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ATTACHMENT AND INDIVIDUATION
IN LATE ADOLESCENCE

By

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ABSTRACT

ATTACHMENT AND INDIVIDUATION IN LATE ADOLESCENCE

By

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The purpose of the current study was to investigate the relations among attachment security in familial and extra-familial relationships, parenting styles, family relationships, 'relatedness' toward others, autonomy, gender, and identity development in late adolescence. The specific goal was to develop a causal model using these variables to predict ego- and self-identity development. In addition, specific relationships among these variables were hypothesized.

A 492-item questionnaire consisting of Likert-scale items was administered to 410 18- to 21-year-old college students (180 males, 230 females) at a large midwestern university. To test the causal ordering of the variables predicting each identity scale, path analyses were performed separately for the male and female groups, since it has been suggested that identity development may differ according to gender. The chi-square goodness-of-fit test was used to evaluate the path models.

The results demonstrated that, in general, attachment security enhanced identity both directly and indirectly. There were similar

trends for males and females on three of the four identity measures, with gender influencing the strength of the path coefficients and the interrelations among the variables. Parental warmth and parental autonomy were the primary predictor variables, directly influencing security in familial and extra-familial relationships. Familial security enhanced extra-familial security, which enhanced relatedness to others. The variables having a direct, positive impact on identity included security, parental warmth, parental autonomy, family cohesion, and relatedness toward others (which varied according to identity measure and gender). On the fourth identity measure (ego-identity), there was a marked gender difference. For females, this measure did not correlate with any other variables in the study, whereas for the males it did.

The results support the hypothesis that attachment security is related to identity development in adolescence. Security may provide the support for meaningful exploration, which enhances the identity development process. These results are also consistent with findings that interpersonal relations can facilitate identity formation. Finally, the gender difference on the ego-identity measure suggests that ego-identity may be a meaningful psychological construct for males but not for females.

To Richard

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TABLE OF CONTENTS

LIST OF TABLES.	Page vii
LIST OF FIGURES	x
INTRODUCTION	1
The Concept of Attachment.	2
Infancy and Early Childhood	3
Childhood	5
Adolescence and Adulthood	6
The Relationship of Attachment to the Development of Other Processes: The Early Years	9
Mastery	9
Exploration and Autonomy.	9
Social Competence	12
Self-Esteem	12
Individuation: The Beginnings of the Sense-of-Self	13
Summary	14
The Relationship of Attachment to Identity Development in Adolescence	15
Friendship.	15
Family Relationships.	16
Parenting Styles.	17
Identity Development: An Overview	26
Developmental Course of Identity Formation.	28
Operationalizing the Concept of Identity.	29
Gender Differences in Identity	32
Males	32
Females	34
Why the Sex Difference?	36
Summary and Hypotheses	38
Hypothesis 1.	39
Hypothesis 2.	40
Hypothesis 3.	40
Hypothesis 4.	40
METHOD.	42
Subjects	42
Instruments.	43
Attachment Security	43
Relatedness to Others	47

	Page
Parenting Styles.	49
Family Relationships.	50
Autonomy.	51
Identity.	51
Self-Esteem	56
Procedure.	56
Data Analysis.	57
Preliminary Analyses.	58
Standard Analyses	60
Path Analysis	61
RESULTS	63
Preliminary Analyses	63
Missing Data.	63
Confirmatory Factor Analysis.	63
Standard Analyses.	69
Mean Scores: Total Group, Males, and Females	69
Male and Female Groups: Pearson Correlations	74
The OMEIS Ego-Identity Statuses	92
MANOVA on Sex by Ego-Identity Status.	98
Path Analyses.	105
Clusters and Cluster Correlations	106
Path Analyses	115
Evaluation of the Research Models	116
General Trends of the Path Models	121
Path Models: Enmeshed Security	124
Summary.	124
The Causal Model.	124
Hypotheses.	129
DISCUSSION	135
The Identity Measures.	136
Gender Differences on the Ego-Identity Instrument	136
Eriksonian Identity, Positive Self-Identity, and Philosophical Security.	140
Path Models.	141
Factors That Enhanced Identity.	143
Attachment Security and Identity.	145
Additional Comments Regarding Path Models	147
Methodological Considerations.	149
Conclusion	150

