

The Relationship of Attachment to Fusion,
Locus of Control, Social Intimacy,
Loneliness, and Health Problems in
Late Adolescence/Young Adulthood

by

Janine Cutler

A thesis
presented to the University of Manitoba
in partial fulfillment of the
requirements for the degree of
Master of Arts
in
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Winnipeg, Manitoba

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**THE RELATIONSHIP OF ATTACHMENT TO FUSION,
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LONELINESS AND HEALTH PROBLEMS IN
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JANINE CUTLER

A thesis submitted to the Faculty of Graduate Studies of
the University of Manitoba in partial fulfillment of the requirements
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MASTER OF ARTS

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to Marvin.....

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Abstract

This study investigated parental attachment in late adolescent/young adults, and its relationship to fusion, locus of control, social intimacy, loneliness and health problems. It further was hypothesized that fusion correlated with the variables of locus of control, social intimacy, loneliness, and health problems. Finally it was hypothesized that attachment and locus of control together, would serve as a stronger predictor of the variables of social intimacy, loneliness, and health problems, than attachment alone.

Three hundred and thirty-eight single English speaking University of Manitoba psychology students, aged 18-25 served as subjects. All subjects were administered The Inventory of Parent and Peer Attachment Scale, The Intergeneration Fusion Subscale from The Personal Authority in the Family Systems Questionnaire, Rotter's I-E Scale, Miller's Social Intimacy Scale, The Revised UCLA Loneliness Scale, and the Health Check List. These scales served as measures of the variables under investigation.

Regression analyses were utilized in this study. Attachment and fusion (high score means less fusion)

showed a relatively strong positive correlation with each other. Attachment was shown to have weak but significant negative correlations with locus of control and health problems, a weak but positive correlation with social intimacy, and a strong and significant negative relationship with loneliness. Fusion correlated with the criterion variables in much the same manner as attachment, although some differences were noted in the strength and significance of the relationship with the different criterion variables. Attachment and locus of control, together, were not better predictors of social intimacy, loneliness, and health problems than attachment alone.

It has been suggested that attachment systems are the very foundation of normal development (Bowlby, 1975; Kestenbaum, 1984). The results of this study suggested that the attachment relationship continues to be important in late adolescence/young adulthood. There would be implications for future child-rearing practices, if this relationship plays such a vital role in the person's life. There also could be implications for therapy, as probing the person's childhood and exploring the past may be necessary in

order for the individual to adopt a new perspective and change his/her mode of interaction within and outside of the family system.

The Relationship of Attachment to
Fusion, Locus of Control, Social Intimacy,
Loneliness, and Health Problems
in Late Adolescence/Young Adulthood

Introduction:

One's first personal interaction is between oneself and one's primary caregiver. The relationship that develops from this interaction is generally referred to as the original attachment relationship. Ainsworth, Blehar, Waters, and Wall (1978), and many others have identified variations in the mother's characteristics which lead to three identified types of attachment: the secure attachment, the anxious/resistant attachment, and the anxious/avoidant attachment. While the infant's temperament affects the interaction, it is the care provided by the mother that plays a relatively greater role in determining individual differences in the quality of the infant-mother attachment (Bates, Maslin, & Frankel, 1985; Belsky, Rovine & Taylor, 1984; Frodi & Thompson, 1985; Lee & Bates, 1985; Lester, Hoffman & Brazelton, 1985; Sroufe, 1985).

The relationship between attachment and such variables as self-confidence, self-esteem, competency,

mastery, and social intimacy have been examined numerous times in young children, indicating that the type of attachment established has implications for the child's functioning in many areas. However, it is only recently that studies have begun to investigate attachment through the remainder of the life cycle. The purpose of this study was to examine late adolescent/early adult attachment and its relationship to other variables that reflect one's functioning within one's realm of personal relationships.

Empirical evidence exists for the types of attachment, the impact of such attachments on the child's level of functioning, and the primary role of the caregiver in the formation and development of the type of attachment bond. The effects of the type of attachment on the pre-school child have been well-documented (Arend, Gove & Sroufe, 1979; Easterbrook & Lamb, 1979; Grossman & Grossman, 1985; Lewis, Feiring, McGuffog & Jaskin, 1984, Lieberman, 1977; Main & Weston, 1981; Matas, Arend & Sroufe, 1978; Pastor, 1981; Sroufe & Waters, 1977; Waters, Wippman & Sroufe, 1979). However, there have been no longitudinal studies to follow these children into

adolescence and adulthood.

Thus, the research evidence for attachment theory's claim that the type of attachment formed in infancy has major implications for later stages of development has yet to be empirically validated. Research conducted with adolescents/young adults clearly indicates the impact of the parent-child relationship upon adolescent/young adult functioning. One study (Quinton, Rutter, & Liddle, 1984) found detrimental effects in adulthood for women who had been raised in an institutional setting, suggesting that disruption of bonds can result in developmental maladjustment. Although this study was retrospective, it still seems reasonable that there is a relationship between infant and adult attachment.

Given that the infant's attachment has been related to functioning in various areas, it makes sense that an adult's attachment to parents would be related to variables measuring interpersonal functioning. This research was designed to investigate late adolescent/young adult attachment.

Attachment has been investigated within a family context (Sullivan & Sullivan, 1980; Fleming & Anderson, 1986a). Differentiation refers to the

interpersonal process which maintains the psychological distance among family members. The concept of fusion helps to define the family system's level of differentiation. Fusion is a process whereby two family members' boundaries merge or become blurred (Fleming & Anderson, 1986). As the self/other boundaries become blurred, each person may lose his/her identity, in the formation of what Bowen (1976) called the "undifferentiated ego mass". Fusion describes a person's state of embeddedness in a relational context which is reflective of the degree to which individuation has occurred (Karpel, 1976).

It is possible that both differentiation and fusion are in some way similar to attachment. These three constructs have elements of emotional distance in common. In fusion the child becomes more or less entangled with the caregiver, depending on the early interactions between them. On the other hand, fusion could be a result of attachment, emerging out of the attachment relationship. For example, it would seem probable that the anxiously attached child might become more fused or enmeshed with the parent, as the child is constantly seeking love and approval; whereas, the secure child may be able to strive for a

more independent relationship with the caregiver, i.e., be differentiated. Is fusion a similar construct to attachment, and as broad a concept as attachment, or does it possibly have a place within attachment theory? The relationship between the type of attachment bond formed with the caregiver and the degree of fusion within the family system was examined in order to investigate the possible relationships that may exist between attachment theory and family systems theory.

The variables of locus of control, social intimacy, loneliness and health problems represent interpersonal functioning. In this study, measures of these variables were utilized for the purpose of investigating the relationship between attachment and late adolescent/young adult functioning.

The variable of locus of control has been studied in children and adults, but not linked to family systems theory or to attachment. Rotter (1966) introduced the terms internal and external to differentiate individuals on the degree to which they feel in control of their reinforcements.

Attachment studies have indicated that a secure attachment promotes self-confidence and promotes

cognitive, emotional, and social development. It appears that children with a secure attachment would tend to be more internal, believing that they have some control over their environment. One purpose of this study was to look at the possible relationships among attachment, fusion and locus of control.

It has been suggested that a strong relationship exists between an individual's experience with his/her parents, and his/her later capacity to form affectional bonds. Certain common variations in that capacity to make affectional bonds manifest themselves in marital problems and trouble with children, as well as in neurotic symptoms and personality disorders, and can be attributed to certain common variations in the ways that parents perform their roles (Bowlby, 1979). In many Western populations approximately one-third of the children do not receive the conditions necessary for them to grow up and become secure, trusting, self-reliant and autonomous adults (Bowlby, 1979).

Attachment theory speaks to the problems with interpersonal relationships later in life as a result of the original attachment relationship. Do these patterns of attachment persist into adolescence and adulthood? If they do, what is the current

relationship between the person's attachment behaviour and his/her ability to form affectional bonds? Once these bonds are formed, we need to ascertain whether a person can develop social intimacy with others (psychological closeness with others).

Conceptually, one could think of loneliness as the opposite of social intimacy. Loneliness, although possibly related to social intimacy, appears to be a separate entity, having to do more with how people evaluate and respond to interpersonal reality.

Loneliness is often thought of as a perceived state of pain and emotional distress (Lobdell, 1985). If this is the case, this distress could have implications for one's physical well-being/health. One's physical health can affect and be affected by one's perceptions of one's familial and other interpersonal relationships, and one's perception of the environment and his/her effect upon that environment. Therefore, a person's health problems, as measured by a health symptom check-list, also were investigated in this study.

In conclusion, the ideal methodology to test the effects of early childhood attachment on late adolescent/early adult functioning would be to conduct

a longitudinal study. This study investigated present attachment relationships. Although present day studies are not decisive in determining that early infant-parent attachment relationships have long-term effects into adulthood, they do provide support for the theoretical framework that suggests a causal order. They also can contribute methodologically to any longitudinal study because if a relationship is found to exist, it validates the constructs which can be investigated in such a study.

The main thrust of this study was to investigate parental attachment in late adolescence/young adulthood, and the manner in which this attachment relationship correlated with family system's construct of fusion, the personality variable of locus of control, the interactional constructs of social intimacy and loneliness, and health problems.

A review of the attachment literature is presented. This is followed by a review of the literature pertaining to the other variables, and their hypothesized relationships with attachment and each other. The methodology utilized is described, and the results of the study are presented. Finally, the results are discussed and related to the proposed

hypotheses.

Attachment:

Attachment behaviour can be defined in John Bowlby's words as:

"Any form of behaviour that results in a person attaining or retaining proximity to some other differentiated and preferred individual, usually conceived as stronger and/or wiser. As such the behaviour includes following, clinging, crying, calling, greeting, smiling, and other more sophisticated forms. It is developing during the second trimester of life and is evident from six months onward when an infant shows by his behaviour that he discriminates sharply between his mother-figure, a few other familiar people, and everyone else..." (1975, p.292).

Bowlby postulated that although attachment behaviour begins to diminish slowly in later childhood and gradually becomes less evident in both frequency of occurrence and intensity, it persists through the life cycle.

Bowlby conceptualized attachment as a goal-directed control system. The term "attachment behavioural system" refers to a psychological

organization hypothesized to exist within a person. This system is so constituted that feelings of security and actual conditions of safety are highly correlated. The system's set goal is to regulate behaviours designed to maintain or obtain proximity to, and contact with, a discriminated person or persons referred to as the attachment object (Bretherton, 1985).

From the psychological vantage point of the person who has become attached, the system's set goal is felt security (Bischof, 1975). Attachment behaviour tends to be most obvious when the person who has become attached is frightened, fatigued, or sick and is assuaged when the attachment figure provides protection, help, and soothing (Bretherton, 1985). Bretherton (1985) reports that according to Bowlby, the knowledge that an attachment figure is available and responsive provides a strong and pervasive feeling of security, and so encourages the person to value and continue the relationship. Kestenbaum (1984), like Bowlby, suggests that attachment systems are the very foundation of normal development. The belief that the attachment patterns established in infancy play a significant role in the patterning of the personality

has been proposed by many others besides Bowlby (Ainsworth, 1967; Hinde, 1982; Main, Kaplan, & Cassidy, 1985; Ricks, 1985). The importance of attachment has been recognized as a crucial first step towards socialization (Ainsworth, Bell, & Stayton, 1974; Bowlby, J., 1975, 1984; Brodsky, P., & Brodsky, M., 1979; Hirschi, T., 1969; Kestenbaum, C.J., 1984). An individual's attachment pattern determines how the personality and modes of interaction develop, and presumably affect the person's ability to enter into later secure attachment relationships.

Ainsworth, Blehar, Waters and Wall (1978), and many others have identified variations in the mother's characteristics which lead to three identified types of attachment: the secure attachment, the anxious/resistant attachment, and the anxious/avoidant attachment. Brodsky and Brodsky (1979) summarized the data compiled on the three identified variations of attachment. The securely attached infant has a mother who is empathic, sensitive and responds in a contingent manner to her infant. The intensity of the attachment is moderate, and the infant uses the mother as a secure base to explore the immediate environment. At 2 and 3 years of age s/he is self-confident and is

socially responsive and socially competent with other people. The attachment generalizes to other familiar people. His/her cognitive development is normal.

The anxious/resistantly attached infant has a mother who is non-empathic, insensitive, and responds non-contingently to her infant. Her interactions tend to be disruptive to his/her ongoing behaviour. The infant is attached intensely to his/her mother and clings to her rather than exploring his/her immediate environment. At age 2 or 3 years, s/he is an apprehensive or angry infant, not self-confident, and s/he does not easily generalize his/her attachments. When s/he does attach, it is of the same quality as his/her relationship with the mother. S/he could be described as the non-competent child.

The anxious/avoidantly attached infant has a mother who is non-empathic, insensitive, and non-contingent. She is rejecting and dislikes physical contact from and with other human beings. The anxious/avoidant infant at 6 to 10 months, and then again when a child of 2 to 3 years old, already is showing several characteristics associated with severe mental illness. This infant prefers objects to people and avoids his/her mother when she

is present, and as well, s/he avoids other people.
His/her cognitive development is deviant.

Currently, the mother-infant relationship is thought of as a dynamic transactional system in which mother, infant and the social milieu all contribute to the system's characteristics and its developmental products. Recent outlines of such a model have been provided by Bell (1979) and Sameroff (1982).

In the transactional model, any prognostic equation for predicting developmental outcome must include information about the biological factors and the caretaking environment. Thus, as Sameroff (1975) noted, children with biological problems reared in a deviant environment would have poor outcomes. Meanwhile such children reared in a supportive environment would fare better. However, Sameroff (1975) stated that "at each moment, month, or year, the characteristics of both the child and his environment change in important ways...moreover, these differences are interdependent and change as a function of their mutual influence on one another". Thus, Sameroff suggests a dynamic theory of developmental transaction where there is a continued and progressive interplay between the organism and

his/her environment. Each infant forms an attachment with the caregiver, each relationship having its unique qualities. Each infant evolves a particular way of dealing with both the separateness from the caregiver and the continued dependency. Each infant develops a certain orientation toward playmates and styles of interacting with them. These adaptations are unique for each infant and are based on the characteristics of the infant and the environment with which the child reciprocally interacts. This adapted organism then faces subsequent developmental issues and subsequent experiences from within that unique adaptation; thus, transforming as well as being transformed by later experience (Sroufe & Rutter, 1984). Sroufe & Rutter (1984) suggest that it is in this way that an adaptation that may have been serviceable at one point in development, such as avoiding an abusing caregiver, may later compromise the child's ability to draw maximally upon the environment in the service of more flexible adaptation. Therefore, a given pattern of early adaptation could lead a child to isolate him/herself from peers, to alienate them, to avoid emotionally complex and stimulating social interaction, or to

respond to such complexity in an impulsive or inflexible manner. If the adaptation compromises the normal developmental process, whereby children are able to interact in an emotionally supportive manner with peers, and to stay involved in social interactions in spite of the frequent emotional challenge of doing so, the child may be sacrificing an important shield against stress, and ultimately against psychopathology.

