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Separation-Individuation, Family Functioning, and Adjustment in First Year College Students: A Longitudinal Study

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SEPARATION-INDIVIDUATION, FAMILY FUNCTIONING, AND

ADJUSTMENT IN FIRST YEAR COLLEGE STUDENTS:

A LONGITUDINAL STUDY.

by

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VITA

The author, Glenn M. McClanahan, was born December 20, 1959, in St. Paul, Minnesota. He attended Saint Olaf College, in Northfield, Minnesota, from September 1978 through January, 1981, where he majored in economics. After transferring to the University of Minnesota and majoring in finance, Mr. McClanahan received a Bachelor of Science, with distinction, in December, 1982. He was elected into Phi Kappa Phi and Beta Gamma Sigma honor societies at that time.

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CHAPTER I

INTRODUCTION AND REVIEW OF THE LITERATURE

Introduction

This investigation addresses a basic developmental question: why do some individuals negotiate the transition from late adolescence to adulthood in a healthy fashion, whereas others do not? Empirical research on this question focuses primarily on two areas: 1) the association between various family system variables and adjustment in late adolescence; and, 2) the association between issues of separation-individuation and adjustment in late adolescence. Unfortunately, while such studies have been numerous, few have been longitudinal in design. Thus, determination of causation between these factors and later adjustment has not been possible.

It is the purpose of this study to track the relationships between measures of family system variables, measures of separation-individuation, and measures of psychological adjustment in late adolescence over time. More specifically, this study seeks to explore whether scores on the Separation-Individuation Test of Adolescence (SITA; Levine, Green, & Millon, 1986) and on measures of parental attachment and family functioning can be used to predict and explain changes in the psychological adjustment

of late adolescents during their first year of college. It is expected that scores at Time 1 (i.e., the beginning of the first year of college) which indicate a healthier family system and a healthier resolution of separation-individuation issues will be predictive of positive adjustment in those late adolescents at Time 2 (i.e., the end of the first year of college). Conversely, scores at Time 1 which indicate an unhealthy family system and an unhealthy resolution of separation-individuation issues will be predictive of poor adjustment in these late adolescents at Time 2.

Review of the Literature

Many studies have been conducted investigating the transition from late adolescence to adulthood. Some of these studies focus on the cognitive aspects of this transition, trying to discern the various ways adolescents construe their situation and the impact this may have on their psychological adjustment. Most other researchers, however, seek to understand adolescent adjustment within a developmental and relational context. That is, they seek to understand the present functioning of adolescents by looking at family functioning, parental attachments, or object-relational separation-individuation issues. Therefore, after a brief review of the research examining the cognitive aspects of the transition from late adolescence to

adulthood, research on the issues of separation-
individuation and of family functioning will be discussed in
more detail.

Cognitive Aspects of Parent-Adolescent Separation

Dwayne Moore (Moore, 1984, 1987; Moore & Hotch, 1981,
1982, 1983) has been the most active researcher examining
the cognitive aspects of parent-adolescent separation.
Basing his work on concepts derived from Kelly's Personal
Construct Theory (1970), Moore found that the way in which
adolescents define or construe separation from their parents
is related to their psychological well-being and to how they
perceive their relationships with their parents (Moore,
1987).

According to Moore, adolescent constructions of
separation tend to fall into the following eight categories:
self-governance, emotional detachment, financial
independence, separate residence, disengagement, school
affiliation, starting a family, and graduation (Moore,
1987). Self-governance (i.e feeling like an adult, making
one's own decisions, and doing things for oneself) was rated
by the adolescents as the most important determinant of
separation, whereas emotional detachment (i.e., feelings of
not belonging at home anymore, breaking family ties, not
feeling close to family) was rated as the least important
determinant of separation.

Moore found that adolescents who construe separation primarily in terms of self-governance and school affiliation appear to be better adjusted than those who do not, and, in contrast to this, that the adolescents who construe separation in terms of emotional detachment from parents appear to be at a relative disadvantage on the same measures of psychological adjustment. He concluded that adolescents whose separation conceptions emphasize what is <u>acquired</u> rather than what is lost during the separation process appear to be healthier.

A study by Holmbeck and Wandrei (1993) assessed the association between adolescent home-leaving cognitions (as defined by Moore, 1987) and adolescent adjustment, but also included assessment of family functioning, personality variables, home-leaving status, and separation-individuation issues. Their findings indicated that separation-individuation issues, family functioning, and personality variables were better predictors of late adolescent adjustment than cognitive indicators. Moreover, they found separation-individuation issues to be predictive of the home-leaving cognitions themselves (Holmbeck, 1989). Thus, while cognitive aspects of adolescent-parent separation appear to be meaningful, they generally account for only a small amount of the variance, and separation-individuation issues appear to be more directly related to psychological adjustment in late adolescence. As noted in the literature

review below, research and theory has generally supported this conclusion.

Separation-Individuation Aspects
of Parent-Adolescent Separation

Margaret Mahler developed a theory of separation-individuation after systematically observing infant-caretaker interactions and explaining these observed interactions in object relational terms (Mahler, Pine, & Bergman, 1975). That is, while basic psychoanalytic theory suggests that early childhood experiences profoundly influence eventual psychological adjustment (Dixon & Lerner, 1988; Kagan, 1979; Sroufe, 1988; Stern, 1985), Mahler's theory explains and delineates this process from a relational rather than from a drive reduction perspective. Although Mahler did not discount Freud's drive theory of development, her theory emphasizes the importance of the early mother-child relationship and the impact of this on later psychological adjustment (Greenberg & Mitchell, 1983).

From this perspective, successful development is seen as movement from embeddedness within a "symbiotic mother-child matrix" to achievement of a stable individual identity "within a world of predictable and realistically perceived others" (Greenberg & Mitchell, 1983, p. 272). Such success is believed to depend on whether the child (and mother) are able to negotiate the psychological and physiological tasks of the early developmental years (Mahler et al. 1975). By

successfully negotiating these tasks the infant is thought to internalize the maternal image, and thereby to develop greater physical and emotional independence.

More specifically, Mahler's theory suggests that the physical birth and development of the human are not coincidental in time with psychological birth and development (Mahler et al., 1975). Rather, Mahler sees an incongruity between physical and psychological development which forms a pattern and interacts with the characteristics of the mother-infant relationship (Mahler et al., 1975). This process, which begins with the breaking away from the oneness of the mother-infant dyad and ends with internalized self-representations as distinct from, but integrated with, internalized object representations (Mahler et al. 1975), is suggested to be composed of the following developmental stages: normal autism, normal symbiosis, separation-individuation, and emotional object constancy.

The Normal Autistic Phase

This phase takes place in the first several weeks of life. During this time the infant sleeps a great deal and is said to be oblivious to stimulation and to external reality. He or she exists in an objectless world (Greenberg & Mitchell, 1983) and can be characterized as a closed system. Interaction with the outside world is thought to be biologically reflexive in nature (e.g., crying, breathing), and gratification is suggested to come to the infant

merely through hallucinatory wish fulfillment (i.e., whatever is needed or wished for is instantly presented as a hallucination, similar to an adult's dream state, which proves satisfying to the infant). At this stage of development, the infant has no notion of self or other.

The Normal Symbiotic Phase

This phase, which occurs between the first and sixth month of life, begins with the infant's first selective smile towards the caregiver. This may mark the beginning of Bowlby's bonding process (Bowlby, 1977) and indicates, due to physiological maturation, that the infant is able to be more responsive towards the external world. In this phase of development, the infant is thought to be in a pre-object state (Mahler et al., 1975) in which there is no perceived difference between the mother and the child (Greenberg & Mitchell, 1983). The infant's relationship with the caregiver is characterized as a dual unity, and he or she begins, with increased memory capacity, to form islands of good and bad, or pleasure and pain memory traces. Though the infant may dimly appreciate need satisfaction as coming from some need satisfying part-object, he or she still perceives it as coming from within the mother-child orbit of dual unity (Mahler et al., 1975). Thus, while there is now some differentiation between good and bad, there is still no discrimination between self and other.

The Phase of Separation-Individuation

This phase occurs between the fourth and the thirty-sixth month of life of the child and contains the following three subphases.

The Differentiation Subphase. During this subphase, which occurs between approximately the fourth and tenth month of life, the infant is more active, awake, alert, and focused than previously, and becomes, for the first time, vaguely aware of the world beyond the caregiver. The child's earlier preference to mold to the mother's body when being held changes to more active, self-determined positioning. Here the child begins to explore the mother, pulling her hair, glasses, and clothing, and comparing the unfamiliar with the familiar (Mahler et al., 1975). Later in the subphase, he or she begins to scan the outside world, while intermittently checking back to the mother. During this period the child begins to differentiate between self and object, discriminating between internal (i.e., psychological) and external (i.e., physical) sensations. At about six months, the child may begin to distinguish mother from other, and with this, to experience the first pangs of stranger anxiety. If "confident expectation" is developed during this stage, "basic trust" is said to be established, which should encourage more exploratory behavior later in development (Mahler et al, 1975, p. 4).

The Practicing Subphase. This subphase takes place between the eighth and eighteenth months of life and contains the following further subdivision:

Early practicing. This phase begins when the child starts to crawl or climb of his or her own volition. This volitional separation from the mother marks the beginning of ego functioning. The mother becomes a "home base" during this period from which the child makes excursions and to which the child periodically returns for "emotional refueling" (Greenberg & Mitchell, 1983, p. 276). During this period the child becomes increasingly interested in the external world, and he or she begins to acquire special objects, such as blankets or teddy bears which Winnicott termed transitional objects (Greenberg & Mitchell, 1983).

Practicing proper. This phase begins with the child's first independent step, which is, according to Mahler, the moment of psychological birth (Mahler et al., 1975), when the child escapes symbiotic embeddedness with the mother. During this period the child ignores or is unaware of dangers, and fearlessly and delightedly explores the environment. Indeed, Mahler characterized this as a period in which the child feels "the world is his or her oyster" (Mahler et al., 1975, p. 70). The child continues throughout this phase, however, to treat the mother as a home base for emotional refueling. It is important,

therefore, for the mother to allow and enjoy the child's increased independence. By doing this, she encourages individuality, instead of conformity to maternal preconceptions.

The Rapprochement Subphase. This subphase begins with the child's realization that his or her mother is separate, and will not always be available to help in dealing with the world. Thus, the child reacts to his or her own vulnerability, and begins to realize the world's dangers. The child loses the ideal sense of self, and, contrary to his or her previous feeling of narcissistic omnipotence, begins to feel small and defenseless. Typically separation anxiety reappears, and the child more frequently experiences frustration from failure. Because the child, at this time, is unable to integrate positive and negative feelings felt towards, and from, the caretaker, splitting mechanisms allow for separate mental representations to be maintained. Thus, the same caretaker is psychologically conceptualized by the child as either a good parent or a bad parent, but never as both simultaneously.

Between the ages of eighteen to twenty-four months the child enters into the rapprochement crisis, a very difficult and painful time in which the child feels intense

neediness alternating with defiant denial of such dependence (Greenberg & Mitchell, 1983, p. 279). Here the child fears the loss of the mother's love due to separation, but also fears regressive re-engulfment into the symbiotic relationship. Resolution of this crisis, which indicates the child has integrated the positive with the negative mental representations of both self and other, is crucial, according to Mahler, to the child's achieving object permanence and to avoiding later psychopathology.

The Subphase of Consolidation of Individuality and the
Beginnings of Emotional Object Constancy

This is an open ended subphase beginning in the third year of life, in which the child strives to achieve stable concepts of self and other. Libidinal object constancy presupposes establishment of Piaget's object permanence (Greenberg & Mitchell, 1983, p. 279) and incorporates the unification of good and bad representations of objects. If the child successfully accomplishes the tasks of this subphase, he or she is said to be capable of maintaining stable self-other relationships. In order to establish affective object constancy, the child must have already established basic trust, and now must internalize a constant, positively cathected, inner image of his or her mother (Mahler et al., 1975, p. 4). This, then, is the final stage in Mahler's developmental theory of separation-

individuation.   To the extent that the child has successfully negotiated the psychological and physiological tasks of each stage, the child is said to be more likely to continue in life with better adjustment and a firmer sense of identity.

General Aspects of Mahler's Theory of Separation-Individuation

To Mahler, separation and individuation are two distinct but complimentary processes. Separation refers to the internalization of self-representations which are distinct from internalized object representations. With separation come clear intrapsychic boundaries, or the ability to differentiate the thoughts and feelings attributed to oneself from those attributed to others. Individuation, on the other hand, is the process whereby the child develops a unique character and physical ability. Thus, the child develops his or her own perceptual abilities, his or her own thoughts, and his or her own memories. The process of separation, then, allows for differentiation between self and other, whereas the process of individuation involves the development of who and what this separated self is (Mahler, et al. 1975).

The developmental pace of these two processes is complimentary, and modulated by fears of isolation and fusion. For example, if the child's physical ability to move away from the mother (individuation) exceeds his or her

capacity for psychological autonomy (separation), then the child would likely experience fears of isolation. If, on the other hand, the child's capacity for psychological autonomy exceeds his or her physical ability to separate, fears of fusion or engulfment would likely occur. The processes of separation and of individuation, then, interact with the child's inevitable struggle with fusion versus isolation, and thereby become, for Mahler, the critical determinants of developmental outcome (Greenberg & Mitchell, 1983). While Mahler asserts that the separation-individuation process occurs during the first three years of one's life, she also contends that the underlying theme of this process, that is of fusion versus autonomy, is influential throughout life (Mahler et al., 1975).

