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ATTACHMENT TO PARENTS AND PEERS IN LATE ADOLESCENCE: RELATIONSHIPS TO AFFECTIVE STATUS, SELF-ESTEEM AND COPING WITH LOSS, THREAT AND CHALLENGE

University of Washington PH.D. 1986

Attachment to Parents and Peers in Late Adolescence: Relationships to Affective Status, Self-Esteem and Coping with Loss, Threat and Challenge

by

Gay Gilbert Armsden

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(Chairperson of Supervisory Committee)

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Doctoral Dissertation

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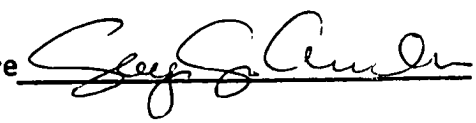
Signature 

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Abstract

ATTACHMENT TO PARENTS AND PEERS IN LATE ADOLESCENCE: RELATIONSHIPS TO AFFECTIVE STATUS, SELF-ESTEEM AND COPING WITH LOSS, THREAT AND CHALLENGE

By Gay Gilbert Armsden

Chairperson of the Supervisory Committee:

Professor Mark T. Greenberg
Department of Psychology

Attachment theory proposes that secure attachment relationships foster and support self-regulatory capacities. Using the Inventory of Parent and Peer Attachment (IPPA), a recently developed self-report measure for adolescents, the present study (1) examined and compared the relationships between quality of mother, father, and peer attachment and affective status, self-esteem and coping responses and (2) compared the functioning of adolescents with divergent qualities of mother and father attachment with those experiencing concordant mother and father attachment.

Four-hundred and one 17 to 20 year-old college students, primarily from intact families, completed questionnaires. Assessment of coping with three situation types (interpersonal threat and loss, personal challenge) included the Ways of Coping Checklist, with an added "Externalizing" scale.

As hypothesized, security of attachment to parents and peers was positively associated with well-being. Males' well-being was most highly related to father attachment, while females' well-being correlated most strongly with peer attachment. Adolescents with

secure attachment to both parents and those with secure attachment only to father generally reported higher levels of well-being than adolescents with insecure attachment to both parents or secure attachment only to mother. Also as hypothesized, compared with adolescents with insecure attachment to both parents, those with secure attachment to both parents (1) used more problem-managing coping responses relative to emotion-managing responses and (2) appraised stressful family situations as more changeable and requiring less self-constraint. Hierarchical regression analyses indicated that quality of adolescent attachment may serve as a modifying effect on the relationship between coping and well-being, particularly in stressful interpersonal situations.

The findings support attachment theory's propositions that attachment guides self-appraisal and appraisal of and response to environmental challenges. In addition, the results suggest that insecure attachment to parents and/or peers in late adolescence may be considered a vulnerability factor in models of stress and coping.

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INTRODUCTION

The influence of interpersonal relationships on personality is generally presumed to be stronger early in life, but to persist throughout the course of the life-span. Attachment relationships are special types of social bonds wherein the attached person seeks and the attachment figure provides, more or less successfully, feelings of security. Attachment theory, as outlined later in this paper, posits that secure attachment experiences guide the appraisal of experience and foster the capacity for coping with environmental challenges. Such attachments thus influence the individual's capacities for self-regulation, including the regulation of affect and self-esteem.

During the past decade the development of scientific paradigms for the study of attachment in infancy and early childhood has resulted in a large body of research in this area; however, much remains to be learned about attachment beyond infancy and to figures other than the mother. Little is known, for example, about the short- and long-term effects of divergent qualities of attachment to mother and father.

The study of attachment in adolescence must include an examination of peer as well as parent relationships. During this period social bonds formed with peers begin to take on the characteristics of attachment relationships. Adolescence provides a testing ground for the proposition advanced by attachment theorists

that the qualities of attachment relationships with principal caregivers tend to be carried forward to other significant relationships. Attachment theory does not predict, however, what is generalized to peer relationships when mother and father attachments are very different in quality.

The present study of late adolescents was thus undertaken with four main purposes: (1) to examine the relationships between quality of mother, father, and peer attachment and affective status and self-esteem, (2) to compare the influences on well-being of attachment to these different figures (3) to compare the influences of divergent qualities of mother and father attachment with concordant mother and father attachment, and (4) to examine the relationship between quality of attachment and the capacity for using adaptive coping strategies.

A recently developed self-report measure, the Inventory of Parent and Peer Attachment, was revised in the present study in order to separately assess mother and father attachment. A sample of 401 17 to 20 year old college students was utilized. All participants were either from intact families or in frequent contact with both parents.

Chapter I

REVIEW OF THE LITERATURE

Outline of Attachment Theory as Set Forth by Bowlby

The proposed research has as its theoretical basis Bowlby's ethologically oriented theory of human attachment. Attachment theory (Bowlby, 1969; 1973a; 1980) conceptualizes the formation of attachments and attempts to explain the emotional and psychological disturbances which result from the disruption (actual or threatened) of these bonds. Attachment may be described as an enduring affectional bond of substantial intensity. According to Bowlby, attachment behavior functions principally to protect the individual and secondarily to facilitate learning. Behaviors which develop and maintain affectional bonds persist throughout life and are activated in order to ensure some degree of proximity to highly discriminated persons. Attachment is an inner organization of distinct behavioral systems and is considered to be relatively independent of specific situations, whereas attachment behaviors are more closely related to situational factors. This inner organization of behavioral systems is hierarchical, allowing somewhat interchangeable attachment behaviors to follow any of several strategies specifically tailored to the situation at hand (Ainsworth, Blehar, Waters & Wall, 1978; Sroufe & Waters, 1977).

As a result of early interactions, the child develops a particular patterning of attachment behaviors that reflect the

quality of specific relationships. Individual differences in the quality of attachment formed are described as three major patterns. A sense of security is derived from the maintenance of a bond in which confidence in the availability (accessibility and responsiveness) of the attachment figure(s) predominates over fears concerning unavailability of these figures in times of need. The child with secure attachment carries an unconscious assurance that he/she has access to trustworthy, helpful others, and views him/herself as worthy of love and caring. Bowlby (1973a; 1980) describes two disturbed (insecure) patterns of attachment behavior. The more common disturbance results in anxious attachment characterized by dependent, anxious clinging, and considerable angry distress at separation from attachment figures. The second, more disturbed pattern is detachment --a partial or complete de-activation of attachment behavior, in which there is neither protest at separation nor much proximity-seeking of attachment figures. The securely attached child is less prone to chronic or intense anxiety, developing greater self-reliance as he/she matures than the child who lacks confidence in the availability of his/her attachment figures. Children with insecure attachment are more anger (hostility) prone in response to threatened or actual disruption of important relationships. While some degree of anxiety and anger are seen to be adaptive responses to separation, anxiously attached children are particularly disposed to strongly ambivalent feelings--possessively clinging, yet intensely angry upon threat (or

perceived threat) of separation. Bowlby also describes the resentful and depressive detachment in the face of separation seen in children having stable expectations of lack of availability of their attachment figures.

According to attachment theory, the sets of expectations concerning his attachment figures that an individual constructs over the years are intimately tied to the self-image. Confidence that an accessible attachment figure is likely to be sensitive and responsive hinges not only on expectations of the particular attachment figure, but also on the evaluation of the <u>self</u> as one worthy of support from that figure or anyone else. This is a crucial tenet of attachment theory: the mental representation of the attachment figure and the the self-image ("internal working models" of self and other) are likely to develop in a complementary and mutually confirming manner. By implication, not only the level of self-esteem, but also the subjective stability of the sense of self develop in parallel with the internal working model. An inconsistently available or responsive parent may promote uncertainty in the child's sense of being worthy of love and caring. The securely attached child, by contrast, has a more stable sense of him/herself as someone who will be responded to when in need.

A positive self-image is also fostered by an attachment figure who, while serving as a secure base, encourages the child's ventures toward independence. (From an ethological perspective, exploration is of course essential for survival.) The child who is not

preoccupied with fears of abandonment and who has come to view the world as non-threatening to his/her well-being is more likely to initiate exploration and attempts at mastery of his/her surroundings. In contrast, the child who has experienced a lack of caring, protective figures, or who has suffered uncertainty concerning the availability of such attachment figures, is more likely to view the world as unpredictable and/or threatening. Such a child, in Bowlby's view, would tend to shy away from others, or feel that he/she must fight for attention and concern, thus perpetuating certain attachment-behavior patterns.

Bowlby's notions of internal working models and of the developmental interdependence of mental representations of the self and other parallel ideas advanced by Piaget (1954), early self-theorists (e.g. Cooley, 1902; Mead, 1934) and object-relations theorists such as Fairbairn (1946). What attachment theory has contributed is a constructivist-developmental framework in which emphasis is placed on the dynamic ("working"), rather than static, aspects of mental representations and their active, rather than passive, construction by the individual (Bretherton, 1985). Further, attachment theorists posit that individual differences in internal working models of attachment figures can be described according to a small number of central organizations, due to the finite number of possible caregiver responses to attachment behaviors (e.g. proximity-seeking) which are mediated by biologically based motivational-behavioral systems (Main, Kaplan, &

Cassidy, 1985).

Two important tenets of attachment theory are particularly relevant to development beyond childhood. First, barring major discontinuities in experience (e.g., parental death), expectations of attachment figures tend to persist into adulthood and influence not only how the individual relates to others, but also to whom he/she chooses to relate. Second, preoccupation with fears of abandonment increases the susceptibility to respond anxiously to other situations (Bowlby, 1973a; 1973b). Thus, the theory attempts to account not only for individual differences in attachment in adulthood, but also for differences in coping abilities.

From the viewpoint of attachment theory, adult functioning is a product of the person's experience with key individuals throughout childhood and adolescence, particularly attachment figures (usually parents). The person who experienced secure attachment during his/her years of immaturity is confident that sources of support and comfort are available, and his/her approach to the world reflects this confidence. When faced with a difficult situation, such an individual is likely to effectively face the challenge or is able to know on whom to rely trustingly for help in dealing with it. The person who experienced insecure attachment in childhood will tend to behave in accordance with expectations of unavailability and may in fact behave in such a way as to discourage the formation of a secure bond because of an inability to establish a mutually supportive relationship. Such a person would be less skilled in choosing a

reliable and willing helper, and would not be disposed to rely trustingly on those persons who may be available. In coping with stressful situations, particularly those situations which threaten (or appear to threaten) separation or loss, this individual would be faced with dealing with intense anxiety and anger as well as uncertainty about his/her own mastery.

The more well-adjusted adult shows a balance of initiative and self-reliance with a capacity to rely on others and make use of help received. The less well-adapted adult may rather readily seek help without using his/her own resources and then not necessarily make use of the help received; or, because of more extreme distrust of others, he/she may avoid seeking even emotional support when it may be appropriate to do so. The individual with the experience of secure attachment has a world-view of greater predictability, controllability, and as less threatening and rejecting than the person with a history of insecure relationships. By implication, such an individual should, in commonly ambiguous interpersonal situations, adopt a more positive outlook, and thus have greater tolerance for such situations.

Questions Raised by Bowlby's Theory of Attachment

Bowlby is persuasive in his account of the critical importance of secure attachment for well-being in childhood, and in his argument for the particular conditions which promote the self-reliant personality in the adult.

There are several limitations of attachment theory as set forth by Bowlby that are particularly relevant to the research proposed here. Bowlby theorizes that the child is biased to become especially attached to one person ("monotropy"), and thus the attachment behavior system develops around this principal attachment figure. Although Bowlby acknowledges the influence of a plurality of attachment figures, he maintains they are not equivalent in their influence. While he recognizes that the early relationship with the principal figure may be altered by subsequent events, Bowlby is not clear on the issue of whether the quality of attachment to the principal figure--given the stable presence of other attachment figures (e.g. father)--influences the quality of attachment behavior to these other individuals. The question--posed in theoretical terms--is: do attachment behavior systems accommodate different figures or does the working model of the principal figure generalize to other figures? Bowlby discusses the problems that may result from the child's formation of multiple models of the same attachment figure, among them the development of conflicting views of him/herself (1973a); however, Bowlby does not deal with the possibility of distinct models being formed for different significant persons in the child's life, and the ethological significance of such an occurrence.

Hinde (1976) has stressed the importance of considering the qualities of one relationship in the context of other relationships in which the individual is involved. He has suggested that infants,

as well as caregivers, are programmed to form not just one relationship, but a range of relationshps, depending on circumstances (1982). It certainly seems reasonable from an ethological point of view that chances of survival are optimized by an organism's capacity to accommodate attachment behavior systems to different/changing circumstances. In the case of the human infant or child (and given that no caregiver is completely consistent), what may be optimal is a balanced control of assimilation vs. accommodation of attachment behavior systems. In fact, this suggestion is in line with theories concerning the maintenance of self-esteem under normal conditions of conflicting and changing feedback concerning the self (Epstein, 1973). Further elaboration of this issue would strengthen Bowlby's theoretical position that models of attachment figures and models of the self develop in parallel.

If very different relationships can be formed to mother and father (or others), a critical question is whether the influences of an insecure relationship can be mitigated by a secure relationship. How does the child with secure attachment to one parent and insecure to the other ("discordant" attachment) come to view him/herself, and what qualities will describe his/her peer relationships? Will the answers to these questions depend on the age and/or sex of the child? Bretherton (1985) has suggested that these questions may begin to be answered by studying the structural development of internal working models using as research tools concepts such as

event schemata or generalized event representations (Nelson & Gruendel, 1981) and information concerning the development of social-emotional understanding and language.

Another issue which richly deserves further attention is the ontogeny of attachment behavior systems. Bowlby (1973a) has outlined age-related shifts in the relative dominance of two variables in influencing whether or not a person is alarmed by a threatening situation: the presence (ready accessibility) or absence (inaccessibility) of an attachment figure and the person's degree of confidence that an absent attachment figure will become accessible and responsive should he/she be needed. Up to about the third year of life, the former variable is considered dominant. The second variable (the nature of the working model) becomes increasingly influential in determining felt security and after puberty, becomes dominant. Bowlby's theoretical treatment of changes in attachment behavior, however, is focused primarily on the decrease with age of proximity-seeking and signalling behaviors such as crying, and the shifting primacy of parents as attachment figures toward peers, other adults, and institutions. Bowlby (1969) hypothesizes a relationship between developmental changes in cognition and attachment behavior; thus, in his view the growing child can increasingly rely on a more elaborate representational model of an absent attachment figure for felt security, rather than that figure's actual presence. Beyond early childhood the elements of the attachment relationship which contribute toward a sense of

security are seen to be linked to the child's gradually decreasing egocentrism, and improving sense of space and time and linguistic abilities. As Ainsworth (1982) has emphasized however, there is a need for systematic studies of attachment beyond the period of infancy.

Research on Attachment in Infancy and Early Childhood

The bulk of evidence presented by Bowlby (1969, 1973a, 1973b, 1977, 1980) to support attachment theory concerns observational, case-study, cross-sectional and longitudinal studies of infants, children and adolescents. A few retrospective studies of adults are also discussed.

Most research carried out within the framework of Bowlby's theory has centered on the concept of security of attachment in early childhood. Research conducted by Ainsworth and her associates (Ainsworth, Blehars, Waters, & Wall, 1978) has demonstrated that individual differences in attachment behaviors in infancy can be most easily assessed in stressful situations, during which they are intensely activated. During the second year of life, individual differences in infant-mother attachment can be reliably classified, congruent with Bowlby's descriptions, as "secure" or "insecure" ("resistant" or "avoidant") and show substantial stability in this period (Ainsworth et al., 1978; Waters, 1978). Thompson and Lamb (1983a) suggest that mothers of securely attached infants may foster the development of adaptive self-regulatory capacities by their

responsiveness to their infants' behavioral/emotional cues. Mothers of insecurely attached infants, in contrast, seem to contribute to either intense or muted emotional expressiveness, and coping styles which are inefficient or avoidant, through their inconsistent, insensitive or unhelpful responses to their infants' behavior. Their preliminary data suggest that in the Strange Situation (maternal separation, reunion, and presence of stranger) securely attached infants during their second year of life tend to use language more, use the stranger more adaptively, and frequently use anticipatory behavior in response to their mothers' returning then leaving again. Securely attached infants reliably seek and are soothed by proximity to the caregiver when distressed and show greater stranger sociability (Thompson & Lamb, 1983b).

Security of mother attachment at one year has been shown to be related to ego-strength and peer and social competence in the preschool years (Arend, Gove, & Sroufe, 1979; Matas, Arend, & Sroufe, 1978; Waters, Wippman, & Sroufe, 1979). Preschool children who had been classified as securely attached to their mothers at 12 and 18 months exhibited less emotional dependency on their teachers, more appropriate contact-seeking (when injured, etc.) and subsequent reassurance, and greater confidence and resourcefulness in engaging their environment (Sroufe, Fox, & Pancake, 1983). These results suggest that securely attached infants and children, while very involved with their mothers and actively seek contact when distressed, do not generalize a tendency to seek contact from

adults; rather, they generalize the trust and confidence to interactions with other individuals, are freer to explore their surroundings, and thus cope more adaptively with challenging or threatening situations.

Infants also form attachments to their fathers even during the first year (Lamb, 1976; Parke, 1979); however, there is much less research on the subject (see Lamb, 1976), reflecting the matricentric nature of theories of early development (e.g. Freud, 1938; Fairbairn, 1941; Winnicott, 1965; Bowlby, 1969). Lamb (1977) has provided evidence that mother-infant and father-infant relationships involve different kinds of experience for the infant, in terms of both the infants' and the parents' behavior. Secure/insecure classifications of infants' attachments to their mothers and fathers have been shown to be independent (Main & Weston, 1981; Grossman & Grossman, 1981; Sagi, Lamb, Lewkowicz, Shoham, Dvir, & Estes, 1985). Joint classification of infants in the Main and Weston (1981) study indicated that the degree of stranger sociability of the following groups were, in decreasing order: secure attachment to both parents, secure to mother and insecure to father, secure to father and insecure to mother, insecure to both parents. Attachment to mother, but not to father, at one year of age has been found to subsequently predict the child's representation of his/her parent attachment at age six (Main, Kaplan, & Cassidy, 1985).

While the majority of infants show stable patterns of

attachment to their parents, changes in quality of mother attachment in infancy have been shown to reflect changes in the mother's competence and maturity, stability of negative affective behaviors (Egeland & Farber, 1984), and changes in family circumstances or caregiving arrangements (Thompson & Lamb, 1983; Thompson et al., 1982; Vaughn et al., 1979; Ainsworth, 1979). A very important conclusion drawn from this evidence is that security of attachment reflects the current status of the infant-parent relationship.

Developmental changes in attachment behaviors and their organization have also been documented in children up to four years of age. Changes such as decreased separation distress and need for body contact (Maccoby & Feldman, 1972; Marvin, 1977) and other age-correlated shifts in stranger-situation behavior which are related to the child's increasing ability to reach (or attempt to reach) shared plans with his/her mother (Marvin & Greenberg, 1982) are congruent with attachment theory.

The infant and early childhood data summarized above lend support to a number of major tenets of attachment theory. Moreover, the initial evidence provided by Main and Weston (1981) that secure attachment to the father may mitigate some of the "effects" of insecure attachment to the mother, and the descriptions of developmental changes in attachment behavior in the preschool period have begun to close some of the gaps in attachment theory.

Research on Quality of Social Ties in Adulthood

There is a growing interest in extending the study of attachment beyond early childhood (Kahn & Antonucci, 1980; Lerner & Ryff, 1978). Weiss (1982) has applied Bowlby's criteria for the presence of bonds of attachment to adulthood. Consistent with attachment theory, his research findings suggest that adults maintain bonds in which they show the desire for ready access to an attachment figure, the need for proximity to this figure when distressed, anxiety should this figure be unpredictedly inaccessible and reassurance upon reunion with the attachment figure. Weiss' research (1973, 1974) suggests that attachment relationships are found only in those adult relationships that are recognized as central in emotional importance; individuals lacking such bonds suffer loneliness, even though they have friendships. Henderson (1977, 1981, 1982) has also considered attachment theory in the adult context. From his longitudinal work, he has concluded that rather than the actual availability of social relationships, it is the perceived adequacy of the individual's relationships, especially in the presence of adversity, which is most crucial in terms of the degree of risk of developing neurotic impairment. Henderson (1981) suggests that anxious attachment as described by Bowlby, may be thought of as an attribute of personality in which the searching for support from others is activated by adverse experiences.

In addition to the evidence that lack of satisfactory attachments is a risk factor for psychological distress, there

exists a sizable body of research suggesting that the extent and quality and/or satisfaction with social ties ("social support") has a direct, positive effect on well-being (for reviews, see Heller & Swindle, 1982; Gottlieb, 1981). While both social support and stress have been shown to be directly related to symptoms of psychological distress, the evidence for interaction effects (i.e., the buffering role of social support) is controversial, having been found in only some studies (Thoits, 1982). While evidence for the buffering effect of social support has been inconsistent, in a recent review Cohen and Wills (1985) concluded that support for the buffering hypothesis is generally found in studies that assessed satisfaction with social support, rather than extensiveness of social networks or frequencies of social contact.

Research on Quality of Relationships to Parents and Peers in Adolescence

Although during adolescence there are increasing intervals during which parental accessibility is not necessary for security, confidence in their commitment to their adolescence remains crucial (Weiss, 1982b). Bloom (1980) sees the adolescent's basic trust in his/her parents, fostered by open and congruent communication and a mutual respect for independence, as critically influential on the adolescent's ease of separation from them. Particularly, adolescents' security concerning their parents' regard for them is necessary, since strong feelings of anger, ambivalence and guilt are

part of the separation process. Blos (1971), also, states that while parent-child conflict is necessary for growth, such conflict and the attendant inner turmoil remain normative within an ongoing, sustaining parental relationship.

A number of longitudinal studies have indicated the powerful significance of close and supportive parent-child relationships for positive outcome in adulthood (e.g. Offer & Offer, 1975; Block, 1971; Peskin & Livson, 1972; Vaillant, 1976), regardless of whether "outcome" is assessed as social or personal competence, adjustment, or absence of psychiatric problems. Block et al. (1973) reported that adults who were most well-adjusted not only had parents who were both positively involved, but who also were compatible with each other. Studies have also indicated that parent-child relationships are highly stable through childhood and adolescence (Hunt & Eichorn, 1972; Crandall, 1972) and that there is continuity in child-rearing orientations of both parents (Roberts, Block, & Block, 1984); such data are congruent with Bowlby's (1969) thesis that, barring major discontinuities in experience, quality of attachment is enduring.

There is evidence of a strong link between the quality of adolescents' intimate relationships and such outcomes as self-concept, psychological adjustment and physical health (Bachman, Kahn, Mednick, Davidson, & Johnston, 1967; Coopersmith, 1967; Gallagher, 1976; Thomas, Gecas, Weigart, & Rooney, 1974; Offer, 1975; Greenberg, Siegel, & Leitch, 1983). In their study of 13 to

20 year olds, Burke and Weir (1978) found that those adolescents expressing greater satisfaction with help received from peers, and particularly from parents, experienced greater psychological well-being. Rosenberg (1965) reported a stable relationship throughout adolescence between self-esteem and perception of warm relationships with parents. In college students, warm and autonomous relations with parents has been found to be associated with higher stages of ego-identity (Marcia, 1980) and greater self-disclosure tendencies (Snoek & Rothblum, 1979). Affectional identification and intimacy of communication with parents decreases the likelihood of delinquent behavior (Hirschi, 1969). Among college men, understanding and closeness in their relationships to both parents during the freshman year predicted well-being in the senior year better than such variables as academic status, SES, and involvement in activities (Mortimer & Lawrence, 1980). In another college study, the most well-adjusted men had fathers who were moderate in availability and high in nurturance, or vice versa; the fathers of the lowest adjusted men were high in availability but low in nurturance (Reuter & Biller, 1973).

Particularly relevant to the development of hypotheses for the proposed research are studies which have examined separately adolescents' relationships to their mothers and fathers. In discussion of discussion of this body of literature, where correlation coefficients have been compared, their standard errors have been taken into account in reporting differences.

Several studies have examined adolescents' descriptions of their parents' relationships with them, although the varied and overlapping descriptors provided by the investigators to summarize their data make conclusions necessarily tentative. High-schoolers have reported their mothers as more nurturant (Grinder & Spector, 1965) and advice-giving and guiding (Kandler & Lessor, 1972) than their fathers. High school and college age females in another study also described their mothers as more nurturant (giving and helping), while the males reported their mothers as equally nurturant as their fathers (Hunter & Youniss, 1982). Both sexes, however, reported greater intimacy (self-disclosure, empathy, companionship, consensus formation) in their relationships with their mothers. "Nurturance" and "intimacy" in this study together describe "nurturance" in other studies, and in fact were not statistically independent. It would appear that adolescents view their relationships with their mothers as involving more communication of an affective and instrumental nature than with their fathers. This is interesting in light of the evidence that during adolescence males spend more time with their fathers (Montemayer, 1982). The additional evidence that college males view their fathers as equally helpful as their mothers, and that both parents increase affection toward and communication with their sons after college entrance (Sullivan & Sullivan, 1980), suggests that the father-son relationship may shift substantially in the direction of enhanced instrumental communication and support during late adolescence when autonomy is such an issue.

A number of studies have reported no sex differences between certain qualities of the maternal relationship and paternal relationship in their strength of association with various indices of positive outcome. For high school students, maternal and paternal attention and concern (Rosenberg, 1965) and maternal support and inductive disciplinary reasoning (Openshaw, Thomas, & Rollins, in press) equally well predicted general self-esteem in both sexes. Self-esteem worth, a dimension of general self-esteem distinct from self-esteem power, was more highly related to maternal than paternal support (Openshaw et al., in press). Also among high-schoolers, behavioral adjustment was related to perceptions of maternal and paternal love (Longsreth & Rice, 1964) and understanding (Van Manen, 1969) to an equal degree for both sexes. Self-esteem and psychological security were equally well predicted for college men and women by the positiveness of their perceptions of both of their parents' feelings towards them (Jourard & Remy, 1955). Also among both college men and women, maternal and paternal nurturance were equally positively related to internality of locus of control (MacDonald, 1971) and tendencies toward self-disclosure (Snoeke & Rothblum, 1979).