	Page
APPENDICES	
A Student Letter.	153
B Demographic Information Questions	154
C Familial and Extra-Familial Security Assessment Tests.	155
D Expressed Affection Scale (FIRO-B).	159
E Nurturance, Succorance, and Affiliation Scales.	160
F Perceived Parenting Styles Questionnaire.	163
G Family Adaptability and Cohesion Evaluation Scales (FACES)	164
H Autonomy Scale.	170
I Objective Measure of Ego-Identity Status (OMEIS).	171
J Eriksonian Identity Instrument.	175
K Tennessee Self-Concept Scales	180
L Philosophical Security Assessment Test.	183
M Research Consent Form	184
N Debriefing Sheet.	185
O Normative Sample Means for the Personality Research Form, The Eriksonian Identity Instrument, and the Tennessee Self-Concept Scales	186
P Tables 25 through 33.	188
LIST OF REFERENCES.	197

	Page
APPENDICES	
A Student Letter.	153
B Demographic Information Questions	154
C Familial and Extra-Familial Security Assessment Tests.	155
D Expressed Affection Scale (FIRO-B).	159
E Nurturance, Succorance, and Affiliation Scales.	160
F Perceived Parenting Styles Questionnaire.	163
G Family Adaptability and Cohesion Evaluation Scales (FACES)	164
H Autonomy Scale.	170
I Objective Measure of Ego-Identity Status (OMEIS).	171
J Eriksonian Identity Instrument.	175
K Tennessee Self-Concept Scales	180
L Philosophical Security Assessment Test.	183
M Research Consent Form	184
N Debriefing Sheet.	185
O Normative Sample Means for the Personality Research Form, The Eriksonian Identity Instrument, and the Tennessee Self-Concept Scales	186
P Tables 25 through 33.	188
LIST OF REFERENCES.	197

LIST OF TABLES

Table	Page
1. Subject Demographic Information.	44
2. Psychological Variables, Instruments, and Scales	45
3. Coefficient Alphas, Internal Consistency, and Part-Whole Correlations for the Original Scale Groupings of the Security Assessment Tests	65
4. Revised Scale Groupings from the Security Assessment Tests, Scale Definitions, and Item Content	66
5. Coefficient Alphas, Internal Consistency, and Part- Whole Correlations for the Revised Scale Groupings of the Security Assessment Tests.	67
6. Coefficient Alphas, Internal Consistency, and Part- Whole Correlations for the Original Scale Groups of the Eriksonian Identity Instrument	68
7. Mean Scores and MANOVA (By Sex) for the Male and Female Groups.	70
8. Pearson Correlations: Familial and Extra-Familial Security by Relatedness to Others for Males and Females.	76
9. Pearson Correlations: Familial and Extra-Familial Security by Parenting Styles for Males and Females . . .	78
10. Pearson Correlations: Familial and Extra-Familial Security by Family Relations for Males and Females . . .	80
11. Pearson Correlations: Familial and Extra-Familial Security by Autonomy for Males and Females	81
12. Pearson Correlations: Familial and Extra-Familial Security by Identity for Males and Females	83
13. Pearson Correlations: Familial and Extra-Familial Security by Self-Esteem for Males and Females.	85