Blos's Application of Mahler's Separation-Individuation Concepts to Adolescent Development

Peter Blos and others (Blos, 1962, 1967, 1979; Esman, 1980; Isay, 1980; Josselson, 1980) have suggested that similar mechanisms may operate during adolescence. That is, they have proposed that the early separation-individuation process may be a precursor of later development, and that a second individuation process occurs during adolescence. The child's fundamental accomplishment during the first separation-individuation experience is suggested to be the learning of the distinction between "self and non-self" (Blos, 1962, p. 12) and thereby the achievement of a sense

of **existence** (i.e., a sense that "I am;" St. Clair, 1986, p. 106). The primary achievement of the second individuation process, according to this view, is acquiring a sense of **identity** (i.e., a sense of "who I am"; Mahler et al. 1975, p. 8). This sense of identity corresponds closely with Erikson's (1963) notions of the consolidating ego-identity.

Thus, while Blos does not see adolescence as a strict recapitulation of the original separation-individuation process (Hill & Holmbeck, 1986), he does see it as a period which offers an opportunity to "remodel," or rectify any defective or incomplete earlier developments (Blos, 1962, p. 10). During this second individuation process, then, it is suggested that a psychic restructuring takes place which exerts a decisive influence on later adult functioning (Blos, 1962, 1979). How successful or unsuccessful the individual is in progressing through both separation-individuation processes is therefore suggested to be related to the relative health or pathology of the resulting adult personality (Blos, 1979).

If such developmental theories are valid, there should be a direct relationship between one's resolution of separation-individuation issues and one's later psychological adjustment. Accordingly, to the extent that it is possible to empirically measure the resolution of these developmental processes, it should also be possible to predict resulting psychological adjustment. Such adjustment

issues should be particularly evident during late adolescence, when desires and pressures for becoming autonomous from parents and family are at their peak, yet are paralleled by fears and apprehensions of failure and isolation.

Separation-Individuation and Adolescent Development: The Empirical Research

Research examining these issues has generally supported these notions. Hoffman (1984) developed the Psychological Separation Inventory (PSI) as a measure of different aspects of adolescents' psychological separation from their parents. He developed this measure by identifying four aspects of the separation-individuation process as described by Mahler (Mahler, 1968; Mahler et al., 1975) and then extrapolating from these to derive four corresponding aspects of adolescent psychological separation. Functional independence was identified as the ability to manage and direct one's affairs without help from parents; attitudinal independence was identified as the infant's ability to differentiate mental representations of self and other and was suggested to be manifested in adolescence as the degree to which one's attitudes and values are differentiated from those of one's parents; emotional independence was identified as representing one's freedom from need for approval, closeness, and support from parents; and finally, conflictual independence was identified as the degree to

which one is free from excessive guilt, anxiety, mistrust, and anger in relation to one's parents. Hoffman predicted that psychological adjustment (i.e., one's ability to "love and work;" Hoffman, 1984, p. 172) would be directly related to independence in each of these four areas (Hoffman, 1984). That is, the higher one scores on his measure of psychological independence, the better adjusted one should be.

Empirical investigations have partially supported Hoffman's (1984) predictions. Although functional independence and attitudinal independence have generally not been found to be predictive of adolescent adjustment, conflictual and emotional independence have (Hoffman, 1984; Hoffman & Weiss, 1987; Lopez, Campbell, & Watkins, 1988). More specifically, Hoffman (1984) found emotional independence to be associated with academic adjustment, and conflictual independence to be associated with better adjustment in love relationships. Hoffman and others assert that these results highlight the importance of conceptualizing psychological separation as a multidimensional, not homogenous, construct (Hoffman, 1984; Hoffman & Weiss, 1987; Lopez, Campbell, & Watkins, 1988). Indeed, although Lopez, Campbell, and Watkins (1986) used Hoffman's (1984) Psychological Separation Inventory and found psychological separation to be unrelated to college adjustment in men and to be negatively correlated to

adjustment in women, Hoffman and Weiss (1987) questioned these conclusions, asserting that Lopez et al. (1986) aggregated results across the instrument's different scales, and thus failed to account for the separate dimensions of the construct of psychological separation.

Subsequent studies have lent further support to the suggested relationship between psychological separation of adolescents from their parents and psychological adjustment. For example, a later study by Lopez et al. (1988) found conflictual independence to be positively associated with personal adjustment in college students (they cautioned, however, that these variables only accounted for a small amount of the variance, and suggested that the relationship may be mediated by other variables not controlled for in their study). Further, Lapsley, Rice, and Shadid (1989), found that, although psychological separation did not completely predict adjustment in college students, there was a pervasive relation between the two. More specifically, they found functional and emotional independence from mother and conflictual independence from father to be associated with emotional adjustment in college freshmen.

Unfortunately, however, while there seems to be evidence for a correlation between psychological separation from parents and psychological adjustment in college aged adolescents, the research in this area has been primarily cross-sectional in design, and thus has not allowed

investigators to clarify whether or not psychological separation is predictive of adjustment (Lapsley et al., 1989). One recent exception to this, however, is a study by Rice (1992) in which students completed the PSI (Hoffman, 1984) and the Student Adaptation to College Questionnaire (SACQ; Baker & Siryk, 1984) during their freshman and junior years in college. Results indicated that subjects experienced increases in psychological independence from parents and improvements in adjustment to college over time. Increases were observed in functional, emotional, and conflictual independence (from both parents) as well as in college adjustment. Attitudinal independence was the only dimension (of the PSI) that did not change over time. Independence from parents in freshman year was not found to be predictive of junior-year college adjustment.

Although the longitudinal design of this study allowed for investigation of the predictive validity of the separation-individuation concept as it relates to adjustment to college, Rice did not investigate changes which may have occurred in these variables between the students' freshman and junior years of college, and he did not include more general measures of psychological adjustment (such as of self-esteem or behavioral symptoms). Consequently, he was not able to draw more general conclusions about the relationship between separation-individuation and psychological well-being.

One purpose of the present study, therefore, is to further investigate the predictive validity of the separation-individuation concept as it relates to adjustment in college students, but to consider its impact on more general measures of adjustment, such as of self-esteem and behavioral problems, in addition to a measure of college adjustment. It is expected that one's relative success in resolving separation-individuation issues will determine and predict changes in one's psychological adjustment (and not vice versa) during the first year of college, when issues of dependency and autonomy are particularly salient.

If this is the case, then scores on measures of separation-individuation should not change appreciably during the first year of college, whereas scores on measures of psychological adjustment would be expected to change in reaction to the person's underlying resolution of separation-individuation issues. Thus, late adolescents who enter college after successfully negotiating the developmental stages of separation-individuation should be better able to face the increased academic and social pressures. Those adolescents who enter college without successfully resolving separation-individuation issues, on the other hand, would be expected to show increasing signs of psychological maladjustment as time passes.

It is important to note, however, that many researchers believe that issues of family functioning, and not of

separation-individuation, are primary in determining psychological adjustment in late adolescence. Consequently, research examining this area will be reviewed next.

Family Functioning Aspects
of Parent-Adolescent Separation

As noted earlier, researchers have also sought to understand adolescent adjustment by examining related aspects of family functioning. This research primarily examines how parent-adolescent attachment styles and various family system qualities may impact upon psychological adjustment in late adolescence.

Parent-Adolescent Attachment Styles

Research examining parent-adolescent attachment styles is derived primarily from Bowlby's ethological perspective (1958, 1982) and from applications of this theory by Ainsworth and Wittig (1969) and Ainsworth, Blehar, Waters, & Wall (1978). Bowlby's theory (1958, 1982) is drawn from ethological studies of animal behavior and is based on the assumption that the attachment behavior found in humans is instinctually based and is designed to increase chances for survival of the individual and of the species in general. Bowlby suggested that human infants are equipped with a repertoire of proximity-promoting behaviors, such as clinging, smiling, crying, and asking to be held, which affect the behavior of parents by eliciting protective and nurturing responses. These proximity promoting signals are

posited by Bowlby to play an important role in the regulation of early social relationships, and, when they are repeatedly associated with appropriate responses from parents, are thought to promote the formation of attachment bonds between the infant and adults (Lamb, 1988). Such attachment relationships are suggested to endure even while situations and circumstances change and are thought to influence interpersonal relationships throughout life (Bowlby, 1982).

Drawing from Bowlby's perspective, Ainsworth and colleagues (Ainsworth & Wittig 1969; Ainsworth et al., 1978) designed a procedure called the Strange Situation, in which infants were observed while facing increasing amounts of stress (as induced by the alien setting, the entrance of an unknown female, and by brief separations from the parent). Ainsworth suggested that such stress should increase the infant's desire for proximity with the parent, and thus should lead to an increase in attachment behaviors such as crying, approaching, and clinging.

Utilizing this experimental situation, Ainsworth was able to identify three types of attachment behavior. Secure attachment was the term used to describe infants who evinced distress when separated from parents, but who were able to gain security and comfort from their parent upon return. Avoidant infants were those who responded to their parent's return by turning away. Finally, resistant infants were

described as being unable to use their caretaker as a base for exploration even before being separated from them, and who behaved in an ambivalent fashion upon reunion by both seeking and angrily rejecting contact when it was offered (Lamb, 1988).

Ainsworth contended that the quality of attachment relationships, that is, whether attachments are secure, avoidant, or resistant, depends on the sensitivity of the caretaker (Ainsworth, Bell, & Stayton, 1974). Secure attachment was submitted to be the product of sensitive parenting, whereas avoidant and resistant attachment relationships were suggested to result when the caretaker was not sensitive (Ainsworth et al., 1974). Further, the quality of these early attachment relationships was suggested by Ainsworth and others to either facilitate or hinder the individual's current and future adaptability (Ainsworth et al., 1974; Sroufe & Waters, 1977).

Researchers have utilized these attachment theories and observations in an attempt to understand adolescent behavior, especially parent-adolescent relationships and adolescent psychological and social adjustment. This work is primarily based on the premise of continuity of adaptability (Sroufe & Waters, 1977). That is, early attachment patterns are assumed to affect later social and emotional adaptability (Lerner & Ryff, 1978; Sroufe & Waters, 1977). Attachment behavior, from this perspective,

is aimed at providing a feeling of security (and not just establishing proximity), and attachment bonds are seen as providing a supportive base from which to explore and expand (Rice, 1990). Thus, secure parental attachment, in which adolescents view their parents as a source of support when in stress yet also feel encouraged to be independent and autonomous, is seen as fostering self-confidence, a willingness to explore the environment, and the development of social competence (Kenny, 1987). This notion has been partially supported in research comparing a variety of social and intellectual competencies in infancy and again in early childhood (Easterbrooks & Lamb, 1979; Sroufe, 1983; Sroufe & Waters, 1977; Waters, Wippman, & Sroufe, 1979).

From this perspective, secure attachment is seen as providing a context for the development of adaptive social, emotional, and intellectual competencies, whereas insecure attachment is seen as related to less favorable psychological functioning. Accordingly, individual differences in the quality of attachment is asserted to be related to different patterns of current behavior (Quintana, 1987). Empirical research, as reviewed below, has supported this notion.

Parent-Adolescent Attachment Styles and Adolescent Development: The Empirical Research. Several investigators researching this area have used the Inventory of Parent and Peer Attachment (IPPA), a 53-item self-report instrument

which assesses attachment to parents and to peers, and which measures feelings of trust, understanding, respect, communication, and mutuality between subjects and their parents or peers, as well as any feelings of anxiety, anger, or detachment (Armsden & Greenberg, 1987; Greenberg, Siegel, & Leitch, 1983). This research has generally indicated that adolescents who have positive and strong attachment relationships with their parents are more likely than insecurely attached adolescents to be better adjusted in terms of self-esteem, life satisfaction, and affective status, and to report a healthy family climate (Armsden & Greenberg, 1987; Greenberg, Siegel, & Leitch, 1983). Similarly, Lapsley, Rice, and Fitzgerald (1990), using the same instrument, found positive parental and peer attachments to be associated with better academic and emotional adjustment in college freshmen.

Research using other assessment instruments have provided similar results. Kenny (1987) used the Parental Relationship Questionnaire (PRQ; Kenny, 1987), a self-report instrument which assesses quality of attachment to parents, and found attachment relations to be associated with feelings of interpersonal effectiveness. Kobak and Sceery (1988) used a semi-structured interview to assess parent-adolescent attachment relationships and found that adolescents classified as securely attached appeared healthier (on instruments assessing psychological symptoms

and feelings of social competence) than adolescents classified as either preoccupied with pleasing their parents or classified as dismissive of attachment to their parents.

Finally, in a meta-analytic review of studies on attachment in adolescence, Rice (1990) concluded that there appears to be a consistent positive association between measures of attachment and measures of social competence, self-esteem, identity, and emotional adjustment in adolescents. He noted in this review, however, that although the evidence for the association between attachment and psychological functioning was strong, the dearth of longitudinal investigations precluded any confident speculations about the direction of causality between these variables (Rice et al., 1990). Accordingly, Rice (1991) later conducted a longitudinal study, examining adolescent-parent relationships over time, by having university students complete measures of attachment (IPPA; Armsden & Greenberg, 1987) and of psychological separation (PSI; Hoffman, 1984) during their freshman and junior years in college. Results indicated an increase in psychological separation from parents over time, but no change on measures of attachment to parents. Attachment levels at Time 1 were not found to be predictive of changes in psychological separation at Time 2. Rice did not include measures of psychological adjustment in this study.

Researchers have also examined the possible association between attachment style and gender. This research is based on the notion that males and females in our culture are socialized under different value systems. That is, it is suggested that while males tend to be brought up to value independence and personal agency, females are brought up to emphasize interpersonal connectedness, affiliation, and interdependence (Chodorow, 1978; Douvan & Adelson, 1966; Gilligan, 1982; Gilligan, Lyons, & Hanmer, 1990; Josselson, 1988; Marcia, 1980). These gender specific socialization practices are then suggested to impact respective adolescent attachment styles.