Two studies have shown that for both sexes outcome was predicted by different qualities of the maternal and paternal roles or relationships with their adolescents. The maternal affective role but the paternal effective role appear to be related to later deviance in early and mid-adolescence (Van Manen, 1969). Locus of

control is positively related to maternal predictability of standards and negatively to maternal protectiveness, but not to the same paternal variables (MacDonald, 1971). Studies including only boys are consistent with this finding: adjustment and self-esteem are related to opportunity to talk with the father, and to affection and signs of positive interest on the part of the mother (Weller & Luchterhand, 1983; Coopersmith, 1967).

Investigations of the parental correlates of adolescents' self-esteem have produced a discernable pattern of sex differences. For high school girls (Gecas, 1972; Openshaw et al., in press; Offer, Ostrov, & Howard, 1982) as well as college women (Jourard & Remy, 1955), perceptions of maternal support, communication, and positive regard correlated more highly with global self-esteem and self-esteem worth (as well as psychological security) than did the paternal variables. For the males in these same studies and others studying boys only (Gecas, Thomas, & Weigert, 1968; Mortimer & Lawrence, 198019), paternal variables predicted outcomes on a par with maternal variables. An exception is the case where, as for females, maternal support better predicted self-esteem worth (Openshaw et al., in press); other dimensions of self-regard such as self-esteem power and self-derogation showed varying degrees of association with parental variables, depending on the parent-child dyad. A better understanding of adolescent self-esteem may be afforded by approaches such as Openshaw's. Another pattern suggested by the preceding findings is the stronger association

between parental variables and self-esteem in females vs. males (Gecas, 1972; Openshaw et al., in press; Offer, Ostrov, & Howard, 1982). However, since there is evidence that females talk more to their parents and peers than males (Hunter & Youniss, 1982; Snoeke & Rothblum, 19793; Armsden & Greenberg, unpublished ms.), yet tend to score lower on measures of instability of self-esteem, and possibly on self-esteem (Rosenberg, 1979), females may require more verbal communication for maintaining feelings of well-being.

In terms of attachment theory, the data just summarized suggest the following possibilities. Secure attachment to mother and father in adolescence is important for well-being in adolescence and beyond. Secure attachment to both parents fosters the highest adjustment. Mothers and fathers are perceived somewhat differently by their sons and daughters, and different aspects of the parent-adolescent relationship may be influential for well-being depending on the dyad involved. Thus, attachment behavior systems may be organized differently for mothers and fathers, as well as for male and female adolescents. One commonality is the vital influence of warm, positive emotional involvement between parent and adolescent as well as acceptance, understanding and helpfulness of the parent. For females, maternal attachment may be more highly related to well-being than father attachment, although it is not known to what degree a secure relationship with the father can mitigate the influences of an insecure relationship with the mother. Furthermore, because of the possibly greater significance of

maternal attachment for females, and the similar importance of mother and father attachment for males, it is also possible that secure paternal attachment but insecure maternal attachment may be related to worse adjustment in females than in males. Because the paternal role appears to differ somewhat from the maternal role, paternal attachment may be more predictive of certain dimensions among males, such as mastery; similarly, among females maternal attachment may better predict self-assessments of feeling positive about self-disclosure and expressing feelings.

Studies in which the influence of parents and peers on well-being is compared have focused on self-esteem. In all studies, perceptions of parental relations was more highly related to self-esteem than peer relations (O'Donnell, 1976; Gecas, 1972; Greenberg et al., 1983; Armsden & Greenberg, unpublished ms.). Greater intimacy is reported with peers than with parents by college students (Hunter & Youniss, 1982), women reporting more intimacy than men. Few studies have examined the relationship between perceptions of parental and peer relationships. Greenberg et al. (1983) reported a correlation of .11 between parental and peer quality of affect for a sample of 12 to 19 year olds. Parent and peer attachment scores correlated more highly (.36) in a college sample of 17 to 20 year olds (Armsden & Greenberg, unpublished ms.); in the same study, when respondents were classified as securely or insecurely attached, 72% of classifiable respondents were classified as either securely or insecurely attached to <u>both</u> peers and parents.

The parent vs. peer data suggest that through late adolescence, attachment to parents may have a stronger relationship to stable aspects of well-being than peer attachment. This suggests that parents still serve as a secure base (as primary attachment figures), not in the literal manner of childhood, but representationally; perceived confidence in their commitment to the adolescent is still crucial. Attachment theory does not predict the security of peer attachment for the adolescent who has very different qualities of attachment to his mother and father. While the dominant role of the mother in fostering the child's inner representational models is implicit in the theoretical formulations, no definite statements are made by Bowlby on this issue. The moderate correlation reported by Armsden and Greenberg and the good correspondence in classification between parental and peer attachment imply a disposition to form certain kinds of attachments, as predicted by attachment theory. Whether these data reflect the influence of one or both parents is unknown.

Recently a self-report measure of parent and peer attachment has been developed for use with adolescent populations in an attempt to define the nature of secure and insecure attachment during this period (Greenberg et al., 1983; Armsden & Greenberg, unpublished ms.). The item content was suggested by Bowlby's theoretical formulations concerning the nature of feelings toward attachment figures. Both parent and peer items assess feelings of mutual trust, understanding and respect, the accessibility, responsivity,

and predictability of parents/peers and consistency of parents'/peers' expectations. Also assessed are experiences of isolation and detachment from, and anxiety, anger, resentment toward parents/peers. Subscales were constructed using rational and empirical methods, separately for parent and peer items. Convergent validity was evidenced by the moderate to high correlations between attachment scores and indices of family environment, family and social self-concept, and frequency of proximity-seeking of significant others. In hierarchical regression analysis, parent and peer attachment significantly predicted self-esteem, life-satisfaction, and negative affective status scores, particularly depression/anxiety and resentment/alienation, even with life-stress partialled out.

Because of the inclusion in this study of more variables theoretically related to insecure attachment (e.g., a number of dimensions of anger, and assessments of loneliness and coping responses), greater understanding may be gained of the possible parallels between insecure attachment during late adolescence and insecure attachment in early childhood.

The Experience of Loneliness and Its Possible Relationship to Quality of Attachment

Weiss (1982a) suggests that attachment theory may be useful for understanding the loneliness which is associated with the emotional isolation produced by the absence of an attachment figure.

Attachment theory provides a framework for explaining the origins of the need for social ties, and the extent and qualities of social interaction which are required for the allaying of feelings of loneliness.

Among college students, loneliness is related to anger (Russell, Peplan, & Ferguson, 1978), anxiety and depression, and feelings of being misunderstood, unloved and abandoned (see Jones, 1982). More chronic and intense loneliness is found among college students using a stable, self-blaming attributional style to explain their interpersonal difficulties (Anderson, 1980; Cutrona, 1982). Frequencies of social contacts discriminated chronically from transiently lonely college students much less well than satisfaction with the self and expectations concerning improvement in social relations (Cutrona, 1982).

Loneliness has also been found to be related to current or past relationships with parents. Younger, lonely adolescents typically report dissatisfying, nonsupportive relationships with their parents, describing parental disinterest and limited nurturance (Brennan & Auslander, 1979; Rubenstein, Shaver, & Peplan, 1979). Such youths tend also to be mistrustful of others and to lack communication and social skills. Lonely adults also report less satisfactory relationships with their parents during childhood (Paloutzin & Ellison, 1982; Shaver & Rubenstein, 1980) and higher incidence of parental divorce prior to the end of adolescence (Shaver & Rubenstein, 1980).

Loneliness and its affective and cognitive concomitants form what is undoubtedly a complex network of reciprocal causal relationships. As Weiss (1982a) has suggested, understanding the propensity for loneliness in some individuals, as well as its correlates, may be boosted considerably by understanding the attachment system. As in the case of separation distress (Bowlby, 1969), loneliness may be said to occur whenever attachment behavior is aroused but an attachment figure is not available. An individual with a disposition toward forming secure attachment would be hypothesized to experience less intense loneliness than the individual with a history of insecure (particularly, anxious) attachments, partly because of his greater confidence that a figure will become available. For individuals who tend to form anxious attachments, because they lack stable, internal models of the availability of attachment figures, their attachment behavior systems are more readily aroused, making them more susceptible to loneliness. Moreover, insecurely attached individuals probably have a history of self-esteem loss and pessimism regarding social relationships, and consequently may through their behavior discourage the formation of secure attachments.

Attachment theory thus explains the constellation of negative emotions and social and self expectancies and evaluations that characterize the very lonely or chronically lonely individuals described in the above studies. Adolescence is a particularly lonely period (Ostrov & Offer, 1978), possibly because there is a

reorganization of the parent attachment system toward less primacy of their availability and greater mutuality of communication. This sort of transformation of the relationships with parents may lead to some uncertainty about their responsiveness in certain areas of concern. Uncertainty about attachment to peers, which gains in its significance for well-being, also plays a role. Weiss (1973) suggests that intense loneliness occurs in adolescents for whom parents no longer serve as primary attachment figures and who long for a secure relationship in their stead. An alternative view is also possible: that the loneliest adolescents have histories of insecure parent attachments, and are faced with inadequate personal and social (parental) resources for forming age-appropriate, secure peer attachments.

The Role of Coping and Its Possible Relationship to Quality of Attachment

While most were not explicitly inspired by attachment theory, the studies summarized above corroborate Bowlby's conclusion that people of all ages are most well-adjusted when they have confidence in the accessibility and responsiveness of a trusted other. As detailed by Caplan (1981), supportive relationships assist the individual in coping by providing new information, feedback and reassurance concerning himself, instrumental assistance as well as a variety of other forms of help and nurturance.

The stress and coping paradigm set forth by Lazarus (1966;

Coyne & Lazarus, 1981) emphasizes the role of cognitive appraisals and of coping responses in determining the individual's distress reactions. Coping responses vary according to the appraisal and reappraisal of the events. The greater the ambiguity of the situation, the more the individual's history of experiences, dispositions and expectational sets, rather than the nature of the situation, will determine the meaning ascribed and subsequent attempts to manage or alter the problem (problem-focused coping) and/or regulate emotional response (emotion-focused coping) (Folkman, 1984).

Both problem-focused and emotion-focused types of coping are used in most situations (Folkman & Lazarus, 1980), the relative proportions varying according to how the situation is appraised. According to Lazarus' model, effective coping involves realistic primary appraisal of the situation in terms of its significance for well-being (as harm/loss, threat, or challenge; benign-positive; or irrelevant), and realistic secondary appraisal of the person's own coping resources (e.g., capabilities, social ties).

One particularly important variable believed to influence appraisal is perception of control, which may be determined by generalized expectancies or by situational contingencies. A perception of uncontrollability of the situation is seen as more likely to generate an appraisal of threat rather than challenge, and to result in coping efforts directed toward management of anxiety and fear (emotion-focused coping) and diverted from problem-solving

activities. In addition, the likelihood of maladaptive outcome may be greater when the perception of control is not veridical. Perception of a controllable event as uncontrollable may result in fewer problem-focused efforts than would be optimal (Folkman, 1984). On the other hand, attempts at situation-altering coping strategies in a situation that is uncontrollable, for example, will likely lead to frustration and disappointment (Janoff-Bulman & Brickman, 1982). Another important determinant of appraisal is the situation's meaning or significance to the individual's well-being ("commitment"). Commitments include values, ideals, and goals. What is at stake for the individual reflects his/her commitments. Commitments interact with beliefs about situational control such that having control of a situation will of course be more important if more is at stake.

According to this model, what sort of coping differences might be expected between securely and insecurely attached individuals? In theory, they bring different expectancies to situations--particularly beliefs about predictability or control. Securely attached individuals may tend to appraise situations as less threatening, or may see a challenging event where insecurely attached persons see a threat. This distinction should occur most markedly in interpersonal situations of significance. Since individuals with histories of insecure (anxious) attachment have modelled the world (including attachment figures) as less predictable, and are less self-reliant, many situations will appear

to have more at stake for them. (This is, of course, in line with the basic ethological view that survival is at stake when the attachment bond is threatened.) In Lazarus' model, the efficacy of problem-focused efforts depends largely on the success of emotion-focused efforts. Since insecurely (anxiously) attached persons are theorized to have more readily activated attachment behavior systems, in situations where they perceive threats to their attachments (which should occur more frequently than for securely attached individuals), separation-distress would tend to preoccupy their coping maneuvers. In contrast, securely attached persons bring beliefs of greater predictability (and controllability) to situations. They should be more realistic in their primary appraisals of what is at stake and in their secondary appraisals of how controllable the situation is and of their own coping resources, particularly their social resources. They are freer to concentrate their efforts on problem-solving, because not only are they prone to be less emotionally aroused, but also they are better at emotional regulation.

Direct assessment of coping responses in adolescence has only infrequently been carried out. There appears to be no generally accepted paper-and-pencil measure of coping in this age-group; in fact, coping instruments for use with adults are only recently being developed and validated (Billings & Moos, 1984). The small literature on adolescents has investigated such areas as coping with college entrance (Coehlo, Hamburg, & Murphey, 1963; Silber, Hamburg,

Coehlo, Murphey, Rosenberg, & Pearlin, 1961) and moving (Donohue & Gullotta, 1983). In the college-entrance studies, the healthiest adolescents used a mix of problem-focused and emotion-focused coping; their families recognized and communicated about subjects that were emotionally significant. Newman's (1966) study of the relationship between coping behaviors and identification with parents found that "low copers" saw themselves as less similar to their parents, and rated themselves and their parents less positively than "high copers." Parkes (1984) found that college students with a more internally based locus of control used patterns of coping which were potentially more adaptive in relation to their appraisals of specific coping situations. In congruence with the discussion above, these studies highlight the importance of family characteristics, a broad coping repertoire, and the realistic perception of the controllability of situations.

Studies of coping responses of adults have until recently been hampered by the lack of an adequate measure of coping. Theoretical speculations that attentional interference (Coyne, Metalsky, & Lavelle, 1980) and the inability to problem-solve (Abramson, Seligman, & Teasdale, 1978; Coyne, Aldwin, & Lazarus, 1981) are likely to be associated with depressive experience have been recently supported by Vitaliano and his colleagues (Vitaliano, Maiuro, Russo, & Becker, 1985; in press). In Vitaliano's studies, a well-validated revised version of the Ways of Coping Checklist (Folkman & Lazarus, 1980) was used. Using another, but similar

coping instrument, Billings and Moos (1984) observed that problem-solving and affective regulation were associated with less depression and greater self-confidence. Using clinical methods of assessment, Platt and Spivak (1972) have also noted negative relationships between ability to problem-solve and psychiatric symptomology. Avoidance coping appears to actually increase distress (Billings & Moos, 1981). Related to this finding, the presence of denial as a personality trait is found to be related to greater use of emotion-focused coping and less advice-seeking (Fleishman, 1984).

It should be noted that investigators using the problem-focused/emotion-focused dichotomy of coping efforts have characterized seeking social support as a form of emotion-focused coping (Folkman & Lazarus, 1980; Billings & Moos, 1984). The factor analytic study of the Ways of Coping Checklist reported by Vitaliano et al. (1985) indicates, however, that coping efforts classified as seeking social support include both problem-focused behaviors (e.g. seeking advice) and emotion-focused efforts (e.g. seeking sympathy, opportunity for venting feelings).

McCrae (1984) has employed the three psychologically meaningful dimensions of situations proposed by Lazarus and Launier (1978; see discussion in previous section)--harm/loss, threat and challenge--to determine the influence of these different kinds of appraisals on the choice of coping mechanisms. Type of stressor (situation) was consistently and significantly related to the use of certain coping

strategies. McCrae's procedure was adapted for use in the present study in order to assess differences in coping responses between secure and insecure attachment groups in several situation types.

McCrae assessed the influence of type of stressor on coping in two ways. First, he defined one stressor that the subjects had experienced according to his own and other professionals' judgment. In the second study, subjects defined the stressors themselves, picking three stressors, one of which corresponded to each of three broad definitions of harm/loss, threat or challenge. The relative merits of the two procedures are difficult to assess because Study 2 was a repeated measures design, while Study 1 was not, and because the Ways of Coping Checklist items were excluded from Study 2.

For the purposes of the present study, the second procedure--the use of subjective definitions of stressors--was considered more appropriate. Since attachment groups would be compared in their coping behaviors, and since a central thesis of this study is that securely attached individuals tend to appraise situations differently than insecurely attached individuals, subjective definition of events as threatening or otherwise was an important control. Such a procedure bypassed, however, the individual's primary appraisal of the situation. This was deemed a necessary constraint on the design because of the wide variety of types of situations expected to be reported by subjects. The procedure did allow, however, the assessment of secondary appraisals by subjects. Thus, while the design did not include testing for

attachment group differences in their evaluations of situations as, for example, threatening or challenging, it did permit assessment of group differences in perceptions of controllability of the situation. Attachment theory and research suggest that differences between individuals with insecure and insecure attachment arise most characteristically in situations of interpersonal stress. Thus, in the present study subjects were asked to report on their coping efforts in Threat and Loss situations of interpersonal significance. A third situation type not emphasizing interpersonal involvement (Challenge) was used as a comparison-situation. It was not expected that quality of attachment would predict coping in the Challenge situations.

In addition to demonstrating the importance of distinguishing types of stressors in coping research, McCrae's results also suggest that a broader range of coping strategies should be considered than that used by Folkman and Lazarus (1980) in their examination of problem-focused vs. emotion-focused coping. McCrae employed items from Folkman and Lazarus' Ways of Coping Checklist as well as 50 items of his own design. Comparing the two coping measures, one major difference is McCrae's greater emphasis on coping strategies involving regulation of emotion. The relevant scales are: hostile reaction, isolation of affect, intellectual denial, and passivity. These scales as well as additional items assessing blaming of others and controlling feelings which were considered relevant to the thesis of attachment group differences in coping responses were

included in the present study.

Hypotheses:

In light of the above review of the literature, the following hypotheses were formulated:

1. Attachment and Well-Being/Symptomology
   - 1a. Mother (M), Father (F) and Peer (P) attachment are negatively related to symptomology as assessed by anxiety, anger, depression, and loneliness.
   - 1b. M, F and P attachment are positively related to well-being as assessed by general self-esteem and stability of self-concept.
2. Relative Importance of Maternal and Paternal Attachment
   - 2a. M and F attachment are more highly related to affective status than is P attachment.
   - 2b. M, F, and P attachment are moderately positively correlated.
3. Individual-Difference Classifications and Their Importance
   - 3a. Secure attachment to both parents is associated with the highest levels of well-being and lowest levels of symptomology.
   - 3b. Insecure attachment to both parents is associated with the lowest levels of well-being and highest levels of symptomology.

4. Attachment and Coping

   4a. Secure attachment either to both parents or to peers, compared to insecure attachment to these figures, is associated with appraisal of situations of threat and loss as more personally controllable.

   4b. Secure attachment to both parents is associated with more problem-focused types of coping relative to emotion-focused types of coping in situations of threat and loss than is insecure attachment to both parents.

   4b. The two groups contrasted in Hypothesis 4b do not differ in their coping responses to situations of challenge.

5. Sex Differences

   5a. Females' general self-esteem is better predicted by M, F, and P attachment than males.

   5b. M attachment is more highly related to self-esteem dimensions of interpersonal comfort and need for social approval in females than in males.

   5c. F attachment is more highly related to self-esteem dimensions of mastery, competence, and need for approval through performance in males than in females.

Chapter II

METHODOLOGY

Subjects

Subjects were 401 college undergraduates 17 to 20 years of age (mean age of 18.6 years) who were enrolled in departmental courses and who voluntarily participated in the study for additional credit. Fifty-eight percent were female. The majority were freshman (63%), less than a third were sophmores (28%) and the remaining 9% were juniors. All participants were native English speakers. Eighty percent of subjects were White and 17% described themselves as Asian-American. All subjects lived in two-parent, intact families most of their lives, or had been in regular contact with the parent living away (visit or telephone). Mean four-factor socioeconomic status of parents (Hollingshead, 1977) was 50.0 (in the Class II range). Thirteen percent of subjects reported their parents had divorced; mean age of subject at divorce was 11 years.

Procedure

Subjects were tested in groups, in one session lasting approximately two hours. Prior to testing, subjects were oriented to the general nature of the research, given a consent form to read emphasizing that participation was voluntary and responses confidential, and given an opportunity to ask questions.

Measures

Attachment

Inventory of Parent and Peer Attachment (IPPA, Revised Version). The IPPA (Armsden & Greenberg, unpublished ms.) is a self-report instrument for use with adolescents, and was developed using Bowlby's theory of the ontogeny of attachment. Total scores of Parent and Peer Attachment are used. Test-retest reliabilities for the original version are .93 for the Parent measure and .86 for the Peer measure. Internal reliabilities for the scales are .90 for Parent Attachment and .88 for Peer Attachment. The development sample was 17 to 20 years of age. Evidence for convergent validity is discussed in Chapter I. The revised version consists of separate Mother and Father Attachment measures with identical item-content, as well as a Peer Attachment measure (IPPA items are listed in Appendix A). In the present study, independence of the Mother, Father and Peer Attachment items were assessed using factor analytic procedures (see Chapter III).

Psychopathology

1. State-Trait Anxiety Inventory, Trait Scale only (STAI; Speilberger, Gorsuch & Lushene, 1970). The Trait Anxiety scale assesses the tendency to experience anxiety states in general as a result of viewing the world in a particular way. Research with the STAI indicates that the A-trait Scale is highly correlated with other measures of trait anxiety such as the IPAT and TMAS (Speilberger et al., 1970) and is considered one of the best

standardized anxiety measures (Dreger, 1978). College student norms are provided.

2. Beck Depression Inventory (BDI; Beck, 1967). The BDI consists of 21 symptoms or attitudes characteristic of clinical depression. Split-half reliability is reported to be .93 for clinical populations. The BDI has been shown to validly assess the severity of depression in college populations (Bumberry et al., 1978).

3. Revised UCLA Loneliness Scale (Russell, Peplan & Cutrona, 1980). This 20-item scale assesses the experience of loneliness without using the words lonely or loneliness. The revised version differs from the original in that positively worded items were added or replaced some originally negatively worded items. Internal consistency is reported to be .94. Concurrent validity assessments included correlations with depression (r's = .62, .55) and anxiety (.52) scales as well as with time spent alone (.41) and having fewer close friends (-.44). Evidence for discriminant validity includes lack of association with social desirability, higher association with other measures of loneliness than with measures of mood, and demonstration that the relationship between loneliness and social behaviors is independent of mood and personality. Wheeler, Reis and Nezlek (1983) report negative correlations between loneliness and meaningfulness of interactions, self-disclosure, intimacy and other-disclosure (r's = -.21 to -.60) using the revised UCLA Loneliness Scale. Validity data were collected using college

samples.

4. Buss-Durkee Hostility Inventory (BDHI; Bass & Durkee, 1957). The BDHI consists of 75 true-false items assessing modes of hostility expression. Normative and descriptive data are provided for college students. Two-week test-retest reliabilities of BDHI subscales range from .64 to .82 (Biaggio, Supplee & Curtis, 1981). Overt and Covert Anger scales developed by Bendig (1962) from the BDHI items were used in the present study. Evidence for the concurrent and discriminant validity of the BDHI are reviewed by Biaggio & Maiuro (in press).

Self-Esteem

1. Self-Assessment Scales (Short Form) (SAS, Norem-Hebeisen, 1976a). The SAS, intended for use with high school and college students, is based on a multidimensional conceptualization of self-esteem derived from theoretical and empirical literatures. The subscales reflect four dimensions: basic acceptance, as measured by Showing Feelings; conditional acceptance, measured by Freedom from Social Sources of Approval and Freedom from Performance Sources of Approval; self-evaluation, as measured by Self-Criticism and Sense of Competence; and general self-esteem, as measured by Well-Being. An additional subscale, Being Known, is highly related to both dimensions of basic acceptance and conditional acceptance. The empirical aspects of scale construction consisted of factor-analysis and iterative scale building. Cronbach alpha's range from .72 to .87 for the short form. Scale test-retest reliabilities are .71 to

.80, and intercorrelations range from .03 to .96 for the original form of the SAS. The SAS has been used to contrast drug abusing and other dysfunctional adolescents from normals (Ahlgren & Norem-Hebeisen, 1979). Different subscales have been shown to be systematically related to attitudes toward different types of interpersonal interdependence (Norem-Hebeisen & Johnson, 1977). Correlations of SAS scores with the MMPI scales and the Differential Personality Questionnaire indicated that the Well-Being and conditionally oriented SAS scales show a pattern of associations with scales indicating pathology and stress for Well-Being and, to a lesser degree, pathology for the conditionally-oriented scales. Showing Feeling was not strongly related to pathology measures, but correlated well with measures of interpersonal closeness, cooperativeness, and ease in relationships. The self-rating dimension was associated with stress and social introversion-extroversion (Norem-Hebeisen, 1976b).

2. Stability of Self Scale (New York State). This is a 5-item Guttman Scale assessing the degree to which adolescent respondents experience day-to-day variations in their self-esteem. The coefficient of reproducibility is .94 and the coefficient of scalability is .77. Stability of self-esteem using this measure has been shown to be influenced by social and developmental forces such as age, and sex, and changes in social environment. Instability appears to be associated with psychological disturbance, independent of self-esteem; controlling for self-esteem, the relationship

between stability of self-esteem and negative affective status is -.37, and with anxiety, -.19 (Rosenberg, 1979; calculated on Bachman (1970) data on male adolescents).

Coping

Items comprising the coping measure include the revised version of Folkman & Lazarus' (1980) Ways of Coping Checklist (WCCL-R; Vitaliano et al., 1985), selected items from McCrae's (1984) Coping Questionnaire and from Billings and Moos' (1984) coping measure, and two additional items concerning blaming others. The WCCL is a checklist of 64 items describing a range of behavioral and cognitive strategies (listed in Appendix A). Vitaliano et al. (1985) modified the response format to include a four-point Likert-type scale of: regularly used (3), sometimes (2), rarely (1), never used (0). The revised WCCL shows improved internal reliability and statistical independence of the subscales. The new subscales are: Problem-Focused, Seeks Social Support, Blamed Self, Wishful Thinking and Avoidance. Cronbach alpha's range from .73 to .88 over three distinct sample types: medical students, psychiatric outpatients, and spouses of patients with Alzheimer's disease. In the youngest of the samples (medical students), depression was highly significantly positively related to wishful thinking, and negatively related to problem-focused coping. Seeks Social Support was negatively related to anxiety. Significant relationships also occurred between appraisals of changeability of the stressor and need for more information, and Problem-Focused Coping, Blamed Self

and Seeks Social Support. Avoidance was positively related to the perceptions of needing to know more about the situation and holding onself back in dealing with the situation. As discussed in Chapter I, additional items related to blaming others and regulation of affect were included. Also included on the coping instrument were 3 yes/no secondary appraisal items concerning perceptions of the controllability of the situation: the changeability and acceptability of the situation, and the need to hold oneself back from doing what one wanted to do (Folkman & Lazarus, 1980).