Numerous reports based on numerous samples relate peer competence, self-esteem, self-confidence, curiosity, coping with novel events, coping with failure, enthusiasm and persistence in problem solving, independence, sociability, and infrequency of behaviour problems to secure attachment in the pre school child (Ainsworth & Bell, 1974; Arend, Gove & Sroufe, 1979; Bates, Maslin, & Frankel, 1985; Easterbrook & Lamb, 1979; Erickson, Sroufe & Egeland, 1985; Grossmann & Grossmann, 1985; Lewis, Feiring, McGuffog & Jaskin, 1984; Lutkenhaus, Grossmann & Grossmann, 1985; Main & Weston, 1981; Matas, Arend, & Sroufe, 1978; Pastor, 1981; Sroufe, 1983; Sroufe, Fox, & Pancake, 1983; Waters, Wippman & Sroufe, 1979). There is also some evidence that attachment affects

curiosity and exploration, problem solving, development of self-esteem, and competency (Brodsky & Brodsky, 1981). These studies support the belief that beginning with attachment issues in infancy, each developmental period sets the stage for how the child adapts to the developmental tasks of the next period (Sroufe, 1979).

This applies not only to optimal patterns of adaptation, but to maladaptive patterns as well. Researchers have shown that pronounced difficulties with impulse control, aggression, other antisocial behaviours, prolonged emotional dependency, and extreme difficulty in relating to other children may be linked to adaptational failures during earlier periods when the major developmental issues were attachment and autonomy (Erickson, Sroufe, & Egeland, 1985; Sroufe, 1983). These authors also were able to show some tentative evidence of the often subtle differences between children exhibiting anxious/resistant and anxious/avoidant patterns of attachments in infancy. Sroufe's (1983) results indicated that children who had exhibited anxious/avoidant patterns of attachment in infancy were described by teachers as hostile, socially

isolated, and/or disconnected (psychotic-like) in the pre-school setting. One would predict this defensive posturing for a child with an attachment figure who is rejecting, emotionally unavailable, and perhaps depressed. Children who had been anxious/resistant in infancy were described by pre-school teachers as impulsive and tense, and/or helpless and fearful, patterns that are hypothesized to be the result of ambivalent/inconsistent or over-involved caregiving (Sroufe, 1983).

The studies on early attachment are plentiful and often provide corroborative support for each other. The problem is that the studies thus far have begun at infancy, and they have not been ongoing for a sufficient length of time to be able to delineate what the long-range effects of attachment disorders will prove to be in later life.

In an attempt to understand delinquency, sociologists have investigated the quality of the attachment relationship between the delinquent adolescent and his/her parents. One of the best sociological theories of delinquency is the control theory of Hirschi (1969). This theory suggests that delinquency occurs when an individual's bond to

society is weak. According to Gove & Crutchfield (1982), Hirschi found that delinquency was correlated negatively to degree of attachment.

In examining Juvenile Justice in England and Canada, it appears essential to establish the extent to which juveniles who commit offences are similar or dissimilar to neglected children on the one hand and status offenders on the other (Farrington, D., 1979). West & Farrington (1973) found that convicted delinquents, in England, were particularly likely to have been physically neglected as children, and their parents tended to be cruel, passive, neglecting or erratic in their attitude and discipline. In the United States, Glueck and Glueck (1950) found that institutionalized delinquents tended to have parents with indifferent, hostile, or rejecting attitudes, and McCord, McCord and Zola (1961) also showed that the parents of convicted delinquents tended to be cruel or neglecting.

Researchers, outside the realm of delinquency, have begun to relate later childhood, adolescent and adult behaviour and attitudes to earlier attachment relationships.

Early in life characteristic patterns of social

behaviour become established. The tendency to treat others in the same way that we ourselves have been treated is deep in human nature. A significant proportion of rejected and abused children grow up to perpetuate the cycle of family violence by continuing to respond in social situations with the very same patterns of behaviour that have developed during early childhood (Bowlby, J., 1984; Brodsky & Brodsky, 1979; Farrington, 1979).

Many of the studies that have examined the effects of disturbed attachments and bond disruption have done so in relation to parental loss through death and divorce. These studies have generally related these effects to the development of pathology or maladjustment in adolescence and adulthood (Lobdell, 1985; Shane, 1982). More recently, Cooney, Smyer, Hagestad and Kolock (1986) suggested that family stability may persist, in young adulthood, as an important factor for healthy psychological adjustment.

Greenberg, Siegel and Leitch (1982) assessed the nature and quality of adolescents' attachment to peers and parents by utilizing an Inventory of Adolescent Attachments. They found that the quality of

attachment to parents was significantly more powerful than attachment to peers in predicting well-being. This study confirmed prior studies that indicated that throughout high school, parents are highly valued for their nurturance and counsel, and that warm relationships with parents are related to high self-concept and ego identity. Greenberg et al. (1982) also found that the effects of high life stress were moderated by a positively perceived attachment to one's parents.

Fusion:

Attachment develops within a family context, and as recent studies are beginning to indicate, has a continued effect upon one's development and adjustment throughout the life cycle. As one's earliest attachments develop within a family context, it seems reasonable to investigate attachment relationships within this sphere.

Both individual and family systems theories stress the mediating impact of the individuation process on identity formation during adolescence and early adulthood (Sabatelli & Mazor, 1985). The basic assumption is that both the family system and the individual developmental perspectives have to be

considered as interdependent because the individuation and identity formation processes encompass two frames of reference - the individual's efforts toward separation from the family of origin, and the impact of these efforts on identity processes and the family system as the social framework within which, and in relation to which the individuation occurs. Sabatelli & Mazor (1985) suggest that individuation involves the subtle but crucial phenomenological shifts by which persons come to see themselves as distinct within their relational context. Karpel (1976) uses the term "fusion" to describe a person's state of embeddedness in a relational context which is reflective of the degree to which individuation has occurred. Karpel (1976) sees the process of individuation from fusion as a universal developmental and existential struggle, as well as a fundamental organizing principle of human growth. The degree to which the individuation process has occurred is thus reflected in the degree to which a person experiences himself/herself as being fused with another. The major characteristic of the fused relationship is the high degree of identification that exists between members of a dyad which is reflected in the complete dependence experienced by one on the

other.

While individuation specifies a subjective process referring to the relative degree of psychological distance an individual perceives from his/her parents, differentiation may be considered a property of the family system, and refers to the interpersonal processes which maintain the psychological distances between family members (Fleming & Anderson, 1986; Sabatelli & Mazor, 1985).

Families characterized as relatively poorly differentiated are thought to regulate interpersonal distances by blocking the psychological separation and autonomy experienced by its members. What is seen in these families is a fusion of individuals where family members are extremely reactive to one another. As the self-other boundaries become blurred, each person may lose his/her identity, in the formation of what Bowen (1976) called the "undifferentiated family ego mass." In well differentiated families, an emotional connectedness exists that permits a feeling of individual separateness, while still maintaining a feeling of connectedness. An adaptability that allows for healthy coping with life stresses allows family members to function as part of a group, while

maintaining their individuality.

The family system's level of differentiation and the individuation process both have an important impact upon identity formation. Sabatelli & Mazor (1985), suggested that there are a variety of pathways by which people approach their developmental growth. It is important to look at the interpersonal relationships within the family as a crucial indicator of identity formation. The characteristics of the parent-child relationship influence the individuation process, which appears to be critically bound to the process of identity formation. In fused relationships effort goes into seeking love and approval or attacking the other for not providing it, so that there is little energy left for self-determined, goal-directed activity (Bowen, 1978). For the adolescent, this results in insufficient personal resources available for the completion of developmental tasks and personal adjustment (Fleming & Anderson; 1986a). Anderson & Fleming (1986a) agreed with Sullivan & Sullivan (1980) that it was important for adolescents to have a secure, positive attachment to parents, if leave-taking from home and college adjustment were to occur with relative ease. Fleming

& Anderson (1986a) found that perceptions of personal control and living apart from parents accounted for a greater proportion of the variance in both ego identity and college adjustment than did emotional attachment to parents. Feelings of physical separateness and personal control over their own lives were very important. It seems plausible to suggest that the ability to attain the feelings of physical separateness and personal control are dependent upon the positive, supportive relationships with family and upon the level of differentiation that has been achieved within the family system. If fusion is present between one parent and the adolescent, then it makes it difficult for the adolescent to distinguish himself/herself from others (Fleming & Anderson; 1986b). There has been documentation for the relationship between ego identity and adolescent's perceptions of their parents as emotionally supportive and encouraging of independence (Fleming & Anderson, 1986b).

Sullivan & Sullivan (1980) suggest that the study of adolescent development demands an interactional life span approach in which aspects of the process of adolescent development are redefined in terms of a

reciprocal process of adolescent-parent development. Fleming and Anderson (1986b) support this view, suggesting that perceived intergenerational fusion is a significant predictor of adolescents overall ego identity. Their analyses of the ego identity subscales revealed that fusion was significantly related to four of the five Eriksonian psychosocial stages measured by the Rasmussen (1964) Ego Identity Scale. These included trust-mistrust, autonomy-shame, initiative-guilt, and identity-identity confusion. This study indicated that a highly significant relationship exists between late adolescents' perceived level of identity-identity confusion and perceived level of individuation from and differentiation within their families of origin.

The Eriksonian stage of trust (Erikson, 1968) coincides temporally with the formation of the attachment bond. Hence, attachment and basic trust would show some relationship. It appears that the degree to which an adolescent is fused or enmeshed within his family system is determined by his/her interfamilial relations in adolescence, and in early childhood. According to attachment theory an infant may have a secure, anxious/resistant, or

anxious/avoidant attachment to his/her caregiver. The particular type of attachment bond formed is determined early in life, and future life events either confirm that attachment bond or modify it. It appears that the degree to which an adolescent is fused or enmeshed within his family system is one indication of the type of attachment that exists between the adolescent and his/her parent(s). The adolescent who is deeply enmeshed in the family has not achieved a high level of differentiation, or successfully passed through the individuation process. Perhaps this adolescent has an anxious/resistant attachment bond to his/her parent(s). Conversely, the adolescent who has achieved a high level of differentiation and who is successfully passing through the individuation process is more securely attached. Kroger (1985) suggested that attachment patterns from the Separation Anxiety Test may allow a more detailed understanding of the actual separation-individuation process during adolescence, indicating a relationship between these attachment patterns and the separation-individuation process. Campbell, Adams and Dobson (1984) also found that emotional attachment to parents, as well as the

encouragement of independence striving by parents, is associated with healthy identity formation.

Locus of Control:

Just as fusion and attachment seem to have some relationship in terms of family constellation and family patterns, it seems logical to assume that there would be a relationship between these variables and locus of control.

Rotter (1966) introduced the terms internal and external control in order to classify individuals on the degree to which they feel in control of their reinforcements. Internal control refers to the perception that an "event is contingent upon (one's) own behaviour" (Rotter, 1966, p.1). External control refers to the perception that an action is "not being entirely contingent upon (one's) actions,...it is typically perceived as the result of luck, chance, fate; as under the control of powerful others" (Rotter, 1966, p.1).

In recent years, there has been a widening interest in the social origins of locus of control (Lefcourt, 1976). Katkovsky, Crandall and Good, (1967) used home observations, interviews and questionnaires to suggest that the degree to which a

child's parents are protective, nurturant, approving and non rejecting is related to the child's beliefs in internal control of reinforcements. The child is more likely to believe in internal control if there has been the maintenance of a supportive, positive relationship between parent and child rather than a punishing, rejecting and critical relationship.

Davis and Phares (1969) compared parents' attitudes about child rearing, children's reports of parental behaviour, and the parent's own locus of control scores with those of their university aged children. The children who were classified as extreme internals recalled their parents as having had more positive involvements with them, as well as less rejection, hostile control, inconsistent discipline, and less withdrawal from them than did extreme externals.

Hamsher, Geller and Rotter (1968) obtained a significant correlation between internal-external control and interpersonal trust. Miller and Minton (1969) found that externals violated experimental instructions significantly more often than did internals, indicating the externals attitude of interpersonal suspiciousness or mistrust.

Anderson and Fleming (1986A) discovered that perceptions of personal control and living apart from parents accounted for a greater proportion of the variance in both ego identity and college adjustment than did emotional attachment to parents. This study suggests that while it is important to maintain a positive supportive relationship with parents, adolescents' own identity and psychosocial adjustment needs require that this relationship be outweighed by feelings of physical separateness and personal control over their own lives. Does one require a positive relationship with parents in order to develop personal control, and the ability to separate from the family? A study conducted by Teyber (1983) contrasted adolescents from families in which the parents' marital relationship was reported as primary (the most important relationship in the family) with adolescents from families in which a parent-child coalition was reported as primary. He found that adolescent males who were from families in which the primary relationship was reported to be between parents were more successful at college, as measured by GPA, and were more internal on a locus of control scale than other adolescents.

In reviewing research concerning the social antecedents of locus of control, Lefcourt (1976) realized that the overall findings were impressive in their relative consistency. Warmth, supportiveness, and parental encouragement appear to be essential for the development of an internal locus of control. The warm and protective home that has been found to be associated with the development of an internal locus of control is one where the child is protected in his/her early years but not squelched; where he/she is sheltered from the frustrations that can occur when a child is young and relatively helpless and thus kept from developing a more fearful approach to life's challenges. However, the developing child is given the freedom to explore his/her world. This is facilitated by some distance and criticality on the part of the parents. The purpose of this is to encourage a more active interplay between the child and his/her physical and social environment, so as to provide the opportunity for the child to observe the effect of his/her behavior outside of the home environment. Lefcourt (1976) also suggested that perhaps the fact that the children with an internal locus of control recall their homes as more warm and

nurturant than do external children is indicative of the acceptance they received when attempting their own movement towards independence. Lefcourt (1976) concluded that an attentive, responsive, critical, and contingent milieu is a precursor of the development of an internal locus of control.

An internal locus of control appears to be related to a secure attachment while an external locus of control appears to be related to an insecure attachment. The terms warm, nurturing, contingent, trusting, and supportive all relate to a secure attachment, as well as to internality. The terms rejecting, hostile, and distrustful are related to an insecure attachment, as well as to externality.

Internality also appears to be related to non-inhibitiveness, encouragement for individual development, healthy separation from family, and a primary relationship existing between parents rather than between parent and child. All this points to the appropriate amount of emotional distance between parent and child, necessary for the healthy resolution of a child's individuation from and differentiation within the family system. It appears that the child who has an internal locus of control is not highly

fused within the family system. However, the child who has an external locus of control would appear to be enmeshed or highly fused within the family system.

It could be hypothesized that a secure attachment leads to an internal locus of control, and an anxious/resistant attachment will lead to an external locus of control. The question remains about the relationship between anxious/avoidant attachment and locus of control. Lefcourt, Martin and Saleh (1984) found that internals express less need of but show better effects from having social support than do externals. Some of the internals in their sample who appeared to be devoid of social support bear similarity to internals that have been used in helplessness investigations. Although there was no evidence to support the hypothesis from their data, Lefcourt, Martin and Saleh (1984) suggested that those who were more global and stable in their self-blaming tendencies might also be those who do not have the benefit of social supports when needed. Internals who use supports to provide themselves with social comparisons, perspective taking, and advice would be less likely to blame themselves for failure, and therefore, less likely to experience dysphoric moods.

There are two types of internals, those with depressive tendencies and those who appear to be resilient. It could be hypothesized that the internals with depressive tendencies are the ones who have an anxious/avoidant attachment, while the internals who show resilience are the ones who have a secure attachment. It could also be speculated that it may be the access to social supports that determines the direction of the relation.

Social Intimacy:

Given the finding in the locus of control literature concerning the moderating effect of a social support system, the question arises as to the extent to which people avail themselves of this support. This question logically leads into a discussion on social intimacy. It is really not known if the component of social support which people rely upon is social intimacy (self-disclosure). One hypothesis is that it is the variable of social intimacy that is important in the social support network. If this hypothesis is confirmed, then it would follow that one must be able to interact with others at an intimate level in order to utilize the support that may be offered by others. Direct

support for confirming this hypothesis comes from a number of researchers who have noted the importance of closeness with others, including closeness with spouse, with friends, or with family members (Miller & Lefcourt, 1982).