Thus far, research on this question has been inconclusive. For example, studies by White, Speisman, and Costos (1983) and by Moore (1987) suggested that males may have greater difficulty than females in maintaining positive parental ties throughout the transition from adolescence to adulthood. This finding, however, was not supported in a later study by Lapsley, Rice, and Fitzgerald (1990), who found men and women to report comparable levels of attachment to their parents throughout college. Similarly, while Hoffman (1987) found that adolescents who are more attached to their opposite-sex parent than to their same-sex parent have more adjustment problems, Holmbeck and Wandrei (1993) found attachment to the opposite-sex parent

to be more predictive of psychological adjustment than
attachment to the same-sex parent. It is hoped that the
present study will help to clarify some of these questions
and inconsistencies.

**Parent-Adolescent Attachment Styles and Adolescent
Development: Some General Conclusions**. While some research
on attachment has been inconsistent, much of it, as noted
earlier, has supported the general conclusion that secure
attachment provides a healthy context for the development of
adaptive social, emotional, and intellectual competencies.
This conclusion is similar to conclusions suggested by
research on separation-individuation (discussed in the
previous section). That is, research on attachment and on
separation-individuation both support the notion that the
quality of parent-child relationships is a fundamental
determinant of psychological functioning. As noted in the
next section, similar conclusions can be derived from
research on theories of family functioning. Thus, there
appears to be much overlap in the conclusions drawn from
these theories of adolescent developmental adjustment.
However, although these theories overlap in their abilities
to explain and predict psychological adjustment, they likely
differ in the accuracy with which they do this. This issue
will be explored and discussed in more detail in the
"Summary and Review of General Hypotheses" section below (p.
29).

Family System Variables of Psychological Adjustment: The Theory and Empirical Research

In addition to looking at parental attachment, researchers have investigated the wider family system to see how it may affect adolescent psychological adjustment. Although the theoretical notions of Blos (1967) suggest that healthy parent-adolescent separation requires the loosening of family ties, recent research findings suggest that family ties are, in fact, quite stable during the adolescent period (Douvan & Adelson, 1966; Offer & Offer, 1975; Sullivan & Sullivan, 1980; Troll & Smith, 1976) and may even provide the late adolescent with a source of emotional support throughout the home-leaving period (Barruch & Barnett, 1983; Cohler & Geyer, 1982; Henton, Lamke, Murphy, & Haynes, 1980; Kenny, 1985; Troll & Bengston, 1979). Research has also established a positive association between the existence of harmonious parent-adolescent relationships, and the psychological, social, and intellectual functioning of these same late adolescents (Murphy, Silber, Coehlo, Hamburg, & Greenberg, 1963; Offer & Offer, 1975).

Thus, it is suggested that a healthy transition from adolescence to adulthood does not require a loosening of family ties, but rather a renegotiation of those ties towards more mutual yet equally intimate family relationships in which conflicting emotions and opinions are accepted and encouraged as well as consenting ones. Such

relational transformations are then posited to be associated with positive personal adjustment (Allison & Sabatelli, 1988; Grotevant & Cooper, 1985; White, Spiesman, & Condon, 1983). Indeed, investigators have found that adolescent self-esteem, academic success, and social competence are related to family system variables such as the quality of the parents' relationship, their parenting style, and parent-child communication patterns (Bartle, Anderson, & Sabatelli, 1989; Bell, Avery, Jenkins, Feld, & Schoenrock, 1985). It is thus suggested that family relationships which are supportive yet allow for the open expression of feelings and autonomy strivings are most helpful to the adolescent striving to make the transition to adulthood.

Summary and Review of General Hypotheses

As noted earlier, the basic question driving this research is fundamental to much psychological inquiry: why are some individuals able to make a healthy transition from late adolescence to adulthood while others are not? While this is hardly a new question, and has engendered much research, it has yet to be completely answered. Most investigators look at previous family functioning, parental attachments, or separation-individuation issues to address this question. While these researchers have provided correlational evidence for the viability of each of these explanatory theories, few studies have been longitudinal in

design, and thus it has not been possible to determine whether or not such theories can be used to predict changes in adolescent adjustment.

The purpose of the present study, therefore, is to investigate the ability of these three theories to predict and explain adjustment in first-year college students. Thus, if separation-individuation is an important determinant of adolescent adjustment, then scores on an instrument assessing this construct should be predictive of scores on measures of psychological adjustment. Similar statements should be true for issues of parent-adolescent attachment and family system issues. That is, adolescents who enter college with secure parental-attachment relationships would be expected to face the increased academic and social pressures of the first year in college in a healthier fashion than those who do not. And finally, adolescents who come from family systems which are nurturing and supportive yet allow members to be independent and autonomous would be expected to fare better during their first year in college, in terms of psychological adjustment, than adolescents who do not come from such family systems.

All three of these theories suggest that psychological adjustment will be determined by the quality of the individual's human relationships, especially one's relationships within the family of origin. Thus, it is expected that measures assessing these three theories will

be intercorrelated and will all be predictive, to one degree
or another, of psychological adjustment in college students.

Unlike family systems or attachment theory, however,
the theory of separation-individuation suggests that early
developmental relational experiences are internalized and
thereafter provide the framework through which the
individual comes to interpret and adapt to the world. Thus,
the theory of separation-individuation offers the most
explicit explanation of how individuals bring previous
relational experiences to bear on their understanding of,
and adjustment to, current circumstances. Further, of the
three theories, the theory of separation-individuation
provides the clearest formulation for understanding and
predicting the specific difficulties (such as separation-
anxiety) an individual is likely to encounter as he or she
strives to become autonomous.

As the college period is generally viewed as a time
when individuals feel heightened pressures and desires to
function autonomously, the theory of separation-
individuation seems particularly relevant to the study of
adjustment in college students. In many cases, for example,
the college student will, for the first time, be living in a
location physically separate from his or her parents and
family. Consequently, the college student must, more than
ever before, learn to rely on what he or she has
internalized from previous relational experiences. Because

the theory of separation-individuation was explicitly formulated to explain and predict how an individual will cope with such transitions, it is expected that measures of this theory will be more predictive of psychological adjustment in first-year college students than will measures of attachment and of family systems variables.

To understand the hypotheses proposed in this project more fully, however, it is important to first become familiar with the measures that were employed. For this reason, specific hypotheses are summarized more clearly at the end of chapter two.

CHAPTER II

METHOD

Subjects

Subjects were 112 freshman introductory psychology students at Loyola University Chicago (27 males and 85 females; 72% Caucasian, 20% Asian, 3% African-American, 5% other). Subjects from single parent households comprised 19% of the sample, with 81% coming from households with two parents. Subjects ranged in age from 17 to 25, with a mean age of 18. They received up to three extra credit points in their course for their participation in the initial data collection during the fall semester. One credit was awarded for completion of questionnaires at the initial meeting, and two credits were awarded for the expression (by the subject at the initial meeting) of a willingness to complete and return (in stamped and addressed envelopes provided) a second set of questionnaires sent in the springtime. Subjects indicated such willingness by signing an informed consent form. The questionnaires in the second data collection were the same as those used in the first. Of 162 subjects who participated in the first data collection, 112 (69%) followed through with their commitment to participate at Time 2.

Procedure

Data collection, which required the completion of a series of self-report questionnaires, was conducted twice, first in the beginning of semester one (October, 1991), and then again towards the end of semester two (April, 1992). In the first session, subjects were given a packet of questionnaires and a brief set of oral instructions outlining the purpose and procedures of the study. Subjects were then asked to read and sign the informed consent form provided. Subjects were also informed that the personal information they provided, including their names, addresses, and phone numbers, would be detached from the packets and kept completely confidential. They were informed that this information would be used strictly to complete the second data collection during semester two. Subjects were asked to complete the questionnaires privately and in one sitting. Completion of the questionnaires, on the average, took less than an hour.

At the end of the second semester subjects were sent a second set of questionnaires, identical to the ones they filled out during the fall semester, along with a set of instructions which informed them that they would be paid $5.00 for their cooperation. Subjects were also informed that they would be eligible to win a $100.00 lottery prize, which would be randomly drawn from the pool of participants who had successfully completed questionnaires at both Time 1

and Time 2. Stamped and addressed return envelopes were provided. Subjects who failed to return questionnaires were called once per week and encouraged to do so (unless they had requested to be dropped from the study). Subjects who had not returned questionnaires by the end of the semester were no longer called and were dropped from the study. Subjects who completed questionnaires at Time 2 were paid $5.00. A lottery prize of $100.00 was also awarded (following a random drawing) to one of the subjects.

Materials

Materials used in this study included six self-report instruments. One instrument assessed resolution of separation-individuation issues, one assessed parental attachment, one assessed family functioning, and two assessed various aspects of psychological adjustment. Subjects were also asked to complete a questionnaire on basic demographics. Each of these self-report instruments is described below.

The <u>Separation-Individuation Test of Adolescence</u> (SITA; Levine et al., 1986) is an instrument which measures resolution of Mahler's separation-individuation phases as they might express themselves during adolescence. This instrument contains 103 Likert-type questions, with answers which range from <u>strongly agree</u> or <u>always true</u> (1) to <u>strongly disagree</u> or <u>never true</u> (5).

The questions are divided into the following seven

scales (Levine et al., 1986): 1) the nurturance-seeking scale (designed to reflect the dependency aspects of the symbiosis period of separation-individuation); 2) the enmeshment-seeking scale (designed to reflect the enmeshment characteristics of the symbiotic period of separation-individuation; 3) the engulfment-anxiety scale (designed to reflect the engulfment-anxiety associated with the rapprochement period of separation-individuation); 4) the separation-anxiety scale (designed to reflect fear of abandonment from the rapprochement period of separation-individuation); 5) the dependency denial scale (designed to measure the denial of need for others which ostensibly results when a child's caretaker behaves mechanically, unpredictably, or parasitically during the symbiotic phase of separation-individuation); 6) the self-involvement scale (designed to assess the residual effects of the practicing phase of separation-individuation); and 7) the healthy-separation scale (designed to describe individuals who have progressed successfully through the consolidation phase of separation-individuation; Levine et al., 1986).

Levine et al. (1986) derived the nurturance- and enmeshment-seeking scales by subdividing the nurturance-symbiosis scale which they had originally constructed. The authors felt this subdivision was necessary after determining that dependency and enmeshment aspects of the symbiotic period of separation-individuation become

differentially manifest during adolescence, and thus should
be targeted on separate scales (Levine et al., 1986).
Similarly, the title of scale six was changed from self-
centeredness to self-involvement because many of the
questions on this scale were found to reflect positive self-
esteem and feelings of self-efficacy rather than feelings of
narcissism and self-absorption (J. B. Levine, personal
communication, 1989).

The SITA was further modified later (Levine, Saintonge,
in press) by subdividing the enmeshment-seeking scales into
the peer-enmeshment and the teacher-enmeshment scales, and
by renaming the self-involvement and dependency-denial
scales as the practicing-mirroring and need-denial scales,
respectively. Also, a new scale called the rejection-
expectancy scale was created, designed to assess the themes
of emotional callousness and indifference which were
depicted by Kernberg (1975) in his descriptions of
borderline and narcissistic developmental features. These
final modifications, however, were done subsequent to the
initiation of this project, and thus were not incorporated
into the study.

To support the theoretical-substantive validity (Levine
et al., 1986) of their self-report questions, Levine et al.
(1986) asked eight people who were familiar with the theory
from which the questions were derived to sort them into the
aforementioned seven scales. Questions which were sorted

correctly by six of the eight raters were retained, while
other questions were modified or dropped. This procedure
was repeated three times.

To establish the internal-structural validity of their
measure, Levine et al. (1986) administered the SITA to 305
students and examined the results with factor analysis. As
expected, the emerging factor structure corresponded to the
six theoretically derived SITA scales (Levine et al., 1986).
Finally, Levine et al. (1986) offered support for the
external-criterion validity of the SITA by distributing the
measure to 181 students, along with the Millon Adolescent
Personality Inventory (MAPI; Millon, Green, & Meahger, 1982:
see Levine et al., 1986), and examining correlations between
these questionnaires. SITA and MAPI scores were found to be
significantly related in a predictable fashion.

Further support for the instrument's concurrent
validity was found in a study by McClanahan and Holmbeck
(1992) which examined correlations between scores on the
seven SITA scales and measures of psychological adjustment.
Again, SITA scores and scores on the measures of
psychological adjustment were found to be significantly
related in a predictable fashion. Similarly supportive
validity results were obtained in a more recent study
(Levine & Saintonge, in press), in which the SITA was
administered along with the MAPI (Millon et al., 1986) to a
clinical population. The authors found that a majority of

significant correlations they obtained held up across both the clinical and non-clinical populations and were supportive of the theoretical constructs upon which the SITA scales are based.

Kenny's Parental Relationship Questionnaire (PRQ; 1987) was used to assess the quality of each respondent's attachment to his or her parents. This instrument contains two 55-item questionnaires on attachment, one for each parent. Subjects are asked to respond to the items by choosing a number on a 5-point Likert-type scale that best describes their parents, their relationship with their parents, and their feelings and experiences.

Content areas assessed include perceived parental availability, understanding, acceptance, respect for individuality, and facilitation of independence, as well as the respondent's interest in interaction with parents, affect towards parents, help-seeking behavior in situations of stress, satisfaction with help obtained from parents, and adjustment to separation. This instrument also contains a 15-item Likert-type questionnaire inquiring into the respondent's adjustment to college.

Kenny (1987) offers support for the reliability of this instrument by using the internal consistency method, which yielded Cronbach alphas ranging from .93 to .95. Alpha coefficients obtained in a study by McClanahan and Holmbeck (1992) were not quite this high, but still were

quite good, with an alpha of .83 on the mother scale, and of .82 on the father scale.