The procedure for assessment of coping (adapted from McCrae, 1984) was as follows. Subjects were asked to list a recent (past year) Challenge situation, according to the definition of: "An situation in which you faced a positive personal test or challenge, or in which there was considerable opportunity for your personal gain"; a Threat situation ("a situation in which there was the possibility of loss of, or threat to, one of your important relationships. This should be a situation in which you were quite worried about how things would turn out."; and a Loss situation ("a situation in which you felt a loss through having to part with or be separated from a person important to you, or through the end of a relationship with (or death of) someone close to you"). Subjects unable to report an interpersonal Threat or Loss situation were instructed as follows. For the Threat situation, they were to list a situation (involving themselves) in which they were quite worried

about how things would turn out. For the Loss situation, Subjects were to list an event in which they experienced a big disappointment or in which their feelings were hurt alot. For each type of event, and prior to reporting their coping responses, subjects rated how well they felt they coped with the situation (6-point Likert scale; 1 = not at all well, 6 = extremely well). To control for possible order effects, the order of the type of events were varied over the course of group testing.

Family-Situation Measures

The following information was obtained concerning the subjects' family situations: whether their natural parents were living together, divorced or separated; if their natural parents were not living together, how long they had been living apart; if parents living separately, which parent subject lived with; if subject was not living with natural parents, whether parents are foster, adoptive, or step-parents, and who the subject considered his/her "real" parents; if subject was living away from home, frequency of subject- and parent-initiated telephone contact and visiting with parents. Subjects also rated how well their parents had been getting along in past year (6 point Likert scale; not at all well to extremely well) and rated the closeness of their best sibling relationship (5 point Likert scale; not at all close to extremely close). A copy of these items as they appeared on the questionnaire is found in Appendix A.

Chapter III

RESULTS

Revision of Inventory of Parent and Peer Attachment (IPPA)

In the present study, the IPPA was revised in order to separately assess Mother (M) and Father (F) attachment. The Parent Attachment section was divided into two sections,with separate questions concerning mother and father. Item contents of the Mother and Father Attachment sections are identical in nature. The independence of the M, F, and Peer (P) attachment scales was evaluated by factor analyzing the entire set of items and examining patterns of highest loadings. Principal factoring with Varimax rotation was used. The first 3 factors that emerged together accounted for 76% of the variance. Factor I had highest loadings for the F attachment items (loadings ranged from .49 - .83) and accounted for 43% of the variance; the highest loading for M or P attachment items on this factor was .27. Highest loadings for Factor II were for P attachment (.42 - .80; 19% of variance); the loading for other items on this factor did not exceed .21. Highest loadings for Factor III were for M attachment items (.25 - .77; 13% of variance); loadings for F and P attachment items did not exceed .25 on this factor. F attachment items in all cases loaded most highly on Factor I, P attachment items on Factor II, and M attachment items on Factor III.

For the purposes of the present study the 3 attachment scales

were not separately factor analyzed, but were treated as unifactorial measures. Development of the IPPA has suggested the possibility of the dimensionality of the parent and peer attachment scales, however the independence of the factors is controversial. Scales were created from the M, F, and P attachment factors by reverse scoring items where appropriate and summing the response values. Internal reliabilities, as assessed by Cronbach's alpha, were .87 for M attachment, .89 for F attachment, and .92 for P attachment. Items comprising the revised IPPA are listed in Appendix A.

F attachment had the highest variability for both females (coefficient of variability (V) = .178 (SD=14.4)), and males (V = .177 (SD=14.7)). For M attachment scores, V equalled .141 (SD=12.7) for females and .135 (SD=11.8) for males. P attachment scores were least variable: V = .110 (SD=11.4) for females, V = .128 (SD=12.11) for males.

Means and standard deviations for attachment scores are shown in Table 1. Females scored significantly higher than males on the M and P Attachment scales ($F(1,399)=3.63$, $p<.06$; and $F(1,399)=51.80$, $p<.001$, respectively). Males did not differ from females on F attachment ($F(1,399)=2.01$, $p<.20$). For both sexes, M attachment scores were on average higher than F attachment scores (males: $t(168)=4.08$, $p<.001$; females: $t(231)=9.42$, $p<.001$). Males' and females' mean scores for the P Attachment scale were higher than for both the M Attachment scale (males: $t(168)=-6.69$, $p<.001$; females:

Table 1

Means and Standard Deviations for Attachment Scores

	Males		Females	
Attachment Scale	M	SD	M	SD
Mother	87.51	11.8	89.89	12.7
Father	83.19	14.7	81.10	14.3
Peer	94.97	12.1	103.48	11.4

$t(231)=-14.74$, $p < .001$) and the F Attachment scale (males: $t(168)=-8.87$, $p < .001$; females: $t(231)=-21.17$, $p < .001$).

Factor Reproducibility of the Revised Ways of Coping Checklist (WCCL-R)

Because the WCCL-R had not been previously used with a college-aged sample, the reproducibility of the factor structure of the scales was examined. A principal factors analysis with Varimax rotation was performed for each set of responses obtained for the Challenge, Threat and Loss situations. Since the Threat situation data were closest in kind to those obtained by Vitaliano and his colleagues (1985), these responses were analyzed first. This analysis resulted in 5 factors with λ's greater than 1. Using the WCCL-R scales as a guide, these 5 factors were given interpretive labels as shown in Table 2, based on the WCCL-R scale membership and highest loading items on each factor. Together these 5 factors accounted for 77.5% of the variance in responses, which was comparable to the 75.7% obtained for Vitaliano et al.'s medical-student sample. Table 3 shows the more detailed examination of factor similarities.

Threat. As shown in Table 3, for the Threat situation data, 4 of the 5 factors show good reproducibility as evidenced by the high percentage of items which loaded most highly on the same factors as reported by Vitaliano et al. However, only 50% of WCCL-R Avoidance (AV) items loaded most highly on the AV factor. The majority of the

Table 2

Principal Factors and Their Labels for Items on the Revised Ways of Coping Checklist (WCCL-R)

	Challenge		Threat		Loss	
Factor	% Var.	Label	% Var.	Label	% Var.	Label
I	33.9	AV	29.7	WT	32.3	PF
II	19.5	BS	23.9	PF	21.8	WT
III	9.9	SS	10.7	SS	11.8	SS
IV	6.2	PF_1	7.3	BS	7.4	BS
V	5.4	PF_2	5.9	AV	6.2	AV
VI	5.2	WT				

Note: Abbreviations for labels are: AV, Avoiding; WT, Wishful Thinking; PF, Problem-Focusing; BS, Blaming Self; SS, Seeking Social Support.

Table 3

Comparison of Factor Structures of the WCCL-R and the Challenge (C), Threat (T) and Loss (L) Coping Scales

		Items Loading Most Highly on Same WCCL Factor		
			Loadings	
Factor Label	Situation	% WCCL-R Items	M	Range
PF	C(PF_1)	40	.40	.27-.45
	(PF_2)	33	.36	.14-.60
	T	87	.40	.13-.63
	L	93	.47	.18-.66
SS	C	83	.57	.35-.66
	T	83	.56	.34-.84
	L	83	.60	.39-.73
WT	C	38	.47	.36-.58
	T	88	.56	.37-.73
	L	88	.57	.38-.76
BS	C	100	.52	.38-.62
	T	100	.65	.56-.75
	L	100	.67	.56-.73
AV	C	70	.38	.11-.57
	T	50	.45	.14-.51
	L	30	.47	.37-.53

Note: Abbreviations for labels are: PF, Problem-Focusing; SS, Seeking Social Support; WT, Wishful Thinking; BS, Blaming Self; AV, Avoiding.

remainder of these items loaded most highly on the same factor as did the WCCL-R Wishful Thinking (WT) items. A second factor analysis was performed substituting 3 alternatively worded items, in an attempt to eliminate idiomatic-language (2 items) and coping outcomes (as opposed to processes) from the item content. All 3 items loaded most highly on the Problem-Focusing (PF) factor in both analyses. The original versus alternative item loadings are as follows: "Tried not to burn my bridges behind me, but left things open somewhat," .27 vs. "Tried not to make any irreversible decisions," .29; "Tried not to act too hastily or follow my own hunch," .29;' vs. "Tried not to act too hastily or on the basis of what I only supposed was appropriate," .19; "Came out of the experience better than when I went in," .28 vs. "Told myself I would come out of the experience better than when I went in," .27. On the basis of the similarities in both factor loadings and the response distributions for the new vs. old items, the decision was made to retain the alternatively worded items in subsequent analyses.

Loss. The results of the principal factors analyses of the Loss and Challenge situation responses are summarized in Tables 2 and 3. For the Loss responses, 5 factors emerged with λ's greater than 1; highest loading items for these factors permitted interpretive labelling which is also parallel with that for the Threat situation and Vitaliano et al.'s data. Together these factors accounted for 79.5% of the variance. As shown in Table 3, factor structure reproducability is good, with the exception of the

AV factor. Similar to the findings for the Threat responses, 40% of WCCL-R AV items loaded most highly on the WT factor. Examination of the content of the AV items revealed that opposite patterns of highest loadings occurred for the Loss vs. Threat responses. For the Loss responses, items loading most highly on the AV factor tended to tap more passive forms of avoidance, such as sleeping more or withdrawing from others. For the Threat situation, these same items tended to load most highly on the WT factor. WCCL-R items in the Loss analysis which loaded more highly on factors other than AV, reflected activities of denial and suppression (tried to forget...; refused to believe...). While these items loaded moderately on the WT factor, they loaded most highly on the uninterptretable 6th and 7th factors which together accounted for only 8.5% of the variance.

Challenge. In the Challenge situation analysis, only 4 factors emerged with λ's greater than 1. Factors I, II and III were interpreted, in view of highest loading items, as AV, Blaming Self (BS) and Seeking Social Support (SS). These 3 factors accounted for 63.3% of the variance (Table 2), and reproduce well the factor structure of the WCCL-R (Table 3). Forty percent of the WCCL-R PF items loaded most highly on Factor IV. Most of the remaining PF items loaded on Factor V (λ less than 1) which itself could be interpreted as a PF factor (33% of WCCL-R PF items loaded mostly highly on this factor). Highest loading items on Factor V concern taking action (made a plan of action...; came up with different solutions...); those on Factor VI concern positive thinking

(concentrated on the good...; told myself I would come out better...). Thirty-eight percent of WCCL-R WT items loaded most highly on the AV factor; while another 38% loaded on Factor VI. The former group of items concern wishing the situation were different, while the latter group tapped daydreaming or fantasizing in general.

These results suggest that factor reproducibility of the WCCL-R varied with the type of stressor for which coping responses were reported. For purposes of the present study, which included comparisons of responses to Challenge, Threat and Loss, reproducibility was deemed adequate and the WCCL-R scales were used almost entirely without revision (see below). The analyses do indicate, however, that factor structure varies somewhat with type of coping situation assessed. Analyses of responses to Challenge situations reproduced least well the factor structure of the WCCL-R, reflecting the quite different nature of these situations than situations of Threat and Loss used in this study,as well as the stressors studied in previous research using this instrument. Problems in replicating the WT and AV factors are particularly apparent and suggest that the two constructs of WT coping and AV coping as measured by the WCCL-R are less distinct for this sample of late adolescents than for samples tested in previous research.

Development of Additional Coping Scales

Additional items were added to the WCCL-R in an attempt to broaden its coverage of responses related to the regulation of

emotion. A second series of principal factor analyses with Varimax rotation were performed which analyzed the WCCL-R items plus these new items in order to investigate whether these additional items formed factors independent from the WCCL-R factors. The results for the Challenge, Threat and Loss data unanimously suggested a strong additional factor (labelled "Externalizing" (EX)) whose highest loadings were for items tapping angry, external blaming responses. Table 4 lists the items and their factor loadings. The first item listed was originally an WCCL-R AV factor item, but which loaded much more highly on the EX factor. These eight items formed the new EX coping scale. The remainder of the additional items tested either did not consistently form independent factors, or loaded on factors which accounted for little variance.

Coping Scale Reliabilities and Intercorrelations

Scale internal reliabilities are shown in Table 5. For most scales, alphas are .70 or above. Alpha's for the AV scales are consistently below .70; alpha's for two other Challenge scales, DF and BS are also less than .70. It is possible that the WCCL-R scales may need minor revision for younger samples. In light of the diversity of situation types for which subjects in this study reported coping responses, these results were considered acceptable.

Correlations between coping scales were obtained using relative scores computed according to Vitaliano et al.'s (in press) suggested method. A relative score reflects the proportion of total coping

Table 4

"Externalizing" Factor

Item Content	Factor Loadings[1]		
	Challenge (Factor I, 33% Var)	Threat (Factor I, 30% Var)	Loss (Factor II, 18% Var)
Got mad at the people or things	.65	.67	.71
Took it out on others	.64	.66	.52
Figured out who to blame	.38	.58	.59
Blamed others	.57	.55	.67
Became irritable	.55	.62	.50
Had temper tantrums	.50	.56	.32
Reacted childishly	.58	.51	.36
Acted strangely	.45	.53	.28

[1]Results of second factor analysis of WCCL-R items plus additional test items.

Table 5
Coping Scale Reliabilities and Intercorrelations[1,2,3]

	Challenge Scales					
	PF	SS	BS	WT	AV	EX
PF	65					
SS	36	70				
BS	-50	-46	64			
WT	-44	-52	(02)	81		
AV	-26	-41	-12	16	64	
EX	-34	-31	-09	(02)	(02)	80
	Threat Scales					
	PF	SS	BS	WT	AV	EX
PF	79					
SS	36	71				
BS	-39	-41	73			
WT	-36	-34	-19	80		
AV	-31	-47	-13	15	67	
EX	-95	-32	-13	(-01)	11	83
	Loss Scales					
	PF	SS	BS	WT	AV	EX
PF	84					
SS	15	74				
BS	-35	-37	76			
WT	-34	-23	-18	81		
AV	-13	-28	-29	14	63	
EX	-47	-32	-08	(-03)	(06)	83

[1]Internal Reliabilities are on diagonal.
[2]Decimals omitted.
[3]$p < .05$ unless indicated by parentheses.

efforts of a particular type (PF, AV, etc.), and is not affected by the frequency of coping efforts reported. Relative scores are calculated by computing the average response value for a given scale (which corrects for differing numbers of items in different scales), and dividing this score by the sum of the average response values for all scales. Since a major hypothesis of this study concerns group differences in extent of problem-solving coping relative to emotion-focusing coping, the use of relative scores was more appropriate than the use of raw scores. Table 5 shows that coping scale intercorrelations were no higher than -.52 (WT and SS for the Challenge situation). Mean intercorrelations for the Challenge, Threat and Loss scales were .28, .28, and .23, respectively. Lowest intercorrelations were among the emotion-focusing scales (BS, WT, AV, and EX), while highest intercorrelations were between problem-solving scales (PF and SS) and emotion-focusing scales, which were always negative in direction. For Challenge and Threat situations, PF and SS were moderately correlated (.36), but were weakly related (.15) for the Loss situation.

Intercorrelations between the same coping scales across different situation types were all significant and generally somewhat higher than scale intercorrelations within a situation type (Table 6). Mean intercorrelations were .35 between Challenge and Threat, .33 between Challenge and Loss, and .36 between Threat and Loss. The BS scales were notably less inter-related; coefficients were between .14 and .19. The SS scales were consistently the most

Table 6

Intercorelations of Coping Scales Between Situation Types[1]

		Loss						Threat					
		PF	SS	BS	WT	AV	EX	PF	SS	BS	WT	AV	EX
Challenge	PF	.32						.35					
	SS		.41						.40				
	BS			.15						.19			
	WT				.41						.39		
	AV					.35						.40	
	EX						.34						.38

		PF	SS	BS	WT	AV	EX
Threat	PF	.40					
	SS		.55				
	BS			.14			
	WT				.33		
	AV					.42	
	EX						.37

[1] $p < .05$ in all cases.

highly related; coefficients were between .40 and .55. These data suggest that respondents used varied coping strategies across the different situations, but were more consistent in their use of some strategies than others.

Sex differences were observed in mean coping scores for the Challenge and Threat situations, but not for the Loss situations. Males reported more AV and EX coping to Challenge ($F(1,399)=8.35$, $p<.01$; and $F(1,399)=6.24$, $p<.01$, respectively). Males also reported more BS coping in Threat situations ($F(1,399)=8.10$, $p<.01$). Females reported more SS coping in response to both Challenge ($F(1,399)=13.88$, $p<.001$) and Threat ($F(1,399)=17.20$, $p<.001$).

Intercorrelations of the Self-Assessment Scales (SAS)

The intercorrelations of the 7 scales tapping dimensions of self-esteem as assessed by the short-form of the SAS have not previously been documented for a large sample. As shown in Table 7, correlations range from .07 to .66 (mean = .41), suggesting adequate independence of these scales.

Males scored higher than females on the Sense of Competence scale ($F(1,399)=6.69$, $p<.01$). Females scored higher on the Ease with Showing Feelings scale ($F(1,399)=13.33$, $p<.001$) and the Ease with Being Known Scale ($F(1,399)=9.56$, $p<.01$).

Table 7

Intercorrelations of Self-Esteem Scales[1]

	(1)	(2)	(3)	(4)	(5)	(6)
Ease with Sharing Feelings(1)	-					
Freedom from Social Sources of Approval(2)	.30	-				
Sense of Competence(3)	.38	.30	-			
Well-Being(4)	.47	.44	.66	-		
Freedom from Performance Sources of Approval(5)	.16	.31	(.07)	.25	-	
Self-Criticism(6)	-.24	-.54	-.52	-.57	-.33	-
Ease with Being Known(7)	.54	.51	.41	.61	.32	-.59

[1]All coefficients are significant at $p < .01$ unless in parentheses (one-tailed tests).

Sex Differences in Affective Functioning and Stability of Self-Esteem

While males scored higher than females on Overt Anger ($F(1,399)=33.71$, $p < .001$) and Loneliness ($F(1,399)=10.13$, $p < .002$), they also reported greater stability of self-esteem ($F(1,399)=6.95$, $p < .01$). No sex differences were found for Covert Anger, Anxiety or Depression.

Intercorrelations of Measures of Well-Being

A number of measures used in the present study assessed various aspects of well-being. Because of the likelihood that there would be considerable shared variance among these variables, their intercorrelations are documented here (Table 8) and are used as a partial basis for the selection of variables in some analyses. Highest correlations were observed for Depression and Anxiety (.71) and for Anxiety and the SAS scale Well-Being (.76), casting some doubt on the independence of these constructs as measured by these instruments. Overt Anger, least related to the other measures of well-being, was significantly related to Covert Anger (.36).

Relationships Among Attachment Variables

The correlation between Mother Attachment and Father Attachment was .45; a somewhat lower correlation was obtained between Mother Attachment and Peer Attachment (.31). The lowest correlation was found between Father and Peer Attachment (.18). These coefficients

Table 8

Intercorrelations of Measures of Psychological Functioning[1]

	Anxiety	Depression	Loneliness	Covert Anger	Overt Anger	Sense of Competence
Depression	.71					
Loneliness	.63	.60				
Covert Anger	.59	.50	.45			
Overt Anger	(.07)	(.05)	(.06)	.36		
Sense of Competence	-.62	-.49	-.49	-.35	(.07)	
Well-Being	-.76	-.67	-.69	-.44	.02	.66

[1] Coefficients in parenthesis are nonsignificant. Otherwise coefficients are significant at $p < .001$ (one-tailed tests).

were all significant beyond the .001 level. Thus, Hypothesis 2b, that the attachment variables are moderately intercorrelated, was supported except for the relationship between Father and Peer Attachment.

Relationship of Attachment to Family Variables

Documentation of the association between IPPA scores and a number of variables related to family background and contact is shown in Table 9. Because no sex differences were found in the size of these coefficients, the correlations are shown for the entire sample. No relationship was found between attachment and the socioeconomic status of parents; a negligible association with parents' educational level was found. Moderate and significant correlations between attachment to parents and the quality of the parents' relationships, and slightly lower correlations between attachment to parents and the quality subjects' closest sibling relationships suggest a relationship between parental attachment and the family system. Peer attachment was correlated at a low level with quality of closest sibling relationship.

Subjects who reported their parents had separated or divorced were less secure in their attachments to their fathers ($F(1,74) = 7.90$, $p < .01$). Fifty-three subjects reported that their natural parents had divorced. Of four subjects living with a stepmother, only one considered her stepmother to be her "real" mother. Of 17 subjects living with a stepfather, nine considered their stepfather

Table 9

Correlations Between Attachment and Family Variables[1]

	Mother Attachment	Father Attachment	Peer Attachment
Socioeconomic status	(.06)	(.07)	(.04)
Father's education	.08	(.07)	.08
Mother's education	(.05)	.08	.08
Quality of parents' relationship (subject rating)	.41	.48	.15
Quality of relationship with closest sibling (subject rating)	.28	.29	.11
Frequency of contact with parent(s)[2,3]			
telephoning parents	.24	(.04)	(.09)
visiting parents	.13	.15	(.06)
parents telephoning	.18	.12	.13
Age at parents' divorce (n=48)	-.06	-.25	.23

[1]Coefficients significant at p<05 unless in parentheses. Decimals omitted.
[2]For Ss living away from parents. "Parent" refers to parent who makes a home to which S usually returns on vacations (in the case of Ss parents living apart).
[3]Approximate distance to parents(s) home partialled out.

to be their "real" father. Among those whose parents had separated or divorced, there was no significant difference in father attachment between subjects living with or apart from their "real" fathers. As Table 9 shows, the younger the subject at the time of parental divorce, the more secure his/her current attachment to father. As the correlation between father attachment and age of divorce when subjects with stepfathers were excluded was similar (-.21), the overall negative relationship between father attachment and age of parental divorce cannot be explained by the presence of stepfathers. Possibly, those subjects having more recent parental divorces and separation from their fathers were experiencing greater resentment and alienation than those subjects whose parents had divorced earlier; this could be explained by separation distress and/or less psychological availability of the father around the time of the divorce. Another possible explanation for this negative correlaton is that subjects who had lived apart from their fathers for some time have a tendency to idealize their fathers.

Subjects living away from their parents were more secure in their attachment to mother ($F(1,398) = 5.57$, $p < .05$). This finding suggests that scores on the IPPA may be affected by the reduced parental conflict afforded by living away from home, and by increased contact and alliance with peers. The relationship between attachment and frequency of parent contact was assessed with approximate distance to parents' home partialled out. Generally, low but significant correlations with mother and father attachment

were obtained. The finding that father attachment was not related to telephoning parents while mother attachment was modestly correlated with this variable is congruent with the notion, suggested earlier, that verbal contact may play a greater role in attachment to mother than to father. There were no relationships between living away from home and either Father or Peer Attachment scores.

Relationships Between Attachment and Measures of Adjustment and Self-Esteem

Results of analyses of the associations between attachment and adjustment and self-esteem are presented in Table 10. These data will first be summarized in terms of the overall relationships between attachment and outcome. Next, differences in the strengths of statistical relationships between outcome and mother, father and peer attachment will be examined, along with sex differences present in the data.

Adjustment. As shown in Table 10, generally moderately negative correlations were obtained between attachment to parents and peers and anxiety, depression, and covert anger in both males and females. Generally, attachment was more related to anxiety and depression than to covert anger. Low correlations were obtained for overt anger and Mother(M) attachment; correlations were nonsignificant for Father(F) attachment.

Comparing the association of M and F attachment, for both sexes

Table 10
Correlations Between Attachment and Adjustment and Self-Esteem Variables[1,2]

	Mother Attachment			Father Attachment			Peer Attachment		
	All	F[3]	M[3]	All	F	M	All	F	M
Anxiety	-31	-37	-23	-43	-42	-47	-39	-47	-38
Depression	-27	-30	-24	-34	-35	-35	-33	-48	-24
Covert Anger	-24	-23	-24	-27	-25	-32	-27	-26	-27
Overt Anger	-15	-15	-10	(03)	(-03)	(07)	-10	(10)	(-02)
Loneliness	-42	-43	-38	-39	-39	-42	-70	-74	-64
Stability of Self-Esteem	-09	16	(11)	31	33	27	12	17	19
Dimensions of Self-Esteem:									
Sense of Competence	34	44	23	39	37	40	31	41	34
Ease with Showing Feelings	31	33	25	21	26	19	52	53	44
Ease with Being Known	27	28	22	36	38	36	43	48	32
Freedom from: Social Sources of Approval	17	17	18	23	17	32	17	20	14
Performance Sources of Approval	(05)	(08)	(01)	14	18	(09)	09	14	(02)
Well-being	30	32	28	45	43	49	39	49	32
Self-Criticism	-16	-19	-11	-26	-27	-25	-26	-33	-20

[1]Decimals omitted.
[2]Coefficients not significant at .05 level are in parenthesis.
[3]Sex of adolescent.

overt anger was more highly related to Mattachment; anxiety and depression were more highly associated with F attachment. When Peer (P) attachment was compared with M and F attachment, M attachment was still found to be the highest correlate of overt anger.

For anxiety, depression and covert anger different patterns of strength of association were found for the two sexes. Among females, P attachment was more strongly related to anxiety and depression than was mother attachment. Although P attachment was also more highly related to depression than F attachment, anxiety was equally correlated with F attachment and P attachment. Also among females, covert anger was equally associated with M, F and P attachment. Among males, F attachment was most highly related to all three of these affective status variables; correlations of M and P attachment with depression and covert anger were lower and not substantially different from each other.

Z tests were conducted in order to test for differences between males and females in the size of the correlation coefficients. The correlation between P attachment and depression for females is significantly higher than this correlation for males (-.48 vs. -.24, $p < .01$).

Loneliness was strongly and negatively related to P attachment in both sexes. Correlations between loneliness and M and F attachment were moderate in size. Thus, although the high correlations between loneliness and P attachment might be expected in a college-age sample, the moderate correlations with M and F

attachment suggest that, as Weiss (1973) has noted, loneliness reflects an unfulfilled readiness to form an attachment relationship and that, as hypothesized, adolescents with insecure parent attachments tend to feel lonely in their social environment.