Table	Page
14. Pearson Correlations: Ego- and Self-Identity by Autonomy for Males and Females.	86
15. Pearson Correlations: Ego- and Self-Identity by Relatedness for Males and Females	88
16. Pearson Correlations: Parenting Styles and Family Relations by Ego- and Self-Identity for Males and Females	90
17. Mean Scores and Univariate ANOVAs for Identity Status for Males and Females.	94
18. MANOVA for Sex by Identity Status	100
19. MANOVA: Simple Effects Test for Sex Within Identity Status	102
20. Final Clusters for Path Analyses.	107
21. Coefficient Alphas, Internal Consistency, and Part-Whole Correlations for the Final Clusters.	109
22. Cluster Correlations for the Total Group.	110
23. Cluster Correlations for Males.	111
24. Cluster Correlations for Females.	112
25. Positive Self-Identity Scale: The Assessment of the Path Analysis	188
26. Eriksonian Identity Instrument: The Assessment of the Path Analysis	189
27. Philosophical Security Test: The Assessment of the Path Analysis	190
28. Ego-Identity Achievement: The Assessment of the Path Analysis	191
29. Evaluation of the Path Models: Test Values for Individual Correlation Discrepancies and the Chi-Square Test for Overall Goodness-of-Fit	192
30. Positive Self-Identity: The Assessment of the Analysis with Enmeshed Security	193

Table	Page
31. Eriksonian Identity Instrument: The Assessment of the Path Analysis with Enmeshed Security.	194
32. Philosophical Security Test: The Assessment of the Path Analysis with Enmeshed Security	195
33. Ego-Identity Achievement: The Assessment of the Path Analysis with Enmeshed Security.	196

LIST OF FIGURES

Figure	Page
1. Theoretical Relations Predicted Among Gender, Attachment Security, Relatedness to Others, Parenting Styles, Family Relations, Autonomy, and Identity in Late Adolescence.	41
2. The Ordinary Least Squares Estimates of the Path Coefficients for Males and Females for the Positive Self-Identity Instrument.	117
3. The Ordinary Least Squares Estimates of the Path Coefficients for Males and Females for the Eriksonian Identity Instrument	118
4. The Ordinary Least Squares Estimates of the Path Coefficients for Males and Females for the Philosophical Security Test	119
5. The Ordinary Least Squares Estimates of the Path Coefficients for Males and Females for the Ego-Identity Achievement Scale.	120
6. The Ordinary Least Squares Estimates of the Path Coefficients for Males and Females for the Positive Self-Identity Instrument (with Enmeshed Security)	125
7. The Ordinary Least Squares Estimates of the Path Coefficients for Males and Females for the Eriksonian Identity Instrument (with Enmeshed Security).	126
8. The Ordinary Least Squares Estimates of the Path Coefficients for Males and Females for the Philosophical Security Test (with Enmeshed Security). . .	127
9. The Ordinary Least Squares Estimates of the Path Coefficients for Males Only for the Ego-Identity Achievement Scale (with Enmeshed Security).	128

INTRODUCTION

During the past thirty years, the concept of attachment has come to dominate both theory and research on infant social-emotional development. Moreover, the quality of infant-caregiver attachment has been linked to other developing psychological and behavioral processes. Specifically, the quality of the attachment relationship appears to influence social competence, perceived self-competence and sense of mastery, self-esteem, autonomy, self-concept, and individuation.

Reference to attachment as an aspect of personality development after the period of infancy, however, is almost nonexistent. This is especially surprising inasmuch as the literature on friendship, social support, intimacy, and familial relationships in adolescence, adulthood, and old age suggests that intimate social affiliations continue to be of critical importance for both psychological and physical health. It is tempting to speculate whether the quality of attachment or 'relatedness' to others has an impact on other personal, social, and behavioral processes in later years as it presumably does during infancy and early childhood. The period of adolescence is of special interest in this respect since the focus of attachment relationships is changing dramatically and individuation (identity) issues are of primary concern.

In general terms, the purpose of the current study was to empirically investigate the relationships among attachment, identity development, parenting styles, family relations, relatedness to others, autonomy, and gender in late adolescence. A more specific goal was to develop and test a causal model using these variables to predict identity developments. The following literature review focuses on four major topics which, collectively, provide the research and conceptual background for this study. The topics are: 1) the concept of attachment, 2) the relationship of attachment to other social-personality processes, with particular focus on identity and adolescence, 3) a review of current identity research, and 4) gender differences in identity.

