(Walrath, 1984), and suicidal ideation (Mitchell & Rosenthal, 1992). The revised version has been used to identify family characteristics linked with identity achievement in developing youth (Perosa, Perosa, & Tam, 1987), and has discriminated incest families from another clinical family control group and a nonclinical family control group (Utesch, 1989).

The Minnesota Multiphasic Personality Inventory-2 (MMPI-2; Butcher, Dahlstrom, Graham, Telegen, & Kramer, 1989) represents a restandardization of the MMPI (Greene, 1980), which is the most widely used and researched objective personality instrument. This restandardization occurred in the late 1980's, and included the use of a more geographically and culturally diverse population sample. In addition, a few items were added and deleted because of changing cultural mores and language. The resulting MMPI-2 consists of 567 items to which the participant responds "true" or "false."

Scoring of the MMPI-2 yields a profile with validity scales and clinical scales. The validity scales are used to determine the respondent's level of defensiveness as well as her or his tendency to report distress and to maintain consistency and truthfulness in responses. Specifically, the L (Lie) scale measures the tendency of some individuals to distort their responses by claiming that they are excessively virtuous, while the F scale detects a tendency to exaggerate one's adjustment or

psychological symptoms. High scores on the F scale may indicate malingering symptom exaggeration as a “cry for help”, severe psychopathology, different cultural background, or disorientation. Profiles with F scores above 80 should be interpreted with caution. The K scale is a measure of test defensiveness, i.e., the tendency to deny problems. Two additional measures of validity, VRIN and TRIN, assess the tendency for some individuals to respond in an inconsistent manner to items that should, to be consistent, be endorsed in a similar way.

The validity scales will be utilized in different ways in this study. VRIN and TRIN scores will be used to eliminate invalid profiles, most likely to occur in this sample because of some participants’ tendency to hurry or to lack investment in the task. The K scale will be used in data analysis, because of a hypothesized relationship between denial of affect and the avoidant attachment style. Profiles with high L or F scores will be interpreted cautiously; they will not be summarily excluded because anonymity of the study removes motivation to be appear either excessively virtuous or excessively disturbed.

The 10 basic clinical scales are used as indices of personality factors such as hypochondriasis, chronic depression, dramatic physical complaints, anger, adherence to traditional gender roles, interpersonal sensitivity or hypersensitivity, chronic anxiety, disturbed thoughts, activity level, and social isolation. In clinical settings, the

overall configuration of these scales, as well as scores on various subscales, are used in interpreting the basic themes of the client's personality.

Four clinical scales--1, 2, 7, and 0-- will be used for analysis in the present study. Scale 1 identifies those persons with vague physical complaints, who tend to lack psychological mindedness, are generally pessimistic, and express hostility covertly. Such features are hypothesized to be associated with an avoidant attachment style. Scale 2 measures symptoms of depression, characterized by a generalized poor morale, lack of hope in the future, and dissatisfaction with one's own status. Both anxious/ambivalent and avoidant individuals are thought to be prone to these symptoms. High scorers on scale 7 are tense, anxious, indecisive, and have feelings of insecurity that may be overwhelming at times. These symptoms are proposed to correlate with anxious attachment style. Scale 0 assesses social introversion, in which the individual is uncomfortable in social interactions and withdraws from such interactions; high scorers on this scale may be self-deprecating and generally maladjusted as well as being socially isolated, and are proposed to have characteristics of the avoidant attachment style. The remaining clinical scales will be examined as a basis for generating further hypotheses regarding the relationship between attachment and personality.

Procedure

Undergraduate students in psychology and education will be asked to volunteer for the study, in order to obtain experimental credit or extra credit in their courses. Participants, in groups of varying sizes, will complete a number of pencil-and-paper instruments. The experimental packet will include a demographics questionnaire, the Attachment Style Questionnaire (ASQ), the Structural Family Interaction Scale-Revised (SFIS-R), and the Minnesota Multiphasic Personality Inventory-2). The order of presentation of the instruments within the packets will be randomly varied.

The principal investigator or an assistant familiar with the procedure will be present during the completion of the instruments to give directions and answer any questions that arise. Informed consent forms will be signed and maintained separately prior to the distribution of the other materials, so that the self-report measures will be identified only by an assigned number (all material within a packet having the same number). Three hours will be allowed for completion of the materials.