In summary, Hypothesis 1a was supported: M, F, and P attachment are negatively related to symptoms and experiences of anxiety, depression, anger and loneliness. Hypothesis 2a, that parent attachment is more highly related to adjustment than is peer attachment was partially supported. For males, F attachment proved a better predictor than P attachment for anxiety, depression and covert anger; M attachment was a better predictor than P attachment only in the case of overt anger (for both sexes). Overall, the pattern of results indicate that for males, attachment to father was most highly related to affective functioning and was a substantially better predictor of affective status than attachment to mother. In contrast, for females attachment to peers was most highly related to affective functioning. The results are equivocal, however, in terms of the superiority of attachment to mother or father in predicting females' affective status. A conservative interpretation of these data is that mother vs. father attachment were equally associated with affective functioning in females.

Generally, however, the strengths of relationships between outcome and attachment to mother, father and peers were not considerably different. Three instances of quite substantial differences in their predictive power should be noted, however.

These are: (1) among males, the correlation of anxiety with F attachment was -.47, substantially higher than with M attachment (-.23), (2) among females, P attachment predicted depression considerably better than M attachment (-.48 vs. -.30), and (3) as might be expected, loneliness was much more strongly related to peer than parent attachment in both sexes.

Self-Esteem. Correlations between attachment and seven aspects of self-esteem (Table 10) were positive and low to moderate in strength, except for the Self-Criticism scale. For both sexes, highest correlations involving M attachment were for the scales Ease with Showing Feelings, Sense of Competence, and Well-Being (r's are between .23 and .44). For both sexes, highest correlations for F attachment are also for Sense of Competence, Well-Being, as well as for Ease with Being Known (r's were between .34 and .49).

Comparing attachment to mother and father as predictors of self-esteem, for females, only two scales correlated more highly (and only slightly) with M attachment than with F attachment: Sense of Competence and Ease with Being Known. In contrast, males' self-esteem was substantially more related to F than M attachment on all scales except Ease with Showing Feelings. The largest differences between M and F attachment in their associations with self-esteem clearly occurred for the males. Most notably, for males the correlations between Well-Being and F and M attachment were .49 and .28, respectively; in addition, the correlations between Sense of Competence and F and M attachment were .40 and .23, respectively.

The correlations between M attachment and Sense of Competence is significantly lower for males than for females (.44 vs. .23, $p < .05$).

Highest correlations for P attachment involved the scales of Ease with Showing Feelings, Ease with Being Known, Well-Being and Sense of Competence (r's are between .32 and .53); these scales, as noted above, also correlated most highly with Parent attachment. P attachment was significantly more highly related to well-being in females than males (.49 vs. .32, $p < .05$). The scales Freedom from Performance and Social Sources of Approval were least related to attachment.

The largest differences beween Peer attachment and Parent attachment as predictors of self-esteem were for the scales Ease with Showing Feelings and Ease with Being Known. For both sexes, P attachment considerably better predicted Ease with Showing Feelings. This was the sole aspect of self-esteem (or affective functioning) better predicted by P attachment than F attachment. Among females, in contrast, most self-esteem scales were more highly related to Peer than Parent attachment.

In summary, the dimension General Self-Esteem (as assessed by the Well-Being scale) was most highly related to father attachment in males and to peer attachment in females. This pattern was generally observed for the other dimensions of self-esteem. The dimension Self-Evaluation (Self-Criticism and Sense of Competence scales), was most related to father attachment among males; for

females, Self-Criticism was most related to peer attachment, but Sense of Competence was most strongly associated with mother attachment. For the dimension Basic Self-Acceptance (Ease with Showing Feelings and Ease with Being Known scales), peer attachment was most related to both scales for females and also to Ease with Showing Feelings for males; males' scores on Ease with Being Known was best predicted by father attachment.

The mean correlations of self-esteem scales (omitting Well-Being) for each source of attachment support the pattern of results indicating that males' self-esteem is generally most related to father attachment, while females' self-esteem is generally most related to peer attachent. For males the mean r was .17 for M attachment, .27 for F attachment, and .24 for P attachment. Thus, it also appears that for males, M attachment is least related to self-esteem. For females, the mean correlations were .25 for M attachment, .27 for F attachment, and .35 for P attachment.

The study's hypotheses related to attachment and dimensions of self-esteem were partially confirmed. Hypothesis 5a, that females' general self-esteem is more highly related to attachment than is males', is partially supported. Compared with males, females' general self-esteem, as assessed by the Well-Being scale, was significantly more highly related to P attachment but not to M or F attachment. Related to this finding, sense of competence was better predicted in females than males by attachment to mother.

Tests of sex differences in sizes of correlations did not

support specific hypotheses regarding sex differences. Hypothesis 5b, that females' attachment to mother is more highly related to aspects of self-esteem related to interpersonal comfort (Ease with Showing Feelings and Ease with Being Known scales) and need for social approval than is males' attachment to mother, was not supported. The hypothesis (5c) that males' self-esteem concerning mastery (Sense of Competence and Freedom from Performance Sources of Approval scales) is more highly related to F attachment than females' was also not supported.

Stability of self-esteem was related to F attachment to an equal extent in both sexes (.33 in females, .27 in males). These correlations are considerably larger than for M or P attachment (r's are between .09 and .19).

In summary, as was found for affective status, fathers appear to hold a particular importance for the stability and positiveness of males' self-esteem -- substantially more than mothers. Unexpectedly, for females, father attachment had considerably stronger relationships than mother attachment to most aspects of self-esteem (particularly, self-esteem stability, general self-esteem, and ease with being known by others). This is also congruent with the findings that anxiety and depression in females was somewhat more highly related to father than mother attachment. Also similar to the affective status results, peer attachment seems to be of greater importance for females than for males for self-esteem. For both males and females, attachment to mother was

shown to be the weakest predictor of adjustment and self-esteem. Two notable exceptions to this pattern of results were the findings that mother attachment best predicted overt anger in both sexes, and sense of competence in females.

Categories of Parent and Peer Attachment: Their Relationship to Adjustment and Self-Esteem

Definition of Attachment Groups. Four Parent Attachment groups and two Peer Attachment groups were defined. Due to significant differences between males' and females' scores on attachment, groups were assigned separately for the two sexes. Subjects were assigned to the Secure Attachment groups if they scored above the median on a given attachment scale, and to the Insecure Attachment group if they scored below the median. Subjects assigned to Secure groups for both M and F attachment were categorized as Concordant Secure (CS); Subjects assigned to both M and F Insecure groups were classified as Concordant Insecure (CI). Subjects having Secure attachment to mother but Insecure to father were classified as Discordant-Secure Mother (D-SM), while subjects having Secure F attachment but Insecure M attachment were categorized as Discordant-Secure Father (D-SF). The Secure Peer Attachment group was labelled S; the Insecure group, I. With this classification strategy, 34.4% of subjects fell into the CI group, 14.7% into the D-SM group, 14.7% into the D-SF group, and 36.2% into the CS group. Using the median split procedure separately for males and females resulted in male

and female subjects being distributed in similar proportions over the four groups; therefore an analysis of the composition of groups by sex would not have been meaningful.

Table 11 shows the correspondence between Parent and Peer Attachment group assignment. This distribution is significantly different from chance (χ (3) = 21.70, $p < .001$, Cramer's V = .23). Sixty-seven percent of subjects with secure attachment to both parents were also classified as having secure peer attachment. Fifty-eight percent of subjects classified as insecurely attached to both parents were also insecurely attached to peers.

Selection of Dependent Variables. All adjustment variables except Overt Anger, which was not related to F or P attachment, were used to contrast the Parent Attachment groups. These variables are anxiety, depression, covert anger and loneliness. Two self-esteem scales were selected on the basis of two criteria: (1) distinctness from anxiety and depression and (2) overall strength and homogeneity of their statistical association with M, F, and P attachment. The selected dimensions are Sense of Competence and Ease with Being Known. Stability of self-esteem was also selected for these analyses..

Comparisons Among the Parent Attachment Groups. Two 4(Parent attachment group) X 2(Sex) MANOVA's were performed with the adjustment variables entered in the first analysis as dependent variables (DV), and the self-esteem variables entered as DV's in the second analysis. There were no significant Sex X Group interactions

Table 11
Distribution of Subjects by Parent and Peer Attachment Group Classifications

	Peer Group					
	Insecure		Secure		Total Sample	
Parent Group	n	%Insecure	n	%Secure	n	%Total Sample
Concordant Insecure	80	42.3	58	27.3	138	34.4
Discordant-Secure Father	35	18.5	24	11.3	59	14.7
Discordant-Secure Mother	26	13.8	33	15.6	59	14.7
Concordant Secure	48	25.4	97	45.8	145	36.2
Total Sample	189	47.1	212	52.9		

at the .05 level in either analysis. Both Hotelling's T's were significant for the group effect; for the adjustment variables, $F(12, 1166) = 8.85$ ($p < .001$) and for the self-esteem variables, $F(9, 1169) = 11.94$ ($p < .001$). As reported above, males scored significantly higher than females on Stability of Self-Esteem and Sense of Competence, and lower on Ease with Being Known.

Because the Sex X Group interactions were not significant, males and females were considered together in the follow-up univariate analyses. Mean scores obtained by each of the 4 Parent Attachment Groups on the adjustment and self-esteem measures and the univariate F-test statistics are shown in Table 12. All univariate tests were highly significant. Paired-comparisons tests (Tukey's; .05 level) were used to determine which groups differed. For all affective status indices (anxiety, depression and covert anger), the CS and D-SF groups were significantly lower than the CI and D-SM groups ($p < .05$). Norms for trait anxiety scores of college undergraduates (Spielberger et al., 1970) indicate that the CI group was at the 81st percentile, the D-SM group was at the 78th, the D-SF group, at the 55th, and the CS group, at the 52nd percentile. For the loneliness variable, the CS and D-SF groups were lower than the CI group; the D-SM group mean was between and not significantly different from those for the CI and D-SF groups. In addition, while the D-SF group on the other adjustment variables was equal to the CS group, in the case of loneliness, the D-SF group was signficantly higher.

Table 12

Adjustment and Self-Esteem Score Means for the Parent Attachment Groups[1]

	Parent Attachment Group				
	CS	D-SF	D-SM	CI	UV F (3,397)[2]
Anxiety	36.87	38.37	43.74	45.52	28.75
Depression	4.54	5.71	8.39	9.04	17.15
Covert Anger	8.72	9.05	10.59	11.07	11.72
Loneliness	30.80	34.70	36.31	39.49	23.11
Ease with Being Known[3]	8.79	9.22	11.86	11.78	19.65
Sense of Competence[3]	10.83	11.69	11.95	13.65	24.25
Stability of Self-Esteem	3.76	3.73	2.97	2.98	10.77

[1]Abbreviations for Parent Groups are: Concordant Secure (CS); Concordant Insecure (CI); Discordant-Secure Mother (D-SM); Discordant-Secure Father (D-SF).
[2]$p < .001$ in all cases.
[3]Lower scores indicate more positive self-esteem.

Follow-up univariate tests on the self-esteem variables were all significant (Table 12). Tukey's multiple range tests indicated a similar pattern to the results for the adjustment variables: For Ease of Being Known and Self-Esteem Stability, the means for the CS and D-SF groups were not different from each other, but were significantly higher than the means for the CI and D-SM groups. For Sense of Competence, the D-SF group was a again as high as the CS group and significantly higher than the CI group. The D-SM group mean fell between the CI and D-SF group means but was not significantly different from either.

In summary, comparisons of the four Parent Attachment Groups on four adjustment and three self-esteem variables revealed that the CS group always scored significantly lower on negative affective status and loneliness measures and higher on self-esteem measures (both in terms of stability and positiveness) than the CI group. Thus, Hypothesis 3a and 3b are confirmed. The two D groups tended to fall between the CS and CI groups, with the D-SF group scoring closer to but not quite as well as the CS group. The D-SM group scored more toward the less well-adjusted end of the scales than the D-SF group, and did not differ significantly from the CI group.

Comparisons Among the Peer Attachment Groups. Two 2(Peer attachment group) X 2(Sex) MANOVA's were carried out with four adjustment variables (anxiety, depression, covert anger and loneliness) entered as DV's in the first analysis and three self-esteem variables (Sense of Competence, Ease with Being Known

and Stability of Self-Esteem) serving as DV's in the second analysis. No significant Sex X Group interaction effects were observed in either analysis. The Hotelling's T was significant for the effect of Group for the adjustment variables ($F(4,394)=24.68$, $p < .001$) as well as for the self-esteem variables ($F(3,395)=14.23$, $p < .001$). Followup univariate F tests were significant beyond the .05 level for all variables, as summarized in Table 13. As indicated in the Table, subjects in the Secure peer attachment group reported on average more positive and stable self-esteem and lower levels of negative affect and loneliness. There were significant Sex effects for the adjustment variables ($F(4,394)=9.32$, $p < .001$) and for the self-esteem variables ($F(3,395)=12.49$, $p < .001$), due to males reporting more loneliness, self-esteem stability and sense of competence, and females reporting greater ease with being known by others. As univariate statistics for these sex differences have been documented above, they are not listed here.

Exploratory Analyses Involving the Discordant Parent Attachment Groups. The two discordant parent attachment groups were compared with the two concordant parent attachment groups on several family background variables in an attempt to more fully understand their differences. Overall, the four parent attachment groups differed in their reports of the quality of their parents' (non-divorced) relationships ($F(3,343)=21.36$, $p < .001$). Tukey's multiple range tests indicated that the CI and D-SM groups reported the least harmony between parents, significantly less than the CS group. The

Table 13

Adjustment and Self-Esteem Score Means for the Secure and Insecure Peer Attachment Groups

	Peer Attachment Group		
	Secure	Insecure	UV F (1,397)[1]
Anxiety	38.85	43.58	27.64
Depression	5.61	8.19	17.14
Covert Anger	9.18	10.60	16.45
Loneliness	31.27	39.57	94.66
Ease with Being Known[2]	9.37	11.42	26.59
Sense of Competence[2]	11.28	13.01	33.12
Stability of Self-Esteem	3.55	3.17	7.09, $p<.01$

[1] $p<.001$ unless otherwise indicated.
[2] Lower scores indicate more positive self-esteem.

D-SF group was not different from the CS group on this variable, and was significantly higher than the CI group. The two D groups themselves did not differ significantly from each other on this variable. The four parent attachment groups also differed significantly in their histories of parental separation and divorce ($\chi(3)=10.63$, $p < .05$), with 32% of the D-SM group reporting family disruption, 20% of the CI, and 14% of the CS and D-SF groups reporting family disruption. The D-SM group reported a higher incidence of parental separation or divorce than did the D-SF (32% vs. 14%; $\chi(1) = 4.80$, $p < .05$) and the CS group (32% vs. 14%; $(1)=8.04$, $p < .01$). No other pairs of parent attachment groups were significantly different in history of parental separation and divorce. Eleven percent of the D-SM group was living with a stepfather, versus 2% for the D-SF group, 5% for the CS and CI groups (these differences were not statistically significant, however). All but two subjects in the D-SM group considered their "real" father to be their natural fathers; therefore, most subjects in the D-SM group who were living with their stepfathers were separated from the inividual they considered to be their "real" father.

In addition to the higher incidence of separation from natural fathers in the D-SM group compared with the better-functioning D-SF and CS groups, this group distinguishes itself in another way. As revealed in Table 14, the discrepancy between M and F attachment means for the D-SM group is 27 points, as compared with only 8

Table 14
Attachment Score Means of Parent Attachment Groups[1]

	Concordant S	Discordant-S Father	Discordant-S Mother	Concordant I
Mother Attachment	98.79 (5.44)	82.49 (7.83)	96.95 (5.83)	77.78 (10.10)
Father Attachment	94.96 (6.99)	90.75 (7.06)	70.25 (9.32)	69.62 (9.22)
Peer Attachment	103.91 (10.20)	98.78 (10.03)	99.86 (12.86)	96.17 (14.02)

[1]Standard deviations are in parentheses.

Note: Abbreviations are: S, Secure; I, Insecure.

points for the D-SF group. Because F attachment scores are generally lower than M attachment scores, some difference between these groups in M-F attachment-score discrepancy would be expected. The absolute value of the difference between M and F attachment scores were calculated for subjects in each of the four parent attachment groups. The means and SD's of the difference scores for the groups were: 12.14 (9.14) for the CI group, 26.69 (14.28) for the D-SM, 8.80 (10.44) for the D-SF and 6.35 (4.97) for the CS group. The D-SM group, as hypothesized had double the difference-score mean of the CI group, and 3 to 4 times the difference-score mean of the other parent attachment groups. Multiple t-tests (necessitated due to heterogeneity of variance) revealed that all groups were significantly different from each other (D-SM vs. D-SF: $t(116) = 9.38$, $p < .001$; D-SM vs. CI: $t(195) = 9.85$, $p < .001$; D-SM vs. CS, $t(202) = 19.02$, $p < .001$; CI vs. CS: $t(6.66) = 6.66$, $p < .001$; D-SF vs. CS: $t(202) = 2.26$, $p < .05$; D-SF vs. CI: $t(195) = 2.25$, $p < .05$). This relatively large discrepancy between security of M and F attachment in the D-SM group may explain in part this group's poorer functioning relative to the D-SF group. No difference was found in difference-score means of D-SM group members who were and were not separated from their natural father due to divorce.

Exploratory Analyses of the Contribution of Quality of Peer Attachment to the Relationship Between Parent Attachment and Well-Being

Outline of Analytic Strategies. Because of the demonstrated importance of peer as well as parent attachment for psychological well-being, a number of analyses were carried out in order to assess the degree to which secure peer attachment contributed to psychological outcome, given concordant or discordant parent attachment. First, the four parent attachment groups were compared on their mean peer attachment scores.

The second exploratory analysis examined the effects of quality of peer attachment on well-being in each of the parent attachment groups. Members of groups having secure attachment to just one parent were contrasted with members of groups having secure attachment to both parents or to neither parent. Main effects of peer attachment group and interaction effects of peer attachment group with parent attachment group were examined in hierarchical regression analyses predicting several aspects of well-being. In these regression analyses, each discordant parent attachment group was contrasted first with the Concordant Secure parent attachment group and next with the Concordant Insecure parent attachment group. Significant main effects of peer group would indicate that membership in the Secure or Insecure peer attachment group was related to well-being to a similar extent in both parent attachment groups contrasted. Significant peer group by parent group

interaction effects would indicate that the contribution of secure peer attachment to well-being depended on parent attachment group membership. Within each parent attachment group, significant peer by parent group interactions were followed with t-tests comparing, secure with insecure peer attachment groups.

Lastly, two groups of subjects, both reporting markedly discrepant qualities of their parent and peer attachment, were compared in terms of their psychological functioning. In this analysis, subjects having Concordant Secure parent attachment, but Insecure peer attachment were contrasted with subjects having Concordant Insecure parent attachment, but Secure peer attachment.

Peer Attachment in the Four Parent Attachment Groups.

Examining Peer Attachment scores for the four Parent Attachment groups, mean P attachment scores were slightly lower for the D groups (98.8 for D-SF and 99.9 for D-SM) compared with the CS group (103.9), and slightly higher compared with the CI group (96.2) (Table 14). While these differences are not significant, for subjects classified as having Insecure Peer Attachment, the D groups (taken together) showed significantly lower P attachment scores than the CS group, but higher P attachment than the CI group ($F(2, 186) = 6.51$, $p < .01$; Tukey's multiple range test, $p < .05$). Thus, among those subjects with insecure peer attachment, those with secure attachment to both parents appeared to have better peer relationships on average than those who had secure attachment to only one parent. In contrast, subjects who had secure peer

attachment showed no difference in level of peer attachment as a function of type of parent attachment.

Multiple Regression Analyses. As outlined above, each of the Discordant parent attachment groups was contrasted with one of the Concordant parent attachment groups in a series of hierarchical multiple regression analyses in which significant Parent Group X Peer Group (Secure vs. Insecure) interactions or main effects for Peer Group were of principle interest. Anxiety, Loneliness, Sense of Competence, Stability of Self-Esteem and Ease with Being Known served as dependent variables. The following were entered as independent variables (IV): Sex, Parent Group (Discordant vs. Concordant), Peer Group (Secure vs. Insecure), and the appropriate 2 and 3-way interaction terms for these variables. Thus each initial regression involved 7 IV's. In the first step, all IV's except Sex X Parent Group X Peer Group were entered as a block, followed by this 3-way interaction. If this 3-way interaction added significantly ($p < .05$) to the Multiple R, subsequently separate regressions for males and females were performed. Following tests of the signficance of the 3-way interaction, tests of the significance (.05 level) of the Parent Group X Peer Group interaction were of interest. All IV's except this term were entered first in a block, followed by the Parent Group X Peer Group interaction term.

Both the Anxiety and Sense of Competence regression analyses contrasting the D-SM and CS parent attachment groups revealed

significant Sex X Parent Group X Peer Group interaction ($F(1,196)=3.87$, $p < .05$; and $F(1,196)=6.28$; $p < .01$). None of the other analyses revealed significant 3-way interaction effects.

The results of the tests for interaction effects of parent group with peer group in the hierarchical regression analyses are summarized in Table 15. As only effects involving Peer Group were of interest in these analyses, other effects are not reported here; these effects, such as for Parent Group, are duplicated in other analyses reported above. As can be seen in the Table 15, almost all regressions indicated that Ss with secure peer atachment functioned better than Ss with insecure peer attachment, regardless of parent attachment group membership. Secure peer attachment did not, however, appear to contribute to well-being for the following parent attachment groups for the variables indicated: the D-SF and CI groups (Stability of Self-Esteem); females in the CS group (Sense of Competence); males in the D-SM group (Anxiety).

In summary, secure peer attachment generally appeared to contribute to well-being regardless of quality of parent attachment. Two groups (D-SF and CI), both reporting insecure mother attachment, did not experience more stable self-esteem if their peer attachment was secure as opposed to insecure. Contrasts of the D-SM and CS groups for two variables, Anxiety and Sense of Competence, revealed sex differences in the contribution of quality of peer attachment to functioning. Males in the D-SM group experienced as much anxiety whether or not they were secure in their peer attachment; females

Table 15

Results of Analyses of Effects of Peer Attachment Group Classification on Functioning

Variable	Parent Attachment Groups Contrasted	ME for Peer Attachment Group	IE for Peer Group X Parent Group
Anxiety		-	
males	D-SM vs. CS		$F(1,84)=4.36^{1}$
			-
females	D-SM vs. CS	$F(1,112)=10.95^{3}$	-
			-
	D-SF vs. CS	$F(1,197)=10.58^{3}$	
	D-SF vs. CI	$F(1,190)=5.17^{1}$	
	D-SM vs. CI	$F(1,190)=9.36^{2}$	
			-
Sense of Competence			
males	D-SM vs. CS	$F(1,84)=7.01^{2}$	
females	D-SM vs. CS	-	$F(1,112)=4.25^{1}$
	D-SM vs. CI	$F(1,190)=14.9^{3}$	
	D-SF vs. CS	$F(1,197)=10.58^{3}$	
	D-SF vs. CI	$F(1.190)=5.85^{1}$	
Loneliness	D-SF vs. CI	-	$F(1,190)=5.25^{1}$
	D-SM vs. CI	$F(1.190)=54.99^{3}$	-
	D-SF vs. CS	$F(1,197)=29.35^{3}$	-
	D-SM vs. CS	$F(1,197)=37.36^{3}$	-
Stability of Self-Esteeem	D-SF vs. CS	-	$F(1,197)=5.77^{1}$
	D-SM vs. CS	$F(1,197)=5.86^{2}$	-
Ease with Being Known			
	D-SM vs. CS	$F(1,197)=9.85^{2}$	-
	D-SF vs. CS	$F(1,197)=4.49^{1}$	-
	D-SM vs. CI	$F(1,190)=17.86^{3}$	-
	D-SF vs. CI	$F(1,190)=21.72^{3}$	

$^{1}p < .05$
$^{2}p < .01$
$^{3}p < .001$

in the CS group reported as great a sense of competence whether or not they were classified as secure in their peer attachment.

Comparison of Subjects with Markedly Discrepant Peer and Parent Attachment. Subjects with secure attachment to both parents but insecure peer attachment (CS-I), or vice versa (CI-S), were of special interest.Following attachment theory, individuals would be expected theoretically to form peer attachment relationships of a similar quality to their parent attachment relationships. One set of possible explanations for the development of insecure peer attachment in those subjects with CS parent attachment would be that these individuals, compared with subjects with secure attachment to both parents as well as to peers, experienced poorer sibling relationships, fewer sibling relationships, shorter lengths of closest friendships, or poorer relationships between parents. No such differences were found, however. The possibility was also investigated that a similar set of circumstances could explain the development of secure peer attachment in those subjects reporting insecure attachment to both parents. Apparently, however, these subjects did not have the benefit of better or more sibling relationships, better parental relationships or longer friendships, when compared with subjects in the CI group who had insecure peer relatonships.

When the CS-I group of subjects were contrasted with members of the CI-S group, the former group reported less anxiety ($t(102.86)=2.02$, $p < .05$) and greater sense of competence

($t(104)=2.09$, $p < .05$). These two groups did not differ, however, on loneliness, self-esteem stability, or ease with being known.

The Nature of the Challenge, Threat and Loss Situations Reported

Figure 1 lists the types of situations reported by subjects and about which they completed the coping measures. Twenty-nine percent of the Challenge situations were social in nature, while 64% involved self-management. Examples of the former type are: going through rush at a fraternity or sorority and meeting new friends at college. Examples of self-management situations are: doing better academically, and improving a sports skill. Particular emphasis was made on the selection of interpersonal situations by subjects for their choices of Threat and Loss situations, since the study's hypotheses relate particularly to interpersonal stress. As a result, 76% of Threat and 90% of Loss situations listed by subjects were social in nature. Most Threat situations involved arguments/disagreements with boy/girlfriends. Most Loss situations involved ends of friendships, particularly with boy/girlfriends.