Kenny provided support for the instrument's validity by administering it, along with measures of assertiveness and social competence, to a group of 173 first-year college students (Kenny, 1987). Results indicated a positive relationship between family closeness and social competence during late adolescence. Kenny noted the results were consistent with those suggested by attachment theory (Ainsworth et al. 1978) and with other studies examining family closeness and social competence during late adolescence (Bell et al., 1985; Offer and Offer, 1975; Rutter, 1980).

To assess family functioning, the Family Environment Scale (FES; Moos & Moos, 1981) was used. This 90-item true-false self-report instrument assesses the social-environmental characteristics of families, dividing them into three underlying domains.

The relationship domain assesses the degree of support family members provide for each other, the extent to which members can openly express their feelings, and the amount of aggression and conflict among family members (as reflected on the cohesion, expressiveness, and conflict subscales, respectively). The personal growth domain measures the extent to which family members are assertive, self-sufficient, competitive, and interested in political,

social, intellectual, cultural, recreational, and religious
issues and activities (as reflected on the independence,
achievement, intellectual-cultural, active-recreational, and
moral-religious subscales). And finally, the system
maintenance domain measures the degree of organization in
planning family activities and the extent to which set rules
are used to run family life (as reflected on the
organization and control subscales).

Moos and Moos (1981) offer evidence for the
instrument's reliability and validity. Internal
consistencies (Cronbach's Alpha) for the 10 subscales ranged
from .61 to .78, and analysis of intercorrelations between
the scales indicate they measure distinct aspects of family
social environments (Moos & Moos, 1981). The authors also
reported acceptable coefficients for test-retest
reliability, and review considerable research supporting the
content, face, and construct validity of the FES (Moos &
Moos, 1981).

The Self-Perception Profile For College Students (SPP;
Neemann & Harter, 1986) was used to assess general self-
esteem as well as self-perception in several areas thought
to be relevant to college students. Domains assessed
include creativity, intellectual ability, scholastic
competence, job competence (i.e., whether one feels proud or
confident about the work one does), athletic competence,
appearance, romantic relationships, social acceptance, close

friendships, parent relationships, humor, morality, and global self-worth (i.e., general feelings about the self). Each of these 13 content domains has four items (except for the self-worth subscale, which has six items) for a total of 54 items.

For each item, subjects are asked to indicate which of two types of students they are most like (i.e., "Some students like the kind of person they are . . . BUT . . . Other students wish that they were different"). After choosing which group they most closely identify with they are asked to assign whether the item is <u>really</u> <u>true</u> or just <u>sort</u> <u>of</u> true for them. This format is thought to offset the tendency to give socially desirable answers (Neemann & Harter, 1986). For example, item number one is as follows:

Really True For Me	Sort of True For Me			Really True For me	Sort of True For Me
		Some students like the kind of person the are	BUT	Other students wish that they were different	
___	___			___	___

Items are scored from 1-4, with 1 representing a low self-assessment and 4 representing a high self-assessment. Scores are then totaled and thirteen subscale means are calculated which define a given student's self-perception profile.

Neemann and Harter (1986) report good subscale reliabilities, with coefficient alphas ranging from .76 to

.92. The authors also conducted factor analysis and found the emerging factor structure to correspond well with the instrument's subscales, and they reported convergent validity for the Social Acceptance, Close Friendships, and Parent Relationships subscales.

The behavior problem scales of the Youth Self-Report and Profile (YSR; Achenbach & Edelbrock, 1987) was employed to obtain standardized reports of subjects' problems. This is a 112-item instrument containing a variety of self-statements such as "I threaten to hurt people," or "I am unhappy, sad, or depressed," to which respondents circle 0 for not true, 1 for somewhat or sometimes true, and 2 for very true or often true. Results are totaled across seven dimensions, providing a problem profile for each student. These seven subscales are conceptualized dichotomously, as either indicating tendencies to be internalizing and thus inhibited and overcontrolled, on the one hand, or indicating tendencies to be externalizing, and thus aggressive, antisocial, and undercontrolled, on the other.

For males, the internalizing subscales include depression and unpopularity, the externalizing subscales include delinquency and aggressiveness, and the subscales for somatic complaints, self-destructiveness, and thought disorders represent neither externalizing nor internalizing tendencies. For females, the internalizing subscales include somatic complaints and depression, the externalizing

subscales include aggressiveness and delinquency, and the subscales for unpopularity and thought disorders represent neither externalizing nor internalizing tendencies.

Achenbach & Edelbrock (1987) offer evidence for the reliability and the validity of this instrument. For example, they found test-retest reliabilities of .81 (after one week), .59 (after 6 months) and .51 (after 8 months). These declining r's may reflect changes in the target phenomena over time.

Achenbach & Edelbrock (1987) also offer evidence for the instrument's content-validity and criterion-related validity. In a study comparing adolescents who had been referred for mental health services versus adolescents who had not been so referred, they found that the referred adolescents scored higher than non-referred adolescents on 89 of the instrument's 102 items (supporting content-validity), and that referred adolescents scored significantly higher than non-referred adolescents on all seven of the problem scales (supporting criterion-related validity).

In addition to these instruments, subjects completed a basic demographics questionnaire which included questions about age, sex, race, living circumstances, education and income levels, and family background. Subjects also read and signed informed consent forms.

Summary of Measures

Instruments assessed each subject's separation-individuation issues, attachment issues, family environments, psychological adjustment, and demographics. These instruments are listed below.

1. Separation Individuation Test of Adolescence (SITA; Levine et al., 1986).

2. Parental Relationship Questionnaire (PRQ; Kenny, 1987).

3. Family Environment Scale (FES; Moos & Moos, 1981).

4. Youth Self-Report and Profile (YSR; Achenbach & Edelbrock, 1987).

5. Self-Perception Profile For College Students (SPP; Neemann & Harter, 1986).

6. Demographic Questionnaire.

Summary of Specific Hypotheses

1. Scores on the measures of separation-individuation (the SITA), of attachment (the PRQ), and of family environment qualities (the FES) will not change significantly from Time 1 to Time 2.

2. Elevated scores at Time 1 on the SITA scales for healthy-separation and self-involvement and lower scores at Time 1 on the SITA scales for nurturance-seeking, enmeshment-seeking, engulfment-anxiety, separation-anxiety, and dependency-denial will be correlated with higher scores

on the measure of self-esteem (the SPP) and college adjustment (the PRQ) and with lower scores for behavior problems (the YSR) at both Time 1 and Time 2.

3. Elevated scores at Time 1 on the SITA scales for nurturance-seeking, enmeshment-seeking, engulfment-anxiety, separation-anxiety, and dependency-denial and lower scores at Time 1 on the SITA scales for healthy-separation and self-involvement will be associated with an increase in scores for behavior problems (the YSR) and with a decrease in scores on self-esteem (the SPP) and college adjustment (the PRQ) from Time 1 to Time 2.

4. Elevations at Time 1 on the Family Environment Scale on the relationship and personal growth domains will be associated with higher scores on the measure of self-esteem (the SPP) and college adjustment (the PRQ), and with lower scores for behavior problems (the YSR) at both Time 1 and Time 2.

5. Low scores at Time 1 on the Family Environment Scale in the relationship and personal growth domains will be associated with a decrease in scores on self-esteem (the SPP) and college adjustment (the PRQ), and with an increase in scores for behavior problems (the YSR) from Time 1 to Time 2.

6. Elevations in scores on the PRQ (attachment) at Time 1 will be associated with higher scores on self-esteem (on the

SPP) and college adjustment (on the PRQ), and with lower scores for behavior problems (on the YSR) at both Time 1 and Time 2.

7. Scores at Time 1 indicating insecure attachment (on the PRQ) will be associated with a decrease in scores on self-esteem (the SPP) and college adjustment (the PRQ), and an increase in scores for behavior problems (the YSR) from Time 1 to Time 2.

8. Scores on the measure of separation-individuation (at Time 1) will be more highly predictive of changes in scores on the adjustment measures (from Time 1 to Time 2) than will scores (at Time 1) on measures of attachment or the measure of family environment. This difference will be statistically significant.

CHAPTER III

RESULTS

Analysis of Changes in Scores Between

Times 1 and 2 Using t-tests

As noted in Hypothesis 1, scores on measures of separation-individuation (the SITA), attachment (the PRQ), and family environment (the FES) were not expected to change significantly from Time 1 to Time 2. To investigate this, t-tests were calculated based on the scores at Time 1 and Time 2 on each of these instruments. Tables 1 through 3 summarize these findings (pp. 49-51). To investigate whether scores on measures of adjustment changed from Time 1 to Time 2, t-tests were also calculated based on the scores at Time 1 and Time 2 for the measures of self-esteem (the SPP), college adjustment (the PRQ), and behavioral symptoms (the YSR). These results are summarized in Table 4 (p. 52). The number of subjects for calculations in all tables was 112.

Results support Hypothesis 1, with no significant difference in scores on the measures of attachment between Times 1 and 2 (the PRQ; Table 3, p. 51), no significant difference in scores on the subscales of the FES between

Table 1

Mean Scores on SITA Scales at Times 1 and 2

SITA SCALES	MEAN SCORE TIME 1	MEAN SCORE TIME 2	DIFFERENCE BETWEEN SCORES AT TIMES 1 AND 2	t-SCORE VALUES
NS	21.19 (4.29)	21.10 (4.17)	.08	.25
ES	30.62 (6.09)	29.91 (5.53)	.71	1.45
EA	22.26 (6.19)	21.04 (6.58)	1.22	2.76**
SA	21.98 (5.43)	21.69 (5.72)	.29	.74
DD	25.47 (6.92)	25.58 (7.18)	-.11	- .17
SC	30.33 (6.03)	30.75 (5.43)	-.43	-1.03
HS	42.99 (5.79)	43.56 (4.99)	-.57	-1.11

Note. The number of subjects for all correlations is 112. NS = nurturance-seeking; ES = enmeshment-seeking; EA = engulfment-anxiety; SA = separation-anxiety; DD = dependency-denial; SC = self-centeredness; HS = healthy-separation. Numbers in parentheses are standard deviations. * P<.05; ** P<.01; ***P<.001.

Table 2

Mean Scores on FES Subscales at Times 1 and 2

FES SUBSCALES	MEAN SCORE TIME 1	MEAN SCORE TIME 2	DIFFERENCE BETWEEN SCORES AT TIMES 1 AND 2	t-SCORE VALUES
Relationship Domain:				
Coh	15.35 (2.50)	15.49 (2.47)	- .14	- .83
Exp	14.21 (2.39)	14.13 (2.13)	.08	.49
Con	13.17 (2.34)	12.99 (2.41)	.18	1.08
Personal Growth Domain:				
Ind	15.34 (1.51)	15.53 (1.59)	-.19	-1.36
Ach	15.52 (1.67)	15.61 (1.56)	-.09	- .61
Int	14.55 (2.36)	14.57 (2.29)	-.02	- .14
Act	14.53 (2.23)	14.29 (2.20)	.24	1.67
Mor	14.40 (2.08)	14.57 (2.01)	-.17	-1.30
System Maintenance Domain:				
Org	14.32 (2.17)	14.22 (2.07)	.10	.67
Cont	13.92 (2.50)	13.84 (2.38)	.07	.45

Note. The number of subjects for all means is 112. COH = cohesion; EXP = expressiveness; CON = conflict; IND = independence; ACH = achievement; INT = intellectual-cultural; ACT = active-recreational; MOR = moral-religious; ORG = organizational; CONT = control. Numbers in parentheses are standard deviations. * $P<.05$; ** $P<.01$; *** $P<.001$.

Table 3

Mean Scores on Parental Attachment at Times 1 and 2

PRQ SCALES	MEAN SCORE TIME 1	MEAN SCORE TIME 2	DIFFERENCE BETWEEN SCORES AT TIMES 1 AND 2	t-SCORE VALUES
MOTHER	175.87 (33.99)	177.91 (32.91)	-2.04	-1.12
FATHER	166.47 (35.27)	167.15 (36.09)	- .68	- .43

Note. The number of subjects for all means is 112. Numbers in parentheses are standard deviations. * P<.05; ** P<.01; ***P<.001.

Table 4

Mean Scores on Measures of Adjustment at Times 1 and 2

ADJUSTMENT MEASURES	MEAN SCORE TIME 1	MEAN SCORE TIME 2	DIFFERENCE BETWEEN SCORES AT TIMES 1 AND 2	t-SCORE VALUES
Self-Esteem (the SPP)	137.78 (18.84)	141.97 (19.20)	-4.19	-3.58**
College Adjustment (the PRQ)	50.78 (8.78)	52.76 (8.58)	-1.98	-2.89**
Internalizing Behavioral Symptoms (the YSR)	54.09 (10.28)	53.11 (10.49)	.98	1.48
Externalizing Behavioral Symptoms (the YSR)	52.55 (7.68)	52.94 (7.39)	- .39	- .52

Note. The number of subjects for all correlations is 112. Numbers in parentheses are standard deviations. * P<.05; ** P<.01; ***P<.001.

Times 1 and 2 (the FES; Table 2, p. 50) and a significant difference in only one of the seven separation-individuation scales between Times 1 and 2 (the SITA; Table 1, p. 49). As indicated in Table 1, scores on the engulfment-anxiety scale of the SITA were significantly lower at Time 2 than they were at Time 1, with the mean score decreasing by 1.22 ($p <$ .01). Scores on nurturance-seeking, enmeshment-seeking, separation-anxiety, dependency-denial, self-centeredness, and healthy-separation, however, were not significantly different at Time 2 than they were at Time 1. Thus, as hypothesized, with the exception of the engulfment-anxiety scale, scores on measures of separation-individuation, family environment, and parental attachment did not change significantly between Time 1 and Time 2.