Data Analysis

Analysis of the data obtained in this study will be tailored to the research questions posed previously, through multiple regression. Multiple regression is a multivariate technique for determining the relationship between a dependent variable and a combination of several independent (often correlated) variables (Borg & Gall,

1989). It provides estimates of both the magnitude and statistical significance of relationships among variables.

In the present study, three regression analyses will be preformed, with dependent variables corresponding to scores on the Attachment Style Questionnaire. The Confidence scale of the ASQ will be used as a measure of Secure attachment style. The "Need for Approval" and "Preoccupation with Relationships" scales will be collapsed to form a measure of Anxious/Ambivalent attachment, and the "Discomfort with Closeness" and "Relationships as Secondary" will be collapsed to form a measure of Avoidant attachment.

The independent variables in the present study are the personality and family characteristics measured by the MMPI-2 and the SFIS-R. The nine independent variables will be scores on scales 1, 2, 7, and 0 of the MMPI-2 and the Enmeshment/Disengagement, Conflict avoidance/Expression, Flexibility/Rigidity, Spouse Conflict Resolved/Unresolved, and Cross Generational Triads/Parent Coalition scales of the SFIS-R.

In order to provide results that are less likely to be biased, subset regression will be utilized in this study. This technique enables one to compute the multiple correlation coefficient and the regression equation for all possible subset of variables, regardless of the order in which they are entered in the regression equation. This

would minimize the tendency for including certain variables chosen prior, and allow comparison of the best subsets of variables.

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APPENDIX A

Read each statement carefully. For each statement choose which is most characteristic of that statement as it describes your family and fill in A, B, C, or D on the corresponding item on the answer sheet.

A = Very true

B = More true than false

C = More false than true

D = Very false

1. We are a very "close family".
2. When parents disagree over something they try to get a child to take sides.
3. In our family father and a child don't seem to be able to settle their differences satisfactorily.
4. We seldom talk about the things that are really bothering us.
5. In our family parents can talk over their differences and settle them fairly.
6. We think and act alike.
7. We easily change our way of doing things when we need to at home.
8. Mother and a child work out disagreements without hurting each other's feelings.
9. Members of my family are encouraged to do things "their own way."
10. We take an interest in each other's activities and problems.
11. A child feels it is necessary to choose a side when parents have a disagreement.
12. We feel responsible for each other.
13. Father is not there when a child needs him.
14. We don't talk over disagreements with each other.
15. Disagreements between parents can be discussed with both of them feeling their view was considered by the other.
16. Children find it easy to gain more privileges and responsibilities as they grow older.

Remember: A = Very true
B = More true than false
C = More false than true
D = Very false

17. In my family mother and a child can talk over differences and settle them fairly.
18. Family members feel guilty if we go our own way.
19. One or both parents is (are) extremely careful about protecting a child.
20. In our family we lack a feeling of togetherness.
21. A child feels trapped in between when parents argue.
22. Father is too busy with his own life to give attention to a child.
23. When someone in our family tries to talk about a problem the other members avoid really talking about it.
24. When we try to help each other we sometimes get too involved.
25. In our family parents compromise to settle their differences.
26. We are flexible enough to do things spontaneously.
27. In my family mother and a child just end up yelling at each other when they try to discuss issues.
28. A child is extremely anxious about making a mistake when doing a task or solving a problem.
29. We feel free to express our real feelings at home.
30. Family members feel guilty if we want to spend time alone.
31. A child is able to get more attention or support from one parent rather than the other.
32. Father and a child seem to be fighting about the same thing again and again.
33. We avoid discussing a problem with each other if it may lead to an argument.

Remember: A = Very true
B = More true than false
C = More false than true
D = Very false

34. When parents disagree one of them ends up walking away angry.
35. We encourage each other to develop in his or her own individual way.
36. Some family members interfere with each other even though they mean well.
37. Mother puts a lot of energy into doing things with and for a child.
38. One or both parents is (are) totally involved in a child's life.
39. We know each other well in our family.
40. Family problems tend to focus on one person at home.
41. In my family father and a child can talk over differences and settle them fairly.
42. We cannot be frank with each other.
43. Parents support each other in making family decisions.
44. Family members are flexible in whom they agree with or side with in family discussions and arguments.
45. Mother seldom responds when a child needs help or support.
46. In my family members think for themselves.
47. We feel close to each other even though family members hold different values or beliefs.
48. Parents never seem to argue about their own problems; instead, they argue with or about a child.
49. Father and a child just end up yelling at each other when they try to discuss issues.
50. We are careful about bringing up touchy topics with each other.