The types of situations selected by subjects were distributed significantly differently for males vs. females for the Threat and Loss situations (Table 16). Females were more likely to report a family-related Threat situation (e.g., arguments with parents/siblings), while males were more likely to report non-interpersonal Threat events (e.g., being in a car accident). For Loss situations, females were more likely to report

Figure 1

Nature of Situations Reported by Subjects

Challenge
- 22%: Self-improvement (skills, habits, goals)
- 19%: Social/relationship
- 16%: Academic
- 13%: Job-related
- 10%: Move away from friends/family
- 8%: Other or uncodable

Threat
- 33%: Alienation from a friend or friends
- 18%: Anxiety provoking situation (not relationship-related)
- 16%: Threat to/loss of stability/continuity of friendship (not separation or alienation)
- 10%: Threat to/loss of stability/continuity of family relationship (not separation or alienation)
- 9%: Alienation from family
- 8%: Separation from friends
- 6%: Other or uncodable

% friendship events: 57%
% family events: 19%

Loss
- 30%: Loss of (end of) friendship
- 22%: Loss of stability/continuity in friendship
- 13%: Death of family member
- 11%: Loss of stability/continuity in family relationship
- 10%: Self-loss: loss of self-esteem/disappointment
- 6%: Death of friend
- 7%: Other or uncodable

% friendship events: 58%
% family events: 24%

Challenge Events:	29% Social;	64% Self-management
Threat Events:	76% Social;	18% Other anxiety provoking situations
Loss Events:	90% Social;	9% Self-loss

Table 16
Distribution of Types of
Coping Events Reported by Sex

Challenge

	Social	Self-Management	All
Males	26.1(%)	73.19	100.0 (n=161)
Females	34.3	65.7	100.0 (n=207)

X^2_1=2.50, p=.11

Threat

	Family	Friendship	Other Anxiety Producing Situation	All
Males	14.5(%)	61.4	24.1	100.00 (n=166)
Females	26.1	58.3	15.6	100.00 (n=218)

X^2_2=9.80 p=.007

Loss

	Family	Friendship	Self-Esteem	All
Males	26.4(%)	55.8	17.8	100.00 (n=163)
Females	26.7	68.0	5.8	100.00 (n=206)

X^2_2=15.16 p=.0005

friendship-related events, while again, males were more likely to report non-interpersonal losses (e.g., failed to get a major part in a play).

In order to examine how the type of event within the categories of Challenge, Threat and Loss was related to coping scores on the 6 scales, three MANOVA's were performed. Type of event was the IV, and 5 of the 6 coping scales were the DV's. One coping scale (Avoiding, AV) was omitted because the ipsative nature of the scores precluded inverting the covariance matrix; the least reliable scale, AV, was thus analyzed univariately. Coping with Challenge was related to whether events were social or self-management-related ($F(5, 362) = 3.36$, $p < .01$). More Blaming Self (BS) was reported for self-management situations ($F(1, 366) = 4.01$, $p < .05$), while more Externalizing (EX) was related to social situations ($F = 9.14$, $p < .003$). Coping with Threat varied with whether events were related to family, friendship, or other anxiety-provoking situations ($F(10, 752) = 5.20$, $p < .001$). For Threat, Seeking Social Support (SS) was done more in family related situations than in peer related situations ($F(2, 366) = 3.05$, $p < .05$) and more BS and Problem-Focusing (PF) was done in other anxiety-producing situations than in family-related situations ($F = 8.69$, $p < .001$; $F = 4.02$, $P < .02$ respectively). More EX was reported for family-related situations than for other anxiety producing situations ($F = 2.23$, $p < .001$). Coping with Loss was related to whether events were family, friendship or self-esteem losses ($F(10, 722) = 6.73$, $p <$

.001). Loss situations related to loss of self-esteem, compared with family-related loss events, involved more BS than family events ($F(2, 366) = 20.98$) and less SS ($F = 9.75$, $p < .001$) and AV ($F = 11.85$, $P < .001$).

Appraisal of Situations of Challenge, Threat, and Loss

Appraisal was assessed with 3 yes-no items: Was this a situation which (1) you could change or do something about ("Change"); (2) you had to accept or get used to ("Accept") and in which (3) you had to hold back from doing what you wanted to do ("Holdback")?

Situation Type and Appraisal. As Table 17 shows, Challenge situations were perceived as most changeable, and Loss situations as least changeable. Loss situations were perceived as requiring greatest acceptance. Subjects felt they had to hold themselves back least for Challenge situations. These data also indicate that the perception of being able to change a situation is not always tied to the perception that one does not have to accept the situation or hold oneself back from doing what one wants to do. For example, while 80% of subjects perceived that they could change or do somethng about a Challenge situation, only 37% reported that they had not had to accept the situation.

Attachment and Appraisal. The relationships between attachment and appraisal of Challenge, Threat and Loss situations were first investigated by performing a series of MANOVA's using Sex and each

Table 17
Appraisal of Challenge, Threat and Loss Situations

Situation Type	Could Change		Must Accept		Hold Self Back	
	No[1]	Yes	No	Yes	No	Yes
Challenge	20.2	79.8	37.2	62.8	64.9	35.1
Threat	41.0	59.0	35.0	65.0	45.3	54.7
Loss	68.7	31.3	10.6	89.4	54.0	46.0

[1]Percentage of subjects responding no to appraisal item.

of the nine binary appraisal items as the IV's and M, F and P attachment scores as the DV's. Of the nine MANOVA's conducted (three appraisal items X three situations types), only 2 were significant at the .05 level. Holding oneself back for Threat situations (T-holdback) was found to be a significant main effect ($F(3, 380) = 3.01$, $p < .05$). Univariate analyses revealed that F and P attachment were negatively related to the perception of having to hold oneself back ($F(1,382) = 3.93$, $p < .05$; $F(1,382 = 6.73$, $p < .01$ respectively). A significant Sex X Appraisal effect was found for the appraisal item assessing perception of changeability of the Challenge (C-change) situation ($F(3, 385) = 2.78$, $p < .05$). Subsequent MANOVA's performed for males and females separately revealed that C-change was related to attachment only for males ($F(3, 164) = 4.10$, $p < .01$): Peer Attachment was positively associated with perception of greater changeability of challenge events ($F(1,162) = 7.57$, $p < .01$). These analyses suggested a weak relationship between attachment and appraisal as assessed with these binary items.

In view of the heterogeneous nature of the situations listed by subjects, the relationship between parent attachment and appraisal was further assessed by examining subjects who listed family-related Threat or Loss situations. In these analyses, the perception of changeability of the Threat situation (T-change) was related to parent attachment (multivariate $F(2,75)=3.16$, $p \leq .05$). Follow-up tests indicated that T-change was positively related to M attachment

($F(1,76) = 5.70$, $p < .05$). The 2 other appraisal items for Threat situations were marginally multivariately related to M and F attachment ($p < .10$). Attachment scores were positively associated with having to accept the situation (T-accept)) and negatively with having to hold oneself back. Additional analyses indicated that for situations involving loss of self-esteem, attachment was related to L-accept (multivariate $F(3, 36) = 3.01$, $p < .05$). Univariate analyses indicated that this finding was due to the positive relationship between F attachment but not M or P attachment and acceptance of the Loss situation ($F(1, 38) = 8.88$, $p < .01$). It should be remembered that most (71%) subjects reporting Loss situations involving self-esteem were males. Analyses of the relationship between P attachment and appraisal of situations involving friendships did not reveal any significant relationships.

In summary, these results suggest a partial confirmation of Hypothesis 4a, that security of attachment is related to appraisal of situations (particularly interpersonal ones) as more controllable. A number of statistical relationships were observed between appraisal of situations of threat to interpersonal relationships and quality of attachment. Subjects with more secure father or peer attachment were more likely to perceive that they did not have to hold themselves back in dealing with these situations (which, by and large, involved peer relationships).

When considering only subjects who reported family-related Threat situations, a more substantial relationship between

attachment and appraisal was found. More secure mother and father attachment was associated with the perception of not having to hold oneself back in situations in which a family relatinship was threatened. In addition, subjects who perceived that they could change (or do something about) a Threat situation involving family were more secure in their attachment to their mothers.

The appraisal items related to the perceptions of having to accept (or get used to) Threat as well as Loss situations involving family members were also found to be associated with attachment to parents. In these findings, however, the perception of having to accept the situation was related to more secure parent attachment: having to accept the situation was positively correlated with mother and father attachment for Threat situations, and with father attachment in Loss situations. This finding may indicate that the perception of having to accept or get used to a Threat or Loss situation does not so much indicate perception of controllability of the situation, as suggested earlier, but rather, reflects a perception of the need to accommodate, but not necessarily to submit passively to the situation.

For the most part, appraisal of Challenge or Loss situations was not observed to be related to attachment. This finding may reflect the less ambiguous nature of these kinds of situations, as compared with situations of Threat. According to Lazarus' model of coping, the greater the ambiguity of the situation, the more the individual's history of experiences, dispositions and expectational

sets will determine the meaning ascribed (appraisal) and eventual coping efforts.

Adjustment and Appraisal. The relationships between appraisal and anxiety, depression and sense of competence were examined using multivariate F-tests and followup univariate F tests where indicated. These results are discussed in Appendix B.

Coping and Appraisal. The relationship between appraisal and coping was also examined using a series of multivariate F tests with each appraisal item as the IV and all coping scales except AV as the DV's. AV was analyzed univariately. For the appraisal of Challenge items, C-accept was significantly related to coping scale scores ($F(5, 378) = 3.37) = 3.37$, $p < .01$), as was C-holdback ($F(5, 376) = 5.28$, $p < .001$). All three appraisal items were related to coping with Threat: T-change ($F(5, 382) = 10.36$, $p < .001$); T-accept ($F(5, 380) = 2.36$, $p < .05$); T-holdback ($F(5,380) = 3.60$, $p < .01$). Coping with Loss was related to L-accept ($F(5, 389) = 3.90$, $p < .001$) and to L-holdback ($F(5, 380) = 3.59$, $p < .01$).

As shown in Table 18, follow-up univariate analyses indicated that the perception of having to hold oneself back is consistently related to lesser problem-solving coping (PF and SS), and more externalizing (EX). Blaming Self occurs more in situations perceived as changeable, not having to be accepted, and in which the subjects did not have to hold themselves back. Subjects may thus take more personal responsibility in self-management situations (the majority of Challenge situations). Wishful thinking appears to be

Table 18
Results of Follow-up Univariate Analyses
of the Relationship between Appraisal and Coping[1]

	Coping Scale					
Appraisal	PF	SS	WT	BS	AV	EX
Challenge						
Must Accept	4.33[3] (N>Y)[2]				9.84 (Y>N)	
Hold Self Back	13.62 (N>Y)	7.95 (N>Y)	19.4 (Y>N)			5.74 (Y>N)
Threat						
Could Change	3.90[3] (Y>N)		16.54 (N>Y)	17.38 (Y>N)	15.29 (N>Y)	
Must Accept			5.21[3] (Y>N)			
Hold Self Back	9.67 (N>Y)	12.48 (N>Y)				6.97 (Y>N)
Loss						
Could Change					6.44[3] (N>Y)	
Must Accept				23.07 (N>Y)		
Hold Self Back	8.48 (N>Y)	6.42[3] (N>Y)		7.63 (Y>N)		8.88 (Y>N)

[1]All F values are significant at $p < .01$ unless indicated.
[2]N>Y: Coping scores were higher for the appraisal response "No" than "Yes"
[3]$p < .05$
Note: Degress of freedom are: Challenge: 1,382; Threat: 1,386; Loss, 1,381.

positively related to perceptions of lack of control in situations of Challenge and Threat. More AV coping was used in Threat and Loss situations appraised as unchangeable, and in Challenge situatons that had to be accepted or adjusted to.

The relationship between subjects' ratings of their coping efficacy in the particular situations and their appraisals were also examined. Lower levels of self-rated coping efficacy were related to having to hold oneself back in situations of Challenge ($t(227.19) = 4.50$, $p < .001$), Threat ($t(377) = 3.40$, $p < .001$), and Loss ($t(377) = 4.94$, $p < .001$). These findings, together with those summarized in Table 18 (and Table B.2) suggest that of the three appraisal items, the perception of having to hold oneself back in situations is most strongly related to coping strategies used, and may also be the result of prior levels of maladjustment reflecting a lowered sense of personal efficacy.

The Relationship Between Psychological Functioning and Coping Responses

As outlined above, relationships between self-reported coping responses and distress have been reported for adults. In order to assess these relationships in late adolescents, correlations between coping responses and anxiety, depression and sense of competence were examined. As these results were not central to the study, they are discussed in Appendix B. Two sets of findings should be noted here. Subjects' ratings of their own coping efficacy (rated prior

to reporting coping responses) were most highly (and moderately) related to problem-focusing coping. The correlations between functioning and "problem-solving" coping (a summary score of PF and SS scores) were consistenty moderate across situation types. These summary scores were utilized in regression analyses to be discussed below.

Coping with Challenge vs. Threat vs. Loss: Attachment Groups Compared

Coping Responses to Different Situation Types: Two Parent Attachment Groups Compared. Repeated-measures ANOVA's using situation type (C, T, and L) as the repeated factor were performed with Sex and Parent-Attachment Group (CS, CI) as between subject factors. The results of these analyses are summarized in Tables 19a and 19b. Males and females were analyzed separately for the SS and BS scales due to the significant Sex X Situation-Type interaction. Significant main effects for Parent Attachment Group and Situation type were found for all coping scales, with the exception of the BS scale for males only. Main effects for Situation Type were also found for all coping scales.

Mean coping scores for the C, T and L situations for each Parent Attachment group are listed in Table 20 and displayed graphically in Figure 2. The CS parent attachment group scored higher than the CI group on the PF and SS scales, and lower than the CI group on the BS, AV, WT and EX scales. In general, subjects used

Table 19a

Repeated Measures Analyses of Coping Scores with Situation Type as Repeated Factor[1]

	Effect			
Coping Scale	Sex	Parent Attachment Group	Situation	Sex X Situation
PV		48.1	40.9	
SS	9.3	37.9	12.5	4.6
BS	6.7	14.2	29.3	4.9
AV		7.8	87.0	
WT		13.9	69.0	
EX		25.0	7.2	

Note: Degrees of Freedom are: Sex and Group: 1,279; Situation and Sex X Situation: (2,558)

[1]All F values are significant at $p < .01$.

Table 19b
Separate Repeated Measures Analyses for Males and Females[1]

	Effect	
Coping Scale	Parent Attachment Group	Situation
SS		
Males	10.0	6.3
Females	33.5	11.6
BS		
Males		23.6
Females	13.6	9.5

Note: Degrees of freedom are: Group: 1,118 (males), 1,161 (females); Situation: 2,236 (males), 2,322 (females).

[1]All F values are significant at $p < .01$.

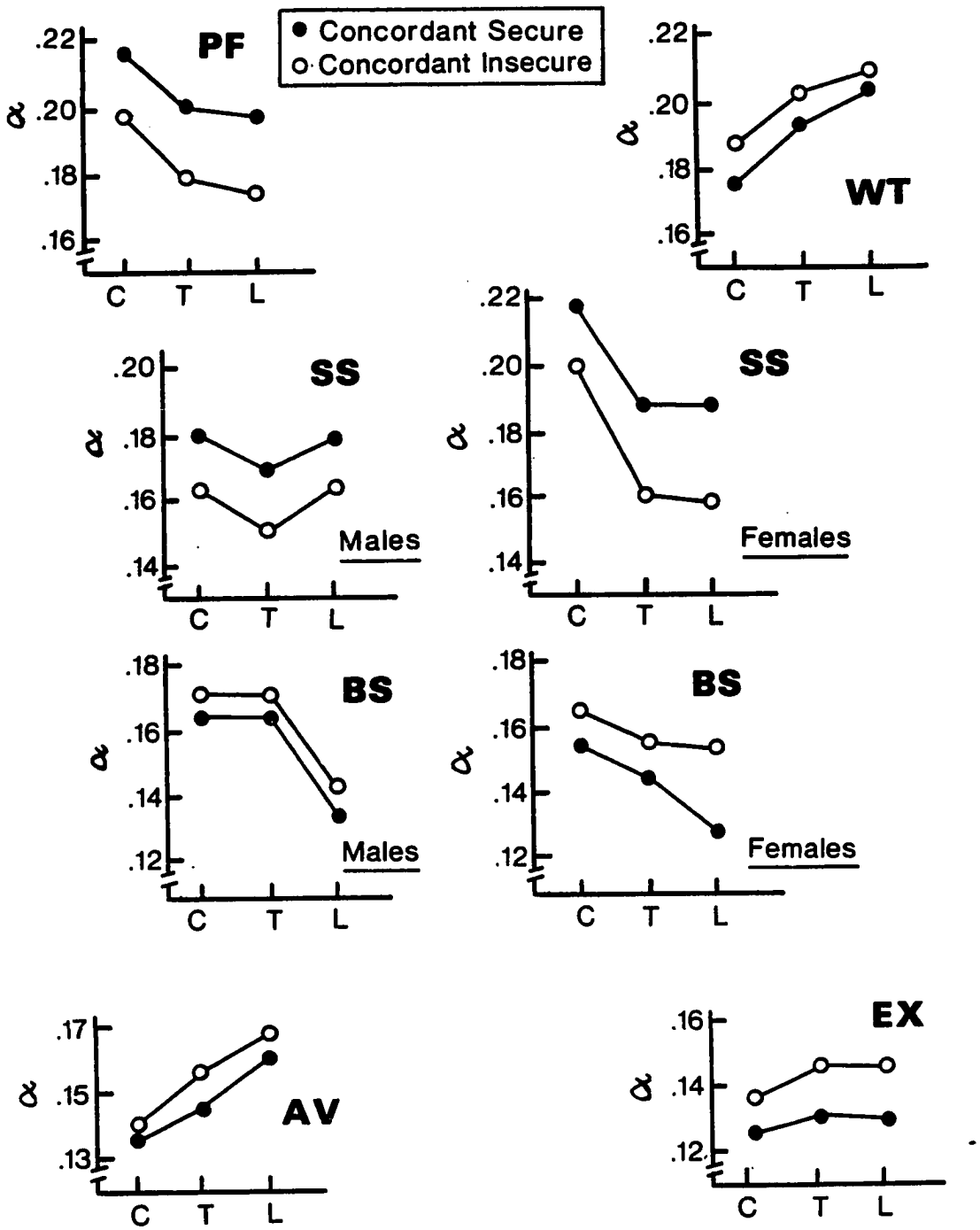

Figure 2: Coping with Challenge (C) vs. Threat (T) vs. Loss (L): Two Parent Attachment Groups Compared.

Table 20
Mean Coping Scores for Three Situation Types by Parent Attachment Group[1]

Scale		Group	C	T	L	ω^2 (Group)	ω^2 (Situation)
PF		CS	217	200	199	8.1[2]	5.4[2]
		CI	198	179	174		
SS	M[3]	CS	180	170	179	4.4	1.5
		CI	164	150	163		
	F[3]	CS	221	188	187	10.0	2.3
		CI	200	161	159		
WT		CS	174	192	203	2.3	9.1
		CI	187	203	209		
BS	M	CS	163	164	133	0.7	10.0
		CI	172	171	144		
	F	CS	155	143	128	3.0	2.8
		CI	164	155	153		
AV		CS	135	145	160	1.3	11.2
		CI	141	156	167		
EX		CS	124	130	129	4.6	1.0
		CI	135	144	143		

[1]Decimals omitted
[2]Percent total variance
[3]Sex of addolescent

Note: C = Challenge Situation
T = Threat Situation
L = Loss Situation
CS = Concordant Secure
CI = Concordant Insecure

more emotion-focused (WT, AV and EX) coping in Loss situations than in Threat and more in Threat situations than in Challenge; problem focused coping showed the opposite trend. These patterns undoubtedly reflect the greater emotional arousal induced by Threat and Loss situations. Highest coping scores for the T and L situations were obtained by the CI group on the WT scale. This group may be using Wishful Thinking as a primay means of regulating anxiety produced by interpersonal stress. Lowest scores for the T and L situations were obtained by the CS group on EX and BS coping (L situation), suggesting that this group does not spend much coping effort in the direction of regulating (externalizing or internalizing) anger that can be induced by interpersonal stress.

Some differences in the profiles of males and females are noteworthy. Females used SS coping in Challenge situations (even the CI group) considerably more than did males. Males, in fact, appeared to use least SS in situations of Threat. The lack of Parent Group effect for males on the BS scale suggests the possibility that this scale may be assessing a different coping mechanism than for females. While parent attachment may theoretically be expected to influence angry self-blaming in response to interpersonal stress, should the BS scale be assessing the taking of responsibility for situations, an attribute particularly encouraged in males, such a link with parent attachment would not be clear. Females in the CI group do as much BS coping in Loss situations as in Threat situations. This finding may reflect

the presence of more characterologic self-blaming in this group, as self-blaming in Loss situations would appear to be the least approriate situation in which to utilize this coping strategy.

Table 20 also presents the effect sizes (omega squared; Susskind and Howland, 1980) for Parent Attachment Group and Situation Type. Effect sizes for Situation Type range from 1.0 - 11.2%, a similar range to that found by McCrae (1984). The range of effect sizes for Parent Attachment Group was similar: 1.3 - 8.1%. Parent attachment accounted for more variance than type of situation in the problem-solving scores (PF and SS), scores on EX, and for females, on BS.

These results confirm Hypothesis 4b that secure, compared to insecure, attachment to parents is associated with the use of more problem-solving coping in situations of interpersonal Threat or Loss. Hypothesis 4c, that adolescents with secure parental attachment do not differ from adolescents with Insecure attachment in their coping responses to personal challenge was not supported. This finding suggests that the influences of the internal "working models" of attachment figures on the self-system extends to influencing the individual's testing of his/her own resources for a goal that does not necessarily include another individual.

Coping Profiles of the CS and CI Parent Attachment Groups.

Profile analyses using MANOVA were conducted separately for males and females, contrasting members of the CS with members of the CI group. For both sexes, coping profiles of the 2 parent attachment

groups were significantly different in shape (non-parallel). The multivariate F-tests were significant in all cases: in the Challenge situations analyses, for males $F(5,114)=3.72$, $p<.001$, and for females $F(5,157)=5.34$, $p<.001$. In the Threat situations analyses, for males $F=5.15$, $p<.001$, and for females $F=5.98$, $p<.001$. In the Loss situations analyses, for males $F=3.52$, $p<.01$, and for females $F=8.54$, $p<.001$. For males, Parent Attachment Group accounted for .14, .18, and 13% of the variance in coping scores for the Challenge, Threat and Loss situations, respectively; for females, these statistics were 15, 16 and 21%.

Differences in Coping Among the Four Parent Attachment Groups. In order to more fully understand the relationship between Parent Attachment Group membership and coping, 3 MANOVA's were performed with a 4 level Parent Attachment Group (CS, D-SF, D-SM, CI) factor as well as a Sex factor, and using C, T, and L coping scores from five scales as dependent variables (the AV scale was tested univariately). No Sex X Parent Group interactions were significant at the .05 level. Main effects for coping with Challenge, Threat and Loss were, as expected from the profile analyses, all significant (Challenge coping: $F(15, 1161) = 3.34$, $p < .001$; Threat coping: $F(15, 1163) = 3.89$, $p < .001$; Loss coping: $F(15, 1163) = 4.65$, $p < .001$). According to followup univariate F-tests, the four parent attachment groups did not differ from each other on the following coping scales: AV for Challenge and Loss, WT for Loss, and BS for Challenge. The results of significant univariate F-tests are

summarized in Table 21.

Significant univariate follow-up tests were followed with Tukey's multiple range tests using the .05 level, to test for differences among pairs of parent attachment groups. Table 21 presents the results of the Tukey's tests. While the CS group was significantly different from the CI group on all 13 scales listed in the Table, on 6 scales the two Discordant groups fell between the two Concordant groups and did not differ from either. These scales all pertained to emotion-focused coping: EX for Challenge and Loss, WT for Challenge, AV for Threat, and BS for Loss.

The contrast that did occur between the Discordant groups and the Concordant groups appeared primarily in the results for problem-solving coping. On the PF scales, both the D-SM and D-SF groups' means were significantly higher than the CI group for Loss situations. The D-SF group mean was also significantly higher than the CI group for the Challenge situations. The D-SM group mean, however, was significantly lower than the CS group for Threat situations; in fact, neither Discordant group was significantly higher than the CI group on PF coping in Threat situations. The D-SM group also reported significantly less SS coping than did the CS group in Challenge and Loss situations; this was true for the D-DF group in Threat and Loss situations. An exception to this pattern is the finding that the D-SM group used as much SS coping in Threat situations as the CS group, and slightly more than the D-SF group (one of only two instances where the D-SF group mean was

Table 21
Results of Follow-up Analyses of Coping
Scores Obtained by Four Parent Attachment Groups[1]

	Tukey's Multiple Range Test Results[3]	
Univariate F-test Results[2]	Significantly Different Groups	Homogeneous Subsets of Groups (indicated with bar)
Challenge Situation		
PF F=10.09, p<.001	CI < D-SF, CS	CI D-SM D-SF CS
SS F=6.82, p<.001	CI, D-SM < CS	CI D-SM D-SF CS
WT F=5.41, p<.05	CI > CS	CI D-SM D-SF CS
EX F=4.50, p<.001	CI > CS	CI D-SM D-SF CS
Threat Situation		
PF F=8.87, p<.001	CI, D-SM < CS	CI D-SM D-SF CS
SS F=11.53, p<.001	CI, D-SF < CS; CI<D-SM	CI D-SF D-SM CS
WT t(281)=3.20,p<.001	CI > CS[4]	
EX F=6.15, p<.001	CI, D-SF > CS	CI D-SF D-SM CS
AV F(3,347)=3.81,p<.05	CI > CS	CI D-SM D-SF CS
Loss Situation		
PF F=11.11, p<.001	CI < D-SM, D-SF, CS	
SS F=11.38, p<.001	CI, D-SM, D-SF < CS	CI D-SM D-SF CS
BS F=4.60, p<.01	CI > CS	CI D-SM D-SF CS
EX F=5.26, p<.001	CI > CS	CI D-SM D-SF CS
		CI D-SM D-SF CS

[1]Concordant Secure Group (CS)
Concordant Insecure Group (CI)
Discordant-Secure Mother Group (D-SM)
Discordant-Secure Father Group (D-SF)
[2]df = 3,343 unless otherwise indicated.
[3]The .05 level was used in the Tukey's Tests.
4Results of multiple t-tests performed due to heterogeniety of variance.

closer to the CI group mean than the D-SM group). Another exception to the pattern of results found for the Discordant groups was that the D-SF group reported significantly greater use of EX coping than the CS group in Threat situations.

In summary, the results of the paired comparisons tests of the four parent attachment groups on coping with Challenge, Threat and Loss supported Hypothesis 4b that secure attachment to both parents, compared with insecure attachment to both parents, is associated with more problem-solving coping and less emotion-focused coping in situations of Threat and Loss. That the same finding was observed for situations of challenge disconfirms Hypothesis 4c that these two groups would not differ in their problem-solving coping to challenge. The results also indicated that (1) secure attachment to just one parent, compared with secure attachment to both parents, is generally associated with less use of seeking social support, particularly in interpersonal loss situations, and (2) secure attachment to just one parent, compared with insecure attachment to both parents, was associated with greater use of problem-focusing in loss situations.