Waters, Wippman, and Sroufe (1979) think that a positive affect toward the attachment figure would generalize to others. Their research showed that within their group of infants studied at the age of 18 months and then again at 3 and 1/2 years of age, children assessed as securely attached scored higher in personal and interpersonal competence and peer leadership ability, while anxiously attached children were rated as more socially withdrawn, unsympathetic to peer distress, and they were avoided by other children. As would be expected, these children scored significantly lower in personal and interpersonal competence. A child's relationship with others, both inside and outside the family unit, appears to be greatly affected by his/her early attachment relationships. Although social competency is not necessarily equivalent to social intimacy, if one is socially withdrawn, unsympathetic to other's distress, and avoided by others, one is not able to allow

himself/herself the opportunity of positive interaction. This would preclude the possibility of forming intimate relationships.

Bell, Avery, Jenkins, Feld, and Schoenrock (1985) explored the relationships between reported closeness to parents and perceived social competence and peer relationships among late adolescents. Their results showed that secure parent-child attachment serves to promote social competence and satisfying peer relationships during adolescence, as well as during early childhood. Significant and positive associations existed between intrafamily affect and social competence/peer relationships in the analyses. The findings supported a synergistic model in many aspects. Close relationships with parents were associated with greater satisfaction in peer relationships, contraindicating a replacement of family bonds with peer bonds during adolescence. The degree of positive affect for siblings was related to both parental affect and satisfaction in peer relationships, further suggesting that common processes are involved in relationships inside and outside the family. There also was no evidence that students turned to peers for support when family

relationships were poor. In general, the results support the view of basic compatibility between family and peer relationships of the adolescent (Bell, Avery, Jenkins, Feld, & Schoenrock, 1985).

Anderson and Greenberg (1986, under review) found that quality of parent and peer attachments in late adolescence were highly associated with adolescents' psychological well-being. It appeared that even in a college-aged population, the present perception of family relationships continues to be linked to well-being. Adolescents classified as securely attached to their parents appear to be very well adjusted, possessing higher than average self-esteem, and enjoying frequent and satisfactory communication with their families. Almost half of these subjects also reported a high quality to their relationships with peers. The results also suggested that this was not the case among adolescents characterized by insecure parent attachment. These students described feelings of resentment and alienation. There also was an emotional and verbal detached quality to their relationships with their parents. These data suggest that those adolescents characterized by insecure attachment to parents may be more vulnerable to the

deleterious effects of change on well-being.

Anderson and Fleming (1986, under review) think that these findings are consonant with Greenberg et al.'s (1984) data suggesting a moderating effect of positively perceived attachment to parents but not to peers in a sample of 12 to 19 year olds. Together, these results suggest a buffering role of intimate relationships in adolescence.

As mentioned earlier, attachment theory postulates that the representational models of attachment figures of the self constructed during childhood and adolescence tend to persist into adulthood. Consequently, a person's behaviour may sometimes be more explicable in terms of his/her early experiences because one tends to assimilate a new person with whom one bonds (i.e., spouse or therapist) to an existing model, even though it is inappropriate. For example, a man who was threatened with abandonment during childhood may fear his wife will leave him, even though he believes she is loyal. Patterns of interaction which become established between a child and his/her mother or other caregiver have a potent influence on the quality of his/her social relationships in adulthood (Shane, 1982).

From a family systems point of view, it is possible that adolescents who have not undergone the process of individuation and differentiation from the family of origin have greater difficulty in forming and expressing their own opinions. This could cause them to feel insecure when relating to others. It has been suggested that the development of ego-identity is a condition of cognitive factors expressed in and reciprocally modified by different styles of social interaction (Slugoski, Marcia & Koopman, 1984). On the social-interactional side, high identity subjects (those who have undergone a process of self exploration) seem more open, more co-operative, and more at ease in discussions on controversial issues, whereas low-identity subjects (those who do not have any views of their own on any subjects) seem to care less for the feelings and opinions of others and participate less comfortably in the interactions. Foreclosures (subjects whose positions are usually parentally rather than self-determined) seem to defend themselves either by antagonistically warding off the opinions of others or by indiscriminantly acquiescing to them, both patterns that are likely to preclude advances in either integrative complexity or identity

(Slugoski, Marcia, & Koopman, 1984).

Lefcourt, Martin and Saleh (1984) suggested that social support plays a major role in determining how internals respond to stress. They felt it was obvious that locus of control, by itself, does not produce consistent ameliorating effects. A reliable moderation of stress effects is seen only in interaction with measures of social support. It can be conceived that the more internal individuals draw more useful information and nurturance from close relationships. Lefcourt, Martin and Saleh (1984) suggested that social support may serve to protect those who regard themselves as the agents of their own experiences.

Loneliness:

Locus of control and the quality of one's social interactions interact with each other, and together they provide an ameliorating effect from stress. The quality of one's social interactions also seems to affect feelings of loneliness.

Jones (1981) indicated that the quality of social interactions is a more potent influence on feelings of loneliness than quantity of time spent in social interactions. He found that lonely and nonlonely

people engage in roughly equivalent amounts of interaction with others, but that for lonely persons these interactions may occur less with intimate friends and family and more with acquaintances and strangers.

Medora and Woodward (1986) found that subjects who indicated that they generally found it easy to make friends had the lowest loneliness scores, while those who claimed that they never found it easy to make friends had the highest loneliness scores. The number of close friends was not found to be associated positively with loneliness scores, but ease in making friends was an important variable. There was no significant difference in the loneliness scores of adolescents who had experienced varying levels of happiness during their childhood. However, the scores did follow an ascending order. Students who said that their childhood had been very happy had the lowest loneliness scores, whereas subjects who reported that their childhood had been very unhappy had the highest loneliness scores.

The basic premise underlying many of the studies conducted is that if intimacy needs of childhood are not met through the attachment between the child and a

parenting figure, the individual is likely to have problems of adjustment and possibly experience loneliness in later life (Lobdell, 1985). Lobdell and Perlman (1986) while reviewing retrospective studies that had been carried out, found that lonely adults typically depicted their parents as cold and low in nurturance.

Lobdell and Perlman's (1986) study involved parents and daughters, and the loneliness scores of parents and daughters were found to be positively correlated. Child-rearing practices, particularly a lack of positive parental involvement, contributed to the loneliness of offspring. Three variables, positive involvement with parents, depression, and the social comparison measure of number of friends, repeatedly emerged as strong correlates of students' loneliness.

In addition to replicating many of the previously reported correlates of loneliness cross-culturally, the data obtained from a study by Jones, Carpenter and Quintana (1985) represented the first instance in which a variety of variables were assessed simultaneously on the same sample. Substantial stability existed among the predictors of loneliness

as compared to other studies. They found that the personality and attitude predictors of loneliness were relatively stable across cultures, and they explained 45% to 50% of the variance in loneliness scores. Their analyses also replicated the commonly reported findings that qualitative indexes of relationships (closeness to parents, closeness to friends, closeness to siblings, disclosure to friends, and social satisfaction) are better predictors of loneliness than are quantitative measures (number of close friends, steady partner, dating frequency, and frequencies of social activities).

Wilbert and Rupert (1986) investigated the role of dysfunctional attitudes in loneliness among college students. The results indicated a strong predictive relationship between dysfunctional attitudes and loneliness. They found that the clusters of dysfunctional attitudes that seem most typical among lonely college students are centered around unhappiness over the absence of a satisfying romantic relationship. A primary motivation appears to be the avoidance of being hurt by romantic rejection. Their results also suggested that lonely college students also have doubts about their desirability to others

and generally feel very unsure of themselves in interpersonal interactions. Anxiety, fear of embarrassing oneself and a general negative evaluation of self, particularly in the social realm, also were suggested to be present in the lonely college student.

When investigating social network variables in relation to loneliness, Stokes (1985) found that density was related most strongly to loneliness. It was more strongly related to loneliness than the size of one's social network or the number of close relationships. He felt that students who had relatively dense networks, in which the members are interconnected and are important in each others lives, tend to be less lonely. Stokes (1985) felt that high density networks might provide people with a sense of community which tempers feelings of loneliness. While the numbers (density) appear to be relevant, it also could be that it was the feelings of interconnectedness and belonging (suggesting intimacy) which assuaged the feelings of loneliness.

Stokes (1985) also associated extraversion with loneliness. The relation of extraversion and loneliness was mediated largely by the social network variables. When the social network variables were

entered into the equation used for predicting loneliness before extraversion, the variance in loneliness accounted for by extraversion was reduced by more than half. When the social network variables and the individual difference measures are used in combination to predict loneliness, the independent contribution of extraversion is small and not statistically significant. Although these correlational data do not allow causal statements, they seem to be consistent with the idea that extraverts are less lonely when they have larger networks with more people to whom they feel close.

Franzoi and Davis (1985) suggested that one personality characteristic that has not received attention as a potential influence on self-disclosure is the individual's dispositional level of self-consciousness. Private self-consciousness refers to the dispositional tendency to focus attention on the more private and covert aspects of oneself. These aspects can include one's internal emotional states, motives, and reflections about past experiences. These authors suggested that one could conclude that high levels of private self-consciousness are associated with a better, more detailed, and more

accurate knowledge of internal self-aspects. It would seem that these persons seem to be better equipped to self disclose than others.

Franzoi and Davis (1985) tested a model in which antecedent personality and parental variables were predicted to affect peer and parental self-disclosure, with peer self-disclosure then affecting experienced loneliness. As predicted, the more privately self conscious subjects reported greater self-disclosure with their friends. They suggested that those high in private self-consciousness may provide more information to their friends through intimate self disclosure than do persons low in self-consciousness. If this is true, then these friends might possess better knowledge of how these highly self-conscious peers view themselves. Furthermore, because self evaluation is in large part derived from social evaluation, the tendency of the individuals high in private self-consciousness to engage in self disclosure may be one reason why they understand themselves better. It was felt that discussing their private thoughts, feelings and aspirations with their friends may help them in better understanding themselves, thus resulting in a clearer, more

articulated self-concept.

Respondents also reported greater self-disclosure to parents who were perceived as warm and loving. It was also suggested that some aspects of family relationships, specifically the affective tone of relationships with mother, may be important in determining men's feelings of social isolation. The authors stated that these results did not indicate that parental warmth is unimportant or that women's loneliness is unaffected by parental warmth.

One way to expand the above model would be to predict that warm and nurturing early parent-child relationships would lead to the development of self awareness and the ability to introspect. This would allow one to disclose to friends, which in turn would allow intimate relationships, and by inference, the prevention of loneliness.

Health Problems:

Ever since Grecian times, and perhaps even before then, we have assumed that there is a reciprocal relationship between our emotional and physical well being or a person's dis-ease and disease. It is not until recently, however, that this relationship has been able to be empirically tested (Cline & Chosy,

1972). Cline and Chosy (1972) reported that disturbance in social equilibrium was reflected in the disturbance of physiological equilibrium manifested by perceived and reportable health changes.

Holahan and Moos (1986) demonstrated that feelings of self-confidence, an easy-going disposition, a disinclination to use avoidance coping, and the availability of family support operate jointly to protect individuals from negative psychological consequences of life stress. These results indicated that a constellation of stress-resistance factors can predict psychological reactions to stress experienced up to one year later even when prior psychological distress is controlled. For women, the predictive stress-resistance effect extended to psychosomatic complaints experienced one year after initial testing. The failure to demonstrate a predictive role for stress-resistance among men on psychosomatic symptoms appears because of the reduced role that family support and self-confidence play in protecting men from physical complaints. For both males and females, family support and the secure feelings that develop from that support appear to affect their psychological and physical well-being.

Bray, Williamson and Malone (1984) found that fewer physical and psychosomatic symptoms and stresses correlated positively with less fusion. Fleming and Anderson's (1986) study of adolescents suggested that adolescents perceived level of fusion with their parents was significantly related to their perceptions of self-esteem, sense of mastery, health and college adjustment.

A growing body of evidence indicates that the perception of social support is beneficial for mental and physical health. Reis, Wheeler, Kernis, Spiegel and Nezelek (1985) found that the presence of social support helps people fend off illness, and the absence of such support makes poor health more likely. Some types of support seem to be more relevant to well-being than others. Therefore, Reis et al. (1985) looked at quantity, quality of interaction and social disposition, suggesting that they would relate differently to health. They found that for females, psycho-social personal problems related to effectively poor socializing. This pattern extended to intimacy, other disclosure, pleasantness, and satisfaction, mostly with the opposite sex, but with the same-sex groups as well. Women with more psycho-social

personal ailments also were lonelier and more afraid of negative evaluation. The women with these problems were not isolated in any quantitative sense, rather, the poor quality of those interactions that did occur evidently related to somatic problems. From the more specific categories, they inferred that these symptoms were primarily mental health, nervous system and mental disorders, blood-circulatory, and skin subcutaneous tissue problems. The results emanating from this research also suggested that interaction quality was the primary factor. Good health may be facilitated not by the number of interactions but by the affective closeness that occurs in those interactions.

For males, the pattern of results was more complex in that masculinity and femininity influenced the manner in which symptoms were expressed. The results supported the notion that social relations have a specific impact on health.

Cobb (1976) reviewed the buffering effects of different kinds of social support on the development of physical symptoms as a result of stress throughout the life cycle. He has proposed that information relating to three main categories seems to be of value

for these moderating effects. The three main categories were feeling loved and cared for, feeling esteemed and valued with a resulting sense of personal worth, and a feeling that one belonged to a network of communication and mutual obligation. A review of the literature indicated that the importance of intimacy in predicting the individual's response to stress has received empirical support across all age groups studied (Miller & Lefcourt, 1982).

Sarason (1987) also suggested that the common core of social support has to do with the degree to which a person feels accepted, cared for and loved by other people. Involvement in open relationships also is important. It is the feeling of being cared for and loved that is protective and provides the mediating process for life stress and physical illness. Sarason (1987) has found that there is a correlation between one's perception of the availability of social support and negative life events and physical health.

Pilisuk, Boylan and Acredolo (1987) found that clinic visits were associated with increasing age, life stress levels, and lower levels of social support. Social support appeared to contribute as a

main effect for men and as an influential moderator for both sexes. High social support reduced the negative impact of stress for both, and the effect was accentuated with increasing age among men. It was found that life stress contributes to an increased rate of medical care unless buffered by the effects of social support. This study utilized a definition of social support that included not only the provision of physical, social and emotional assistance, but also the subjective consequence of making individuals feel that they are the object of enduring concern by others. This subjective component was seen as important because of the likelihood that some aspects of the protection against illness provided by social support derives from the security it provides for the self-concept. The security for the self-concept has been viewed as the mediator involved in the neuroendocrine processes that make an impact on certain biomedical components of the immune system (Pilisuk, 1982). These findings suggest that the social intimacy component of social support contributes to physical well-being.

Internal locus of control also appears to be an important moderator of the effects of life stress on

both physical health and psychological symptoms (Johnson & Sarason, 1978). These authors reported an association between life stress, anxiety and depression for college students who had an external locus of control, but they found no such relation for those with an internal locus of control.

A study investigating the effects of high and low assertiveness on locus of control and health problems suggested that highly assertive individuals were more likely to be internally controlled than are individuals low in assertiveness. Also, the highly assertive and internally controlled may experience fewer health symptoms and lower frequency of their occurrence than those low in assertiveness (Williams & Stout, 1984).