Table 4 (p. 52) contains results for changes in measures of adjustment between Times 1 and 2. Looking at this table it is apparent that there were significant increases on measures of healthy adjustment between Times 1 and 2 (the SPP and the PRQ), but no significant changes in scores for behavioral symptoms (the YSR). In particular, the mean score for self-esteem (the SPP) increased by 4.19 ($p <$ .01) and the mean score for college adjustment increased by 1.98 ($p <$ .01) between Times 1 and 2.

Correlational Analysis of Scores on Measures

of Adjustment, with Scores on Measures

of Separation-Individuation, Family

Environment, and Attachment

In Hypotheses 2, 4, and 6 it was predicted that
elevations on measures of separation-individuation (the
SITA), family environment (the FES), and parental-attachment
(the PRQ) at Time 1 would correlate with scores on
measures of self-esteem (the SPP), college adjustment (the
PRQ), and behavior problems (the YSR) at both Time 1 and
Time 2. To investigate this, Pearson product-moment
correlations were calculated. Tables 5 through 10 summarize
these findings (pp. 55-60).

Correlational Analysis of the SITA

More specifically, in Hypothesis 2 it was predicted
that elevated scores on the SITA scales for healthy-
separation and self-centeredness and lower scores for
nurturance-seeking, enmeshment-seeking, engulfment-anxiety,
separation-anxiety, and dependency-denial (at Time 1) would
be correlated with higher scores on measures of self-esteem
(the SPP) and college adjustment (the PRQ) and with lower
scores for behavior problems (the YSR) at both Times 1 and
2. As indicated in Tables 5 and 6 (pp. 55-56), results
generally support this prediction.

As predicted, elevations on the healthy-separation
scale were found to be significantly correlated with higher

Table 5

Correlations Between SITA Scale Scores at Time 1 and Measures of

Positive Adjustment at Times 1 and 2

SITA	SELF-ESTEEM		COLLEGE ADJUSTMENT	
	TIME 1	TIME 2	TIME 1	TIME 2
NS	-.01	-.08	-.22*	-.09
ES	.14	.14	.10	.05
EA	-.35**	-.25**	-.25**	-.27**
SA	-.27**	-.39**	-.26**	-.31**
DD	-.43**	-.44**	-.28**	-.22*
SC	.51**	.48**	.37**	.38**
HS	.25**	.37**	.14	.13

Note. The number of subjects for all correlations is 112. NS =
nurturance-seeking; ES = enmeshment-seeking; EA = engulfment-
anxiety; SA = separation-anxiety; DD = dependency-denial; SC =
self-centeredness; HS = healthy-separation; * P<.05; ** P<.01;
***P<.001.

Table 6

Correlations Between SITA Scale Scores at Time 1 and Behavior
Problems at Times 1 and 2

	INTERNALIZING PROBLEMS		EXTERNALIZING PROBLEMS	
SITA	TIME 1	TIME 2	TIME 1	TIME 2
NS	.23*	.16	.07	-.05
ES	.02	.02	.17	.09
EA	.32**	.27**	.32**	.25**
SA	.49**	.44**	.22*	.16
DD	.30**	.31**	.00	.18
SC	-.26**	-.35**	.15	.14
HS	-.18	-.25**	.13	-.02

Note. The number of subjects for all correlations is 112. NS = nurturance-seeking; ES = enmeshment-seeking; EA = engulfment-anxiety; SA = separation-anxiety; DD = dependency-denial; SC = self-centeredness; HS = healthy-separation; * $P<.05$; ** $P<.01$; ***$P<.001$.

Table 7

Correlations Between FES Subscales at Time 1 and Measures of
Positive Adjustment at Times 1 and 2

FES SUBSCALES	SELF-ESTEEM		COLLEGE ADJUSTMENT	
	TIME 1	TIME 2	TIME 1	TIME 2
Relationship Domain:				
Coh	.44**	.30**	.24*	.21*
Exp	.44**	.28**	.29**	.17
Con	-.32**	-.25**	-.24*	-.23*
Personal Growth Domain:				
Ind	.20*	.15	.15	.17
Ach	.07	-.09	-.09	-.25**
Int	.43**	.33**	.35**	.25**
Act	.53**	.40**	.27**	.21*
Mor	.11	.07	.07	.07
System Maintenance Domain:				
Org	.16	.16	.09	.03
Cntl	-.07	.01	-.16	-.13

Note. The number of subjects for all correlations is 112.
COH = cohesion; EXP = expressiveness; CON = conflict; IND =
independence; ACH = achievement; INT = intellectual-cultural;
ACT = active-recreational; MOR = moral-religious; ORG =
organizational; CONT = control; * P<.05; ** P<.01; ***P<.001.

Table 8

Correlations Between FES Subscales at Time 1 and
Behavior Problems at Times 1 and 2

FES SUBSCALES	INTERNALIZING PROBLEMS		EXTERNALIZING PROBLEMS	
	TIME 1	TIME 2	TIME 1	TIME 2
Relationship Domain:				
Coh	-.30**	-.18	-.13	-.19*
Exp	-.41**	-.25	-.13	-.10
Con	.34**	.20*	.25**	.33**
Personal Growth Domain:				
Ind	-.23*	-.20*	-.14	-.12
Ach	.14	.18	.07	.12
Int	-.29**	-.21*	-.11	-.10
Act	-.28**	-.21*	.13	.03
Mor	.08	.05	.02	.05
System Maintenance Domain:				
Org	-.11	-.03	-.07	-.07
Cntl	.14	.09	.05	.12

Note. The number of subjects for all correlations is 112.
COH = cohesion; EXP = expressiveness; CON = conflict; IND =
independence; ACH = achievement; INT = intellectual-cultural;
ACT = active-recreational; MOR = moral-religious; ORG =
organizational; CONT = control; * $p<.05$; ** $p<.01$; ***$p<.001$.

Table 9

Correlations Between Attachment Scores at Time 1 and
Measures of Positive Adjustment at Times 1 and 2

	SELF-ESTEEM		COLLEGE ADJUSTMENT	
PRQ SCALES	TIME 1	TIME 2	TIME 1	TIME 2
MOTHER	.50**	.30**	.27**	.20*
FATHER	.38**	.29**	.27**	.30**

Note. The number of subjects for all correlations is 112.
*P<.05; ** P<.01; ***P<.001.

Table 10

Correlations Between Attachment Scores at Time 1 and Behavior
Problems at Times 1 and 2

	INTERNALIZING PROBLEMS		EXTERNALIZING PROBLEMS	
PRQ SCALES	TIME 1	TIME 2	TIME 1	TIME 2
MOTHER	-.37**	-.23*	-.09	-.15
FATHER	-.27**	-.22*	-.20*	-.21*

Note. The number of subjects for all correlations is 112.
*$p<.05$; ** $p<.01$; ***$p<.001$.

scores on self-esteem at both Time 1 (r=.25, p<.01; see Table 5, p. 55) and Time 2 (r=.37, p<.01; see Table 5, p. 55). Similarly, and as predicted, elevations on the self-centeredness scale were found to be significantly correlated with higher scores on self esteem at both Time 1 (r=.51, p<.01; see Table 5, p. 55) and Time 2 (r=.48, p<.01; see Table 5, p. 55). Elevations on the self-centeredness scale were also found, as predicted, to be significantly correlated with elevations on a measure of college adjustment at Time 1 (r=.37, p<.01; see Table 5, p. 55) and Time 2 (r=.38, p<.01; see Table 5, p. 55).

Elevations on the healthy-separation and self-centeredness scales were also significantly correlated, as predicted, with lower scores on measures of behavior problems. Higher healthy-separation scores were associated with lower scores for internalizing problems at Time 2 (r=-.25, p<.01; see Table 6, p. 56) and elevated scores on self-centeredness were associated with lower scores for internalizing problems at both Time 1 (r=-.26, p<.01; see Table 6, p. 56) and Time 2 (r=-.35, p<.01; see Table 6, p. 56).

There were several other significant correlations on the SITA. Significant negative correlations were found, as predicted, between scores on the dependency-

denial scale and scores on self-esteem (r=-.43, p<.01 at Time 1; r=-.44, p<.01 at Time 2; see Table 5, p. 55), and on college adjustment (r=-.28, p<.01 at Time 1; r=-.22, p<.05 at Time 2; see Table 5, p. 55). The dependency-denial scale also correlated, as predicted, positively with elevations in internalizing problems at Time 1 (r=.30, p<.01; see Table 6, p. 56) and Two (r=.31, p<.01; see Table 6, p. 56).

The separation-anxiety scale correlated negatively (as predicted) with self-esteem at Time 1 (r=-.27, p<.01; see Table 5, p. 55) and at Time 2 (r=-.39, p<.01; see Table 5, p. 55) and with college adjustment at Time 1 (r=-.26, p<.01; see Table 5, p. 55) and Time 2 (r=-.31, p<.01; see Table 5, p. 55). This scale also correlated positively (as predicted) with internalizing problems at Time 1 (r=.49, p<.01; see Table 6, p. 56) and Time 2 (r=.44, p<.01; see Table 6, p. 56) and with externalizing problems at Time 1 (r=.22, p<.05; see Table 6, p. 56). The engulfment-anxiety scale correlated, as predicted, negatively with self-esteem at Time 1 (r=-.35, p<.01; see Table 5, p. 55) and Time 2 (r=-.25, p<.01; see Table 5, p. 55) and negatively with college adjustment at Time 1 (r=-.25, p<.01; see Table 5, p. 55) and Time 2 (r=-.27, p<.01; see Table 5, p. 55). This scale correlated positively, as predicted, with internalizing problems at Time 1

($\underline{r}$=.32, $\underline{p}$<.01; see Table 6, p. 56) and Time 2 ($\underline{r}$=.27, $\underline{p}$<.01; see Table 6, p. 56) and with externalizing problems at Time 1 ($\underline{r}$=.32, $\underline{p}$<.01; see Table 6, p. 56) and Time 2 ($\underline{r}$=.25, $\underline{p}$<.01; see Table 6, pp. 56). Finally, the nurturance-seeking scale correlated negatively, as predicted, with college adjustment at Time 1 ($\underline{r}$=-.22, $\underline{p}$<.05; see Table 5, p. 55) and positively with internalizing problems at Time 1 ($\underline{r}$=.23, $\underline{p}$<.05; see Table 6, p. 56).

In summary, correlations between scores on the SITA scales and scores for self-esteem, college adjustment, and behavioral problems were in general agreement with predictions. Thus, elevations on scores for self-esteem were significantly correlated, as predicted, with elevations in scores on the healthy-separation and self-centeredness scales, and with lower scores on the engulfment-anxiety, separation-anxiety, and dependency-denial scales of the SITA. Contrary to prediction, however, elevations in self-esteem were not significantly correlated with lower scores on the nurturance-seeking and enmeshment-seeking scales of the SITA.

Elevations on scores for college adjustment were significantly correlated, as predicted, with elevations in scores on the self-centeredness scale, and with lower scores on the nurturance-seeking, engulfment-

anxiety, separation-anxiety, and dependency-denial
scales of the SITA. Contrary to prediction, elevations
on scores for college-adjustment were not significantly
correlated with scores on the enmeshment-seeking and
healthy-separation scales of the SITA.

Finally, lower scores for behavioral problems were
significantly correlated, as predicted, with higher
scores on the engulfment-anxiety and separation-anxiety
scales of the SITA. Contrary to prediction, however,
the nurturance-seeking, enmeshment-seeking, dependency-
denial, self-centeredness, and healthy-separation
scales of the SITA were not significantly correlated
with scores for behavioral problems.

Correlational Analysis of the FES

In Hypothesis 4 it was predicted that elevated
scores at Time 1 on the FES in the relationship and
personal growth domains would be associated with higher
scores on self-esteem and college adjustment and with
lower scores for behavior problems at both Times 1 and
2. The relationship domain is composed of three
subscales (cohesion, expressiveness, and conflict) and
the personal growth domain is composed of five
subscales (independence, achievement, intellectual-
cultural, active-recreational, and moral-religious).
As indicated in Tables 7 and 8 (pp. 57-58), results
largely supported these predictions.

Looking more specifically at the relationship domain, as predicted, the cohesion scale was positively correlated with self-esteem (r=.44, p<.01 at Time 1; r=.30, p<.01 at Time 2; see Table 7, p. 57) and with college adjustment (r=.24, p<.05 at Time 1; r=.21, p<.05 at Time 2; see Table 7, p. 57) and was negatively correlated with internalizing problems at Time 1 (r=-.30, p<.01; see Table 8, p. 58) and externalizing problems at Time 2 (r=-.19, p<.05; see Table 8, p. 58). Similarly, as predicted, the expressiveness scale was positively correlated with self-esteem (r=.44, p<.01 at Time 1; r=.28, p<.01 at Time 2; see Table 7, p. 57) and with college adjustment (r=.29, p<.01 at Time 1; see Table 7, p. 57) and was negatively correlated with internalizing problems at Time 1 (r=-.41, p<.01; see Table 8, p. 58). Contrary to prediction, however, the conflict scale was negatively correlated with self-esteem (r=-.32, p<.01 at Time 1; r=-.25, p<.01 at Time 2; see Table 7, p. 57) and with college adjustment (r=-.24, p<.05 at Time 1; r=-.23, p<.05 at Time 2; see Table 7, p. 57) and was positively correlated with internalizing problems (r=.30, p<.01 at Time 1; r=.20, p<.05 at Time 2; see Table 8, p. 58) and externalizing problems (r=.25, p<.01 at Time 1; r=.33, p<.01 at Time Two; see Table 8, p. 58).