Finally, there is some indication that for the D-SM group, situations of interpersonal threat may present special problems, possibly due to their more ambiguous nature. In these situations, the D-SM (but not the D-SF) group used less problem-focusing than the CS group, but as much seeking social support as the CS group (the D-SF group used significantly less than the CS group). These

results indicate that the D-SM group coped less well than the D-SF group in Threat situations, a difference which may be related to the greater symptomology present in the D-SM group. The D-SM group may have been using their social supports in a more clinging, dependent manner in Threat situations, due, for example, to higher anxiety levels already present. Thus, although the D-SM group reported as much seeking social support as the CS group in situatins of interpersonal threat, members of this group may have been using their social resources differenty.

Coping Responses to Different Situation Types: Two Peer Attachment Groups Compared. A series of repeated-measures ANOVA's were performed using the S and I Peer Attachment Group membership as a between subjects factor rather than Parent Attachment group membership; again Sex was also entered as a between-subjects factor and Situation-Type served as the repeated factor. Results are summarized in Tables 22. As indicated in the Table, main effects for Situation-Type were found for all coping scales. Significant main effects for Peer Group were found for all coping scales except BS and EX.

The means of the coping scales for the two peer attachment groups across situations are listed in Table 23, and displayed graphicaly in Figure 3. The coping patterns of these two Peer Attachment Groups across situations are quite similar to those for the 2 Parent Attachment Groups (Figure 2), as would be expected because 67% of the CS Parent Group were also in the S Peer Group and

Table 22
Repeated Measures Analyses of Coping Scores With Situation Type as Repeated Factor[1]

	Effect		
Coping Scale	Sex	Peer Attachment Group	Situation
PF		18.1	66.4
SS	19.3	26.9	16.1
BS			33.5
AV	6.9	25.7	123.3
WT		6.3	92.5
EX			15.6

[1]All F values are significant at $p < .01$.

Note: Degrees of freedom are: Sex and Group: 1,397; Situation: 2,794.

Table 23
Mean Coping Scores for Three Situation Types
By Peer Attachment Group[1]

Scale	Group	C	T	L	ω^2 (Group)	ω^2 Situation
PF	S	213	196	192	2.2[2]	6.4[2]
	I	203	181	183		
SS	S	185	177	177	3.6	1.4
	I	173	160	160		
WT	S	178	194	194	0.2	4.0
	I	185	201	201		
BS	S	163	153	140	3.0	11.0
	I	165	159	145		
AV	S	136	145	157	1.0	8.7
	I	143	158	169		
EX	S	126	135	135	1.0	1.5
	I	131	140	138		

[1]Decimals omitted.
[2]Percent total variance.

Note: C = Challenge Situation
T = Threat Situation
L = Loss Situation
S = Secure
I = Insecure

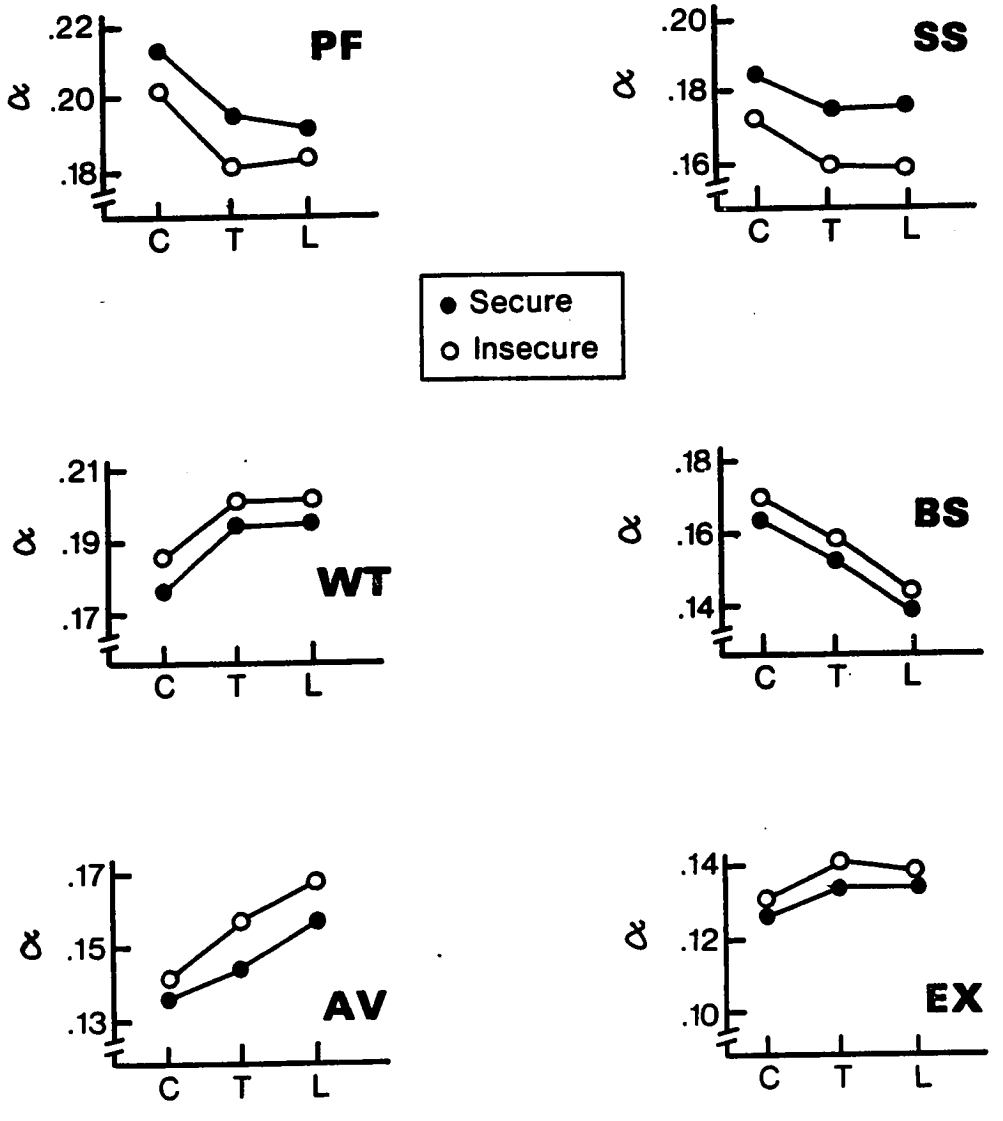

Figure 3: Coping with Challenge (C) vs. Threat (T) vs. Loss (L): Two Peer Attachment Groups Compared.

58% of the CI Parent Group were categorized as I. As shown in Table 23, however, effect sizes for Peer Group were generally lower than effect sizes for Parent Group. On the average, Peer Group effects account for 1.8% of the variance in coping scores, compared with 4.2% for the Parent Group effects. The effect size for Situation Type range from 1.4 to 11%. Since the sample on which these two analyses were based were overlapping but not identical, conclusions can not be drawn concerning the differences in effect sizes of Parent vs. Peer Attachment Groups.

Coping Profiles of the Secure and Insecure Peer Attachment Groups. Using MANOVA, coping profiles of members of the S and I Peer Attachment Groups were contrasted separately for males and females. The S and I group profiles were non-parallel (significantly different in shape) for females for all situation types, and for males only for the Threat situations. For females, the multivariate F statistics were: for Challenge situations, $F(5,226)=3.70$, $p < .01$ (8% of variance), for Threat situations, $F=4.77$, $p < .001$ (10% of variance), and for Loss situations, $F=7.52$, $p < .001$ (14% of variance). For males these statistics were, for the Challenge, Threat and Loss situations: $F(5,163)=1.81$, $p < .20$ (4% of variance), $F=3.77$, $p < .01$ (10% of variance), and $F=2.02$, $p < .10$ (6% of variance). Peer attachment group differences account for about half of the variance in coping responses than do CS and CI Parent Attachment group differences (6.7% vs. 15.0% respectively, for males; 10.7% vs. 17.3% for females). As noted above, however, this

difference in variance accounted for may be explainable in terms of the differences in samples in the two sets of analyses.

Differences in Coping Between the Secure and Insecure Peer Attachment Groups. Three MANOVA's were carried out using C,T and L coping scores for 5 scales as dependent variables.; the AV scale was tested univariately. Peer Attachment Group (S vs. I) and Sex served as factors. No Sex X Peer Group interactions were significant at the .05 level. As would be expected from the results of the profile analyses reported above, the S and I peer attachment groups differed significantly in their coping reponses to Challenge ($F(5,393)=3.81$, $p < .01$), Threat ($F(5,393)=7.59$, $p < .001$) and Loss ($F(5,393)=6.06$, $p < .001$). Results of the univariate F-tests are shown in Table 24. The S Peer Group reported significantly greater use of PF and SS coping and less use of AV coping across situations. For C and L situations, the two Peer Attachment Groups also differed significantly in their use of WT coping, with the S group reporting less WT coping. The S group also reported less externalizing in C situations than the I peer group. Overall, these results suggest that the peer attachment groups differed in their use of problem-solving coping across all situation types, and were best distinguished in their emotion-focused coping to Challenge situations.

Table 24
Results of Follow-up Analyses of Coping Scores Obtained by the Secure and Insecure Peer Attachment Groups

Situation Type	Coping Scale	F values (df=1,397)[1]
Challenge	PF	9.04
	SS	10.40
	WT	6.97
	EX	5.89 p <.05
	AV	8.65 p <.01
Threat	PF	16.53
	SS	23.25
	WT	4.59, p <.05
	AV	26.68
Loss	PF	6.31, p <.05
	SS	17.28
	AV	17.03

1 p <.001 unless otherwise indicated

The Relationship Between Attachment Scores and Coping Responses

Simple correlations between attachment and coping scores were also obtained. These results are discussed in Appendix B. In summary, M, F and P attachment are moderately positively correlated with PF and SS coping and less strongly and negatively correlated with the emotion-focused coping scales. Highest correlations for scales were between SS and M attachment in Threat and Loss situations (.27), between PF and F attachment in Loss situations (.29) and between SS and P attachment in Threat situations (.35). Some of the stronger correlations between attachment and emotion-focused coping scores involved the EX scale.

Models of Attachment and Coping

The preceding results indicate substantial relationships among attachment, coping, and adjustment and among appraisal, situation-type, and coping. In order to provide parsimonious explanations of differences in coping and differences in adjustment, two series of hierarchical regression analyses were performed. The first series involved predicting problem-solving coping (PF and SS) in each of the three situation-types from attachment, sense of competence, appraisal and nature of the situation. The second series of multiple regressions involved predicting anxiety (found to be most highly related to coping and attachment in this study) from attachment, appraisal, and coping in situations of Challenge, Threat, and Loss.

Selection of the predictor and criterion variables was made on the basis of their theoretical importance and distinctiveness of the construct. Anxiety was selected as a criterion variable due to the centrality of its theoretical relationships to attachment and coping. Problem-solving coping, defined in this study as the proportion of problem-focusing and social-support seeking to all forms of coping efforts, was also selected as a criterion variable because it serves as a summary measure of the capacity for problem-solving coping vs. emotion-focused coping, hypothesized in this study to be related to security of attachment.

The sense of competence measure was selected from the set of self-esteem dimensions to predict coping because its content concerns the sense of oneself as coper; on the other hand, sense of competence was excluded from the set of IV's used as predictors of anxiety due to the coextension of item content, and, possibly, of construct. Only one out of the three appraisal items and a subset of all possible interaction terms were chosen as IV's in order to avoid overfitting the models and maintaining a satisfactory variables-to-subjects ratio. Selected interaction terms were those involving the more theoretically crucial variables (e.g. attachment was crossed with all variables) and whose contribution would add substantial meaning to the model.

For all regressions, the total sample was randomly divided into two approximately equal subsamples (n's = 205 and 196), so that replication of results could be tested.

Predicting Problem-Solving Coping. In order to assess the contributions of attachment, sense of competence, and the nature and appraisal of the situation to coping responses, hierarchical regression analyses were performed. Problem-solving coping to Challenge, Threat and Loss were separately used as the criterion variables in each of three analyses. In each analysis, order of entry of the independent variables was determined by hypothesized causal priority of the variables. Thus, sex was entered first, followed by M, F and P attachment as a block, sense of competence, nature of the situation (2 levels for Challenge, 3 for Threat and Loss), and finally, appraisal. One appraisal item for each situation type was chosen according to the strength of its relationship to coping. For Challenge situations, Holdback was most highly related to coping; for Threat, Change and for Loss, Accept. All two-way interaction terms were entered, while one, the three-way terms involving Sex and crossed Attachment terms were included. Interaction terms were entered last, in step-wise addition, to avoid over-fitting the models. For the Challenge situations analysis, 24 terms were used; for the Threat and Loss situations analyses, 31 terms were used. Effects were dropped from the model if their contributions did not add significantly (.05 level) to the multipe correlation (R).

Table 25 displays the results for prediction of problem-solving coping in situations of Challenge. R for regression was signficantly different from zero ($F(6,188) = 11.86$, $p < .001$).

Table 25
Predicting Problem-Solving Coping to Challenge

	Original Sample (n = 205)			
	F(1,188)	p[1]	R^2	r
Sex	14.34		.06	.24
F Attachment	16.49		.12	.24
P Attachment	5.16	<.05	.14	.26
M Attachment	5.58	<.05	.16	.31
Sense of Competence	20.41		.24	.36
Hold Self Back	9.20		.27	-.24

	Replication Sample (n=196)			
	F(1,182)	p[1]	R^2	r
Sex	1.66		.01	.08
F Attachment	18.38		.09	.27
P Attachment	8.79		.12	.27
M Attachment	4.58	<.05	.14	.29
Sense of Competence	15.46		.21	.40
Hold Self Back	2.32	ns	.22	-.15

[1] $p < .01$ unless indicated.

Twenty-seven percent of the variance in problem-solving coping was accounted for by the IV's. Significant main effects for sex, attachment, competence, and appraisal were found, indicating that females used more problem-solving coping, and that security of attachment, sense of competence, and the perception of not having to hold oneself back were positively related to problem-solving coping in Challenge situations. Attachment variables accounted for 10% of the variance ($F(3,188) = 8.58$, $p < .01$). The nature of the situation (social vs. self-management) did not contribute significantly to R. No interaction terms were significant. These results were replicated with the exception of a nonsignificant main effect for the appraisal variable, Holdback. In the replication sample, slightly less variance was accounted for by the IV's (21%) than in the original sample. Thus, a conservative estimate of the proportion of variance accounted for in problem-solving coping in Challenge situations would be 21 - 24%.

Thirty-three percent of the variance in problem-solving coping to Threat was accounted for by the independent variables ($F(9,187) = 9.41$, $p < .001$) (Table 26). Significant main effects were found for the variables Sex, M, F and P Attachment, and Sense of Competence. The effects for Sex and M attachment were not replicated, however. Thus, having more secure attachment to father and peers and higher sense of competence was associated with greater use of problem-solving coping in Threat situations.

In contrast to the Challenge situations analyses, two

Table 26
Predicting Problem-Solving Coping to Threat

	Original Sample (n=205)			
	F (1,187)	p[1]	R^2	r
Sex	17.10		.06	.25
F Attachment	12.67		.11	.19
P Attachment	22.61		.19	.39
M Attachment	4.04	<.05	.20	.30
Sense of Competence	22.55		.29	.39
Event type	.03	ns	.29	.00
Could Change	.44	ns	.30	.05
Event X Change	7.03		.31	-.05
P Attach. X Compet.	5.27	<.05	.33	.20

	Replication Sample (n=196)			
	F(1,181)	p[1]	R^2	r
Sex	.59	ns	.00	.05
F Attachment	21.35		.09	.30
P Attachment	13.74		.15	.30
M Attachment	2.61	ns	.16	.28
Sense of Competence	17.77		.24	.43
Event type	.70	ns	.24	-.10
Could Change	.99	ns	.24	.03
Event X Change	.85	ns	.24	-.08
P Attach. X Compet.	.06	ns	.24	.28

[1] $p < .01$ unless indicated.

interaction terms in the Threat situations added significantly to the equation. First, the relationship between sense of competence and the use of problem-solving coping in Threat situations (mostly friendship-related) appears to be stronger for Ss with more secure peer attachment. The simple r for this term was quite substantial (.28), but its effect was not replicated. Second, the interaction term crossing appraisal of changeability of the Threat situation with the nature of the situation (friendship-related vs. not) contributed significantly to the model; the term's negligible simple r (-.05) and larger beta weight (-.33) indicate this term served as a supressor variable. The effects of this interaction term as well as M attachment were not replicated, however. Thus a more conservative estimate of R-squared for Threat situations would be .29. Attachment accounted for slightly more variance (14%) than in the Challenge situations analysis.

For the Loss situations analysis, main effects for all three attachment variables and sense of competence were found ($F(8,194) = 9.99$, $p < .001$), with these variables being positively related to problem-solving coping. As Table 27 shows, these main effects were replicated. While more problem-solving coping was significantly associated with family-related (vs. others) and with the perception that the situations had to be accepted or adjusted to, these findings were not replicated. A significant effect for Appraisal X F attachment was replicated, however. The simple r for this term indicates that acceptability of the situation and use of

Table 27

Predicting Problem-Solving Coping to Loss

	Original Sample (n = 205)			
	F (1,194)	p[1]	R^2	r
M Attachment	27.18		.10	.31
P Attachment	8.30		.13	.26
F Attachment	12.32		.17	.34
Sense of Competence	9.55		.21	.36
Event	4.51	<.05	.23	.21
Must Accept	4.31	<.05	.24	.12
F Attach. X Accept	5.34	<.05	.26	.26
M X F Attachment	8.32		.29	.37
	Replication Sample (n=196)			
	F (1,184)	p[1]	R^2	r
M Attachment	30.18		.11	.33
P Attachment	22.87		.19	.38
F Attachment	15.01		.24	.36
Sense of Competence	18.14		.31	.46
Event	.42	ns	.31	.04
Must Accept	1.37	ns	.32	.04
F Attach. X Accept	6.89		.34	.26
M X F Attachment	.00	ns	.34	.43

[1] p <.01 unless indicated.

problem-solving coping was greater among subjects with more secure father attachment. The significant interaction effect of M X P attachment, while substantially related to problem-solving coping in both samples(r's = .37 and .43), contributed significantly to R only in the original sample.

Attachment variables accounted for 17% of the variance (24% in the replication sample) in problem-solving coping to Loss scores. When the results for both samples are considered, between approximately 25-30% of the variance in problem-solving coping to Loss was accounted for by the independent variables.

Comparison of the results reveals that once the effects related to what the individual brings to the situation have been partialled out (attachment and sense of competence), the nature of the situation and appraisal of it contribute little to predicting problem-solving coping. Further, as a rule, neither these situational variables nor gender modify the relationships between attachment or sense of competence and coping. Similar amounts of variance are accounted for across the three situation types; attachment, however, accounts for more variance in the interpersonally-related Threat and Loss situations. Of the three attachment measures, F Attachment stands out as the best predictor of problem-solving coping to Challenge, while for the mostly friendship-related Threat situations, P Attachment was the best predictor. While the majority of Loss situations were also friendship-related, mother attachment, and to a lesser degree,

father attachment were better predictors of problem-solving coping in Loss situations than was peer attachment.

Predicting Anxiety. In order to examine the contributions of attachment and coping to affective functioning, three hierarchical regression analyses were performed using anxiety as the dependent variable. All variables entered were the same for the three analyses, except that in each equation either the five coping scales for Challenge or Threat or Loss were used. As for the receding regression analyses, variables were entered according to their hypothesized causal priority. Thus, Sex was entered first, followed by forced entry of the three Attachment variables, Appraisal, and Coping. One appraisal item was used which was most highly related to anxiety. All coping scales were used, except Avoidance, for reasons outlined above. All 2-way, and 3-way interaction-terms involving sex and attachment were entered in stepwise fashion in the last step. In each analysis there were 47 variables entered. Terms were removed from the model if they failed to contribute significantly to R.

Tables 28-30 show the results of the regression analyses with anxiety as the dependent variable. All R's were significantly different from zero ($F(10,184) = 21.01$ for Challenge; $F(8,180) = 17.48$ for Threat; $F(6,189) = 16.64$ for Loss). Attachment accounts for 31% of the variance in these analyses, with all 3 attachment variables showing significant main effects. The coping variables account for considerably less, as would be expected due to their

Table 28
Predicting Anxiety From Attachment and Coping with Challenge

	Original Sample			
	F(1,184)	p[1]	R^2	r
M Attachment	45.05		.11	-.34
P Attachment	29.51		.19	-.37
F Attachment	4.86	<.05	.31	-.48
Hold Self Back	11.53		.34	.20
BS	19.50		.37	.20
EX	17.86		.41	.33
WT	15.17		.45	.37
PF	16.32		.49	-.54
Holdback. X WT	4.24	<.05	.50	.24
M Attach. X PF	12.45		.53	-.55
	Replication Sample			
	F(1,176)	p[1]	R^2	r
M Attachment	27.87		.08	-.29
P Attachment	36.62		.20	-.41
F Attachment	28.14		.28	-.41
Hold Self Back	3.23	<.06	.29	.14
BS	15.53		.34	.26
EX	2.70	ns	.44	.20
WT	29.47		.43	.20
PF	6.60	<.05	.46	-.49
Holdback. X WT	.69	ns	.46	.17
M Attach. X PF	1.51	ns	.46	-.50

[1] $p < .01$ unless indicated.

Table 29

Predicting Anxiety From Attachment and Coping with Threat

	Original Sample			
	F(1,188)	p[1]	R^2	r
M Attachment	36.31		.11	-.33
P Attachment	25.05		.19	-.36
F Attachment	40.62		.31	-.48
Hold Self Back	.11	ns	.31	.01
EX	11.48		.35	.27
WT	6.25	<.05	.37	.27
PF	11.98		.40	-.43
P Attach. X Holdback.	.8.02		.43	-.06

	Replication Sample			
	F(1,188)	p[1]	R^2	r
M Attachment	26.96		.09	-.29
P Attachment	34.64		.20	-.41
F Attachment	26.89		.28	-.40
Hold Self Back	.00	ns	.28	.12
WT	13.29		.32	.27
EX	20.95		.39	.37
PF	10.60		.43	-.45
P Attach. X Holdback.	.26	ns	.43	.05

[1] p <.01 unless indicated.

Table 30

Predicting Anxiety From Attachment and Coping with Loss

	Original Sample			
	F(1,198)	p[1]	R^2	r
M Attachment	27.50		.09	-.30
P Attachment	24.81		.18	-.37
F Attachment	31.83		.28	-.44
WT	4.55	<.05	.30	.19
PF	3.80	<.05	.31	-.31
M x F Attach.	7.33		.34	-.42

	Replication Sample			
	F(1,189)	p[1]	R^2	r
M Attachment	30.76		.09	-.31
P Attachment	37.06		.21	-.42
F Attachment	28.80		.29	-.41
WT	7.55		.32	.23
PF	33.47		.42	-.49
M x F Attach.	3.66	<.06	.43	-.44

[1] $p < .01$ unless indicated.

later entry into the equation (shared variance with attachment) and to the essentially non-chronic nature of the situations for which coping responses were assessed. Coping with Challenge accounts for the most variance of the 3 situation types (19%; $F(6,184) = 12.48$, $p < .01$); Coping with Threat accounted for 9% of the variance ($F(4,188) = 7.45$, $p < .05$) and Coping with Loss, 3% ($F(2,198) = 4.18$, $p < .05$). This finding may be due to coping's greater shared variance with attachment in situations of interpersonal stress, or to the generally more ongoing (self-management) nature of the Challenge situations and greater immediacy of their occurrence. There were no significant effects for Sex or interaction effects of Sex and Attachment in these analyses.

For all 3 situation types, main effects were found and replicated for PF and WT coping responses. EX coping responses in Threat and Loss, and BS Coping responses in Challenge situations also added significantly to the prediction of anxiety. While EX coping to Challenge contributed significantly to R in the original sample, this effect was not replicated.

The simple r's for these main effects indicate that across situations greater use of problem-focusing and lesser use of wishful-thinking were associated with lower levels of anxiety. Wishful-thinking's robust relationship to anxiety has also been observed in other studies (e.g. Vitaliano et al., 1985). Lower anxiety was also associated with less use of externalizing and Threat and Loss situations, and blaming-self in Challenge

situations. The direction of effects for anxiety and coping responses could not be determined in this study, but they are undoubtedly two-way. Anxiety can be seen as the product of or the reason behind greater use of less adaptive coping methods such as externalizing, and the lesser use of problem-focusing. That blaming self coping responses in only Challenge situations significantly contributed to the equation predicting anxiety may reflect the possibility that individuals take more responsibility for the outcome in self-management situations than in interpersonal situations.

The associations observed between externalizing and anxiety in interpersonal threat and loss situations is congruent with the notion, advanced by attachment theory, that interpersonal stress elicits a constellation of emotional responses, particularly anger and anxiety, which reflect separation distress in the individual.

Seeking social support was not a significant predictor of anxiety in these analyses, most likely due to its greater shared variance with M and P attachment than other coping scales.

Appraisal contributed significantly only to the Challenge model, a replicated effect; the perception of having to holdback was associated with greater anxiety. The only replicated interaction term was M x F attachment in the Loss model. While the modifying effect of attachment to one parent on the relationship between anxiety and attachment to the other parent contributed significantly to the Loss model, apparently this effect shared more variance with

the other independent variables in the Challenge and Threat models, resulting in nonsignificant contributions.

When entered into the regression equation prior to attachment, the coping terms accounted for a similar proportion of variance to the attachment variables: 38% for Challenge situations, 30% for Threat, and 26% for Loss. Thus, while coping appeared to predict anxiety as well as did attachment, even for situations that were relatively non-chronic in nature, quality of attachment to important others appeared to serve as a modifying effect on the relationship between coping and anxiety.

Chapter IV

DISCUSSION

The major hypotheses of this study were drawn from two theories: attachment theory, as formulated principally by Bowlby, and the stress and coping paradigm set forth by Lazarus and Folkman. Discussion of the findings will be organized around their implications for both of these theories and an integration of the two theories will be attempted in terms of quality of attachment as a mediating factor in the relationships between situational appraisal, coping responses and well-being.

Attachment to Parents and Well-Being

As hypothesized, security of late adolescents' attachment to parents and peers was generally significantly related to affective status, loneliness, and a number of dimensions of self-esteem. Greater security of attachment was associated with lower levels of negative affect and loneliness, as well as more positive and stable self-images. These findings confirm Bowlby's postulation that individuals with secure attachment develop more positive images of themselves in relation to the world, and thus are less prone to experiencing negative affective states and self-evaluations.