A reciprocal relationship appears to exist between physical health and psychological well-being. Psychological well-being logically could include the extent to which people are attached, autonomous, internally motivated, and involved in intimate interpersonal networks, so as to not experience loneliness.

Hypotheses:

This study was conducted to examine late

adolescent/early adult attachment and its relationship to other variables that appear to reflect how one functions within one's realm of personal relationships. Specifically, the following hypotheses were investigated:

I. It was hypothesized that parental attachment was related to the following variables:

a. Locus of control. It was predicted that parental attachment and locus of control have a curvilinear relationship. Externality increases with parental attachment from detachment or anxious/avoidant attachment to insecure attachment and decreases with parental attachment from insecure to secure attachment. The literature has suggested that the young adult who has an internal locus of control could be securely attached. This individual would have experienced a warm, nurturing and supportive environment in which s/he was allowed to develop in a manner which permitted him/her to be able to accept the responsibilities for his/her own actions. The internal young adult also could be internal in the negative sense of the word, being unable to cope with the environment and, therefore, withdrawing from it. This person, it was predicted, would be detached or

anxious/avoidantly attached. The person who was insecurely attached would be external. This person would consider his actions to be due to others or to the existing situation.

b. Social intimacy. It was hypothesized that as attachment increased or became more secure, social intimacy increased. Thus a direct linear relationship between social intimacy and parental attachment was predicted. The relationship between one's perceptions of the availability of parental support and social intimacy has been well documented. It was predicted that the more secure the relationship with one's parents, the greater one's ability and likelihood to form intimate relationships with others.

c. Loneliness. It was hypothesized that loneliness would decrease as attachment increased or became more secure. The prediction was for an inverse linear relationship. It was suggested that the less secure the attachment relationship, the greater the likelihood that one would experience feelings of loneliness. It was hypothesized that if the attachment relationship between the parenting figures and the young adult are not perceived of as warm, nurturing and supportive, then the young adult was

more likely to experience loneliness.

d. Health problems. It was hypothesized that the number of health problems would decrease as attachment increased or became more secure. An inverse linear relationship, therefore, was predicted. It was hypothesized that young adults who are securely attached would have fewer health problems than young adults who were not securely attached to their parenting figures.

II. It was hypothesized that parental attachment and locus of control together, would serve as stronger predictors of the following variables, than attachment alone:

a. Social intimacy. It was hypothesized that an internal locus of control and a detached or anxious/avoidant attachment would predict low social intimacy. An external locus of control and an insecure attachment would predict low to moderate social intimacy. An internal locus of control and a secure attachment would predict high social intimacy. It was hypothesized that the individual who was anxious/avoidantly attached or detached would have an internal locus of control and show low social intimacy. This individual, it was suggested, would be

unable to form intimate bonds with others. The individual that was insecurely attached would be external and exhibit low social intimacy. This individual would tend to be insecure about his/her relationship with his/her parents and his/her ability to exercise control over his/her own life. This person would have difficulty forming intimate bonds with others. A secure attachment and an internal locus of control (in the more healthy sense of personal control over life events) would be accompanied by high social intimacy. This person has experienced a supportive environment which permitted a healthy personal development including the ability to form and enter into close relationships with others.

b. Loneliness. It was hypothesized that an internal locus of control and an anxious/avoidant attachment would predict loneliness. An external locus of control and an insecure attachment also would predict loneliness. An internal locus of control and a secure attachment would predict the absence of loneliness. Loneliness appears to be related to attachment and locus of control in much the same manner as social intimacy. If one were very insecurely attached or detached and withdrew from the

environment, one would experience great loneliness. The individual that was insecurely attached and external would have difficulty forming intimate bonds with others. This person may have a number of social acquaintances but, despite the number of existing relationships, would experience loneliness due to the inability to form close relationships with others. The internal and securely attached individual would be able to enter into close and intimate relationships and, thus, not experience loneliness.

c. Health problems. It was hypothesized that an internal locus of control and an anxious/avoidant attachment would predict the presence of a number of health problems. An external locus of control and an insecure attachment also would predict the presence of a number of health problems. An internal locus of control and a secure attachment would predict the presence of very few health problems. The psychologically healthy internal and securely attached person would experience few health problems. The external person who is insecurely attached would experience fewer health problems than the person who is internal (withdrawn) and anxiously/avoidantly attached or detached, but more health problems than

the person who was internal (experienced personal control) and securely attached to parents. The implication is that one's physical health is related to one's psychological well-being. The more secure and in control of one's life one feels, the fewer health problems one experiences.

III. The relationship between parental attachment and fusion also was investigated in this study. It was hypothesized that as fusion decreased, attachment should increase or become more secure, demonstrating an inverse linear relationship. The less fused an individual is within his/her family system, the more securely attached is that individual to his/her parents.

IV. It was hypothesized that fusion is related to the variables of locus of control, social intimacy, loneliness and health problems in the same manner as parental attachment. It was hypothesized that the degree to which one was fused within the family system would have differing effects upon the following variables:

a. Locus of control. It was hypothesized that as fusion decreases from high to moderate externality increases, and then decreases as fusion

decreases from moderate to low. Hence, a curvilinear relationship was predicted.

b. Social intimacy. It was hypothesized that as fusion decreases, social intimacy increases. The prediction was for an inverse linear relationship.

c. Loneliness. It was hypothesized that as fusion increases, loneliness increases. This prediction was for a direct linear relationship.

d. Health problems. It was hypothesized that as fusion increases, the number of health problems increase. This prediction also was for a direct linear relationship.

Implicit in this study is a hierarchy of when the above behaviours emerge. For example, it is suggested that attachment precedes and may underlie, the other variables being investigated. On the other hand, the situation is much more complex. A person's overall health status, for example, may have a genetic basis, that is, constitution. There is also some data that suggests loneliness may be partially inherited (Lobdell & Perlman, 1986; Greene, 1984, unpublished). Lobdell and Perlman (1986) found that loneliness appeared to be transmitted between mothers and daughters. Greene (1984, unpublished) suggested that

loneliness may predate social intimacy, and that a predisposition for loneliness may appear early on in life.

All the measures in this study were taken concurrently. Therefore, no statement of cause could be made. However, the theoretical framework suggested a causal order. The hypotheses were developed from that framework. Nevertheless, as stated above, the possibility of co-determination of all variables by a preceding variable, or the determination of attachment by the other variables measured in this study must be kept in mind. For obvious reasons one study cannot clarify all these issues, but the data may be able to provide some clarification for some of these relationships. Since this study was investigatory, specific hypothesis beyond those suggested would be premature.

Method

Subjects:

Subjects were 338 students in psychology classes at the University of Manitoba. All subjects met the requirements of being between the ages of 18 and 25 years, single, and English speaking since the beginning of elementary school. The age group being examined was late adolescence/young adulthood. Therefore, the age of the subject had to be within the appropriate age limits. An existing serious relationship (living together or married) or a previously existing serious relationship (separation or divorce) might have acted as a confounding variable due to possible differences between single and non single groups. Participation in the study involved the completion of six questionnaires presented in English. It was felt that it was important that all subjects be fluent in and have a good understanding of the English language.

During the course of the data collection, it was brought to the examiner's attention that a few participants had lost a parent, either through death or divorce. These participants, therefore, were not able to complete all the questionnaires.

Participation in the study was completely anonymous. Code names were used by each subject. Subjects were informed that participation in the study could be terminated at any point if they felt any discomfort with completing the questionnaires. The time required to complete all the questionnaires was approximately 35 to 45 minutes. Subjects who desired feedback on the study were requested to leave their names and addresses in order that a summary could be sent to them at the completion of the study.

Apparatus:

Six questionnaires comprised the apparatus for this study. They were as follows:

1. The Inventory of Parent and Peer Attachment (IPPA). The Inventory of Parent and Peer Attachment was developed with two samples of undergraduate students. Scale construction began with expanding the Inventory of Adolescent Attachments (Greenberg et al, 1984).

The attachment items were factor analyzed. The three final parent scales were: Trust (10 items; alpha = .91), Communication (10 items; alpha = .91), and Alienation (8 items; alpha = .86). Examination of the ranges of scores revealed that at least 68%, and

on the average 80%, of the possible score-ranges of these scales were utilized by the sample, indicating acceptable differentiation of subjects.

The final sets of parent items were factor analyzed. Factor loadings for the Parent items ranged from .45 to .74.

The Pearson correlations between the three parent scales were all significant at the 1% significance level or less. Trust and Communication scores were highly correlated within the Parent ($r = .76$).

For a separate sample, three week test-retest reliabilities were .93 for the Parent Attachment Measure. The IPPA has shown substantial reliability and good potential validity as a measure of perceived quality of close relationships in late adolescence.

Since the proposed study dealt with attachment to parents, only the Parent Scales were utilized in this study. The questionnaire consisted of 25 questions about one's relationship with one's mother, and 25 questions about one's relationship with one's father. Therefore, three scores could be obtained from this scale, a maternal attachment score, a paternal attachment score, and a parental attachment score. The higher the score, the more secure the attachment.

2. Intergenerational Fusion/Individuation

(INFUS) Scale. This scale is part of the Personal Authority in the Family System Questionnaire (PAFS), Version C. This questionnaire is a self-report instrument which was designed to assess important relationships in the three-generational family system. The PAFS-Q provides a self-report measure of intergenerational family relationships as perceived by each individual in the family. An individual rates his/her current relationships with relevant family members in both the family of origin and nuclear family or dyadic relationship. There are currently three versions of the PAFSQ. Version C is for college students without children (Bray, Williamson, & Malone, 1984b). The items in the Intergenerational Fusion/Individuation (INFUS) scale measure the degree to which a person operates in a fused or individuated manner with parents.

The reliability of the PAFS-Q was assessed in two different studies by Bray, Williamson, and Malone, (1984a). The reliability estimates were generally consistent across time periods. The scale demonstrated excellent to good reliability. Test-retest reliability estimates were also calculated.

The reliability estimates range from .55 to .95 with a mean test-retest reliability of .74. The Intergenerational Fusion/Individuation scale is the only scale that did not fall within an acceptable range. Anecdotal evidence from subjects indicates that taking the INFUS is an intervention which produces changes in their perceptions of their parents. The low test-retest reliability probably reflects these changes rather than simple mood shifts (Bray et al, 1984a).

In study II of Bray et al (1984a), the conceptual scales were factor analyzed. Cronbach's alpha was calculated for each unit weighted factor. The coefficients ranged from .74 to .96, and were all within an acceptable range. Comparison of these coefficients with those calculated in Study I indicates that the theoretically constructed scales and the empirically derived factors have similarly high levels of internal consistency. The internal consistency of the PAFS-Q was also assessed in a clinical sample. Cronbach's alpha was calculated for each scale score. The reliability coefficients ranged from .95 to .96 and are all in the acceptable range.

Further analyses indicated that the scales have

good internal consistency, and good test-retest reliability. Correlations with other measures of family processes provide validity for some of the PAFS scales. The underlying factors structure of the PAFS Questionnaire is confirmed, and the construct validity of the scales has been supported (Bray et al, 1984a).

The INFUS Scale consists of eight items. One item is reverse scored, and a higher score indicates less fusion and more individuation (Bray et al, 1984b).

3. Rotter's I-E Scale. Several studies have been done on Rotter's (1966) I-E Scale. Joe and Jahn (1973) examined the factor structure of the scale. Two factors emerged each for males and females. Factor I accounted for 49.2% of the total variance for males and 45.5% for females. Factor II accounted for 18% of the total variance for males and 18.9% for females. These results indicated that the I-E Scale contains a general factor that accounts for much of the variance in the item responses. For both males and females, Factor I is defined primarily by items that pertain to a person's belief with regard to the primary determinants of success. The person who consistently chooses the internal statement believes that success

is not a matter of luck or chance but rather a result of skill and hard work. There are also a few items that deal with the idea of personal control. Most of the items on this factor do not specify particular situations and measure a generalized expectancy of reinforcement. Joe and Jahn (1973) felt that the data could be interpreted as partial support for Rotter's criterion that the I-E Scale is a measure of a generalized expectancy of reinforcements.

For both samples, Factor II seemed to assess beliefs with regard to a citizen's effect on political and world affairs. A person believes that a citizen can influence social and political events if he/she consistently chooses the internal statement. The results appeared to support Rotter's assertion that additional factors involved very few items each, and, therefore, do not warrant identification as subscales.

Cherlin and Bourque (1974) studied both a college sample and a non-college sample. Both samples appeared to fit a two factor structure, a general control factor and a political control factor.

Cherlin and Bourque (1974) also assessed the reliability of the subscales. For the full 23 item I-E Scale for the college and non-college samples, the

alpha reliability coefficients were .81 (college) and .71 (non-college). Theta reliability coefficients were .81 (college) and .76 (non-college). The differences between alpha and theta were partially due to the presence of items with low loadings. The values of alpha do indicate, nevertheless, that within each sample, a simple unweighted scale with acceptable reliability could be constructed by summing the scores on all 23 items.

If a two-factor structure is assumed, responses from the college students support two distinct subscales: the general control scale (theta .78, alpha .78) and a political control scale (theta .70 and alpha .70). In the non-college age sample, only the political control scale has a reliability greater than .70 (theta .76, alpha .75).

The Rotter Internal-External Locus of Control Scale is a 23 item forced choice questionnaire with 6 filler items adapted from the 60 item James Scale. It is scored in the external direction, that is, the higher the score, the more external the individual (Lefcourt, 1976).

4. Miller's Social Intimacy Scale (MSIS):

The Miller Social Intimacy Scale (MSIS) was developed

(Miller & Lefcourt, 1982) to correct the absence of a reliable and valid measure of the psychological importance of closeness with others. Seventeen intimacy items were selected on the basis of both high inter-item and item-total correlations (greater than .50). The ratings are summed to yield the maximum level of intimacy experienced at present by instructing subjects to describe their relationship with their closest friend. The measure was constructed so as to allow an assessment of intimacy in the context of friendship or marriage.

Internal consistency was assessed by calculating the Cronbach alpha coefficient. Evidence for test retest reliability was obtained from two administrations of the MSIS over a two month interval to a group of subjects within the unmarried student sample. The magnitude of the Cronbach alpha coefficients ($\alpha = .91$, class 3, $n = 45$; $\alpha = .86$, class 1, $n = 39$) indicate that the 17 items assess a single construct as was intended. A test-retest reliability of $r = .96$ ($p < .001$, class 4, $n = 20$) over a one month interval, suggests that there is some stability in the maximum level of intimacy experienced over time.

Several types of validity were also investigated. One group within the unmarried student sample completed the MSIS and a version of the Interpersonal Relationship Scale (IRS), which assesses interpersonal trust and intimacy in the marital relationship. Another group completed the MSIS and a measure of loneliness. This was done in order to explore the convergent validity of the intimacy scale. Subjects who described their closest relationship as characterized by high levels of trust and intimacy on the IRS also scored high on the MSIS ($r=.71, p<.001$). Subjects who described themselves as lonely on the UCLA Loneliness Scale also scored low on the MSIS ($r=.65, p<.0010$).

Discriminant validity was also examined. Some subjects completed the MSIS and Fitts' Tennessee Self Concept Scale (1965), a measure of self-esteem. Other subjects completed the Jackson Personality Research Form (1967) and the Marlowe-Crowne Need for Approval Scale (1964). Scores on the Fitts' (1965) Tennessee Self Concept Scale were moderately correlated in a positive direction with those on the MSIS ($r=.48, p<.002$). Correlation with the Marlow-Crowne Need for Approval Scale (1964) proved not to be statistically

significant.