Thus, to summarize findings for the relationship domain, elevations in scores on the cohesion and expressiveness scales were, as predicted, significantly correlated with elevations in scores for self-esteem and college adjustment, and with lower scores for behavioral problems. Contrary to prediction, however, elevations in scores on the conflict scale were significantly correlated with lower scores for self-esteem and college adjustment and with higher scores for behavioral problems.

Results partially support predictions about the personal growth domain, with the bulk of these findings emerging for the intellectual-cultural and active-recreational scales. Contrary to predictions, however, the achievement scale was negatively correlated with college adjustment. There were also no significant correlations between scales in the personal growth domain and scores for externalizing problems.

More specifically, as predicted, the independence subscale was positively correlated with self-esteem at Time 1 (r=.20, p<.05; see Table 7, p. 57) and negatively correlated with internalizing problems (r=-.23, p<.05 at Time 1; r=-.20, p<.05 at Time 2; see Table 8, p. 58). The intellectual-cultural scale, in

accord with prediction, was positively correlated with self-esteem (r=.43, p<.01; at Time 1; r=.33, p<.01; at Time 2; see Table 7, p. 57) and with college adjustment (r=.35, p<.01; at Time 1; r=.25, p<.01; at Time 2; see Table 7, p. 57) and was negatively correlated with internalizing problems (r=.-29, p<.01 at Time 1; r=.21, p<.05 at Time 2; see Table 8, p. 58). Similarly, the active-recreational scale was, as predicted, positively correlated with self-esteem (r=.53, p<.01; at Time 1; r=.40, p<.01; at Time 2; see Table 7, p. 57) and with college adjustment (r=.27, p<.01; at Time 1; r=.21, p<.05; at Time 2; see Table 7, p. 57) and was negatively correlated with internalizing problems (r=.-28, p<.01 at Time 1; r=.21, p<.05 at Time 2; see Table 8, p. 58). As noted earlier, contrary to prediction, the achievement scale was negatively correlated with college adjustment at Time 2 (r=-.25, p<.01; see Table 7, p. 57).

Correlational Analysis of the PRQ

In Hypothesis 6 it was predicted that elevated scores at Time 1 on the PRQ would be associated with higher scores on self-esteem and college adjustment and with lower scores for behavior problems at both Times 1 and 2. As indicated in Tables 9 and 10 (pp. 59-60), results generally support these predictions.

As predicted, the PRQ-mother scale was positively correlated with scores on self-esteem (r=.50 p<.01; at Time 1; r=.30, p<.01; at Time 2; see Table 9, p. 59) and with college adjustment (r=.27, p<.01; at Time 1; r=.20, p<.05; at Time 2; see Table 9, p. 59) and was negatively correlated with internalizing problems (r=.-37, p<.01 at Time 1; r=.23, p<.05 at Time 2; see Table 10, p. 60). Similarly, the PRQ-father scale was, as predicted, positively correlated with scores on self-esteem (r=.38 p<.01; at Time 1; r=.29, p<.01; at Time 2; see Table 9, p. 59) and with college adjustment (r=.27, p<.01; at Time 1; r=.30, p<.01; at Time 2; see Table 9, p. 59) and was negatively correlated with internalizing problems (r=.-26, p<.01 at Time 1; r=.22, p<.05 at Time 2; see Table 10, p. 60) and with externalizing problems (r=.-20, p<.05 at Time 1; r=.21, p<.05 at Time 2; see Table 10, p. 60).

Thus, to summarize findings from correlational analysis, correlations between scores on measures of adjustment, and scores on measures of separation-individuation, family environment, and parental attachment were generally supportive of a-priori predictions. It is important to note, however, that, although many of the correlations in this analysis were significant, the amount of variance they accounted for was modest at best.

Regression Analysis of Scores on

Measures of Adjustment, with Scores on

Measures of Separation Individuation,

Family Environment, and Attachment

In Hypotheses 3, 5, and 7 it was predicted that
elevations on measures of separation-individuation (the
SITA), family environment (the FES), and parental-
attachment (the PRQ) at Time 1 would be associated
predictably with changes in scores on self-esteem,
college adjustment, and behavior problems from Time 1
to Time 2. To investigate this, a series of multiple-
regression analyses were performed. Tables 11 through
15, found on pages 70-74, summarize these findings
(note: each "step 3" on these tables represents a
separate multiple regression).

Regression Analysis of the SITA

More specifically, in Hypothesis 3 it was
predicted that elevated scores at Time 1 on the SITA
scales for nurturance-seeking, enmeshment-seeking,
engulfment-anxiety, separation-anxiety, and dependency-
denial and lower scores at Time 1 on the scales for
healthy-separation and self-involvement would be
associated with an increase in scores for behavior
problems (the YSR) and with a decrease in scores on

Table 11

Multiple Regressions for SITA Subscales Predicting
Change in Self-Esteem and College Adjustment (From Time
1 to Time 2)

			R-Squared		
Step	Variable	Mult. -R	Change	Beta	F

		Self-Esteem			
1	Item Time 1	.79	.62	.79	179.79***
2	Demographics	.80	.02	- - - -	.96
3	NS	.80	.00	-.05	.78
3	ES	.80	.00	.03	.21
3	EA	.80	.00	.06	.84
3	SA	.81	.03	-.18	8.30**
3	DD	.80	.01	-.11	2.57
3	SC	.80	.01	.12	3.08
3	HS	.81	.01	.13	4.02*

		College Adjustment			
1	Item Time 1	.65	.42	.65	80.74***
2	Demographics	.66	.01	- - - -	.45
3	NS	.66	.01	.07	.70
3	ES	.66	.00	-.02	.08
3	EA	.66	.01	-.09	1.23
3	SA	.67	.02	-.15	3.56
3	DD	.66	.00	-.02	.08
3	SC	.67	.02	.15	3.65
3	HS	.66	.00	.05	.31

Note. The number of subjects for all regressions is
112. NS = nurturance-seeking; ES = enmeshment-
seeking; EA = engulfment-anxiety; SA = separation-
anxiety; DD = dependency-denial; SC = self-
centeredness; HS = healthy-separation. "Demographics"
is a compilation of variables including: race, family
structure, gender, age, and socioeconomic status. Each
"step 3" represents a separate multiple regression.
*p<.05; ** p<.01; ***p<.001.

Table 12

Multiple Regressions for SITA Subscales Predicting
Change in Externalizing Symptoms and Internalizing
Symptoms (From Time 1 to Time 2)

Step	Variable	Mult.-R	R-Squared Change	Beta	F
		Internalizing Symptoms			
1	Item Time 1	.77	.59	.77	161.36***
2	Demographics	.78	.02	- - - -	.91
3	NS	.78	.00	-.03	.19
3	ES	.78	.00	.01	.01
3	EA	.78	.00	.00	.00
3	SA	.78	.00	.07	.88
3	DD	.79	.01	.09	1.66
3	SC	.79	.01	-.11	2.86
3	HS	.79	.02	-.15	4.84*
		Externalizing Symptoms			
1	Item Time 1	.44	.19	.44	26.59***
2	Demographics	.48	.03	- - - -	.95
3	NS	.49	.01	-.11	1.66
3	ES	.48	.00	.02	.05
3	EA	.49	.01	.13	1.80
3	SA	.48	.00	.03	.13
3	DD	.52	.04	.22	5.84*
3	SC	.48	.00	.01	.01
3	HS	.49	.01	-.10	1.06

Note. The number of subjects for all regressions is
112.   NS = nurturance-seeking; ES = enmeshment-
seeking; EA = engulfment-anxiety; SA = separation-
anxiety; DD = dependency-denial; SC = self-
centeredness; HS = healthy-separation. "Demographics"
is a compilation of variables including: race, family
structure, gender, age, and socioeconomic status. Each
"step 3" represents a separate multiple regression.
*$\underline{P}$<.05; ** $\underline{P}$<.01; ***$\underline{P}$<.001.

Table 13

Multiple Regressions for FES Subscales Predicting
Change in Self-Esteem and College Adjustment (From Time
1 to Time 2)

Step	Variable	Mult.-R	R-Squared Change	Beta	F
			Self-Esteem		
1	Item Time 1	.79	.62	.79	179.79***
2	Demographics	.80	.02	- - - -	.96
3	COH	.80	.00	-.06	.76
3	EXP	.81	.01	-.13	3.29
3	CON	.80	.00	.01	.03
3	IND	.80	.00	-.02	.09
3	ACH	.80	.00	-.05	.51
3	INT	.80	.00	-.02	.09
3	ACT	.80	.00	-.03	.20
3	MOR	.80	.00	.00	.00
3	ORG	.80	.00	.03	.21
3	CONT	.80	.00	.06	1.09
			College Adjustment		
1	Item Time 1	.65	.42	.65	80.74***
2	Demographics	.66	.01	- - - -	.45
3	COH	.66	.00	.05	.35
3	EXP	.66	.00	-.07	.77
3	CON	.66	.00	-.07	.80
3	IND	.66	.00	.06	.60
3	ACH	.68	.03	-.19	5.89*
3	INT	.66	.00	.00	.00
3	ACT	.66	.00	.02	.04
3	MOR	.66	.00	.01	.02
3	ORG	.66	.00	-.03	.14
3	CONT	.66	.00	-.02	.04

Note. The number of subjects for all regressions is
112. COH = cohesion; EXP = expressiveness; CON =
conflict; IND = independence; ACH = achievement; INT =
intellectual-cultural; ACT = active-recreational; MOR =
moral-religious; ORG = organizational; CONT = control.
"Demographics" is a compilation of variables including:
race, family structure, gender, age, and socioeconomic
status. Each "step 3" represents a separate multiple
regression. *p<.05; ** p<.01; ***p<.001.

Table 14

Multiple Regressions for FES Subscales Predicting
Change in Externalizing Symptoms and Internalizing
Symptoms (From Time 1 to Time 2)

Step	Variable	Mult.-R	R-Squared Change	Beta	F
		Internalizing Symptoms			
1	Item Time 1	.77	.59	.77	161.36***
2	Demographics	.78	.02	- - - -	.91
3	COH	.78	.00	.05	.48
3	EXP	.79	.01	.12	3.00
3	CON	.78	.00	-.06	.99
3	IND	.78	.00	.00	.00
3	ACH	.78	.00	.06	.82
3	INT	.78	.00	-.03	.13
3	ACT	.78	.00	-.02	.07
3	MOR	.78	.00	-.06	.72
3	ORG	.78	.00	.05	.70
3	CONT	.78	.00	-.03	.17
		Externalizing Symptoms			
1	Item Time 1	.44	.19	.44	26.59***
2	Demographics	.48	.03	- - - -	.95
3	COH	.50	.02	-.13	2.30
3	EXP	.48	.00	-.03	.08
3	CON	.53	.05	.23	7.08**
3	IND	.48	.00	-.05	.33
3	ACH	.48	.01	.08	.69
3	INT	.48	.00	-.07	.54
3	ACT	.48	.00	.03	.03
3	MOR	.48	.00	.04	.17
3	ORG	.48	.00	-.05	.35
3	CONT	.48	.01	.08	.73

Note. The number of subjects for all regressions is
112. COH = cohesion; EXP = expressiveness; CON =
conflict; IND = independence; ACH = achievement; INT =
intellectual-cultural; ACT = active-recreational; MOR =
moral-religious; ORG = organizational; CONT = control.
"Demographics" is a compilation of variables including:
race, family structure, gender, age, and socioeconomic
status. Each "step 3" represents a separate multiple
regression. *P<.05; ** P<.01; ***P<.001.

Table 15

Multiple Regressions for Attachment Scales predicting
Change in Self-Esteem, College Adjustment,
Internalizing Symptoms, and Externalizing Symptoms
(From Time 1 to Time 2)

			R-Squared		
Step	Variable	Mult.-R	Change	Beta	F
		Self-Esteem			
1	Item Time 1	.79	.62	.79	179.79***
2	Demographics	.80	.02	- - - -	.96
3	ATTACH-FATHER	.80	.00	.02	.06
3	ATTACH-MOTHER	.81	.01	-.13	3.84*
		College Adjustment			
1	Item Time 1	.65	.42	.65	80.74***
2	Demographics	.66	.01	- - - -	.45
3	ATTACH-FATHER	.68	.02	.16	4.23*
3	ATTACH-MOTHER	.66	.00	.01	.02
		Internalizing Symptoms			
1	Item Time 1	.77	.59	.77	161.36***
2	Demographics	.78	.02	- - - -	.91
3	ATTACH-FATHER	.78	.00	-.04	.38
3	ATTACH-MOTHER	.78	.00	.05	.50
		Externalizing Symptoms			
1	Item Time 1	.44	.19	.44	26.59***
2	Demographics	.48	.03	- - - -	.95
3	ATTACH-FATHER	.49	.01	-.10	1.03
3	ATTACH-MOTHER	.49	.01	-.10	1.14

Note. The number of subjects for all regressions is
112. "Demographics" is a compilation of variables
including: race, family structure, gender, age, and
socioeconomic status. Each "step 3" represents a
separate multiple regression. *p<.05; ** p<.01;
***p<.001.

self-esteem (the SPP) and college adjustment (the PRQ) from Time 1 to Time 2. As indicated in Tables 11 and 12 (pp. 70-71), results offer only moderate to weak support for these predictions.

More specifically, subjects who scored high in separation-anxiety at Time 1, as predicted, showed decreased scores for self-esteem from Time 1 to Time 2, $F(1, 112) = 8.30$, $p<.01$ (see Table 11, p. 70), and subjects who scored high on dependency-denial at Time 1, again as predicted, demonstrated increases in scores for externalizing symptoms from Time 1 to Time 2 $F(1, 112) = 5.84$, $p<.04$ (see Table 12, p. 71). Finally, subjects who had high scores for healthy-separation at Time 1, also exhibited increases in scores for self-esteem from Time 1 to Time 2, $F(1, 112) = 4.02$, $p<.05$ (see Table 11, p. 70) and decreases in scores for internalizing symptoms from Time 1 to Time 2 $F(1, 112) = 4.84$, $p<.05$ (see Table 12, p. 71).