The Concept of Attachment

In general terms, "attachment" refers to a life-long motivation of humans to make strong affectional bonds to specific other individuals (Bowlby, 1973, 1978). "Attachment behaviors" are defined as behavioral expressions which function to promote proximity to, or contact with, those to whom the individual is attached (Bowlby, 1973). The "goal" of attachment is either physical or psychological closeness, and the means with which these ends are accomplished change in both form and expression with age. The desire for closeness with another person tends to be most pronounced when one misses a loved one; when one is ill, afraid, or distressed; when one is in a threatening or stressful situation; or when one is experiencing serious frustration or failure, anxiety, or even happiness and joy (Bowlby, 1973; Weiss, 1982).

Attachment relationships share several common characteristics. They usually endure over time, and tend to be emotionally significant and centrally important to the individual (Ainsworth, 1972; Maslow, 1968). Feelings of comfort and relaxation are experienced in the other's presence, and there is an association of the attachment figure with feelings of security and comfort (Weiss, 1982).

Infancy and Early Childhood

During the early years of life, attachment typically refers to an affectional tie or bond between the infant and primary caregiver, with the infant seeking to promote proximity to, or maintain contact with, the caregiver (Ainsworth, 1972; Bowlby, 1969). The foundation of this attachment relationship in infancy is the quality (or security) of the caregiver-infant relationship.

Studies of the relationships among the quality of the attachment relationship, parenting style, and infant behavior led to the development of a classification system that assessed the quality or "security" of the attachment relationship between the infant and caregiver (Ainsworth, Blehar, Waters, & Wall, 1978). This classification system consists of three categories: 1) securely attached, characterized by the ability of the infant to play comfortably in the caretaker's presence prior to separation episodes, and to greet or seek contact with the caregiver upon reunion; 2) insecure-avoidant, where the infant exhibits non-interactive exploration prior to separation, and avoids or ignores the caregiver during reunion; and 3) insecure-resistant, where the infant seeks proximity and contact even prior to separation episodes, and shows contact-seeking behaviors in addition to angry, resistant behaviors

during reunions. This classification scheme is based upon the infant's behavior during both the presence and absence of its primary caregiver, and focuses on the infant's ability to use the adult as a secure base to explore unfamiliar environments (Ainsworth et al., 1978).

The degree of sensitivity of the caregiver to the infant's signals seems to be the critical factor influencing the degree of security of attachment. Infants classified as securely attached have usually experienced the caregiver as a reliable source of comfort, responsive to their needs and signals, available and sensitive, and protecting them from becoming overstimulated by the environment (Sroufe, 1979; Yarrow & Pedersen, 1972). By contrast, caregivers in insecure attachment relationships tend to be less sensitive to infant signals, frequently ignoring them for long periods of time (Ainsworth, 1982; Schaffer & Emerson, 1964). Insecure attachments have also been associated with caregiver environments that are both less stable and more stressful than homes of securely attached infants (Thompson, Lamb, & Estes, 1982). Caregivers in the insecure-avoidant (rejecting) group have been described as having an aversion to body contact, having unexpressed anger and "wooden" facial expressions, being rigid and compulsive, and ignoring the infant's attempts to initiate contact. Caregivers of the insecure-resistant (anxious) infants had more diverse characteristics, but they were not rejecting. Although caregivers of anxious infants appeared to enjoy close body contact, they were all highly insensitive to their infants.