A group of subjects completed the MSIS twice, once to describe a casual friend, and once to describe their closest friend. The purpose of this was to look at construct validity. Construct validity was also explored by comparing the mean intimacy scores of the married with those of the unmarried students, and the scores of the married students with those of the couples in marital therapy. The mean MSIS scores for descriptions of the subjects' closest friends were significantly greater than for descriptions of their casual friends ($t=9.18$, $p<.001$).

The mean MSIS score for the married students was significantly greater than that for the unmarried students ($t=6.41$, $p<.001$).

The mean MSIS score for the unmarried student sample was significantly greater than that for the married clinic sample ($t=2.56$, $p<.02$). This represents the reverse of what would be expected if marital status, itself, was a valid measure of intimacy. This supports the contention that the MSIS affords greater precision than marital status as an assessment technique with regard to intimacy.

The psychometric data suggests that the MSIS is a

reliable and valid measure of social intimacy (Miller & Lefcourt, 1982). The MSIS consists of 17 items which are scored from 1 to 10 using a Likert-type scale. Two items are reverse scored and a high score on this scale represents a higher level of intimacy (Miller & Lefcourt, 1982).

5. The Revised UCLA Loneliness Scale: The Revised UCLA Loneliness Scale was developed because of several potential problems with the UCLA Loneliness scale. Russell, Peplau, and Cutrona (1980) designed two studies in order to revise the UCLA Loneliness Scale. The first study incorporated new, positively worded items to the scale, assessed the internal consistency of the new scale, calculated the correlation between scores on the original and the revised scale, and investigated the concurrent validity of the revised loneliness scale. A second study investigated validity issues in greater detail.

The results from the two studies conducted by Russell, Peplau, and Cutrona (1980) indicated that the UCLA Loneliness Scale has been successfully revised. Both studies indicated that the revised loneliness scale has high internal consistency (coefficient alpha=.94). Support for the concurrent validity of

the revised loneliness scale was demonstrated by lonely people reporting experiencing emotions theoretically linked to loneliness, but not reporting experiencing emotions unrelated to loneliness. Lonely individuals also reported more limited social activities and relationships.

Scores on the revised loneliness scale were not confounded by social desirability, indicating discriminant validity for the revised scale. Scores on the scale also were found to correlate more highly with other measures of loneliness than with the measures of mood and personality variables examined. It was demonstrated that relationships between loneliness and the concurrent validity criteria examined were independent of the influence of the other mood and personality variables on loneliness. It was felt that the revised scale had passed a very stringent discriminant validity test. A high correlation of .91 between scores on the original and revised loneliness scales suggests that previous findings would still hold true for the new scale (Russell, Peplau, & Cutrona, 1980).

The Revised UCLA Loneliness Scale consists of 20 items. Some items are reversed scored and the total

score is the sum of all twenty items. A higher score indicates a greater degree of loneliness.

6. Health Check List: All cadets entering the Wisconsin Military Academy, an officer training school operated by the Wisconsin Army National Guard, were required to undergo health care examinations while in training. Cline and Chosey (1972) were responsible for supervising the initial and final examination for health care during training periods, and for maintenance of health records. A Health Check List was constructed listing the health changes commonly seen in this healthy young adult male group. It also provided for the addition of health changes not included on the list. This Health Check List was used in a study attempting to correlate life change with subsequent reported health change. Life change was measured by the Social Readjustment Rating Scale (SRRS), which assigns a numerical value referred to as a Life Change Unit (LCU) and the Schedule of Recent Experience Scale. Health changes were reported on the Health Check List. Each cadet was requested to place a mark by the physical complaints which pertained to their present physical condition.

Significant correlations appeared between the LCU

score for the 18 months preceding training and reported health changes during the following year. The mean Pearson's r correlation between LCU and HCL (Health Check List) scores was .215 ($p < .05$) at 2 weeks (134 subjects), .344 ($p < .01$) at 4 months (105 subjects), .302 ($p < .05$) for the last 8 months (66 subjects) and .366 ($p < .01$) for the entire year, excluding the first 2 weeks.

For the purpose of checking to see if correlations between LCU and HCL scores were related to a tendency to check items or to recall ability, a random sample of 40 of the 66 cadets who completed the training year were selected to complete several other questionnaires including the Zuckerman Multiple Affect Adjective Check List (MAACL). Each day, for the first two weeks, the number of adjectives checked on the MAACL was correlated with number of health changes reported. The correlations were shown to range from .175 to .100. The number of SRE items checked, and the total number of health changes reported each day, correlated .134 for the first 2 weeks and .052 for the 12 months following. The low correlation between the number of health changes reported and the number of items checked on the SRE and MAACL

suggested that neither the level of recall ability nor a tendency to check items were significant variables. The magnitude of life adjustment experienced appeared to be correlated with subsequent reported health change.

In this study, the Health Check List was utilized for the purpose of obtaining a measure of self-report on one's physiological well-being. The more psychologically well-adjusted a person appeared to be, the fewer health problems were expected to be reported. The Health Check List is not a scale. It is simply a self-report check list.

Statistical Methodology

The statistical methodology utilized in this study was correlational in nature. A power analysis, conducted prior to the actual data collection, indicated that 300 subjects was the necessary sample size. A total of 408 subjects completed the set of six questionnaires, but only 338 subjects met the requirements for the study. Therefore, only the data from these 338 subjects were utilized in this study.

The scores on all scales were calculated and recorded for each subject, and then subjected to statistical analyses. Simple and multiple regression

procedures were used in order to investigate all four hypotheses. A stepwise regression analysis with a predetermined order (attachment first and locus of control second) was utilized for the investigation of hypothesis two. A goodness of fit test was performed in order to determine the appropriate model for each regression procedure performed in hypothesis one and four.

Several post hoc analyses were performed. Regression analyses were performed to investigate the relationship of maternal attachment to the other variables, paternal attachment to the other variables, and fusion to maternal and paternal attachment. Other post hoc analyses investigated the effects of sex and living at home upon the relationship of parental attachment to the other variables, maternal attachment to the other variables, paternal attachment to the other variables, and fusion to the other variables. A regression analysis of subpopulations with a test of equality of lines across groups was utilized for these post hoc investigations. This analysis provides a significance test for the sample as a whole, a significance test for each of the two groups, and a significance test for the differences between the two

groups. The correlation between the predictor variable and the criterion variable may or may not be significant for each group. If the correlation is significant for one or both of the groups, the differences between the groups may be significant. On the other hand, the differences between the groups may not be significant (Dixon, 1985).

Results from the post hoc analyses are recognized as highly tentative given that determination of the sample size did not include these analyses a priori. Post hoc analyses are still valuable for exploring facets of the variables in the current sample and generating hypotheses.

All tests of significance were set at an alpha of .05. Computer data analysis was done using Biomedical Parameter Control Language (BMDP). software.

RESULTS

It was hypothesized that parental attachment correlated with the variables of locus of control, social intimacy, loneliness, and health problems. This first hypothesis was confirmed.

Parental attachment correlated with each of the four criterion variables (Table 1). The results showed small but statistically significant relationships. All the relationships were in the predicted direction with the exception of the variable of locus of control. A curvilinear relationship was predicted, but a "goodness of fit" test found that, although there was a slight tendency towards a curvilinear model, an inverse linear model provided the best fit for the data. Attachment correlated the strongest with loneliness ($r_{sq}=.219$, $p<.00001$). The relationship was found to be in the hypothesized direction (reverse linear).

The second hypothesis proposed that attachment and locus of control together would be a better predictor of the variables of social intimacy, loneliness, and health problems than parental

Table 1
The relationship of Parental Attachment
to the Criterion Variables

Variable	R Squared	Hypothesized Relationship	Obtained "Best-Fit"	F Ratio
1) Locus of Control ¹	.0309	Curvilinear	Inverse Linear	10.69**
2) Social Intimacy	.0406	Linear	Linear	14.20***
3) Loneliness	.2197	Inverse Linear	Inverse Linear	94.62****
4) Health Problems	.0176	Inverse Linear	Inverse Linear	6.10*

* P < .05
 ** P < .01
 *** P < .0001
 **** P < .00001

¹ High Score means more external

attachment alone. This was not confirmed (Table 2). Locus of control added to the prediction only of loneliness. However, the addition of locus of control as a predictor did not make a significant difference (increase in $rsq=.027$). In general, no support was found for this hypothesis.

The third hypothesis predicted an inverse relationship between parental attachment and fusion. This hypothesis was confirmed in that the PAFS-Q Fusion Scale (scored high for less fusion) was positively related to parental attachment (Table 3). Post hoc analyses showed the two separate components of parental attachment (maternal attachment and paternal attachment) also correlated inversely with fusion (Table 3). Overall, parental attachment and fusion showed the strongest correlation ($rsq=.47$; $p<.00001$).

The fourth hypothesis predicted that fusion correlated with the variables of locus of control, social intimacy, loneliness, and health problems. Fusion correlated with all four of the criterion variables (Table 4). The strongest correlation was

Table 2

Summary Information from the Stepwise Regression
Analysis for Parental Attachment and Locus of
Control as the Predictor Variables.

Criterion Variable	Step Number	Variable Entered	Multiple R Square	Change in R Square	F to Enter	Number of Variables Included
1) Social Intimacy	1	Attach.	.0405	.0405	14.22	1
2) Lone- liness	1	Attach.	.2195	.2195	94.79	1
	2	Locus of Control	.2468	.0273	12.18	2
3) Health Problems	1	Attach.	.0176	.0176	6.03	1

Table 3
The Relationship of Parental, Maternal,
Paternal Attachment to Fusion.¹

Variable with Fusion	R Squared	F Ratio	P <	Regression Coefficient
1) Attachment	.4706	298.697	.00001	.1283
2) Maternal	.3546	184.640	.00001	.1930
3) Paternal	.3102	151.071	.00001	.1695

¹ High score means less fusion

Table 4
The Relationship of Fusion¹ to
the Criterion Variables.

Variable	R Squared	F Ratio	P <	Hypo- thetical Relat- ionship	Obtained Relat- ionship
1) Locus of control ²	.0323	11.229	.0009	Curvi- linear	Inverse Linear
2) Social Intimacy	.0366	12.760	.0004	Inverse Linear	Inverse Linear
3) Lone- liness	.1604	64.187	.00001	Linear	Linear
4) Health	.0269	9.294	.0025	Linear	Linear

¹ High score means less fusion

² High score means more external

with loneliness ($r_{sq}=.16$; $p<.00001$). The correlations between fusion and the other criterion variables were shown to be small but statistically significant. All the relationships were in the predicted direction with the exception of the variable of locus of control. A curvilinear relationship was predicted, but a "goodness of fit" test found that an inverse linear model provided the best fit for the data.

Both parental attachment and fusion showed small but significant relationships with locus of control, social intimacy and health problems, and a stronger relationship with loneliness (Table 1 & 4). Parental attachment was more strongly correlated with loneliness ($r_{sq}=.219$; $p<.00001$) than was fusion ($r_{sq}=.16$; $p<.00001$). Fusion, however, showed a stronger and more significant correlation with physical health ($r_{sq}=.026$; $p<.0025$) than did parental attachment ($r_{sq}=.017$; $p<.0140$).

Several post hoc analyses were carried out on the data. In spite of the fact that these were post hoc analyses, and that they lacked the statistical power necessary (no increase in sample size with the addition of extra variables), these analyses are

useful as a preliminary indication of the fruitfulness of further investigation.

The first post hoc analysis examined the relationship between the two separate components of parental attachment (maternal attachment and paternal attachment) and the criterion variables of locus of control, social intimacy, loneliness, and health problems (Table 5). The purpose of this analysis was to investigate whether attachment to either parent was more important for any of the relationships with the criterion variables. Parental attachment correlated more significantly with social intimacy, loneliness and health problems than did either maternal or paternal attachment. However, paternal attachment correlated more significantly with locus of control ($r_{sq}=.039$; $p<.0002$), than did parental attachment ($r_{sq}=.03$; $p<.0012$) or maternal attachment ($r_{sq}=.0084$; $p<.09$). Maternal attachment did not correlate significantly with locus of control, as indicated, or with health problems ($r_{sq}=.01$; $p<.0554$).

A stepwise regression analysis investigating

Table 5
The Relationship of Maternal Attachment and Paternal Attachment to the Criterion Variables

Maternal Attachment				
Variable	R Squared	F Ratio	P <	Regression Coefficient
1) Locus of Control ¹	.0084	2.862	.0916	-.0201
2) Social Intimacy	.0367	12.809	.0004	.2261
3) Loneliness	.1863	76.938	.00001	-.2240
4) Health Problems	.0109	3.695	.0554	-.0175
Paternal Attachment				
Variable	R Squared	F Ratio	P <	Regression Coefficient
1) Locus of Control ¹	.0398	13.932	.0002	-.0411
2) Social Intimacy	.0218	7.496	.0065	.1636
3) Loneliness	.1277	49.183	.00001	-.1742
4) Health Problems	.0142	4.855	.0282	-.0188

¹ High score means more external

parental attachment, maternal attachment and paternal attachment as the predictor variables found that the parental attachment score was the best predictor for all the criterion variables except for locus of control, where paternal attachment was the best predictor (Table 6).

Sex differences in the relationships of parental attachment to each of the criterion variables were revealed through the use of a regression analysis of subpopulations with a test of equality of lines across groups (Table 7). However, the directions for the relationships did not change. Health problems did not correlate significantly with parental attachment for males alone, or for females alone. The analysis of variance of regression coefficients over groups indicated that although attachment and locus of control were significantly and negatively correlated for both males and females, significant differences did not exist between males and females. The relationship of parental attachment to social intimacy and to loneliness differed for males and females. The relationship of parental attachment to social intimacy

Table 6

Summary Information from the Stepwise Regression
Analysis for Parental, Maternal, and Paternal
Attachment as the Predictor Variables.

Criterion Variable	Step No.	Variable Entered	Mult. R Square	Change in R	F to enter	Variables Included
1) Locus of Control ¹	1	Paternal	.0399	.0399	13.99	1
2) Social Intimacy	1	Parental	.0405	.0405	14.22	1
3) Loneliness	1	Parental	.2195	.2195	94.79	1
4) Health Problems	1	Parental	.0176	.0176	6.03	1

¹ High score means more external

Table 7

The Relationship of Parental Attachment to the
Criterion Variables Across Groups (Sex)

Males

Variable	R Squared	F Ratio	P <	Regression Coefficient for Attachment	Regression over Groups
1) Locus of Control ¹	.0493	5.189	.0249	-.0289	P < .091
2) Social Intimacy	.0654	7.001	.0095	.1894	P < .00008
3) Loneliness	.1960	24.375	.00001	-.1404	P < .00284
4) Health Problems	.0212	2.164	.1444	-.0137	P < .959

Females

Variable	R Squared	F Ratio	P <	Regression coefficient for Attachment	Regression Over Groups
1) Locus of Control ¹	.0314	7.587	.0063	-.0223	P < .091
2) Social Intimacy	.0211	5.035	.0258	.0923	P < .00008
3) Loneliness	.2135	63.517	.00001	-.1320	P < .00284
4) Health Problems	.0158	3.756	.0536	-.0124	P < .959

Males: N=102
Females: N=236

¹ High score means more external

was more significant for males than for females, and the relationship of parental attachment to loneliness was more significant for females than for males.