Regression Analysis of the FES

In Hypothesis 5 it was predicted that lower scores at Time 1 on the FES in the relationship and personal growth domains would be associated with a decrease in scores on self-esteem (the SPP) and college adjustment (the PRQ) and with an increase in scores for behavior problems (the YSR) from Time 1 to Time 2. As noted earlier, the relationship domain is composed of three subscales (cohesion, expressiveness, and conflict) and the personal growth domain

is composed of five subscales (independence, achievement, intellectual-cultural, active-recreational, and moral-religious). As indicated in Tables 13 and 14 (pp. 72-73), results do not support these predictions. Indeed, contrary to prediction, subjects who scored higher on the achievement scale (from the personal growth domain) at Time 1, had decreases in scores in college adjustment from Time 1 to Time 2, $F(1, 112) = 5.89$, $p < .05$ (see Table 13, p. 72), and, again contrary to prediction, subjects who scored higher on the conflict scale (from the relationship domain) at Time 1, had an increase in scores for externalizing symptoms from Time 1 to Time 2 $F(1, 112) = 7.08$, $p < .01$ (see Table 14, p. 73).

Regression Analysis of the PRQ

In Hypothesis 7 it was predicted that lower scores at Time 1 on the PRQ would be associated with a decrease in scores on self-esteem (the SPP) and college adjustment (the PRQ), and with an increase in scores for behavior problems (the YSR) from Time 1 to Time 2. As indicated in Table 15 (p. 74), results offer only partial support for these predictions. As predicted, subjects who scored higher on the PRQ-father scale at Time 1, had an increase in scores on college adjustment (the PRQ) from Time 1 to Time 2, $F(1, 112) = 4.23$, $p < .05$ (see Table 15, p. 74). Contrary to prediction, subjects who scored higher on the PRQ-mother

scale at Time 1, had a decrease in scores for self-esteem (the SPP) from Time 1 to Time 2, $F(1, 112) = 3.84$, $p<.05$ (see Table 15, p. 74). No other attachment associations were significant.

Regression Analysis: A Comparison of the Predictive Ability of Separation-Individuation, Family Environment, and Attachment

In Hypothesis 8 it was predicted that scores on the measure of separation-individuation (the SITA) at Time 1 would be more highly predictive of changes in scores in self-esteem (the SPP), college adjustment (the PRQ) and behavioral symptoms (the YSR) from Time 1 to Time 2 than would be scores on the measure of family environment (the FES) and parental-attachment (the PRQ) at Time 1. To investigate this, a series of multiple-regression analyses were performed. Table 16 (p. 78) summarizes these findings.

As indicated in Table 16 (p. 78), results largely supported this prediction, as the SITA scales were the best predictors of changes in self-esteem and internalizing behavioral symptoms, and were the second and third best predictors of changes in college adjustment. Family environment scales (from the FES) were the best predictors of changes in externalizing behavioral symptoms and college adjustment.

Table 16

Multiple Regressions for SITA Scales, FES Subscales, and Attachment Subscales Best predicting Change in Self-Esteem, College Adjustment, Internalizing Symptoms, and Externalizing Symptoms (From Time 1 to Time 2)

Step	Variable	Mult.-R	R-Squared Change	Beta	F
		Self-Esteem			
1	Item Time 1	.79	.62	.79	179.79***
2	Demographics	.80	.02	- - - -	.96
3	SITA-SA	.81	.03	-.18	8.30**
4	SITA-SC	.83	.02	.16	5.63*
5	FES-EXP	.84	.02	-.16	6.19*
6	SITA-DD	.84	.01	-.14	4.50*
		College Adjustment			
1	Item Time 1	.65	.42	.65	80.74***
2	Demographics	.66	.01	- - - -	.45
3	FES-ACH	.68	.03	-.19	5.89*
4	SITA-SC	.70	.02	.16	4.10*
5	SITA-SA	.72	.03	-.18	5.37*
		Internalizing Symptoms			
1	Item Time 1	.77	.59	.77	161.36***
2	Demographics	.78	.02	- - - -	.91
3	SITA-HS	.79	.02	-.15	4.84*
		Externalizing Symptoms			
1	Item Time 1	.44	.19	.44	26.59***
2	Demographics	.48	.03	- - - -	.95
3	FES-CON	.53	.05	.23	7.08**

Note. The number of subjects for all regressions is 112. FES-CON = FES-conflict; FES-EXP = FES-expressive; FES-ACH = FES-achievement; SITA-HS = SITA-healthy-separation; SITA-SA = SITA-separation-anxiety; SITA-SC = SITA-self-centeredness; SITA-DD = SITA-dependency-denial. "Demographics" is a compilation of variables including: race, family structure, gender, age, and socioeconomic status. *P<.05; ** P<.01; ***P<.001.

More specifically, decreases in self-esteem (the SPP) from Time 1 to Time 2 were found to be associated with elevations at Time 1 on the separation-anxiety scale (from the SITA), $F(1, 112) = 8.30$, $p<.01$ (see Table 16, p. 78), the dependency-denial scale (from the SITA), $F(1, 112) = 4.50$, $p<.05$, and (contrary to prediction) the family-expressiveness scale (from the FES) $F(1, 112) = 6.19$, $p<.05$ (see Table 16, p. 78), and with lower scores at Time 1 on the self-centeredness scale (from the SITA), $F(1, 112) = 5.63$, $p<.05$ (see Table 16, p. 78). Decreases in college adjustment (the PRQ) from Time 1 to Time 2 were found to be associated with elevations at Time 1 on the separation-anxiety scale (from the SITA) $F(1, 112) = 5.37$, $p<.05$ (see Table 16, p. 78) and (contrary to prediction) on the family-achievement scale (from the FES) $F(1, 112) = 5.89$, $p<.05$ (see Table 16, p. 78), and with lower scores at Time 1 on the self-centeredness scale (from the SITA), $F(1, 112) = 4.10$, $p<.05$ (see Table 16, p. 78). Decreases in internalizing behavioral symptoms (the YSR) from Time 1 to Time 2 were found to be associated with elevations at Time 1 on the healthy-separation scale (from the SITA) $F(1, 112) = 4.84$, $p<.05$ (see Table 16, p. 78). Finally, increases in externalizing behavioral symptoms (the YSR) from Time 1 to Time 2 were found (contrary to prediction) to be associated with elevated scores at Time 1 on the family-conflict scale (from the FES) $F(1, 112) = 7.08$, $p<.01$ (Table 16, p. 78).

CHAPTER IV

DISCUSSION

As noted earlier, the purpose of this study was to investigate the ability of three theories, separation-individuation, family environment, and attachment, to predict and explain changes in the level of adjustment of first-year college students. In order to do this, students filled out questionnaires derived from each of these three perspectives, as well as questionnaires measuring self-esteem, college adjustment, and behavioral symptoms. These instruments were completed at the beginning of the students' first year in college and then again at the end of the same year. Results were analyzed using t-tests, Pearson product-moment correlations, and multiple regressions. These results are outlined in Tables 1 through 16 (pp. 49-78).

Change Across the Freshman Year

As indicated in Tables 1 through 3 (pp. 49-51), except for the change in the engulfment-anxiety scale on the SITA, there were no significant changes in scores on measures of separation-individuation (the SITA), family environment (the FES), and parental attachment (the PRQ) from Time 1 to Time 2. As these instruments are designed to measure constructs which should predict, not duplicate, measures of

psychological adjustment, these results concur with expectations. Thus, the reliability of the SITA, FES, and PRQ is supported.

As noted above, an exception to this was the significant decrease in engulfment-anxiety between Time 1 and Time 2. Although this finding may be spurious (given that this is the only significant result) it may also indicate that this subscale fails to assess a stable psychological trait (as it was designed to) but instead measures a state psychological phenomenon. Another possible explanation is that students who have higher levels of engulfment-anxiety in intimate relationships may experience a decrease in this anxiety during their first year in college because they are away from the people with whom they have been most intimate up until that point (i.e., their parents).

Support for this notion is found by examining the specific statements that make up the engulfment-anxiety scale. Virtually all these items emphasize either the relief of being free from one's parents or the difficulty of being restricted by them (e.g., "I can't wait for the day that I can live on my own and am free from my parents;" or, "I feel my parents' rules restrict my freedom too much"). Clearly, a student suffering from excessive engulfment-anxiety, but who has been away from parents while attending college, would be expected to endorse such items less often

simply by virtue of being away from parents. On the other hand, as such individuals develop new intimate relationships in college, their engulfment-anxiety may reemerge to preexisting higher levels. This process may take more than the nine months that passed during the course of this study. Further, such "peer" engulfment-anxiety would not be tapped by a measure that assesses such anxiety only in relation to one's parents. Consequently, individuals whose fundamental interpersonal adjustment would include higher levels of engulfment-anxiety may appear to experience a decrease in this symptom because of a decrease in interpersonal intimacy with their parents rather than because of a fundamental change in the underlying trait this subscale is designed to measure. Longitudinal studies of longer duration than nine months and scale items alluding to non-parental intimate relationships would be required to investigate the validity of this interpretation further.

Correlations between Adjustment and
Measures of Separation-Individuation,
Family Environment, and Attachment
Correlations Between Adjustment
and Separation-Individuation

Results from correlational analysis between separation-individuation and adjustment (i.e., between the SITA for separation-individuation, and the SPP for self-esteem, the PRQ for college adjustment, and the YSR for behavioral

symptoms) were largely in agreement with predictions, and thus bolstered previous findings supporting the validity of the SITA as a psychodiagnostic instrument and, of the theory of separation-individuation as a developmental process (Hoffman, 1984; Hoffman & Weiss, 1987; Holmbeck & Wandrei, 1993; Lapsley, Rice, & Shadid, 1989; Levine et al., 1986; Levine & Saintonge, in press; Lopez, Campbell, & Watkins, 1988; McClanahan & Holmbeck, 1992; Rice, 1992).

More specifically, students who appeared to have achieved healthier resolutions of the separation-individuation process, as indicated by elevations in their scores for healthy-separation and for self-centeredness (a scale later renamed as "self-involvement" to reflect its emphasis on feelings of positive self-esteem and self-efficacy) also had higher scores for self-esteem and college adjustment (see Tables 5 and 6, pp. 55-56). These findings concur with expectations derived from the work of Mahler and her associates (1975), Blos (1962, 1967, 1979), and others (Dixon & Lerner, 1988; Esman, 1980; Isay, 1980; Josselson, 1980; Kagan, 1979; Sroufe, 1988; Stern, 1985). That is, because such students have supposedly resolved separation-individuation issues during earlier developmental periods, they appear to be able to face the increased stresses and strains of college life without assault to or diminution of their sense of self-worth and well-being (see Table 5, p. 55). Likewise, such students appear able to face the

transition to college life without excessive behavioral symptoms (Table 6, p. 56). Indeed, as indicated in Table 6 (p. 56), such students appear to have an unusually low number of internalizing behavioral symptoms, such as depression or social inhibitions.

Students who begin college without having adequately resolved basic separation-individuation issues (as indicated by elevations in their scores for nurturance-seeking, enmeshment-seeking, engulfment-anxiety, separation-anxiety, and dependency-denial), on the other hand, appear also to suffer from lower self-esteem, poorer college adjustment, and more behavioral symptoms (see Tables 5 and 6, pp. 55-56). These findings are in accordance with the predictions derived from the theory of separation-individuation made in this study.

While such correlational analysis clearly offers supportive evidence for the validity of the theory of separation-individuation (and for the SITA), it does not, as with similar previous correlational studies (Hoffman, 1984; Hoffman & Weiss, 1987; Lapsley, Rice, & Shadid, 1989; Lopez, Campbell, & Watkins, 1988; McClanahan & Holmbeck, 1992), clarify whether or not separation-individuation is predictive of changes in adjustment. This question will consequently be addressed more directly in the section below (p. 90) entitled "Using Separation-Individuation To Predict Changes in Adjustment."

Correlations Between Adjustment

and Family Environment

Similar to separation-individuation, correlational analysis between students' family environments (the FES) and their adjustment (the SPP for self-esteem, the PRQ for college adjustment, and the YSR for behavioral symptoms) revealed results which largely concurred with predictions. That is, students who rated their family environment as being primarily supportive and cohesive, yet also as allowing for open and independent self-exploration and self-expression, appeared healthier in terms of self-esteem, college adjustment, and behavioral symptoms (see Tables 7 and 8, pp. 57-58). These results support previous research which suggested a positive association between the existence of harmonious and open parent-adolescent communication patterns, and the psychological, social, and intellectual functioning of late adolescents (Bartle, Anderson, & Sabatelli, 1989; Bell, Avery, Jenkins, Feld, & Schoenrock, 1985; Murphy, Silber, Coehlo, Hamburg, & Greenberg, 1963; Offer & Offer, 1975).

More specifically, students in the current study who characterized their family environment as cohesive, yet simultaneously as conducive to expressiveness, independence, and intellectual and recreational pursuits, were more likely

to also have higher self-esteem, better college adjustment, and fewer behavioral symptoms. These results are thus also in accordance with suggestions by several authors, such as Allison and Sabatelli (1988), Grotevant and Cooper (1985), White, Spiesman, and Condon (1983), and others, who propose that healthy family environments are those in which relationships are supportive and close yet allow for open expression of dissenting ideas and feelings as well as autonomy strivings. Correlational analysis alone, however, does not clarify whether such family environments lead to healthier adjustment in late adolescents, or vice versa. Consequently, the question of whether family environment is predictive of changes in adolescent adjustment will, again, be discussed more thoroughly in the section below (p. 91) entitled "Using Family Environment To Predict Changes in Adjustment."