Childhood

During childhood, the dyadic relationship of the infant and caregiver changes to increasingly include other members into the child's social world (Weinraub, Brooks, & Lewis, 1977). With good early relationship experiences, children's behavior patterns and trust in others usually extends to their world of peers and other interpersonal interchanges (Kahn & Antonucci, 1980). The home continues to serve as an important emotional refuge, even though peers and peer group mores increase in importance. The movement of children from the family toward the peer group assists them in their movement toward independence and the beginning of the active search for an independent identity and a separate sense of self. The peer group provides an intermediate reference point, giving children support, reassurance, reinforcement, and opportunities to learn how to function apart from adults. Friendships and group memberships give children a sense of personal power and effectiveness in social situations, which contribute to the development of self-worth and self-esteem. Peers serve as social models and reinforce each other (Charlesworth & Hartup, 1967; Kohn, 1966; Patterson, Littman, & Bricker, 1967). Good peer relationships may, in some cases, compensate for negative effects of poor relationships at home, so that deficits in personality or social relationships that might otherwise occur may be avoided (Sullivan, 1953; Hartup, 1970).

In sum, the close physical proximity that is characteristic of the infant-caregiver attachment is no longer an immediate requirement for the growing child. Although children seek peers, the family continues to be important, but outwardly less so.

Adolescence and Adulthood

During adolescence, individuals may direct their significant emotional ties to people outside the family (Conger, 1973; Hartup, 1978; McKinney, Fitzgerald, & Strommen, 1982). Parents tend to lose their role as primary attachment figures when adolescents become "attached" to new persons, who are usually peers. Adolescents normally continue to feel close to their parents, particularly to their mothers, although not as strongly or in the same way as they did when they were younger (Kandel & Lesser, 1969; Lurie, 1974; Offer, Marcus, & Offer, 1970; Thurnher, Spence, & Lawenthal, 1974). Moreover, girls tend to be more strongly attached to their parents than boys (Smart, 1978). Parents continue to be recognized as sources of guidance and authority, and optimally provide adolescents with continued validation of their self-changes and enduring identities (Bengston & Kuypers, 1971; Smart, 1978).

The intimacy of friendships increases dramatically between middle childhood and adolescence, and friendship patterns change to include members of the opposite sex. Friendships tend to be more stable during adolescence than in childhood, and they provide increased opportunities for the development of the sense of intimacy, which has a better chance of developing within more permanent relationships (Smart, 1978).

In general, friendships offer resources for individuals that are very similar to those provided by attachment--emotional support, social integration, assistance, and guidance. As an emotional resource, friendships offer support, affection, and a sense of security (which is important for the development of intimate

relations) (Berndt, 1982; Douvan & Adelson, 1966; Siegel, 1982; Sullivan, 1953). Friendships reassure adolescents of their self-worth (Berndt, 1982; Douvan & Adelson, 1966; McKinney et al., 1982; Sullivan, 1953; Weiss, 1969, 1974), and provide a sense of reliable alliance (Weiss, 1969, 1974). Friendships may also enhance adolescents' altruism (Berndt, 1982), provide for intimacy (Candy, Troll, & Levy, 1981; Weiss, 1969, 1974), and enhance their self-esteem (Berndt, 1982; Douvan & Adelson, 1966; Mannarino, 1978, 1979; Sullivan, 1953). Friendships provide adolescents with a sense of belonging or group identity while family ties are loosening (Siegel, 1982; Smart, 1978), and provide reaffirmation and reassurance (Bell, 1981). They provide a stabilizing force during this "transitional" period from childhood to adulthood, supporting adolescents in their self-evaluation (Siegel, 1982), and acting as a buffer of stress (Bell, 1981).

Friendship may also offer adolescents social integration through common interests and concerns, social guidance, and help or assistance if it is needed (Weiss, 1969, 1974). They may enhance adolescents' social skill development by providing both models and feedback concerning appropriate behavior (Berndt, 1982; Douvan & Adelson, 1966; Sullivan, 1953). Friendships provide environments where adolescents can safely practice and experiment with new interests and skills, and they help to promote the successful negotiation of the developmental tasks of adolescence (Siegel, 1982).