Further regression analyses of subpopulations with a test of equality of lines across groups also revealed sex differences between the relationships of the separate components of parental attachment (maternal attachment and paternal attachment) to the criterion variables (Table 8). The opposite sex parent played a role in the relationship between attachment and locus of control. Maternal attachment was not significant for females, but was significant for males ($rsq=.04$; $p<.02$). Paternal attachment was not significant for males, but was significant for females ($rsq=.04$; $p<.0012$). However, the analysis of variance of regression coefficients over groups indicated that the differences found between sexes was significant for maternal attachment ($p<.05$), but not for paternal attachment ($p>.05$).

While maternal attachment and paternal attachment both were related to social intimacy for males (maternal: $rsq=.05$, $p<.02$; paternal: $rsq=.05$, $p<.02$),

Table 8

The Relationship of Maternal Attachment and
Paternal Attachment to the Criterion
Variables Across Groups (Sex)

<u>Maternal</u>									
Variable	Males			Regress- ion Coefficient	Females			Regression over Groups Coefficient	Regression over Groups
	R Squared	F Ratio	P <		R Squared	F Ratio	P <		
1) Locus of Control ¹	.0473	4.967	.0281	-.0519	.0062	1.452	.2295	-.0171	P < .050
2) Social Intimacy	.0506	5.332	.0230	.3057	.0136	3.213	.0743	.1284	P < .00022
3) Lone- liness	.1853	22.74	.00001	-.2504	.1556	43.115	.00001	-.1956	P < .01874
4) Health Problems	.0223	2.276	.1345	-.0257	.0070	1.659	.1990	-.0144	P < .861
<u>Paternal</u>									
Variable	Males			Regress- ion Coefficient	Females			Regression over Groups Coefficient	Regression over Groups
	R Square	F Ratio	P <		R Square	F Ratio	P <		
1) Locus of Control ¹	.0307	3.168	.0781	-.0386	.0439	10.753	.0012	-.0419	P < .223
2) Social Intimacy	.0508	5.352	.0227	.2825	.0154	3.654	.0572	.1252	P < .00001
3) Lone- liness	.1241	14.464	.0003	-.1890	.1390	37.784	.00001	-.1693	P < .00007
4) Health Problems	.0118	1.197	.2766	-.0173	.0151	3.585	.0595	-.0193	P < .846

Males: N=102
Females: N=236

¹ High score means more external

neither maternal attachment nor paternal attachment were related to social intimacy for females. When the variable "sex" was added into the equation for the correlation of health problems with parental, maternal, or paternal attachment, all relationships become insignificant. The analysis of variance of regression coefficients over groups indicated that there was not a significant difference between the groups for any of these relationships. Loneliness, on the other hand, correlated significantly with parental, maternal, and paternal attachment for both sexes ($p < .001$ for all relationships).

Late adolescence/young adulthood is a time of transition, and often the time when a separation from home may take place. The relationship between parental attachment and the criterion variables across groups (home/away) also was investigated, post hoc. Regression analyses of subpopulations with a test of equality of lines across groups showed that no significant differences existed between groups (Table 9). Although some differences appeared to exist across groups, the analysis of variance of regression

Table 9

The relationship of Parental Attachment to the Criterion
Variables Across Groups (Home/Away)

Living At Home

Variable	R Squared	F Ratio	P <	Regression Coefficient	Regression Over Groups
1) Locus of Control ²	.0315	6.657	.0106	-.0222	P < 1.0
2) Social Intimacy	.0422	9.025	.0030	.1512	P < .9
3) Loneliness	.2243	59.276	.00001	-.1459	P < .9
4) Health Problems	.0053	1.099	.2958	-.0071	P < .2

Away from Home

Variable	R Squared	F Ratio	P <	Regression Coefficient	Regression Over Groups
1) Locus of Control ²	.0298	3.959	.0487	-.0222	P < 1.0
2) Social Intimacy	.0388	5.210	.0241	.1146	P < .9
3) Loneliness	.2132	34.959	.00001	-.1318	P < .9
4) Health Problems	.0526	7.157	.0084	-.0218	P < .2

At Home: N=207 ² High score means more external
Not At Home: N=131

coefficients over groups indicated that these differences were not significant.

Further regression analyses of subpopulations with a test of equality of lines across groups showed that although some differences did appear to exist due to the interaction between living arrangements and the parent investigated in the relationship, only one of these differences was found to be significant (Table 10). Health problems correlated significantly with maternal attachment for the group living away from home ($r_{sq}=.07$; $p=.002$), but did not correlate significantly for the group living at home. The analysis of variance of regression coefficients over groups indicated that this difference between groups was significant ($p<.035$).

As this research was interested in the correlation between attachment and fusion, and the manner in which each interrelated with the criterion variables, post hoc regression analyses across groups also were conducted with fusion as the predictor variable. Although all relationships remained significant when sex was added into the equation, the

Table 10

The Relationship Between Maternal Attachment,
Paternal Attachment and the Criterion Variables
Across Groups (Home/Away)
Maternal

Variable	At Home			Away from home				Regression Across Groups	
	R Square	F Ratio	P <	Regression Coefficient	R Square	F Ratio	P <		Regression Coefficient
1) Locus of Control ¹	.0083	1.786	.1929	-.0194	.0086	1.120	.2919	-.0214	P < 1.0
2) Social Intimacy	.0419	8.960	.0031	.2563	.0276	3.662	.0579	.1731	P < .817
3) Lone- liness	.2034	52.358	.00001	-.2364	.1583	24.270	.00001	-.2036	P < .750
4) Health Problems	.0000	.009	.9236	-.0011	.0705	9.785	.0022	-.0452	P < .035

Paternal

Variable	At Home			Away from home				Regression Across Groups	
	R Square	F Ratio	P <	Regression Coefficient	R Square	F Ratio	P <		Regression Coefficient
1) Locus of Control ¹	.0405	8.647	.0037	-.0409	.0388	5.211	.0241	-.0413	P < .990
2) Social Intimacy	.0191	3.982	.0473	.1650	.0290	3.847	.0520	.1614	P < .999
3) Lone- liness	.1145	26.496	.00001	-.1692	.1529	23.281	.00001	-.1821	P < .970
4) Health Problems	.0126	2.610	.1077	-.0178	.0175	2.297	.1321	-.0205	P < .474

At Home: N=207 ¹ High score means more external
Not At Home: N=131

regression analyses of subpopulations with a test of equality of lines across groups indicated differences between the sexes (Table 11). However, the direction of the relationships did not change. Although fusion significantly and negatively correlated with locus of control and health problems, the analysis of variance of regression coefficients over groups showed that significant differences did not exist between the sexes. The analysis of variance of regression coefficients over groups indicated that differences between the sexes did exist for the relationships of fusion to social intimacy and loneliness. The relationships of fusion to both social intimacy and loneliness were more significant for females than for males.

Sex interacted somewhat differently with parental attachment than it did with fusion. Although both parental attachment and fusion were significant for social intimacy, parental attachment was more significant for males ($rsq=.06$; $p<.0075$) than for females ($rsq=.02$; $p<.02$) and fusion was more significant for females ($rsq=.03$; $p<.0063$) than for

Table 11

The relationship of Fusion¹ to the Criterion
Variables Across Groups (Sex)

Males

Variable	R Squared	F Ratio	P <	Regression Coefficient	Regression Across Groups
1) Locus of Control ²	.0948	10.471	.0016	-.2083	P < .063
2) Social Intimacy	.0444	4.642	.0336	.8112	P < .00001
3) Loneliness	.1418	16.519	.0001	-.6210	P < .0002
4) Health Problems	.0617	6.570	.0119	-.1214	P < .644

Females

Variable	R Squared	F Ratio	P <	Regression Coefficient	Regression Across Groups
1) Locus of Control ²	.0187	4.464	.0357	-.0921	P < .063
2) Social Intimacy	.0314	7.594	.0063	.6029	P < .00001
3) Loneliness	.1702	47.979	.00001	-.6306	P < .0002
4) Health Problems	.0176	4.198	.0416	-.0702	P < .644

Males : N=102
Females: N=236

¹ High score means less Fusion
² High score means more external

males ($r_{sq}=.04$; $p<.03$).

Lastly, fusion was regressed on the criterion variables across groups (home/away). The regression analysis of subpopulations with a test of equality of lines across groups showed that the pattern of correlations for the living at home group (Table 12) was similar to the one for parental attachment (Table 9). Once again, the analysis of variance of regression coefficients over groups showed that although some differences did appear to exist between groups, none of these differences were significant.

Overall, the results of this study showed that parental attachment had weak but significant negative correlations with locus of control and health problems, and a weak but significant positive correlation with social intimacy. Parental attachment and loneliness correlated negatively to a greater extent. Parental attachment and locus of control together were not better predictors of social intimacy, loneliness, and health problems than parental attachment alone. Fusion (high score means less fusion), and parental attachment showed a

Table 12

The relationship of Fusion¹ to the Criterion
Variables Across Groups (Home/away)

Living at Home

Variable	R Squared	F Ratio	P <	Regression Coefficient	Regression Across Groups
1) Locus of Control ²	.0548	11.895	.0007	-.1583	P < .4
2) Social Intimacy	.0429	9.179	.0028	.8217	P < .7
3) Loneliness	.1571	38.194	.00001	-.6582	P < .8
4) Health Problems	.0135	2.816	.0949	-.0613	P < .3

Away From Home

Variable	R Squared	F Ratio	P <	Regression Coefficient	Regression Across Groups
1) Locus of Control ²	.0091	1.189	.2775	-.0650	P < .462
2) Social Intimacy	.0270	3.578	.0608	.5059	P < .728
3) Loneliness	.1687	26.179	.00001	-.6211	P < .867
4) Health Problems	.0541	7.381	.0075	-.1171	P < .363

Home: N=207
Away: N=131

¹ High score means less Fusion
² High score means more external

relatively strong positive correlation with each other. Fusion correlated with the criterion variables in much the same manner as parental attachment, although there were some differences in the strength and significance of the relationship with the different criterion variables. Post hoc analyses indicated that the particular parent, and the sex of the subject, play a role in some interactions of attachment to the criterion variables. Although living arrangements do not affect the relationships of fusion to the criterion variables, sex of the subject may play a role in some of these interactions.

Discussion

Bowlby (1975) and Kestenbaum (1984) suggested that attachment systems are the very foundation of normal development. There have been numerous studies conducted documenting the effects of attachment on the pre-school child (Arend, Gove & Sroufe, 1979; Easterbrook & Lamb, 1979; Grossman & Grossman, 1985; Lewis, Feiring, McGuffog & Jaskin, 1984; Lieberman, 1977; Main & Weston, 1981; Matas, Arend & Sroufe, 1978; Pastor, 1981; Sroufe & Waters, 1977; Waters, Wippman & Sroufe, 1979). The importance of attachment has been recognized as a crucial first step towards socialization (Ainsworth, Bell & Stayton, 1974; Bowlby, 1975, 1984; Brodsky & Brodsky, 1979; Hirschi, 1969; Kestenbaum, 1984), and the development of the personality (Ainsworth, 1967, Bowlby, 1975; Hinde, 1982; Main et al., 1985; Ricks, 1985). The results of this study suggested that the attachment relationship continues to be important in late adolescence/young adulthood.

Parental attachment was found to play a role in late adolescent/young adult functioning. Parental attachment correlated with all the criterion variables. However, subtle differences existed in the

manner in which parental attachment interacted with the variables of locus of control, social intimacy, loneliness and health problems.

It was predicted that a curvilinear relationship would exist between parental attachment and locus of control. It was suggested that the avoidantly attached or unattached person would withdraw from the environment, and therefore, would be internal, but in a very unhealthy manner. It also was suggested that the more anxiously attached person would tend to be external and that the more securely attached person would tend to be internal.

Although, parental attachment correlated with locus of control, a curvilinear relationship was not confirmed. A reverse linear relationship best fit the data, and indicated that the more secure the attachment relationship, the less external the individual. It is possible that an unhealthy attachment of any type may lead to an external locus of control. A person who has withdrawn from the environment because s/he has learned to fear it, or feels that s/he can have no effect upon it, may appear to be very internal, but in actuality may truly be very external. This person may be extremely sensitive

and hyper-reactive to the surrounding environment and therefore, feel the need to protect himself/herself from it. One way to protect oneself from the surrounding environment is to withdraw from it. This person would seem to be very internal, but in reality would be external, as s/he would be withdrawing in order to protect himself/herself from outside forces.

On the other hand, the measures used may not have been sensitive enough to pick up the relationship between an internal (unhealthy internal) locus of control and an avoidant attachment. The attachment scale utilized only distinguishes between insecure and secure attachment. It does not differentiate, within the insecure range, between the anxious/resistant and anxious/avoidant attachment. Perhaps, the scale is not sensitive and fine enough to pick up this distinction.

Adolescents also tend to be more external than their older counterparts (Patton & Freitag, 1977; Sadowski, Davis & Loftus-Vergari, 1979). This fact also could have affected the direction of the relationship. A finer, more sensitive measure of locus of control may have dealt partially with the age problem. Finer measures, taking into account the age

group being studied, would have to be utilized in order to further investigate the notion of a curvilinear relationship.

Although the subjects who participated in this study were primarily North American, it is possible that cultural differences existed within this group of subjects. The scale utilized does not make cultural distinctions, and no other means of assessing cultural differences was utilized in this study. It has been suggested that cross-cultural differences influence the way in which individuals view and approach control (Weisz, Rothbaum, & Thomas, 1984). Although cultural differences probably were not a major issue in this study, no attempt was made to control for the effects of possible cultural differences. Finally, a curvilinear relationship also may not be appropriate, and a new theory may have to be developed.

As noted earlier, parental attachment correlated with locus of control. However, the strength of the relationship was fairly weak. This is not surprising considering the age group under investigation. Fleming & Anderson (1986a) found that feelings of physical separateness and personal control over their own lives were very important for adolescents. The

emotional attachment to parents remains important, but it is tempered by the need to feel more and more autonomous. Therefore, as Bowlby (1975) suggested, the attachment relationship continues to be important, but becomes less intense, as one develops, begins to separate from parents, and becomes more autonomous. As previously mentioned, adolescents are more external than their older counterparts. Both these factors could account for the significant but weak inverse relationship between parental attachment and locus of control.

Anderson & Fleming (1986, under review) found that college students' perceptions of family relationships affected the quality of their relationships with peers. Students who were securely attached to their parents reported a higher quality to their relationships with peers than students who were insecurely attached to their parents. Anderson & Fleming (1986, under review) and Greenberg et al. (1984) suggested that positively perceived attachment to parents plays a buffering role and provides a moderating effect for intimate relationships in adolescence. A weak but significant positive relationship was found to exist between parental

attachment and social intimacy, confirming the above authors' findings.

Social intimacy, the ability to form close relationships, involves a cognitive component as well as an emotional component. Slugoski, Marcia, & Koopman, (1984) suggested that the development of ego-identity is a condition of cognitive factors expressed in, and reciprocally modified by different styles of social interaction. Adolescents who have undergone the individuation and differentiation process from the family of origin are better able to handle themselves in social situations than adolescents who have not completed these processes. Bell, Avery, Jenkins, Feld and Schoenrock (1985) showed that secure parent-child attachment serves to promote social competence and satisfying peer relationships during adolescence, as well as during early childhood. Significant and positive associations existed between intrafamily affect and social competence/peer relationships in the analyses, suggesting that a secure attachment promotes social competence which in turn helps one to form peer relationships. The above findings suggest that attachment to parents would only account for a portion

of the variance when investigating the predictors of social intimacy. This explains the weak but significant positive relationship between parental attachment and social intimacy.