There are, however, consistent sex differences in terms of the relative importance of attachment to parents and peers for well-being. First, father attachment was most related to well-being

among males, while for females, peer attachment proved to be the best predictor of well-being in late adolescence. For males, attachment to mother was clearly the weakest predictor of well-being (particularly for anxiety), while mother and father attachment were generally about equally related to well-being among females. However, even among females father attachment was superior to mother attachment in its association with stability of self-esteem.

These findings are not fully congruent with several other studies of college men and women. These studies indicated that for both sexes, adjustment was related to parental warmth, support and positive regard to an equal degree for both parents (Jourard & Remy, 1955; MacDonald, 1971; Sheeke & Rothblum, 1979). It should be noted, however, that in the present study the pattern of associations between father attachment and outcome for females was slightly higher than for associations with mother attachment. Thus, the conclusion that mother and father attachment equally predicted outcome for females is a conservative one. In addition, the considerably greater association between father attachment and stability of self-esteem further substantiates the importance of the paternal relationship for college women.

Support for emphasis on the importance of the father's role for college-aged females is found in two studies which reported that these women's retrospective reports of highly nurturant and positively interested fathers in childhood predicted high adjustment in college (Fish & Biller, 1973) and that lack of identification

with father during the college years (in terms of understanding and empathizing with him) was associated with high levels of anxiety (Lazowick, 1955) and personality abnormalities (Sopchak, 1952). These latter studies of identification raise the possibility that the strength of the father's influence in this study (particularly for self-esteem stability) was in part due to these women's career orientations and thus greater identification (and possibly rapport) with their fathers than may be found in non-college female samples. Thus, this finding could be relatively specific to high-achievement women and to a certain portion of their life-span. The situation could change during child-bearing with the assumption of the maternal role.

The clear superiority of father over mother attachment in predicting males' well-being in this study is at odds with the findings of studies (noted above) which compared the influences of mother and father. Other investigators, however, have emphasized the importance of paternal affection and support and identification with father as crucial for young males' well-being and psychosocial maturity (Mussen, Young, Gaddini, & Morante, 1963; Heilbrun, 1962; Biller & Barry, 1971; Block, 1969). The importance of good relationships with both parents for adjustment among males (as well as females) is highlighted by Block's (1971) longitudinal research. It should be emphasized that while mother attachment was less related than father attachment to outcome among males in the present study, mother attachment did significantly predict well-being.

A number of researchers and theorists have emphasized that the entire family system must be taken into account, rather than just one parent or both parents separately, when considering the influences of family on well-being (Minuchin, 1985; Belsky, 1979; Sigel, Dreyer, & McGillicuddy-Delisi, 1984; Sroufe, Jacobuitz, Mangelsdord, De Angelo, & Ward, 1985), While research trends have reflected a tradition of matricentric theories, very recently, attempts are being made to adapt family systems theory to developmental research (cf. Minuchin, 1985). While the present study did not examine family interaction per se, an attempt was made to better understand complex parental influences by exploring the associations between various combinations of subjective quality of mother and father attachment and outcome. The findings that late adolescents with secure attachment to both parents reported the highest levels of well-being and that those with insecure attachment to both parents experienced the lowest levels of well-being, are congruent with Block's (1971); Block, Vander Lippe, & Block, 1973) longitudinal data. When adolescents with discordant parent attachment were examined, those with secure attachment to their fathers, but not to their mothers, functioned as well as those with concordant-secure parent attachment, regardless of the adolescents' gender (an exception to this pattern was that the Discordant-Secure Father attachment group reported more loneliness than the Concordant-Secure group). On all measures of affective status and self-esteem, for both sexes the group of adolescents with secure

attachment to mother, but not to father, did not appear to function better than the group with insecure attachment to both parents. It should be noted that members of the Discordant-Secure Mother attachment group experienced equal levels of reported security with Mother attachment as did the Concordant-Secure group, but as insecure attachment to father as the Concordant-Insecure group; thus, this Discordant-Secure-Mother attachment group experienced on average considerable discrepancy in the qualities of their relationships with their mothers and fathers--significantly greater than for the Discordant-Secure Father attachment group.

The substantial discrepancy in mother and father attachment may serve as a partial explanation for the Discordant-Secure Mother attachment group's relatively poor functioning, in that such a discrepancy may reflect unintegrated multiple attachments which served to deleteriously affect the psychic organization of experience and thus the development of a cohesive and stable sense of self (Horner, 1979). Consistent with this explanation are the findings that, first, the two poorest functioning parent attachment groups (Concordant-Insecure and Discordant-Secure Mother) experienced the largest discrepancies in the qualities of their relationships with their mothers and fathers; thus, while the Concordant-Insecure group was classified as having similar qualities in their relationships with both parents (Insecure to both), they nevertheless experienced greater discrepancies in their parental attachments than did the Discordant-Secure Father attachment group.

Second, the two parent attachment groups with the largest differences in their parental attachments also experienced the lowest levels of self-esteem stability.

The question of whether very different attachment relationships with important others (e.g., two parents) result in either integration of the diverse sets of experiences or defensive dissociation of incompatable experiences (Bowlby, 1980), however, is as yet unanswered. Drawing on Epstein's (1980) cognitive model of self-systems, Bretherton (1985) and Ricks (1985) have suggested that the individual's working models of attachment figures may include a hierarchical arrangement of postulates, concerning the likely availability of attachment figures. Higher order postulates effect the greatest influence on the individual and are the most stable aspects of the internal models. Contradictory experiences may result in lower-level posulates concerning attachment figures which would not affect the higher level posulates in part due to their defensive exclusion.

In Epstein's model, one function of self- and world theories is to maintain a comfortable level of self-esteem. Individuals with low self-esteem, however, may need to maintain their low self-esteem in order to fulfill another function of the self- and/or world-theory, namely, the maintenance of a coherent conceptual system (Ricks, 1985). The existence of such a presumably unconscious process suggests that individuals with very discrepant conscious evaluations of their attachment relationships (such as

members of the D-SM and CI groups in this study) may have constructed coherent and unconscious attachment-related major postulates which reflect experiences related to insecure attachment. Why this would have occurred for members of the D-SM group is a puzzle, but may in part be explained by Main and Goldwyn's (in press) findings from their interview study of attachment in women in their 30's. A strong relationship was found between current idealization of their mothers (as defined by unconscious discrepancies between their favorable reports of the relationship and descriptions of actual specific unfavorable experiences) and past (childhood) rejection by their mothers. Further evidence of the influence of unconscious working models was found by Main and Goldwyn in the moderate correlations between difficulty recalling childhood or relative incoherence in describing the maternal relationship and apparent rejection in childhood. One speculation regarding some members of the D-SM group, is that, while consciously reporting a favorable relationship with their mothers, they may have been idealizing this relationship while holding unconscious negative representations of it.

Thus, had interviews been conducted with the adolescents in this study, they may have revealed defensive verbal or non-verbal responding concerning the adolescents' relationships with their mothers, such that attachment-relevant information was distorted, disorganized or excluded from awareness (for further discussion of this point, see Limitations of the Study, below). The finding that,

despite their reports of secure attachment to their mothers, members of the D-SM group held self-images as unstable as members of the CI group, supports these ideas concerning defensive conscious representations of their maternal relationships.

A similar argument could be made, of course, for the D-SF group, i.e., that these adolescents idealized their paternal relationships despite experiences related to insecure attachment. The relatively good functioning of these individuals suggests otherwise, at least for many members of this group. It is also possible that while these adolescents on average held relatively negative views of their maternal relationships, for some, these evaluations may reflect a current working through of problems/changes in the relationship, facilitated by other secure relationships (e.g., with father, peers) (Main & Goldwyn, in press). Although Main and Goldwyn's (in press) adult women were in a very different life-period than the late adolescents in this study, the finding that current anger toward the mother was not related to past rejection by that mother is in line with this suggestion.

These speculations about members of the Discordant Parent Attachment groups are of course generalizations about individuals who undoubtedly vary within these groups in their conscious and unconscious representations of attachment experiences. Nevertheless, the present study does indicate that insecure attachment to both parents, as well as, in some cases, discordant parent attachment contribute to lack of stability in the sense of

self. The acceptability of this suggestion is mitigated, however, by two factors. First, discrepancy in parent attachment experiences was correlated with father, but not mother, attachment. Thus, the effects of discrepant parent attachment were confounded with the effects of insecure father attachment. What is needed is a comparison group of individuals with relatively secure father attachment who experienced much less secure mother attachment. The adolescents in this sample with secure father, but insecure mother attachment were not so discrepant in their parent attachment experiences as to make possible such a comparison. Second, the differences in discrepancy scores between the attachment groups may in part have been due to statistical artifacts stemming from both the median split procedure used to define secure vs. insecure attachment and from any skewness of the attachment score distributions.

Further evidence for the effects of the family system on functioning in this study was obtained via the adolescent's ratings of the harmony of their parents' relationships. The Discordant-Secure Mother attachment group reported their parents' relationships to be less harmonious than did the Concordant-Secure group. Further, this same group reported a higher incidence of parental separation or divorce than either the Discordant-Secure Father or Concordant-Secure attachment groups. These findings have several implications. First, they are consistent with arguments that the spousal system influences parent-child relationships

(Westley & Epstein, 1960; Belsky, 1979), and that understanding interactions within the entire family facilitates understanding parent-child subsystems (Lamb, 1976). Landis (1960) noted that the perception of a close father-relationship by the adolescent is the best indicator of the quality of family communication. Block (1971) has also noted that marital problems are reflected in the adequacy of the parent-child relationship. The substantial correlations between parent attachment and both quality of parents' relationship and quality of closest sibling relationship underscore these arguments that parent-child relationships refect/are reflected by family interactions. Second, the finding that one-third of individuals with secure mother, but insecure father attachment had histories of parental separation or divorce raises the issue of the importance of considering the qualities of one relationship in the context of other relationships in which the individual is involved (Hinde, 1976). Thus, for individuals in this group, father attachment may have been affected by the negative impact of the mother's relationship with the father on both the father's interaction with the adolescent as well as the adolescent's perception of the father.

Another implication of this set of findings is that parental separation or divorce, if perceived by the adolescent as rejection by the departing parent, may affect not only parent attachment by de-stabilizing forecasts of that parent's accessibility and responsivity, but also the adolescent's self-system. A major tenet

of attachment theory is that the individual builds a working model of the self that develops in a mutually confirming manner with models of attachment figures. Perceived rejection by a parent may be internalized as self-rejection resulting in loss of self-esteem. Further, the adolescent's sense of him/herself as someone toward whom others will respond in predictable ways may suffer as a result of parental separation. As outlined by Epstein (1973), the individual's sense of him/herself ("self-theory") is part of a larger theory which the individual constructs based on his/her entire range of significant experiences vis a vis the nature of the world, the self, and their interaction.

Attachment to Peers and Well-Being

Attachment theory posits that attachment relationships in childhood and adolescence serve as prototypes for future relationships. The view of attachment as a developmental concept includes the supposition that behavior patterns and beliefs acquired through relationships with parents tend to extend to peers when mutual support becomes a part of these relationships. Theoretically, peer relationships will reflect parent relationships both in terms of choice of peer attachment figures (and thus, the actual support likely to be given by the peer), and in terms of the adolescent's propensity for seeking social support. In attachment theory terms, the inner organization of behavioral systems responsible for the pattern of attachment behavior which maintain

that bond is carried forward to peer attachment relationships. Thus the individual seeks to recreate familiar systems in new relationships (Sroufe & Fleeson, in press).

In the present study adolescents whose attachments to parents were concordantly either secure or insecure were highly likely to report a similar quality in their peer attachments. Adolescents with discordant parent attachment were approximately equally likely to be classified as secure or insecure in their peer attachment. Thus, for adolescents with quite different relationships with their two parents, there emerged no consistent pattern regarding whether the secure or insecure parent relationship is carried forward to the quality of peer relationships. Clearly, a number of other factors, not accounted for in this study, are involved in the development of quality of peer attachment. Among these factors may be the presence of other significant attachment figures in the lives of these adolescents, physical and mental abilities, physical attractiveness, and/or social skills. The finding that for both sexes mother attachment accounted for more than twice the variance in peer attachment scores than did father attachment raises the possibility that the maternal relationship may be a stronger influence in this regard. The somewhat greater association found for both sexes between mother attachment, as compared with father attachment, and ease with showing feelings may in part explain this result.

The studies summarized in the Chapter I which compared the influences of parents and peers on adolescents' well-being suggested

that parent relationships may have a stronger influence on stable aspects of well-being than does peer attachment. The results of the present study are congruent with this indication only for males, for whom father attachment was more strongly related to most aspects of well-being than peer attachment. For females, peer attachment was associated most highly with most aspects of well-being, particularly depression. One explanation for this unexpected finding is that with one exception (Armsden & Greenberg, unpublished ms.), the previous studies summarized examined younger adolescent samples (Gecas, 1972; O'Donnell, 1976; Hunter & Youniss, 1982; Greenberg et al., 1983). The Armsden and Greenberg study of attachment and well-being in a small college-age sample, while testing a similar age group, did not, however, analyze the sexes separately or separately examine mother and father attachment. The greater association of peer attachment with well-being among females is in line with reports that college females experience greater intimacy than males in their peer relationships (Hunter & Youniss, 1982), and that 17-year-old females experience more conflicts in and anxieties about their close relationships than do males the same age (Coleman, 1974). Parent attachment did, however, show susbtantial relationships to well-being in this study (even to loneliness, which peer attachment predicted highly), suggesting that parents still serve as a secure representation base (as primary attachment figures) and that confidence in their availability is still crucial during the early college years. Thus, late adolescents do not

simply leave their parental relationships, but still depend on them even while working to re-define the nature of these relationships (Hill & Steinberg, 1976).

The importance of peer attachment is further highlighted by the findings that, regardless of parent attachment configuration, secure attachment to peers is generally associated with greater well-being than insecure peer attachment. A notable exception to this finding was that stability of self-esteem was not enhanced by secure peer attachment among those adolescents with insecure attachment to both parents or to mother only. This appears to underscore the importance of parent attachment for experiences of self-constancy in late adolescence.

Another example of the robust influence of parent attachment over peer attachment was found in the comparison of adolescents with markedly discrepant qualities of parent and peer attachment. Individuals with concordantly secure parent but insecure peer attachment reported lower levels of anxiety and higher sense of competence than individuals with secure peer but concordantly insecure parent attachment. These two groups are considered anomalous in that the quality of family relationships would usually be expected to generalize to friendships. No explanations for their discrepant parent-peer relationships could be found among the family- and friendship-background variables used in this study. Two possible explanations for these individuals' diverse relationship experiences may be offered, however. First, the insecure

attachments (whether parent or peer) may be temporary in nature, reflecting periods of flux in these adolescents' lives. Second, for one reason or another, these adolescents may have idealized their relationships either with parents or peers, so that their classifications as "secure" may reflect defensive responding.

Together, the results comparing parent and peer attachment influences on late adolescent's well-being suggest that while parent relationships are still influential, peer relationships have gained considerable importance. Mortimer & Lawrence's (1980) longitudinal study of males showed that parental influence on well-being declined from freshman year through young adulthood. Possibly, college-aged women make the transition from parents to peers as primary influences on well-being earlier than males.

Attachment as a Constituent of Social Support

As discussed in Chapter I, a great deal of effort has been directed toward elucidating aspects of social relationships that satisfy needs generated by stressful situations. Few researchers have attempted to define attachment beyond childhood or have invoked attachment theory for purposes of modelling the roles close interpersonal relationships play in moderating stress. Henderson (1977, 1981) has attempted to assess attachment among adults, and has concluded from cross-sectional and longitudinal research that perceived adequacy of supportive relationships protects the individual under stress. While evidence for the buffering effect of

social support has been inconsistent, in a recent major review of the social support literature, Cohen and Wills (1985) have concluded that support for the buffering hypothesis is consistently found when functional measures of social support (e.g., perceived availability of esteem-support) but not structural measures (i.e., social network integration, as in number of friends, frequency of social contact) were used.

The aspects of social support assessed by these functional measures tap those elements of social relationships considered by attachment theorists to be important for maintaining secure affectional bonds, namely the perceived accessibility and responsivity of important others. One major difference between social support as so defined and attachment are the conditions of intensity and endurance of the latter type of relationship. By implication, the loss of an attachment relationship engenders greater distress than is incurred by the loss of some relationships considered to be social supports. An excellent example of this distinction is afforded by Weiss (1982) in his depiction of the loneliness suffered by recently divorced adults which is not ameliorated by friendships. Also by implication the secure late-adolescent or adult attachment relationship provides a more powerful buffer against stress than some social supports due to the extent of mutual commitment involved (Bowlby, 1982).

Attachment and Coping Responses

Throughout life the secure attachment relationship is theorized to help the individual cope by providing a literal, and later, symbolic secure base and, through its influence on the self-system, by maintaining or bolstering the individual's self-esteem and encouraging mastery of the environment. Along quite similar lines, theorists have recently expanded the stress and coping paradigm to include models of how social supports assist in the coping process (Cohen & Wills, 1985; Thoits, in press; Billings & Moos, 1984; Antonovsky, 1979). Consistent with Bowlby's ideas, these writers have suggested that social support supports the coping process through its effects on situational interpretation (appraisal or reappraisal), inhibition or facilitation of coping responses (including regulation of emotion) and regulation of self-esteem. Antonovsky (1979), in parallel wih Bowlby, has argued that even without the employment of social resources, simply knowing they are available increases resistance to stress by affecting the perception of stressfulness and the assessment of one's capacity to cope. In attachment theory terms, a working model of the attachment figure as predictably available for helpful assistance may affect the coping process indirectly through its influence on the working model of the self as efficacious in dealing with the environment, but worthy of effective help if needed. The most healthy personalities are seen to be those which show not only initiative and self-reliance but also trust that others are available and capacity to seek out those

others when needed (Bowlby, 1973b).

That early losses in life tend to promote the development of insecure attachment is well documented by Bowlby (1969; 1980). The effect of loss on later coping abilities has been shown by Brown and Harris (1978) who reported that early loss impaired later coping to social losses and resistance to depression. Lazarus and Folkman (1984) propose that coping is cognitively mediated and that important constraints against using coping resources (e.g., problem-solving and social skills) include personal agendas (beliefs and values, and psychological deficits) and appraised level of threat. In their view, the most significant precipitants of psychological stress are the meanings ascribed to social relationships and the emotional responses to these meanings. A synthesis of the Lazarus and Folkman model and attachment theory suggests the following: individuals with dispositions to form insecure attachments are constrained against coping effectively (particularly in interpersonal situations) because of (1) unstable expectancies of the availability of coping support or stable expectancies of lack of availability of coping support, (2) tendencies toward exceptional emotional arousal (and expectancies that such arousal will be intense and not readily controlled) which interferes with utilizing problem-solving skills, and (3) dispositions to interpret certain interpersonal situations or situations of personal challenge as highly threatening to well-being due to a lack (or lesser) sense of coping efficacy. Further,

individuals with insecure attachment are constrained against coping effectively because they are less capable of selecting helpful social ties. Thus, insecure attachment may be viewed as a vulnerability factor in the Lazarus and Folkman paradigm, in that it fosters a susceptibility to respond with psychological stress to a wide range of situations.

The present study has shown that, as hypothesized, security of parent and peer attachment was related to greater use of problem-solving (problem-focusing and seeking social support) coping relative to emotion-focused coping in Threat and Loss situations; these correlations were among the highest associations obtained between attachment and coping. Also among the strongest negative correlations were those between externalizing and parent attachment. Inasmuch as the externalizing measure reflects anger or uncontrollable emotional arousal generated by separation distress, the greater use of externalizing in Threat and Loss situations among adolescents with less secure attachment is predicted by attachment theory. This result demonstrates an advantage of utilizing this theory to predict coping responses, namely, the allowance of specific predictions concerning the relationship between adequacy of social resources and coping.

Comparisons of parent attachment with peer attachment as predictors of coping responses did not reveal consistent patterns. Parent attachment appeared to predict problem-focusing and externalizing, particularly to Loss, somewhat better than peer

attachment, suggesting the influence in late adolescence of the family as a problem-solving unit (Klein & Hill, 1979; Reiss & Oliveri, 1980). Peer attachment was more related to seeking social support in Threat situations, reflecting both the peer-related nature of the Threat situations and the importance of the peer group as a coping resource in this age group. Most likely, this finding also reflects the accessibility of peers as social resources among those adolescents living at college.

Contrary to expectation, adolescents with secure attachment to both parents, compared with those with insecure attachment to both parents, used more problem-solving and less emotion-focusing in situations of challenge. Explanations for this finding may be found within both the stress and coping paradigm and attachment theory. The typologies of threat and challenge are not seen to be mutually exclusive; both situations may engender not only appraisals of potential harm as well as gain, but also positive as well as negative emotional arousal (Lazarus & Folkman, 1984). Also, as noted above, while some attempt was made in this study to bypass primary appraisal, clearly this was not entirely possible. The finding that security of attachment predicted response to challenge may also be explained by the theoretical link between the formation of sets of expectancies concerning attachment figures and the maintenance of self-esteem. The sense of self-efficacy fostered by predictably helpful attachment figures should facilitate adaptive self-management coping responses in personal as well as

interpersonal situations. Chan (1977) has used the term "sense of mutuality" to describe the individual's sense that his/her coping efforts effect positive change. One's interpretation of an event as involving potential personal gain or mastery depends, as it were, on the individual's sense of mutuality with regard to changes within him/herself, as well as in the environment.

A number of sex differences in the attachment and coping data are worth noting. While previous studies (Vitaliano, Maiuro, Russo, & Becker, 1985; Billings & Moos, 1984; Billings & Moos, 1981) have reported the greater use of emotion-focused responses among females, in the present study males were found to use more avoiding across situations, and more externalizing and blaming-self in certain situations. Consistent with these studies, however, females in the present study reported more seeking social support.

Attachment and Situational Appraisal

Different patterns of coping responses to apparently similar types of situations may in part be explained by the individual's appraisal of the situation. In this study, retrospective secondary appraisal (what coping options are available; how controllable is the situation) but not primary appraisal (evaluation of situation as a potential threat, loss or challenge) was assessed (Lazarus & Folkman, 1984). As hypothesized, security of attachment was found to be related to perception of the event as controllable. The strongest findings were for situations in which family relationships

were threatened. In these situations, adolescents with more secure mother attachment perceived greater controllability: they felt they could do more about the situation and that they did not have to hold themselves back from doing what they wanted to do. The perception that family-related situations had to be accepted was, however, also related to more secure parent attachment (threat situations) and father attachment (loss situations). This latter finding suggests that this type of appraisal may not have assessed the perceived controllability of the situation, but rather the perception of the need to accommodate, but not necessarily submit passively to the situation. Thus, the more secure the adolescents in their parent attachments, the less they may have felt the need to "fight" the situation. For Loss situations this would seem to be particularly adaptive, where an event has occurred that cannot be altered, but the situation needs to be managed intrapsychically.

Appraisal of Challenge and Loss situations, with the exception noted above, were not found to be related to attachment. A possible explanation for this negative result is that, compared with situations in which important relationships are threatened, situations of positive personal gain or of loss are less ambiguous, primarily involving contending with one's own response to the situation. According to the stress and coping paradigm, the greater the inherent ambiguity of the situation, the more person variables influence appraisal. A second and related explanation is that appraisal responses to challenge and loss in this study were more

skewed than to threat, with a clear majority of individuals responding in the same direction for most appraisal items. The positive finding that secure parent attachment was related to appraisal of greater controllability of more ambiguous threat situations, supports Haan's (1977) contention that tolerance of ambiguity in the coping process is a reflection of higher levels of psychological (ego) functioning.

Situation-Type and Coping Responses

Comparisons of coping responses across situations indicated that the type of situation influenced coping strategies. Adolescents reported less problem-focusing, seeking social support and blaming themselves but more wishful thinking, externalizing and avoiding in Threat and Loss situations compared with Challenge situations. These patterns of coping are quite congruent with McCrae's (1984) findings in his study of situational determinants of coping, despite the present studies' emphasis on interpersonal sitations of threat and loss. Also similar to McCrae's results were the effect sizes for situation-type. In this study, however, quality of parent attachment (a person variable) accounted for more variance in problem-focusing, seeking social support, externalizing and blaming self (females) coping responses than did situation type. Quality of peer attachment also accounted for more variance in seeking social support than did situation-type. Thus, the selection of these types of coping strategies may be more influenced by

certain characteristics of the individual than by the type of situation. An alternative explanation for this finding is that because the type of situation was defined by the investigator, essentially bypassing primary appraisal by the subject, less distinctiveness between the categories of Threat and Loss, and of Challenge and Threat was obtained than would be desirable. For example, some subjects may have listed challenge events that would be considered threatening by other subjects (and vice versa) and, in addition, some subjects considered threats to the stability/continuity in their relationships (e.g., separation from hometown friend) as a loss while others considered them to be threats.

Models of Attachment and Coping

The results of the regression analyses suggest that, particularly in Threat and Loss situations, individual characteristics (attachment) predict problem-solving coping better than situational variables (type of event; appraisal). Consistent with Billings and Moos' (1981) findings concerning coping and social resources, in the present study coping responses and attachment accounted for similar proportions of variance in anxiety scores. Coping responses, however, shared considerably more variance with attachment in the interpersonal situations of threat and loss than in challenge, suggesting the greater importance of social resources in interpersonal stress, and, possibly the greater influence of the

situational configuration in Challenge situations on appraisal and coping response. The Challenge situations may represent the least ambiguous of the three situation-types examined, in that they are more easily interpreted, coping options are more readily apparent, and less emotional arousal is involved (Shalit, 1977). In accordance with the stress and coping paradigm, the less ambiguous the situation, the more situational features influence coping (Folkman, 1984).

Congruent with similar analyses of threat situations performed by Vitaliano et al. (in press), in predicting anxiety, with one exception no mediating or main effects of either the nature of the situation (e.g., family vs. other) or appraisal were found. (Vitaliano's criterion variable was depression). The main effect for the appraisal of the need to hold back in challenge situations, controlling for the effects of attachment, is a new and interesting finding--one that calls for replication in other samples. Also consistent with Vitaliano's data were the strong predictive values of problem focusing and wishful thinking. Other research has also demonstrated the value of these coping scales in predicting negative affective status (Coyne et al., 1980; Lavelle et al., 1978; Abramson et al., 1978; Coyne, 1976; Platt & Spivak, 1972a, 1972b).