It is during adolescence that "attachment" relationships are for the first time directed toward individuals other than their parents (or primary caregivers), with the partner becoming the main

attachment figure (Rutter, 1980). This marks the beginning of "reciprocity" in attachment relationships. In older individuals, attachment continues to be important, but it differs from infant-caregiver attachment in several ways. First, attachment relationships usually appear in relationships with peers who are of special importance to the individual rather than being of the "caregiver" quality which is typical of the infant-caregiver relationship (Weiss, 1982). Second, they are not continuously proximity-promoting behaviors; rather, a balance between separateness and closeness between those involved is maintained. Adults are better able to tolerate separateness, and so desires for proximity do not necessarily dominate other behavioral systems as in infancy (Weiss, 1982). In addition, adults are better able to use cognitive-representational strategies to keep "attachments" in mind. In these new attachment relationships, all of the previous indicators of attachment are present--the desire for the other's presence, feelings of comfort and relaxation in the other's presence, and separation distress in times of "need" (Weiss, 1982).

At older ages, attachment relationships provide individuals with significant emotional supports and social resources, similar to the benefits derived from both friendships and social support. As an emotional support, attachment relationships provide a sense of security based on affection, mutual trust, and support (Henderson et al., 1978; Henderson, 1982; Weiss, 1982); emotional comfort (Henderson, 1982); a sense of reliable alliance (Weiss, 1974); reassurance of one's self-worth (Weiss, 1974; Henderson, 1982); and help in coping better with environmental stressors. As a social

resource, attachment relationships provide opportunities for social integration through companionship and social activity (Henderson, 1982). Furthermore, attachment relationships provide help and guidance (Kahn & Antonucci, 1980; Weiss, 1974), confirmation of appropriate behaviors, intimacy, and opportunities to confide in others (Henderson, 1982). Humans of all ages experience happiness and are most effective when they know that trusted persons will be there for them. As in infancy, trusted persons provide a secure base for individuals from which to operate (Bowlby, 1973). Thus, love and attachment appear to be essential for well-being throughout life (Bowlby, 1969; Harlow, 1971; Kalish & Knudtson, 1976; Lee, 1977; Lowenthal & Haven, 1968; Reedy, Birren, & Schaie, 1981; Spitz, 1945).

The Relationship of Attachment to the Development of Other Processes: The Early Years

Mastery

Secure attachments facilitate the development of a sense of mastery and control in infants and young children (Sroufe & Waters, 1977), as well as the growth of healthy self-reliance (Bowlby, 1973). Reciprocal responding of the caregiver to the infant establishes a sense of trust, confidence, and predictability within the infant as respects its environment. Early confidence resulting from this "mastery" of the environment further facilitates a positive engagement of the world (Arend, Gove, & Sroufe, 1979).

Exploration and Autonomy

Like mastery, attachment and exploration support each other. The role of the attachment figure as facilitator of environmental

exploration has been repeatedly documented (e.g., Ainsworth & Wittig, 1969; Arsenian, 1943; Carr, Dabbs, & Carr, 1975; Cox & Campbell, 1968; Gershaw & Schwartz, 1971; Harlow & Zimmerman, 1959; Lester, Kotelchuck, Spelke, Sellers, & Klein, 1974; Maccoby & Feldman, 1972; Rheingold, 1969; Schaffer & Emerson, 1964; Sroufe & Waters, 1977).

A secure early caregiving environment provides a secure base for young children, enhancing their exploration from it. Familiarity increases this security (Sroufe, 1979; Sroufe & Waters, 1977), and both infants and young children are more apt to explore their environments if their attachment with their primary caregiver is both secure and if their primary caregiver is nearby. In turn, this exploration increases the infant's feelings of competence, autonomy, self-sufficiency, and mastery (DeLozier, 1982), further enhancing autonomy during the toddler period (Matas, Arend, & Sroufe, 1978).