Holahan & Moos (1986), Miller & Lefcourt (1982), and others have indicated that family support and the secure feelings that come out of that support appear to affect one's physical well being. These authors also suggested that one's psychological well being, which has been shown to be affected by the attachment relationship with one's parents, also affects one's physical health. Stress, for instance, affects one's psychological state and stress tends to have physical components associated with it. A secure attachment also has been shown to play a buffering role for stress (Miller & Lefcourt, 1982). Thus, both in a direct and in an indirect manner, parental attachment appears to interact with and affect one's health. This study only found a very weak, although significant inverse relationship, between parental attachment and health problems. The measure used in this study was a check list. A check list does not provide a very stringent or sensitive measure. However, even with the use of a gross measure, the

relationship between parental attachment and health problems was significant. Further investigation with a more sensitive and finer measure of health problems seems warranted.

Lobdell (1985) discovered that many studies had found that if the intimacy needs of childhood were not met through the attachment between the child and the parenting figure, the individual possibly experienced loneliness in later life. Lobdell and Perlman (1986) report that retrospective studies indicated lonely adults typically depicted their parents as cold and low in nurturance. The findings from this research concur with the previous results. The correlation between parental attachment and loneliness represented the most significant relationship which was found to exist between parental attachment and the criterion variables. The more secure one feels within the attachment relationship, the less loneliness one experiences.

Loneliness has been defined as a self-perceived state in which a person's network of relationships is either smaller or less satisfying than desired (Jones, 1981). One study indicated that there was no relationship between self-reported loneliness and

dating status or frequency of receiving mail from family and friends (Carroll, 1980). Although social skills and loneliness are often related, this relationship is not inevitable. Unlike social intimacy which possibly involves a cognitive component, loneliness appears to be mainly an emotional construct. Feelings of insecurity that develop in early childhood manifest themselves through the mistrust of self and others and appear to persist in intensity throughout adolescence/young adulthood. This can be seen in the development of other relationships during late adolescence/young adulthood. One way young adults form intimate bonds is through marriage. Although it often is not appropriate, a person tends to assimilate a new person with whom one bonds to an existing model (Shane, 1982). A person who was anxiously attached to his/her parents may be anxiously attached to his/her spouse and, therefore, feel lonely in spite of the involvement in an intimate relationship. While the development of social intimacy appears to be affected by other contributing factors such as social competency, loneliness may be mainly attributed to the emotional feelings and perceptions that derive from one's attachment

relationship with one's parents. This would explain the strong and significant inverse relationship between attachment and loneliness.

The second hypothesis grouped together parental attachment and locus of control as predictors of social intimacy, loneliness and health problems. Locus of control is a measure of a person's view of the environment and his/her place within that environment. It has been shown that the attachment relationship with one's parents affects how one views the environment and interacts with that environment. One's attachment with parents and one's view of the world both would seem to have an effect upon one's interpersonal relationships and one's physical well being. Based upon this premise, it was hypothesized that measures of parental attachment and locus of control together would provide a better predictor of social intimacy, loneliness and physical health than parental attachment alone. This hypothesis was not supported. When locus of control was added into the equation as a second predictor variable, the variance accounted for by the predictor variables did not increase for any of the relationships except for loneliness. However, the increase was too minute to

be of any significance.

One explanation for these results could have to do with the age group being investigated in this study. Adolescents are attempting to separate from parents and become more autonomous. Late adolescence/young adulthood is a time of transition when one's attachment to parents may appear less intense, and when one's view of the world and his/her impact upon it may be exploratory. Although the variables of attachment and locus of control may have had a related and cumulative effect upon the young child, the two variables may work independently in late adolescence/young adulthood.

Another plausible explanation could be that the variance accounted for by locus of control may be subsumed within the more molecular sphere, the attachment relationship. It has been suggested that one's view of the outside world develops within the original attachment relationship (Janeway, 1981). Janeway (1981) suggested that the dimensions of choice are being learned within the attachment relationship. Children take in the experience of external reality, and create adequate images of its workings in their own minds, through interacting with it, and seeing how

their decisions affect what goes on in the external environment. Their first experiences with the outside world are with their parents. When the child learns the world, he/she gains knowledge that provides him/her with a kind of power, because learning the world allows one to predict the future and act in a sensible manner. Knowledge only provides power if the child can implement the knowledge and learn its effect upon the outside world. It is within the original attachment relationship that the child develops a sense of his/her own power and impact upon the environment. The anxiously attached child may feel insecure about his position within this relationship and his impact upon it. This would have consequential effects upon his/her perceptions of the world and his/her ability to have an impact upon the environment. The adolescent is struggling with his/her attachment to parents and with his/her view of the world. Perhaps these are not viewed as separate struggles but seen as one and the same. If that is the case, locus of control would not add another dimension to the relationship between parental attachment and social intimacy, loneliness, and health problems. It also is possible that locus of

control may not be important for the three variables investigated in this study.

It is important to note, once again, that a gross measure of internality-externality was utilized in this study and that age acts as a confounding variable when using this scale. A finer, more sensitive scale may have provided a more accurate measure of locus of control. Whether this would have made a difference in the results is impossible to state without further investigation.

Family systems theory is concerned with familial relationships. The concept of fusion helps to define the family system's level of differentiation. The possible correlation between parental attachment and fusion was investigated in order to examine the relationship that may exist between attachment theory and family systems theory. Parental attachment correlated negatively with fusion. The attachment relationship with one's parents was significant in predicting the degree to which one was fused within the family system. The strength of the relationship between parental attachment and fusion was relatively strong, suggesting that attachment and fusion are similar but not identical constructs. Although fusion

only represents one process within family systems's theory, the results of this study provide support for further exploration of the relationship between attachment theory and family system's theory. More knowledge is required about if and how these two theories overlap or complement each other. Further research exploring other possible interactions between the different facets of these theories could be valuable in identifying other similarities and differences between these two bodies of literature. The amalgamation of these two theories into a single, more comprehensive theory is a consideration for the future. The importance of the attachment relationship with one's parents and the dynamics existing within the family system can not be understated. An amalgamation of attachment theory and family system's theory may advance our understanding of the processes involved within the attachment relationship and the family system.

The major characteristic of the fused relationship is the high degree of identification that exists between members of a dyad, which is reflected in the complete dependence experienced by one on the other (Karpel, 1976). The fusion scale refers to

parents. It is possible to be more or less fused with one parent than the other. For this reason, it would have been advantageous to have subjects complete the fusion scale twice, once for each parent. The scale as it exists may encourage a blended response, such that if one were strongly fused with one parent (a score of 1) and much less fused with the other parent (a score of 5), than the subject could possibly respond more neutrally to the question (a score of 3). Although it is only possible to speculate whether any differences would have occurred if subjects had filled out the questionnaire twice, this idea should be investigated in future research. As the fusion scale asked about parents as a single entity, and the attachment scale was divided into two separate components, a maternal component and a paternal component, a post hoc analysis examined the relationship between maternal attachment and fusion and paternal attachment and fusion. Both relationships were shown to be significant with relatively strong correlations. Parental, maternal and paternal attachment all correlated inversely with fusion. However, attachment to parents correlated strongest with fusion, suggesting that the fusion

scale correlated best with a measure that summed questions about both parents. This does not preclude the possibility that a summed score from both parents on the fusion scale could correlate to a lesser or greater degree with the summed score from the attachment scale. Therefore, an analysis looking at fusion scores for each parent separately still seems appropriate.

The relationships between fusion and locus of control, social intimacy, loneliness and health problems were investigated. These relationships were explored to further investigate the relationship between parental attachment and fusion. Fusion correlated with the criterion variables in much the same manner as attachment. All relationships were shown to be significant. As with parental attachment, loneliness showed the strongest correlation. The strength of the relationship with loneliness was found to be slightly stronger for parental attachment, but parental attachment and fusion were found to be significant at the same statistical level.

Lack of fusion has a stronger and more significant inverse relationship with health problems than has parental attachment. This seems reasonable,

as fusion only measures degree of enmeshment with parents, while parental attachment measures interaction with parents in a more multidimensional fashion. For late adolescents/young adults differentiation from parents is an important developmental task. Enmeshment is only one possible variation of an insecure attachment. Perhaps the enmeshment component has a greater effect upon one's health problems than other factors contributing to an insecure attachment.

Several post hoc analyses were performed in this study. All comments made regarding the results of these analyses are speculative in nature as they are post hoc analyses, and because they lack the statistical power necessary to make more definitive statements.

Regression analyses involving the separate components of the attachment scale (maternal attachment and paternal attachment) and the criterion variables indicated that some parental differences exist. Paternal attachment was more significant than maternal attachment or the attachment to both parents for locus of control. Paternal attachment was significantly and inversely related to locus of

control and health problems. The direction of the relationship was the same for maternal attachment, but the relationship between maternal attachment and these two variables was not significant. Although the strength is slightly greater when parental attachment scores are correlated with loneliness, all three measures of attachment showed significant inverse correlations with loneliness.

Additional support emerged regarding the relationship of parental, maternal, and paternal attachment to the variable of locus of control, when "sex" was added into the equation. The sex of the subjects did not affect the relationship of parental or paternal attachment to locus of control. The only relationship for which "sex" acted as a contributing factor was the one between maternal attachment and locus of control. Maternal attachment was only significant for locus of control for males. However, paternal attachment was significant for locus of control for both males and females, and the relationship between paternal attachment and locus of control was not affected by "sex". These findings support and add strength to the earlier indication that paternal attachment plays a more important role

for the development of locus of control than does maternal attachment.

Pipp et al. (1985) found that for the age period of late adolescence, mothers, but not fathers, had decreased in dominance to a level about equal to the subjects'. Late adolescents also felt more independence in the relationships with their fathers than with their mothers. Adolescents portrayed their current relationship with their mothers as more equal and marked by more friendliness and responsibility than their relationship with their fathers. Their relationship with their father was marked by less equality and more perceived similarity. This study suggests that adolescents identify with and see themselves as being like their fathers. Perhaps the adolescent's perception about his/her autonomy and power within and outside of the family sphere are more affected by the relationship with his/her father.

Katlovsky et al. (1967) also found an association between feelings of autonomy and internality due to the relationship between the child and the father. Fathers of internals were found to have been more indulgent and less protective than had been their spouses, while fathers of externals had been less

indulgent and more protective than their wives. One's sense of autonomy, as well as one's sense of power or impact upon the environment contributes to the development of internality or externality. It has been suggested that adolescents identify more with their fathers, and that fathers may be important for the development of feelings of autonomy and power. The results of this study support the above findings as they indicate that the relationship between paternal attachment and locus of control is more important for the late adolescent/young adult than either parental attachment or maternal attachment.

The post hoc analyses examining the relationship of parental attachment to the criterion variables indicated that there were other subtle sex differences. The sex of the parent and the sex of the adolescent/young adult both appear to be variables that contributed to the relationship between attachment and some important facets of the adolescent's/young adult's life. Attachment to each parent was important for social intimacy with males, but not with females. Both parents were important for loneliness with both females and males. However, the attachment relationship, with both parents, was more

significant for females than for males.

Other results from the post hoc analyses indicated that leaving home did not act as a contributing factor, and therefore, did not have an effect upon the relationship between parental, maternal, and paternal attachment and the criterion variables. Living arrangements only played a significant role in the relationship between maternal attachment and health problems.

Maternal attachment related to one's health problems if living away from home, but not if one were living at home. Paternal attachment was insignificant for health problems in either case. As the mother often is seen as the more nurturing parent, and the parent most likely to provide care in times of illness, the parental differentiation here is not necessarily surprising. When living at home, mother's care is taken for granted, and thus, one's physical health may not be paramount in one's mind. However, living away from home leaves the adolescent/young adult responsible for his/her own care and nurturance. The securely attached adolescent/young adult who is living away from home is better prepared for the responsibilities that accompany independent living

arrangements. These late adolescents/young adults are better able to care for themselves emotionally and physically and therefore, would not feel concerned or anxious about caring for themselves. The late adolescents/young adults who are not securely attached would tend to be more aware of, or anxious about their physical health.

The relationship between attachment and loneliness remains significant whether negatively correlated with parental attachment or with the separate components of attachment. It becomes more and more obvious that the attachment relationship with one's parents contributes significantly to one's feelings of loneliness, and that this relationship exists across sex and across situations.

Post hoc analyses across groups were also carried out utilizing fusion as the predictor variable. It was thought that these analyses would further point out the similarities and differences which appear to exist between the way in which parental attachment and fusion interact with the criterion variables.

Although a few differences existed in the manner in which parental attachment and fusion interacted with the criterion variables, a consistent pattern seemed

to be manifested between the analyses. Although all relationships were found to be significant for both sexes, significant differences between the sexes only existed for the relationships of fusion to the variables of social intimacy and loneliness. As with parental attachment, the relationship between fusion and loneliness was more significant for females than for males. However, the relationship between fusion and social intimacy differed from the relationship between parental attachment and social intimacy. Fusion was more important for social intimacy for females, while parental attachment was more important for social intimacy for males. As mentioned earlier, parental attachment and fusion are similar but not identical concepts. Although, they interacted in a similar fashion with the criterion variables, subtle differences did exist in the relationships of parental attachment and fusion to the criterion variables. This supports the earlier suggestion that further comparative exploration on attachment theory and family systems theory would be interesting and profitable.

It is worth mentioning that living arrangements did not act as a contributing factor for any of the

relationships between attachment and the criterion variables, or for any of the relationships between fusion and the criterion variables. One's present living arrangements did not affect the existing relationships.

Although significant sex differences did exist for the relationship with loneliness, all relationships were highly significant regardless of sex differences. Therefore, the sex of the late adolescent/young adult did not contribute very much to the relationship. The post hoc analyses indicated that while the sex of the late adolescent/young adult may act as an contributing factor, it only was a significant contributing factor for the relationships of parental, maternal, and paternal attachment to social intimacy, and fusion to social intimacy. Living arrangements only acted as a significant contributing factor for one relationship (the relationship between maternal attachment and health problems). These results suggest that attachment and fusion are stable attributes which contribute to the late adolescent's/young adult's functioning, and that these contributions are not altered by the sex of the individual or present living arrangements.

Although some of the analyses were post hoc and therefore, can only be speculative in nature, several interesting findings emerged from this study that could inspire future research. The most noteworthy finding that emerges out of this research is the negative relationship between attachment to parents (via attachment and lack of fusion) and loneliness. These relationships remained consistently significant. Lobdell and Perlman (1986) suggested that loneliness was transmitted from mother to daughter. This study indicated that both parents play a role in the transmission of loneliness, and that all children, male and female, may be affected by the relationship between attachment (or fusion) and loneliness. Lobdell and Perlman (1986) indicated that mothers who were lonely had daughters who were lonely. If this is the case, and the attachment relationship plays such an important role for the development of feelings of loneliness, then research on possible ameliorating factors for loneliness in adults may be most beneficial both for lonely parents and for their offspring. The attachment bond to parents may diminish over time, but the feelings of loneliness that have developed as a result of this relationship

may not diminish over time. Future research on the more molecular components that make up the more molar construct of loneliness could provide a better understanding of what is meant by "loneliness". Once this is accomplished, research can turn to the prevention and amelioration of loneliness.