Limitations of the Study

A number of aspects of the methodology of this study limited the internal validity and generalizability of the results.

Sample. The sample in this study consisted of adolescents within a small age range, who were attending college, and who volunteered to participate. Thus, the findings have implications for a narrowly defined group of adolescents who may differ not only from other adolescents in the same age range (more achievement-oriented, better adjusted), but also from younger adolescents. In addition, research volunteers may also be more open to self-disclosure.

Self-Report Measures. All measures in this study were self-report in nature. Therefore, defensive responding in the socially desirable direction by some individuals may have resulted in those individuals being rated as better adjusted than objective assessments would have indicated (see also, Assessment of Attachment, below).

Correlational Analyses. No arguments can be made from this study concerning cause and effect. While the correlational findings suggest that quality of parent and peer attachment support psychological adjustment in late adolescence, other factors not assessed in the study may have contributed to the statistical relationships found. Further, such a one-shot analysis does not provide insights into the processes of developmental change in, for example, attachment and coping capacities. This study did not permit an examination of the mutual influences of parent/peers and adolescent on the quality of these interpersonal relationships. The attempt made in the present study to classify these adolescents'

relationships undoubtedly oversimplified their life-situations. Documentation of the processes of change and stabilization in adolescents' close relationships is called for (Minuchin, 1985).

Assessment of Coping with Specific Situations. Subjects in this study were asked to retrospectively report their coping responses to situations of challenge, threat, and loss. Such a procedure is subject to biases introduced by selective remembering as well as ex post facto reinterpretation (appraisal) of the situation. It is also possible that such memory biases as well as self-concepts may have led subjects to report coping responses consistent with their view of their general coping styles or dispositions and to unwittingly de-emphasize responses to the specific situational configuration existing at the time of the events.

Assessment of Attachment. The Inventory of Parent and Peer Attachment is a newly developed instrument which remains to be fully validated. Further studies are needed using samples more representative of the adolescent population, including clinical samples. In addition, observational studies of adolescents' interactions with parents and peers would shed light on the correspondence between subjective reports of attachment and objective assessments of interpersonal processes. Objective evaluations of the adolescent and his/her interpersonal behavior would also presumably detect instances of denial of conflict, idealization of attachment figures and/or incoherence in conscious

working models of these figures (Main & Goldwyn, in press). A better understanding of conscious vs. unconscious representational models and their relationships to developmental outcome would be obtained. Finally, assessment of the adolescent's closest peer relationship (i.e., best friend, boy/girlfriend), rather than a group of close friendships, may be a more fruitful approach to elucidating what is carried forward from the parental attachment relationship to other social relationships.

Implications for Future Research

Assessment of Attachment. Understanding the nature and influences of attachment in childhood has been facilitated by the construction of typologies of attachment based on attachment behavior patterns. The three classifications of infant attachment, "secure," "anxious-ambivalent/resistant" and "anxious-avoidant" have been found to be differentially related to outcome in longitudinal studies up to six years of age. While children classified as having secure attachments to their mothers later functioned better in social and problem-solving situations than those having anxious attachments, the two groups having anxious attachments also behaved differently from each other (Main, 1973; Sroufe, 1983). Anxious-resistant children showed more dependency behavior, while anxious-avoidant children did not tend to seek help when frustrated or otherwise stressed.

While the behavioral manifestations of the two types of

insecure attachment in adolescence are as yet unknown, the development of attachment typologies for adolescents may, for example, assist in differentiating those with anxious attachment who tend to inappropriately seek out others in times of stress (lack self-reliance) from those with anxious attachment who characteristically avoid seeking support even when it would appear to be appropriate (compulsively self-reliant). In addition, this latter group may, through the operation of defensive processes leading to detachment, tend to distort or deny the conflictual/unsatisfactory aspects of their relationships. The empirical definition of two types of insecure attachment may permit important distinctions in developmental/psychopathological prognoses. The cut-off points delineating the secure/insecure attachment groups in the present study are relative in nature and do not allow normative conclusions concerning pathology in these groups.

Objective assessments of the adolescent and his/her interpersonal interactions would assist in understanding the relationships between conscious and unconscious models of attachment figures and their links with defensive subjective appraisals of attachment as well as interpersonal detachment. Unconscious models of attachment figures may also be studied using projective techniques. The author is currently conducting a study of the relationship between attachment as assessed by the IPPA and responses to Thematic Apperception Test stimuli.

Assessment of attachment via overall scale scores, as done in the present study, may also need to be supplemented with other means of evaluating responses on the IPPA. For example, patterns of responding such as extreme homogeneity or heterogeneity in response sets may reflect denial of conflict, or idealization or incoherence of internal working models of attachment figures.

Further research is also needed regarding developmental changes in the nature of attachment during adolescence (as well as in childhood). The changing psychosocial needs and social and cognitive capacities of the adolescent suggest, for example, that a shift occurs in the attachment relationship toward greater importance of mutuality and lesser importance of proximal contact with parents for emotional regulation. While age-trends in the qualitative nature of attachment may be observed, the timing of such shifts may depend on a host of individual-difference factors, including cognitive abilities and social competencies.

Causal modeling. The relationship between attachment and coping capacities in adolescence is undoubtedly mediated by many factors, such as the developmental tasks of proceeding toward formal-operational thought and mastery of affectivity. The attachment-coping relationship may, in addition, be moderated by such exogenous influences as negative life-events and socio-cultural demands.

Caplan (1981) has suggested that for the individual under stress, supportive social ties provide auxillary ego functions.

According to Caplan, stress weakens ego functioning by disorganizing the individual's clarity of self-concept and those psychic functions related to the capacity for instrumental action. Social supports complement and supplement the individual's ego functioning by providing information and certain cognitive functions (e.g. logical analysis) as well as supporting defensive processes such as isolation and denial which assist in emotional regulation. This view is congruent with attachment theory's suppositions regarding the supportive role of attachment figures. The tasks of ego development in adolescence, including mastery of affectivity, internal regulation of self-esteem, integration of self-images, and greater self-reliance, mutuality and empathy in relationships (Loevinger, 1976; Josselson, 1980) may be expected theoretically to be shaped in large part by the quality of the adolescent's attachment to parents. In line with this idea, Hauser, Powers, Noam, Jacobson, Weiss, & Follansbee (1984) have presented evidence that parents' affective enabling (acceptance and empathy in problem-solving discussions) was strongly associated with higher levels of adolescent ego functioning. Parental devaluing and indifference during discussions with the adolescents were associated with lower levels of ego functioning.

Thus, to the extent that parents support the adolescent's ego development, the capacity for more adaptive coping responses is enhanced. This notion suggests that level of ego development may provide a link between attachment experiences and coping responses

during the adolescent period. Undoubtedly, these factors are interrelated in complex ways. Clearly needed are dynamic, reciprocal causal models, wherein changes in the family system as well as the adolescent and his/her peer environment are documented.

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Appendix A

INSTRUMENTATION

Inventory of Parent and Peer Attachment (IPPA)

RELATIONSHIPS QUESTIONNAIRE

This questionnaire asks about your relationships with important people in your life--your mother, your father, and your close friends. Please read the directions to each part carefully.

Part I

Each of the following statements asks about your feelings about your mother, or the woman who has acted as your mother. If you have more than one person acting as your mother (e.g. a natural mother and a step-mother) answer the questions for the one you feel has most influenced you.

Please read each statement and circle the ONE number that tells how true the statement is for you now.

	Almost Never or Never True	Not Very Often True	Some-times True	Often True	Almost Always or Always True
1. My mother respects my feelings.	1	2	3	4	5
2. I feel my mother does a good job as my mother.	1	2	3	4	5
3. I wish I had a different mother.	1	2	3	4	5
4. My mother accepts me as I am.	1	2	3	4	5

		Almost Never or Never True	Not Very Often True	Some-times True	Often True	Almost Always or Always True
5.	I like to get my mother's point of view on things I'm concerned about.	1	2	3	4	5
6.	I feel it's no use letting my feelings show around my mother.	1	2	3	4	5
7.	My mother can tell when I'm upset about something.	1	2	3	4	5
8.	Talking over my problems with my mother makes me feel ashamed or foolish.	1	2	3	4	5
9.	My mother expects too much from me.	1	2	3	4	5
10.	I get upset easily around my mother.	1	2	3	4	5
11.	I get upset a lot more than my mother knows about.	1	2	3	4	5
12.	When we discuss things, my mother cares about my point of view.	1	2	3	4	5
13.	My mother trusts my judgment.	1	2	3	4	5
14.	My mother has her own problems, so I don't bother her with mine.	1	2	3	4	5
15.	My mother helps me to understand myself better.	1	2	3	4	5
16.	I tell my mother about my problems and troubles.	1	2	3	4	5
17.	I feel angry with my mother.	1	2	3	4	5
18.	I don't get much attention from my mother.	1	2	3	4	5
19.	My mother helps me to talk about my difficulties.	1	2	3	4	5
20.	My mother understands me.	1	2	3	4	5
21.	When I am angry about something, my mother tries to be understanding.	1	2	3	4	5
22.	I trust my mother.	1	2	3	4	5
23.	My mother doesn't understand what I'm going through these days.	1	2	3	4	5
24.	I can count on my mother when I need to get something off my chest.	1	2	3	4	5
25.	If my mother knows something is bothering me, she asks me about it.	1	2	3	4	5

Part II

This part asks about your feelings about your father, or the man who has acted as your father. If you have more than one person acting as your father (e.g. natural and step-fathers) answer the questions for the one you feel has most influenced you.

		Almost Never or Never True	Not Very Often True	Some-times True	Often True	Almost Always or Always True
1.	My father respects my feelings.	1	2	3	4	5
2.	I feel my father does a good job as my father.	1	2	3	4	5
3.	I wish I had a different father.	1	2	3	4	5
4.	My father accepts me as I am.	1	2	3	4	5
5.	I like to get my father's point of view on things I'm concerned about.	1	2	3	4	5
6.	I feel it's no use letting my feelings show around my father.	1	2	3	4	5
7.	My father can tell when I'm upset about something.	1	2	3	4	5
8.	Talking over my problems with my father makes me feel ashamed or foolish.	1	2	3	4	5
9.	My father expects too much from me.	1	2	3	4	5
10.	I get upset easily around my father.	1	2	3	4	5
11.	I get upset a lot more than my father knows about.	1	2	3	4	5
12.	When we discuss things, my father cares about my point of view.	1	2	3	4	5
13.	My father trusts my judgment.	1	2	3	4	5
14.	My father has his own problems, so I don't bother him with mine.	1	2	3	4	5

		Almost Never or Never True	Not Very Often True	Some-times True	Often True	Almost Always or Always True
15.	My father helps me to understand myself better.	1	2	3	4	5
16.	I tell my father about my problems and troubles.	1	2	3	4	5
17.	I feel angry with my father.	1	2	3	4	5
18.	I don't get much attention from my father.	1	2	3	4	5
19.	My father helps me to talk about my difficulties.	1	2	3	4	5
20.	My father understands me.	1	2	3	4	5
21.	When I am angry about something, my father tries to be understanding.	1	2	3	4	5
22.	I trust my father.	1	2	3	4	5
23.	My father doesn't understand what I'm going through these days.	1	2	3	4	5
24.	I can count on my father when I need to get something off my chest.	1	2	3	4	5
25.	If my father knows something is bothering me, he asks me about it.	1	2	3	4	5

Part III

This part asks about your feelings about your relationships with your close friends. Please read each statement and circle the ONE number that tells how true the statement is for you now.

		Almost Never or Never True	Not Very Often True	Some-times True	Often True	Almost Always or Always True
1.	I like to get my friend's point of view on things I'm concerned about.	1	2	3	4	5
2.	My friends can tell when I'm upset about something.	1	2	3	4	5
3.	When we discuss things, my friends care about my point of view.	1	2	3	4	5
4.	Talking over my problems with my friends makes me feel ashamed or foolish.	1	2	3	4	5

		Almost Never or Never True	Not Very Often True	Some-times True	Often True	Almost Always or Always True
5.	I wish I had different friends.	1	2	3	4	5
6.	My friends understand me.	1	2	3	4	5
7.	My friends help me to talk about my difficulties.	1	2	3	4	5
8.	My friends accept me as I am.	1	2	3	4	5
9.	I feel the need to be in touch with my friends more often.	1	2	3	4	5
10.	My friends don't understand what I'm going through these days.	1	2	3	4	5
11.	I feel alone or apart when I'm with my friends.	1	2	3	4	5
12.	My friends listen to what I have to say.	1	2	3	4	5
13.	I feel my friends are good friends.	1	2	3	4	5
14.	My friends are fairly easy to talk to.	1	2	3	4	5
15.	When I am angry about something, my friends try to be understanding.	1	2	3	4	5
16.	My friends help me to understand myself better.	1	2	3	4	5
17.	My friends care about how I am.	1	2	3	4	5
18.	I feel angry with my friends.	1	2	3	4	5
19.	I can count on my friends when I need to get something off my chest.	1	2	3	4	5
20.	I trust my friends.	1	2	3	4	5
21.	My friends respect my feelings.	1	2	3	4	5
22.	I get upset a lot more than my friends know about.	1	2	3	4	5
23.	It seems as if my friends are irritated with me for no reason.	1	2	3	4	5
24.	I can tell my friends about my problems and troubles.	1	2	3	4	5
25.	If my friends know something is bothering me, they ask me about it.	1	2	3	4	5

Ways of Coping Checklist--Revised (WCCL-R)

Revised scale

Problem-Focused

1. Bargained or compromised to get something positive from the situation.
2. Concentrated on something good that could come out of the whole thing.
3. Tried not to burn my bridges behind me, but left things open somewhat.
4. Changed or grew as a person in a good way.
5. Made a plan of action and followed it.
6. Accepted the next best thing to what I wanted.
7. Came out of the experience better than when I went in.
8. Tried not to act too hastily or follow my own hunch.
9. Changed something so things would turn out all right.
10. Just took things one step at a time.
11. I knew what had to be done, so I doubled my efforts and tried harder to make things work.
12. Came up with a couple of different solutions to the problem.
13. Accepted my strong feelings, but didn't let them interfere with other things too much.
14. Changed something about myself so I could deal with the situation better.
15. Stood my ground and fought for what I wanted.

Seeks Social Support

1. Talked to someone to find out about the situation.
2. Accepted sympathy and understanding from someone.
3. Got professional help and did what they recommended.
4. Talked to someone who could do something about the problem.
5. Asked someone I respected for advice and followed it.
6. Talked to someone about how I was feeling.

Blamed Self

1. Blamed yourself
2. Criticized or lectured yourself.
3. Realized you brought the problem on yourself.

Wishful Thinking

1. Hoped a miracle would happen.
2. Wished I was a stronger person -- more optimistic and forceful.
3. Wished that I could change what had happened.
4. Wished I could change the way that I felt.
5. Daydreamed or imagined a better time or place than the one I was in.
6. Had fantasies or wishes about how things might turn out.
7. Thought about fantastic or unreal things (like perfect revenge or finding a million dollars) that made me feel better.
8. Wished the situation would go away or somehow be finished.

Avoidance

1. Went on as if nothing had happened.
2. Felt bad that I couldn't avoid the problem.
3. Kept my feelings to myself.
4. Slept more than usual.
5. Got mad at the people or things that caused the problem.
6. Tried to forget the whole thing.
7. Tried to make myself feel better by eating, drinking, smoking, taking medications.
8. Avoided being with people in general.
9. Kept others from knowing how bad things were.
10. Refused to believe it had happened.

Family Situation Measures

If you are not currently living with your parent(s), please answer the three questions below:

How often do you visit your parent(s)? (Check one)

___ More than once a month
___ Once a month
___ Every three months
___ Every six months
___ Less than every six months

How often do you telephone your parent(s)?

___ More than once a week
___ Once a week
___ More than once a month
___ Once a month
___ Less than once a month

How often do your parents call you?

___ More than once a week
___ Once a week
___ More than once a month
___ Once a month
___ Less than once a month

Please check the appropriate description of the person you consider to be your "mother" and of the person you consider to be your "father".

___ Natural or adoptive mother
___ Step-mother
___ Foster mother
___ Other woman who has acted as your mother (e.g. aunt)
___ Other (please explain): _____

___ Natural or adoptive father
___ Step-father
___ Foster father
___ Other man who has acted as your father (e.g. uncle)
___ Other (please explain): _____

**Now, circle the description of the persons you are living with (who make a home for you) or who make the home you usually return to on vacations.

Check any of the following, if they have occurred:

___ Parents living apart, but not divorced. How old were you? _____
___ Parents divorced. How old were you? _____
___ Parent you lived with the longest, or who makes a home for you, remarried. How old were you? _____

If your mother and father are living together: how well would you say they have been getting along lately?

Not getting along very well at all				Getting along extremely well
1	2	3	4	5

If you are not an only child: think of the sibling (sister or brother) you are closest to. (Check one)

___ I have one sibling only. (___ brother ___ sister)
___ I am closest to a brother.
___ I am closest to a sister.
___ I am equally close to two or more brothers or sisters.

How close would you say you are to this (or these) sibling(s)? Circle one number.

Not at all close				Extremely close
1	2	3	4	5

Family Situation Measures

If you are not currently living with your parent(s), please answer the three questions below:

How often do you visit your parent(s)? (Check one)

____ More than once a month
____ Once a month
____ Every three months
____ Every six months
____ Less than every six months

How often do you telephone your parent(s)?

____ More than once a week
____ Once a week
____ More than once a month
____ Once a month
____ Less than once a month

How often do your parents call you?

____ More than once a week
____ Once a week
____ More than once a month
____ Once a month
____ Less than once a month

Please check the appropriate description of the person you consider to be your "mother" and of the person you consider to be your "father".

____ Natural or adoptive mother
____ Step-mother
____ Foster mother
____ Other woman who has acted as your mother (e.g. aunt)
____ Other (please explain): _____

____ Natural or adoptive father
____ Step-father
____ Foster father
____ Other man who has acted as your father (e.g. uncle)
____ Other (please explain): _____

**Now, circle the description of the persons you are living with (who make a home for you) or who make the home you usually return to on vacations.

Check any of the following, if they have occurred:

____ Parents living apart, but not divorced. How old were you? _____
____ Parents divorced. How old were you? _____
____ Parent you lived with the longest, or who makes a home for you, remarried. How old were you? _____

If your mother and father are living together: how well would you say they have been getting along lately?

Not getting along very well at all				Getting along extremely well
1	2	3	4	5

If you are not an only child: think of the sibling (sister or brother) you are closest to. (Check one)

____ I have one sibling only. (___ brother ___ sister)
____ I am closest to a brother.
____ I am closest to a sister.
____ I am equally close to two or more brothers or sisters.

How close would you say you are to this (or these) sibling(s)? Circle one number.

Not at all close				Extremely close
1	2	3	4	5

Appendix B

ADDITIONAL ANALYSES

Adjustment and Appraisal

The relationships between appraisal and anxiety, depression and sense of competence were examined using multivariate F-tests and followup univariate F tests where indicated. All three adjustment variables were significantly related to both C-accept ($F(3,380)=4.35$, $p < .01$) and C-holdback ($F(3,378)=3.75$, $p < .01$). As shown in Table B.1, followup univariate analyses indicated that lower levels of anxiety and depression and greater sense of competence were associated with the perception of not having to accept or hold oneself back in the Challenge situation. For Threat situations, the perception of having to hold oneself back was found to be multivariately associated with the adjustment variables ($F(3,382)=3.90$, $p < .05$) Univariate F tests indicated that this perception of the necessity for self-restraint was related to lower levels of sense of competence. Appraisal of Loss situations was not related to adjustment, possibly to the uniformly less ambiguous nature of loss situations in terms of their controllability.

The Relationship Between Psychological Functioning and Coping Responses

As outlined in Chapter I, relationships between self-reported coping responses and distress have been reported for adults. In order to assess such relationships in late adolescents, correlations between coping responses and anxiety, depression and sense of competence were examined. Associations between coping responses to

Table B.1

Results of Univariate Analyses of the Relationship Between Appraisal and Adjustment

	Anxiety	Depression	Sense of Competence
Challenge			
Accept	12.03 (Y>N)[3]	4.62[2] (Y>N)	8.05 (N>Y)
Holdback	11.28 (Y>N)	6.10 (Y>N)	4.87[2] (N>Y)
Threat			
Holdback			2.90 (N>Y)

[1]All F values significant at $p<.01$ unless indicated.
[2]$p < .05$
[3]Y>N: Scores are higher for appraised response "Yes" than "No."

relatively discrete (non-chronic) life situations and well-being would be expected to be lower than associations between coping responses to more chronic situations and well-being. Such an analysis also carries with it an underlying assumption that to some degree these coping responses to fairly discrete, but significant life situations are representative of a style of coping to particuar kinds of situations.

As shown in Table B.2, emotion-focused coping was found to be positively related to anxiety and depression, and negatively to sense of competence. Problem-focusing and seeking social support were positively related to sense of competence and negatively related to anxiety and depression. Psychological functioning was found to be moderately and most highly related to the use of problem-focusing; lowest correlations were obtained between avoiding scores and functioning (AV is the least internally reliable coping scale). Coping wih Challenge was, for 4 out of 6 scales, more highly related to anxiety than was coping with Threat or Loss; otherwise, coefficients were of a similar magnitude for C, T and L situations. Anxiety is in general slightly more correlated with coping responses than depression, possibly due to the greater range of anxiety scores (48 vs. 29 points). Subjects' ratings of their own coping efficacy (rated prior to reporting coping responses) were most highly (and moderately) related to problem-focusing coping. The correlations between functioning and "problem-solving" coping (a summary score of PF and SS scores) were consistenty moderate across

Table B.2
Correlations Between Coping Scores and Self-Rated[1,2,3] Functioning

	Problem Focusing			Seeking Social Support			Blaming Self		
	C	T	L	C	T	L	C	T	L
Anxiety	-51	-43	-40	-33	-26	-28	23	09	18
Depression	-40	-38	-32	-28	-24	-23	22	10	11
Sense of Competence	38	39	35	26	28	27	-14	-16	-18
Coping Efficacy[4]	43	41	40	25	18	19	-24	-11	-31

	Wishful Thinking			Avoiding			Externalizing		
	C	T	L	C	T	L	C	T	L
Anxiety	39	26	21	12	17	(07)	25	30	20
Depression	22	15	08	18	21	12	19	19	22
Sense of Competence	-35	-23	-21	-15	-22	(-05)	-14	-16	-11
Coping Efficacy[4]	-31	-21	-20	-12	-13	(-04)	-13	-22	(-04)

	Problem-Solving Coping		
	C	T	L
Anxiety	-50	-42	-45
Depression	-41	-34	-36
Sense of Competence	-38	-40	-41
Coping Efficacy[4]	41	36	39

[1]Decimals omitted.
[2]$p<.05$ unless in parentheses (one-tailed).
[3]C = Challenge Situation
T = Threat Situation
L = Loss Situation
[4]Efficacy ratings by respondent for C, T, or L situation.
[5]Summary score of problem-focusing and seeking social support coping scores.

situation types.

The Relationship Between Attachment and Coping Responses

As shown in Table B.3, M, F and P attachment are moderately positively correlated with PF and SS coping and less strongly and negatively correlated with the emotion-focused coping scales. Highest correlations for scales were between SS and M attachment in Threat and Loss situations (.27), between PF and F attachment in Loss situations (.29) and between SS and P attachment in Threat situations (.35). That this last correlation was the highest found between attachment and coping scores is not surprising as 57% of T situations described were related to peer relationships. Given the preponderace of peer-related situatons listed by subjects, the finding that M and F attachment in general were associated as strongly with coping as peer attachment supports the notion that parental attachment is an important influence on coping in this age group.

Some of the stronger correlations between attachment and emotion-focused coping scores involve the EX scale. Angry response to loss of or threat of loss of an attachment relationship is theoretically linked to separation distress. Individuals with Insecure attachment are theorized to more readily respond with anger (and anxiety) to such situations. These data support this idea. The correlation between attachment and EX responses in situations of challenge are more difficult to explain. A possible explanation for

Table B.3
Correlations Between Attachment and Coping Scores[1,2,3]

	Mother Attachment			Father Attachment			Peer Attachment		
	C	T	L	C	T	L	C	T	L
Problem-Focusing	24	20	22	24	22	29	19	20	17
Seeking Social Support	26	27	27	20	18	25	25	35	31
Blaming Self	(-06)	(-07)	-09	-08	(-02)	-16	(-04)	-11	-08
Wishful Thinking	-19	-12	(-05)	-22	-18	-11	-17	-12	-11
Avoiding	-15	-19	-18	(-03)	-11	-08	-20	-29	-23
Externalizing	-25	-19	-21	-20	-17	-24	-18	-15	-10
Problem-Solving Coping[4]	30	29	32	26	24	35	27	34	32
Coping Efficacy[5]	(07)	12	(09)	17	20	20	(04)	(06)	(05)

[1]Decimals omitted.
[2]$p<.05$ unless in parentheses (one-tailed)
[3]C = Challenge Situation
T = Threat Situation
L = Loss Situation
[4]Summary score of problem-focusing and seeking social support coping scores.
[5]Efficacy ratings by respondent for C, T, or L situation.

these findings is that insecure attachment is related to the tendency to externalize conflict in personal as well as interpersonal situations, through its influence on the stability and positiveness of the self-system.

A number of sex differences in the size of correlations were found. For males, the correlations between M attachment and PF and SS coping in Challenge situations were .12 and .13 respectively. For females, these correlations were significantly higher (.32 and .33, respectively; $p < .05$ in both cases). Correlations between M attachment and AV coping in C and T situations were also higher for females than males (-.02 vs. -.22, $p < .05$ for Challenge; -.03 vs. -.28, $p < .01$ for Threat), AV coping is more highly related to P attachment also in females for Challenge situations (-.01 vs. -.28, $p < .01$). There were no sex differences in correlations between F attachment and coping responses.

BIOGRAPHICAL NOTE

Name:	Gay Gilbert Armsden
Date of Birth:	June 24, 1952
Place of Birth:	Boston, Massachusetts
Parents:	Alice and Douglas Armsden

Education :

High School:	Abbot Academy, Andover, Massachusetts High School Diploma, June, 1970
College:	Brown University, Providence, Rhode Island B.A. in Psychology, June, 1974
Graduate School:	University of Washington, Seattle Ph.D., Winter, 1986 Major: Developmental Psychology Minor: Personality/Psychopathology