Securely attached infants show more competent exploratory behavior and problem-solving skills than do insecurely attached infants (Matas et al., 1978). Children who are secure in their attachments can use their caregiver as a base from which to explore, and also to help them in problem-solving. Exploratory behavior is critically important for young children since it assists them in building up meaningful schemas of their environment. Both social play and nonsocial play with objects, and exploration of their environment helps children develop a sense of mastery (Sroufe, 1978). For both infants and young children, the attachment figure provides a secure base from which to explore and to which one can return,

especially if fatigue or fear occur (Ainsworth & Wittig, 1969; Bowlby, 1978; Sroufe & Waters, 1977).

Securely attached children explore the environment more independently and have less restricted exploratory patterns than insecurely attached children. Perhaps not surprisingly, they also tend to score higher on spatial ability tasks (Hazen & Durrett, 1982). This exploration, and the feedback derived from interacting with the environment, helps children build and revise increasingly more accurate internal models (or schemas) of the world, make more realistic judgments of their individual strengths and limits, and learn about the strengths and limits of others. This may also help them to better know who can be trusted to give help when it is needed, and how they can proceed to obtain it (Parkes, 1982). Insecure attachments, however, can block the learning of new skills by limiting a child's experiences in exploring the environment, which in turn may limit the building up of accurate schemas about the world. Such children may come to experience a lack of "fit" between themselves and their environment (Heard & Barrett, 1982).

With a secure base from which to explore the world, children gradually decrease their need for close proximity, and increase their exploratory behavior as they mature. This increase in exploration (prompted in part by curiosity) and the gradual movement away from their primary attachment figures is part of the normal developmental process (Ainsworth, 1979; Bowlby, 1978). With age, children decrease their frequency of seeking proximity with their primary caregiver and increase their frequency of contacts with peers (Heathers, 1955).

Social Competence

Infants who are securely attached tend to be more competent in social relationships with peers and adults, and are likely to be more cognitively competent as toddlers and preschoolers (Waters, 1978; Main, 1974; Matas et al., 1978). Positive correlations have been found between secure attachment at 12 months of age and interpersonal competence during the preschool years (Waters, Wippman, & Sroufe, 1979), and between the quality of attachment and infant competence in initial encounters with peers at 18 months (Easterbrook & Lamb, 1979). Securely attached infants also tend to be more sociable with adult strangers (Thompson & Lamb, 1983). Toddlers who were classified as securely attached when they were infants were found to be more sociable and more oriented toward their mothers and peers, while "insecure-avoidant" toddlers played but were more negative in their orientation toward their mothers and peers, and the "insecure-resistant" group appeared to be highly stressed, ignored their peers, and were more negative toward their mothers (Pastor, 1981).

Self-Esteem

Children build ideas about themselves and others through familial and peer interactions. Self-esteem is influenced by what parents and others tell children about themselves, and from their own personal characteristics and achievements. Developmental and social psychological research support the idea that if the significant people in children's lives accept, approve, and respect children for what they are, they are likely to build up feelings of self-esteem and self-acceptance. If, however, these significant individuals reject and belittle them, they are likely to develop unfavorable attitudes

about themselves (Gergen, 1965, 1972; Guardo, 1969; Quarantelli & Cooper, 1966; Videbeck, 1960). Self-esteem may also come from having a sense of industry, from feeling successful. The negative side of industry is the sense of inferiority and inadequacy, which can result in anxiety and low self-esteem (Erikson, 1959). Good self-esteem permits a person to feel adequate, likable, intrinsically worthy, and competent, which is related in part to self-respect, self-confidence, and happiness.

Individuation: The Beginnings of the Sense-of-Self

The roots of identity formation, or concept of self, go back to the initial self-recognition that occurs during infancy. Developing within the framework of cognition, individuation begins when an infant makes the fundamental distinction between the self and non-self. The development of this distinction of self from others may be aided by the occurrence of events that happen contingently in the environment by helping infants to realize that they can cause events to occur (Forman & Sigel, 1979). The attachment of the infant to the caregiver facilitates this process. A caregiver who can be trusted to respond contingently to the infant's signals promotes feelings of security and confidence in the infant, facilitating both exploration and self-individuation.