Remember: A = Very true
B = More true than false
C = More false than true
D = Very false

- 51. Parents work together to see rules are carried out around the house.
- 52. It's hard to break family routine at home.
- 53. When mother and a child disagree one of them ends up walking away angry.
- 54. One or both parents show a child exactly how to do his/her work.
- 55. There is a strong sense of loyalty in our family.
- 56. In our family a child feels it is possible to get a rule changed by getting the help of one parent against the other.
- 57. In our family father and a child compromise to settle their differences.
- 58. When someone in our family tries to bring up an issue the other one puts off discussing it by saying "I can't talk about it now."
- 59. Parents seem to be fighting about the same thing again and again.
- 60. Rules are pretty flexible in our house.
- 61. Mother is too busy with her own life to give attention to a child.
- 62. One or both parents seldom let a child do things for himself/herself.
- 63. We feel accepted for who we are in our family.
- 64. The same person gets blamed for most of the problems in our family.
- 65. Father seldom responds when a child needs help or support.
- 66. We don't deal with situations that may bring about an argument between us.
- 67. Arguments between parents end up with one of them feeling resentful and hurt.
- 68. As a child grows older he/she finds it easy to get more freedom from parents.

Remember: A = Very true
B = More true than false
C = More false than true
D = Very false

- 69. Mother and a child seem to be fighting about the same thing again and again.
- 70. When a child is having difficulties he/she is encouraged to think of and carry through his/her own solution.
- 71. We spend very little time together in our family.
- 72. One parents often protects or defends a child at home.
- 73. Father puts a lot of energy into doing things with and for a child.
- 74. Parents back each other up in disciplining the children.
- 75. Family members seem to "pair off" in the same way around issues in discussions or fights.
- 76. When someone in my family gets hurt or upset we all get involved.
- 77. In our family mother and a child compromise to settle their differences.
- 78. So much attention is needed by a child than parents never seem to discuss issues just about themselves.
- 79. Arguments between father and a child end up with one of them feeling hurt or angry.
- 80. In our family parents just end up yelling at each other when they try to discuss issues.
- 81. In our family people feel "cut off" from each other.
- 82. When parents disagree about an issue they sometimes make a child feel "caught in the middle."
- 83. A child has difficulty making decisions on his own and accepting responsibility for his choices.

A S Q

Show how much you agree with each of the following items by rating them on this scale: 1= totally disagree; 2= strongly disagree; 3= slightly disagree; 4= slightly agree; 5= strongly agree; or 6= totally agree. Mark your answers on the separate answer sheet.

1. Overall, I am a worthwhile person.
2. I am easier to get to know than most people.
3. I feel confident that other people will be there for me when I need them.
4. I prefer to depend on myself rather than other people.
5. I prefer to keep to myself.
6. To ask for help is to admit that you're a failure.
7. People's worth should be judged by what they achieve.
8. Achieving things is more important than building relationships.
9. Doing your best is more important than getting on with others.
10. If you've got a job to do, you should do it no matter who gets hurt.
11. It's important to me that others like me.
12. It's important to me to avoid doing things that others won't like.
13. I find it hard to make a decision unless I know what other people think.
14. My relationships with others are generally superficial.
15. Sometimes I think I am no good at all.
16. I find it hard to trust other people.
17. I find it difficult to depend on others.
18. I find that others are reluctant to get as close as I would like.
19. I find it relatively easy to get close to other people.
20. I find it easy to trust others.
21. I feel comfortable depending on other people.
22. I worry that others won't care about me as much as I care about them.
23. I worry about people getting too close.

24. I worry that I won't measure up to other people.
25. I have mixed feelings about being close to others.
26. While I want to get close to others, I feel uneasy about it.
27. I wonder why people would want to be involved with me.
28. It's very important to me to have a close relationship.
29. I worry a lot about my relationships.
30. I wonder how I would cope without someone to love me.
31. I feel comfortable about relating to others.
32. I feel left out or alone.
33. I often worry that I do not really fit in with other people.
34. Other people have their own problems, so I don't bother them with mine.
35. When I talk over my problems with others, I generally feel ashamed or foolish.
36. I am too busy with other activities to put much time into relationships.
37. If something is bothering me, others are generally aware and concerned.
38. I am confident that other people will like and respect me.
39. I get frustrated when others are not available when I need them.
40. Other people often disappoint me.