Not all of the results from correlational analysis of the Family Environment Scale (Moos & Moos, 1981) were in accordance with predictions. Although the conflict scale, for example, was designed to assess a "healthy" openness to the expression of conflict and dissention within the family environment, elevations on this scale were associated with lower self-esteem, poorer college adjustment, and more behavioral problems (see Tables 7 and 8, pp. 57-58).

Upon examining the individual items in this scale more

closely, however, it is apparent that they may not actually assess healthy openness between family members, but rather an unhealthy level of conflict. Some of the (true-false) items, for example, are: "We fight a lot in our family;" "Family members sometimes get so angry they throw things;" and, "Family members sometimes hit each other." Such items may not be assessing a healthy openness to dissention, but rather a destructive and abusive family environment, which would more logically be associated with poorer scores for self-esteem, college adjustment, and behavioral problems.

Another FES scale for which correlational analysis yielded results contrary to prediction was the achievement scale (see Tables 7 and 8, pp. 57-58). Although elevations on this scale were thought to indicate a family environment conducive to personal growth, in this study (Table 7, p. 57) such scale elevations were actually associated with lower scores (at Time 2) for college adjustment. One possible explanation for this unexpected result is that students who come from such family environments, in which personal success and achievement is emphasized, may feel unduly stressed and pressured to perform when they enter college. This added pressure may actually hamper their ability to adjust to the college environment. This question warrants further investigation, however.

Correlations Between Adjustment

and Parental-Attachment

As with the measures of separation-individuation (the SITA) and family environment (the FES), results from correlational analyses between attachment (the PRQ) and adjustment (the SPP for self-esteem, the PRQ for college adjustment, and the YSR for behavioral symptoms) are in accordance with predictions. Thus, as has been indicated in previous research on attachment in adolescence (Armsden & Greenberg, 1987; Greenberg, Siegel, & Leitch, 1983; Kenny, 1987; Kobak & Sceery, 1988; Lapsley, Rice, & Fitzgerald, 1990) subjects in this study who reported positive attachments to their mothers and fathers (see Tables 9 and 10, pp. 59-60) also reported better adjustment, including higher self-esteem, better college adjustment, and fewer behavioral symptoms (although elevations in positive attachment to mothers was not related to the level of externalizing problems reported).

Thus, this research supports the notion, derived from attachment theory (Bowlby, 1982; Lerner & Ryff, 1978; Sroufe & Waters, 1977), that adolescents who have positive attachment relationships to their parents are more likely than insecurely attached adolescents to be better adjusted. Again, however, as with the correlational analyses of

separation-individuation and of family environment, these findings do not clarify whether or not measures of parent-adolescent attachment can be used to predict changes in adjustment. Such causal interpretation requires analysis of changes over time, which will be discussed in the following section.

Using Separation-Individuation,

Family Environment, and Attachment

Measures to Predict Changes in Adjustment

Multiple-regression analyses were utilized to assess the degree to which instruments assessing separation-individuation (the SITA), family environment (the FES), and attachment (the PRQ), were predictive of changes in adjustment in subjects during their first year of college. Adjustment measures included the SPP (to assess self-esteem), the PRQ (to assess college adjustment), and the YSR (to assess behavioral symptoms). Results indicated the SITA (separation-individuation), the FES (family environment, and the PRQ (parental-attachment) to be moderately predictive of changes in adjustment. Significant findings, however, were in the predicted direction for only the separation-individuation scales (the SITA). Findings for family environment (the FES) and for attachment (the PRQ) ran contrary to predictions (see Tables 11 through 16, pp. 70-78).

Using Separation-Individuation

To Predict Changes in Adjustment

As indicated in Tables 11 and 12 (pp. 70-71), three
scales on the SITA, the healthy-separation scale, the
separation-anxiety scale, and the dependency-denial scale,
were found to be significantly predictive of changes in
adjustment from Time 1 to Time 2. Thus, as might be
expected, students who began the year with excessive
separation-anxiety suffered a significant decrease in self-
esteem from Time 1 to Time 2. The challenge of being away
from parents was apparently very great for these subjects,
as this enacted their "worst fears" of being separated from
the ones they loved and on whom they depended (Mahler et
al., 1975).

Students who tended toward the opposite extreme, on the
other hand, by denying their need for their parents (i.e.,
students who began the year with high scores on the
dependency-denial scale) were found to register a
significant increase in externalizing symptoms over the
course of the year. It may be that, because such students
relied inordinately on "denial" as a defense against anxiety
and emotional pain, they tended to "act out" their emotional
struggles behaviorally rather than to feel them or talk
about them (much as described by Blos; 1966).

Finally, as was predicted, students who began the year
with higher scores for healthy-separation appeared to adapt

quite well to the challenge of college life, as they experienced a decrease in internalizing symptoms and an increase in self-esteem during the course of the year. Such students, who presumably had progressed successfully through the phases of separation-individuation (Levine et al., 1986), apparently perceive the college experience as an opportunity for personal growth rather than as a threat to their emotional integrity, and thus tended to have greater self-regard by the end of the year than they did at the beginning.

Consequently, although significant results were found for only three of the seven SITA scales from regression analysis, these findings were in accordance with predictions, providing supportive evidence for the predictive validity of the SITA and for the separation-individuation theory from which it was derived.

Using Family Environment

To Predict Changes in Adjustment

As indicated in Tables 13 and 14 (pp. 72-73), regression-analysis of family environment (the FES) and adjustment yielded statistically significant results for two scales, but both were contrary to prediction. Students who judged their family environments to be unusually high in achievement motivation at the beginning of the year showed a significant decline in college adjustment over the course of the year. One possible explanation for this change is, as

was noted earlier in the section on correlational analysis, students who come from such family environments may feel unduly stressed and pressured, not supported, and thus may be hampered in their overall ability to adjust to college life.

Similarly, students who judged their family environments as being unusually conflictual at the beginning of the year showed a significant increase during the course of the year in externalizing symptoms. As noted in the earlier section on correlational analysis, items comprising the conflict scale of the FES may actually assess a destructive and abusive family environment rather than an environment open to divergent opinions and emotions. Coming from an environment in which "family members sometimes hit each other," for example, or "throw things" when angry or upset (rather than verbalizing anger or frustration) may lead an adolescent to rely on similar anti-social, externalizing behaviors when outside the family environment (Bland & Orn, 1986).

Using Parent-Adolescent Attachment
To Predict Changes in Adjustment

As indicated in Table 15 (p. 74), as expected, both attachment to mother and attachment to father were predictive of significant changes in adjustment over the course of the year. Contrary to expectations, however, adolescents who began the year with higher scores for

attachment to their mothers showed significant decreases in self-esteem. Adolescents who began the year with higher scores for attachment to their fathers, on the other hand, had, as predicted, significant increases in scores for college adjustment.

Although these results may at first appear counter-intuitive, they may make sense after considering the special pressures facing first-year college students and the different roles classically played by mothers and fathers within our culture. As has been suggested by many authors (Chodorow, 1978; Douvan & Adelson, 1966; Gilligan, 1982; Gilligan, Lyons, & Hanmer, 1990; Josselson, 1988; Marcia, 1980), "male values" in our culture, which would typically be represented in the father figure of a family, tend to emphasize independence and personal agency, whereas "feminine values," which would typically be represented in the mother figure of a family, tend to emphasize things like interpersonal connectedness, affiliation, and interdependence. Although these two types of values are equally important, it may be that during one's initial transition to college, the "male values" of independence and personal agency play a more important role then "feminine values" in facilitating positive adjustment.

Students who have higher scores for attachment to their fathers may more readily identify with their father's

probable emphasis on autonomy and self-reliance. Such students would then be more likely to perform well in the college environment, in which there is an increased demand for independent functioning. Students who have higher scores for attachment to their mothers, on the other hand, may identify more readily with "feminine" values of affiliation and connectedness, instead of autonomy and self reliance. Such students may be more likely to feel worse during the course of their first year in college.

It may be that, as time passes (and students are able to develop new positive-attachments within their college environment) adjustment in students who have elevated initial scores for attachment to their mothers will equal that of adjustment in students who have elevated initial scores for attachment to their fathers. Obviously, a longitudinal study of longer duration than this one would be necessary to investigate this possibility.

It is also important to note, however, that the apparent inverse relationship between attachment to mother and self-esteem may be a statistical artifact. As presented in Table 9 (p. 59), correlational analysis indicates that the relationship between self-esteem and attachment to mother was positive (r=.50 p<.01; at Time 1; r=.30, p<.01; at Time 2), whereas with the regression analysis (see Table 15, p. 74) this relationship was inverted. The reversal of sign indicates that the positive relationship between

attachment to mother and self-esteem may be being suppressed as a consequence of the statistical procedure of regression analysis (Cohen & Cohen, 1983). Consequently, any conclusions drawn from these data should be considered as speculation only.

The Comparative Abilities of the
Theories of Separation-Individuation,
Parental Attachment, and Family Environment
to Predict Changes in Adjustment

As indicated in Table 16 (p. 78), it appears that, as predicted, separation-individuation (as measured by the SITA) was the best predictor of adjustment in the first year college students in this study. Moreover, the SITA was the only instrument in which all significant findings were in the predicted direction. Thus, changes in self-esteem were best predicted by scores on the separation-anxiety and self-centeredness scales of the SITA. The next best predictors of self-esteem were the expressiveness scale of the FES (in the opposite direction predicted) and the dependency-denial scale of the SITA. It should be noted that, given the positive correlation between the expressiveness scale of the FES and self-esteem (see Table 7, p. 57), the inverse relationship indicated between these two variables with regression analysis (Table 16, p. 78) may be due to the earlier noted statistical artifact of the suppression effect (Cohen & Cohen, 1983).

Although the achievement-scale of the FES was the best predictor of changes in college adjustment, this was followed by the self-centeredness and separation-anxiety scales of the SITA. Similarly, while the conflict-scale of the FES best predicted changes in externalizing behaviors, the healthy-separation scale of the SITA was the best predictor of changes in internalizing behavioral symptoms.

Thus, out of the nine scales shown in Table 16 (p. 78) which were found to predict changes in adjustment at statistically significant levels, none were scales from the instrument assessing parental-attachment (the PRQ), three were from the instrument assessing family environment (the FES), and the remaining six were from the instrument assessing separation-individuation issues (the SITA). Moreover, as noted earlier, the SITA was the only instrument for which all significant results were in the predicted direction. Clearly then, results from this study support the contention that the SITA is more predictive of psychological adjustment in first-year college students than are measures of attachment (the PRQ) or of family environment (the FES).

It is important to note, however, that these results may be related to the strength of the specific instruments employed (i.e., the SITA, FES, and PRQ) rather than to the

theories upon which they were derived (i.e., separation-individuation, family environment, parental attachment). Further, this study included only first year college students over a nine month time period and thus the findings and conclusions may not generalize over longer time periods or to other populations.

SUMMARY

Entering college is clearly a significant and challenging transition for most of the late adolescents who embark on it. It is a time when many students live "on their own" (away from parents and family) for the first time, and thus must negotiate increased financial, academic, and social stresses with a more independent posture than ever before. Moreover, during the college years individuals often make crucial and long-term decisions about their lives and their futures, deciding on such things as career and marital partners. Although many students flourish during this period, enjoying the challenges and opportunities of increased autonomy and independence, others struggle and falter and have difficulty adjusting. It was the purpose of this study to investigate these differences. That is, it was the purpose of this study to examine why some individuals make this transition in a healthy fashion, whereas others do not.

As noted earlier, numerous studies have examined this transitional period, usually seeking to associate positive or negative adjustment in such late adolescents with more general developmental concepts, such as separations-individuation, family environment, or attachment to parents.

Although these studies have generally found positive correlations between measures of adjustment and these theoretical constructions, few have been longitudinal in design, and thus it has not been possible to establish the predictive validity of these measures. For this reason, this study examined associations between measures of separation-individuation, family environment, and parental attachment, and changes in measures of adjustment over time.

More specifically, this study examined whether scores on the Separation-Individuation Test of Adolescence (SITA; Levine, Green, & Millon, 1986), the Family Environment Scale (FES; Moos & Moos, 1981), and the Parent-Relationship Questionnaire (PRQ; Kenny, 1987), were predictive of changes in the psychological adjustment of late adolescents (as indicated on the SPP, to assess self-esteem, the PRQ, to assess college adjustment, and the YSR, to assess behavioral symptoms) during their first year of college.

Findings suggested that adolescents who began college having successfully negotiated the developmental stages of separation-individuation (i.e., those with elevated scores on the healthy-separation scale, and lower scores on the separation-anxiety and dependency-denial scales of the SITA) were able to negotiate the increased stressors of college life in a healthier fashion than those who had not. Additionally, students who reported coming from family environments with lower levels of conflict, and without an

unusually high emphasis on achievement, managed their first year in college more easily than those who did not. Finally, students who began their first year in college with higher scores for attachment to their fathers progressed through their first year of college with healthier scores on measures of adjustment than those who did not. Findings also indicated that the measure of separation-individuation (the SITA) was, as expected, a better overall predictor of adjustment during the first year of college than were measures of the family environment (the FES) and attachment (the PRQ).

It is important to note, however, that although this study was longitudinal in design, a clear limitation was that only two time points were used. Future research could extend the present study by making additional assessments at other times during the college years to examine changes over multiple time periods. Also, studies of longer duration would help to determine if fluctuations in adjustment are of a short-term or long-standing nature.

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The final copies have been examined by the director of the dissertation and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the dissertation is now given final approval by the Committee with reference to content and form.

The dissertation is, therefore, accepted in partial fulfillment of the requirements for the degree of Doctorate of Philosophy.

4/13/93
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