Bowlby (1975) stated that attachment behaviour was at a maximum during the second and third years of life and then diminished slowly. He reasoned that although attachment behaviour is less evident in both the frequency of its occurrence and its intensity as the person develops, it remains an important part of an individual's behavioural equipment during later childhood, adolescence and adult life. This study indicated that in late adolescence/young adulthood attachment to parents continues to play a role, albeit not as important a role, in the individual's life. The results of this study supported Bowlby's position that attachment behaviour diminishes but remains important throughout late adolescence/young adulthood.

This research was a cross-sectional study and as such cannot prove a causal order. It is conceivable that loneliness, for example, involves a genetic component, and that some people have a predisposition

for loneliness (Greene, 1984). This predisposition could affect the attachment relationship that develops between a child and his/her parents. However, Bowlby (1975) and many others have suggested that the original attachment relationship shapes the future development of the child. One's view of the world is first formulated within the attachment relationship, and this early perspective becomes internalized and remains with him/her as s/he develops into a young adult.

Although this is only one study, and more research on attachment behaviour in the later developmental stages is required, the results of this study do suggest that the attachment relationship with one's parents remains important throughout childhood, adolescence and young adulthood. If the attachment relationship with one's parents plays such a vital role in one's life, it is an issue that may be very important in therapy.

Many therapists see the therapy relationship as an attachment relationship in which the therapist represents the warm, supportive, nurturing parental figure. By virtue of this relationship, the past styles of interaction are examined and assessed. The

intervention is in the nature of re-establishing an initial trusting relationship. It is hoped that once this trusting relationship is established, the person will be able to generalize this trust to other significant people in his/her life. The person also will have developed important social skills within this trusting relationship which will help in the formation of other relationships. While this is very important, it may not be sufficient. If the original attachment relationship has had the impact upon the person's life that this research suggests, then it may be necessary to probe the person's childhood and explore the past. One's perceptions of the surrounding environment developed from within that person's attachment relationship and family system. It may be necessary for the person to understand the basis for his/her perceptions and how they developed within that system, and perhaps grieve for what was not, before he/she can adopt a new perspective and change his/her mode of interaction within and outside of the family system.

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Appendix

Appendix Index

Appendix A. Inventory of Parent and Peer Attachment (IPPA). Relationships Questionnaires regarding mothers and fathers were used in this study. The Relationships Questionnaire regarding peers was eliminated.

Appendix B. The Intergenerational Fusion Subscale (INFUS), a subscale from The Personal Authority in the Family System Questionnaire (PAFS).

Appendix C. Rotter's Internality-Externality (I-E) Scale.

Appendix D. Miller's Social Intimacy Scale (MSIS).

Appendix E. The Revised UCLA Loneliness Scale.

Appendix F. Health Check List.

Directions

This is a set of six questionnaires. The information obtained will be anonymous in that you will not be personally identified. Each questionnaire has its own set of instructions. There are no right or wrong answers - only answers which best reflect you and your experiences.

I. B. M. sheets are provided with the first 5 questionnaires. Please answer all questions for each questionnaire, by blackening the appropriate space on the I.B.M. answer sheet.

The Social Intimacy Scale (the fourth questionnaire) provides 10 possible responses. However, the I.B.M. sheet only provides five response spaces (A to E, or 1 to 5). As there are only 17 questions on this questionnaire, the second row of questions will not be required. Please ignore the question beside No. 1, and use the five spaces (A to E or 1 to 5) for this question for responses 6 to 10 from the first question. Do this down the page for all 17 questions.

Please put all responses for the Health Check List directly on the list provided.

IDENTIFYING INITIAL OR CODE NAME: _____

AGE: _____

SEX: _____

MARITAL STATUS: Single____Married____Divorced or Separated____

FIRST LANGUAGE: English____Other____

LIVING AT HOME: Yes____No____

Inventory of Parent and Peer Attachment (IPPA)Relationships Questionnaire

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

Part 1

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 choose the ONE that tells how true the statement is for you now. Please answer each question by blackening the appropriate space on the I.B.M. sheet provided.

	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

5. I like to get my mother's point of view about 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 judgement.					
14. My father has his own problems, so I don't bother him with mine.	1	2	3	4	5
15. My father helps me to understand myself better.	1	2	3	4	5
16. I tell my father about my problems and my 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 |

PAFS
Personal Authority in the Family System Questionnaire
Version C

The Intergenerational Fusion Subscale (INFUS)

The following questions ask about your CURRENT relationships with your parents. Please select the answers which best reflect your current relationships with these people. There are no right or wrong answers. Please choose the answer that BEST applies to you. Please blacken the appropriate space, for each question, on the I.B.M. sheet provided.

If one or both of your parents are deceased, then answer the questions about your deceased parent(s) in terms of how you remember or imagined your relationship(s) to be.

PLEASE ANSWER ALL QUESTIONS AS BEST AS YOU CAN.

Strongly Agree Neutral Disagree Strongly
Agree ----- Disagree

- | | | | | | |
|---|---|---|---|---|---|
| 1. I sometimes wonder how much my parents really love me. | 1 | 2 | 3 | 4 | 5 |
| 2. I often get so emotional with my parents that I cannot think straight. | 1 | 2 | 3 | 4 | 5 |
| 3. I worry that my parents cannot take care of themselves when I am not around. | 1 | 2 | 3 | 4 | 5 |
| 4. I am usually able to disagree with my parents without losing my temper. | 1 | 2 | 3 | 4 | 5 |
| 5. My parents do things that embarrass me. | 1 | 2 | 3 | 4 | 5 |
| 6. My parents say one thing to me and really mean another. | 1 | 2 | 3 | 4 | 5 |

7. My parents frequently try to change some aspect of my personality. 1 2 3 4 5
8. My present day problems would be fewer or less severe if my parents had acted or behaved differently. 1 2 3 4 5

The Rotter Internal-External Locus of Control
Scale

This is a questionnaire to find out the way in which certain important events in our society affect different people. Each item consists of a pair of alternatives lettered a or b. Please select the one statement of each pair (and only one) which you more strongly BELIEVE to be the case as far as you're concerned. Be sure to select the one you actually believe to be more true rather than the one you think you should choose or the one you would like to be true. This is a measure of personal belief; obviously there are no right or wrong answers.

Your answer, either a or b to each question on this inventory, is to be reported beside the question.

Please answer these items CAREFULLY but do not spend too much time on any one item. Be sure to find an answer for EVERY choice. For each numbered question please blacken either a or b on the I.B.M. sheet provided. Choose whichever statement you believe to be most true.

In some instances you may discover that you believe both statements or neither one. In such cases, be sure to select the one you more strongly believe to be the case as far as you're concerned. Also try to respond to each item INDEPENDENTLY when making your choice; do not be influenced by your previous choices.

Remember, select that alternative which you PERSONALLY BELIEVE TO BE MORE TRUE.

I MORE STRONGLY BELIEVE THAT;

1. _____ a. Children get into trouble because their parents punish them too much.
 _____ b. The trouble with most children nowadays is that their parents are too easy with them.

2. _____ a. Many of the unhappy things in people's lives are partly due to bad luck.
 _____ b. People's misfortunes result from the mistakes they make.

3. _____ a. One of the major reasons why we have wars is because people don't take enough interest in politics.
 _____ b. There will always be wars, no matter how people try to prevent them.
4. _____ a. In the long run people get the respect they deserve in this world.
 _____ b. Unfortunately, an individual's worth often passes unrecognized no matter how hard he tries.
5. _____ a. The idea that teachers are unfair to students is nonsense.
 _____ b. Most students don't realize the extent to which their grades are influenced by accidental happenings.
6. _____ a. Without the right breaks one cannot be an effective leader.
 _____ b. Capable people who fail to become leaders have not taken advantage of their opportunities.
7. _____ a. No matter how hard you try some people just don't like you.
 _____ b. People who can't get others to like them don't understand how to get along with others.
8. _____ a. Heredity plays the major role in determining one's personality.
 _____ b. It is one's experiences in life which determine what they're like.
9. _____ a. I have often found that what is going to happen will happen.
 _____ b. Trusting to fate has never turned out as well for me as making a decision to take a definite course of action.
10. _____ a. In the case of a well prepared student there is rarely if ever such a thing as an unfair test.
 _____ b. Many times exam questions tend to be so unrelated to course work that studying is really useless.

11. ----- a. Becoming a success is a matter of hard work, luck has little or nothing to do with it.
----- b. Getting a good job depends mainly on being in the right place at the right time.
12. ----- a. The average citizen can have an influence in government decisions.
----- b. This world is run by the few people in power, and there is not much the little guy can do about it.
13. ----- a. When I make plans, I am almost certain that I can make them work.
----- b. It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad fortune anyhow.
14. ----- a. There are certain people who are just no good.
----- b. There is some good in everybody.
15. ----- a. In my case getting what I want has little or nothing to do with luck.
----- b. Many times we might just as well decide what to do by flipping a coin.
16. ----- a. Who gets to be the boss often depends on who was lucky enough to be in the right place first.
----- b. Getting people to do the right thing depends upon ability; luck has little or nothing to do with it.
17. ----- a. As far as world affairs are concerned, most of us are the victims of forces we can neither understand, nor control.
----- b. By taking an active part in political and social affairs the people can control world events.
18. ----- a. Most people can't realize the extent to which their lives are controlled by accidental happenings.
----- b. There really is no such thing as "luck".

19. _____ a. One should always be willing to admit his mistakes.
 _____ b. It is usually best to cover up one's mistakes.
20. _____ a. It is hard to know whether or not a person really likes you.
 _____ b. How many friends you have depends upon how nice a person you are.
21. _____ a. In the long run the bad things that happen to us are balanced by the good ones.
 _____ b. Most misfortunes are the result of lack of ability, ignorance, laziness, or all three.
22. _____ a. With enough effort we can wipe out political corruption.
 _____ b. It is difficult for people to have much control over the things politicians do in office.
23. _____ a. Sometimes I can't understand how teachers arrive at the grades they give.
 _____ b. There is a direct connection between how hard I study and the grades I get.
24. _____ a. A good leader expects people to decide for themselves what they should do.
 _____ b. A good leader makes it clear to everybody what their jobs are.
25. _____ a. Many times I feel that I have little influence over the things that happen to me.
 _____ b. It is impossible for me to believe that chance or luck plays an important role in my life.
26. _____ a. People are lonely because they don't try to be friendly.
 _____ b. There's not much use in trying too hard to please people, if they like you, they like you.
27. _____ a. There is too much emphasis on athletics in high school.
 _____ b. Team sports are an excellent way to build character.

28. ----- a. What happens to me is my own doing.
 ----- b. Sometimes I feel that I don't have enough
 control over the direction my life is
 taking.
29. ----- a. Most of the time I can't understand why
 politicians behave the way they do.
 ----- b. In the long run the people are responsible
 for bad government on a national as well as
 on a local level.

Miller Social Intimacy Scale

Please complete this questionnaire by choosing the number (from 1 to 10) which best describes your feelings or reaction to the situation. There are no right or wrong answers only answers which best reflect your feelings.

Please answer all questions by blackening the appropriate space on the I.B.M. sheet provided. There are 10 choices, but only 5 spaces provided on the I.B.M. sheet. As there are only 17 questions on this questionnaire, the second row of questions on the I.B.M. sheet is not required. Please go across the page, and use the second set of responses (1 to 5 or A to E) as your 6 to 10 for each question.

	Very Rarely			Some of the time				Almost Always		
	1	2	3	4	5	6	7	8	9	10
1. When you have leisure time how often do you spend it with him/her alone?	1	2	3	4	5	6	7	8	9	10
2. How often do you keep very personal information to yourself and do not share it with him/her?	1	2	3	4	5	6	7	8	9	10
3. How often do you show him/her affection?	1	2	3	4	5	6	7	8	9	10
4. How often do you confide very personal information to him/her?	1	2	3	4	5	6	7	8	9	10
5. How often are you able to understand his/her feelings?	1	2	3	4	5	6	7	8	9	10
6. How often do you feel close to him/her?	1	2	3	4	5	6	7	8	9	10
7. How much do you like to spend time alone with him/her?	1	2	3	4	5	6	7	8	9	10

8. How much do you feel like being encouraging and supportive to him/her when he/she is unhappy? 1 2 3 4 5 6 7 8 9 10
9. How close do you feel to him/her most of the time? 1 2 3 4 5 6 7 8 9 10
10. How important is it to you to listen to his/her very personal disclosures? 1 2 3 4 5 6 7 8 9 10
11. How satisfying is your relationship with him/her? 1 2 3 4 5 6 7 8 9 10
12. How affectionate do you feel towards him/her? 1 2 3 4 5 6 7 8 9 10
13. How important is it to you that he/she understand your feelings? 1 2 3 4 5 6 7 8 9 10
14. How much damage is caused by a typical disagreement in your relationship with him/her? 1 2 3 4 5 6 7 8 9 10
15. How important is it to you that he/she be encouraging and supportive to you when you are unhappy? 1 2 3 4 5 6 7 8 9 10
16. How important is it to you that he/she show you affection? 1 2 3 4 5 6 7 8 9 10
17. How important is your relationship with him/her in your life? 1 2 3 4 5 6 7 8 9 10

The Revised UCLA Loneliness Scale

DIRECTIONS: Indicate how often each of the following statements describes you. Please answer each question by blackening the appropriate space on the I.B.M. answer sheet provided.

	<u>Never</u>	<u>Rarely</u>	<u>Sometimes</u>	<u>Often</u>
1. I feel in tune with people around me.	1	2	3	4
2. I lack companionship.	1	2	3	4
3. There is no one I can turn to.	1	2	3	4
4. I do not feel alone.	1	2	3	4
5. I feel part of a group of friends.	1	2	3	4
6. I have a lot in common with the people around me.	1	2	3	4
7. I am no longer close to anyone.	1	2	3	4
8. My interests and ideas are not shared by those around me.	1	2	3	4
9. I am an outgoing person.	1	2	3	4
10. There are people I feel close to.	1	2	3	4
11. I feel left out.	1	2	3	4
12. My social relationships are superficial.	1	2	3	4
13. No one really knows me well.	1	2	3	4
14. I feel isolated from others.	1	2	3	4
15. I can find companionship when I want it.	1	2	3	4
16. There are people who really understand me.	1	2	3	4

17. I am unhappy being so withdrawn.	1	2	3	4
18. People are around me but not with me.	1	2	3	4
19. There are people I can talk to.	1	2	3	4
20. There are people I can turn to.	1	2	3	4

Health Check List

Please check with an X any symptoms that pertain to your present physical condition.

Minor Accident	-----	Dizziness	-----
Injuries	-----	Painful Joints	-----
Cuts	-----	Sinusitus	-----
Bruises	-----	Running Ear	-----
Boils	-----	Hearing Loss	-----
Pimples	-----	Hay Fever	-----
Eye Strain	-----	Skin Disease	-----
Headache	-----	Asthma	-----
Toothache	-----	Chest Pain	-----
Muscle Strain	-----	Indigestion	-----
Coughing	-----	Rupture	-----
Sneezing	-----	Appendicitis	-----
Running Nose	-----	Piles	-----
Bloody Nose	-----	Painful Urination	-----
Allergic Reaction	-----	Kidney Stones	-----
Nausea	-----	Blood in Urine	-----
Vomiting	-----	Loss of finger or toe	-----
Diarrhea	-----	Recurrent Back Pain	-----
Constipation	-----	Trick or locked Knee	-----
Shortness of Breath	-----	Trouble Sleeping	-----
Skin Rash	-----	Depression or	-----
Athlete's Foot	-----	Excessive Worry	-----
Hoarse Voice	-----	Nervous troubles	-----
		Other, specify	-----