During toddlerhood, children become increasingly aware of the extent of their control over themselves, which Forman and Sigel (1979) note as being a further reflection of the child's discovery of the self. The development of object permanence is also related to the development of self-recognition, inasmuch as knowing the permanent

existence and continuity of self is an important and critical part of self-identity (Berthenthal & Fischer, 1978).

Exploration, facilitated by a secure attachment relationship, can also enhance the development of defining the self and non-self. Through interacting with the environment, the infant or young child receives feedback regarding self-boundaries as well as the boundaries of others, and begins to develop a sense of how they relate to, and influence, other social and nonsocial objects in the environment. Children can gain more knowledge about things that they can and cannot cause to happen, the effects of which are not dissimilar to those of having a sense of mastery.

During childhood, children continue to define and redefine the parameters of self and others through varied interactions and experiences both within and outside of the family environment. With less egocentrism of thought processes and increased autonomy, children continue clarifying concepts of themselves as individuals who are separate from, although simultaneously interdependent with, others.

Summary

Infants who develop mastery skills, the capacity for affective involvements with others, and confidence within their caregiver relationship tend to be more enthusiastic, persistent, and effective in facing challenges in their environments. Later, with continued caregiver support, children tend to be more skilled and confident in dealing with both peers and adults (Arend et al., 1979; Sroufe, 1978). Differences in the quality of the attachment relationship may affect the willingness of infants to interact with other aspects of their

social environment (Lamb, 1978). Negative experiences in the attachment relationship may have negative effects on a young child's psychological development, subsequent social relationships, and sense of trust in the environment. In sum, infants and young children derive security from their attachment figures, which influences their exploratory behavior, the development of autonomy, mastery, and social competencies. High-quality attachments also provide for the beginnings of a healthy individuation process (Dunbar, 1976), and provide for higher ego-control and ego-resiliency at 4- to 5-years of age (Arend et al., 1979).

The Relationship of Attachment to Identity

Development in Adolescence

The period of adolescence has traditionally been considered a time of psychological and social transformations, bridging childhood with adulthood. It is during this time that two related but distinct developmental processes are in the forefront: 1) changes in the nature of adolescents' relationships with family and peers, and 2) a struggle to form and consolidate an identity--a separate sense of self. Attachment plays an implicit role in both of these processes. The parameters of attachment relationships in adolescents' lives (friendships, family relationships, and parenting styles) will be discussed below in the context of their respective roles in adolescent identity development.

Friendship

Friendship plays a significant role in promoting the adolescent's individuation and identity formation by providing feelings of

continuity (Berndt, 1982; Lemon, Bengston, & Peterson, 1972; Rosow, 1970), facilitating self-knowledge (Erikson, 1959, 1968), and by providing a "vehicle" for adolescents' separation from their parents while helping to maintain a certain continuity with parental values (Siegel, 1982). Friendships reinforce basic identity patterns, give adolescents a sense of status derived from other sources, and strengthen adolescents' own sense of identity by being a member of a group that defines them as different from their parents (Siegel, 1982; Smart, 1978). Friends also confirm an adolescent's sense of who they are and validate their self-worth (Lemon, Bengston, & Peterson, 1972; Rosow, 1970), and may help to provide a defense against the identity diffusion characteristic of the early adolescent period (McKinney et al., 1982). Close friends provide the ideal audience upon which to try out different roles and identities, since they are going through the same thing and are concerned with the same issues (McKinney et al., 1982; Smart, 1982). Adolescents may work at constructing a "joint" identity since there is more security with someone else than alone (McKinney et al., 1982).

Family Relationships

In addition to friendships, family relationships play a significant role in adolescent identity processes. In general, secure attachments may facilitate separation from the parents, which in turn may facilitate the development of a separate sense of identity. Adolescence is occasionally referred to as "the second individuation" from the parents (with toddlerhood being the first) (Smith & Smith, 1976; Brandt, 1977; Blos, 1967). The individuation of adolescence is said to occur when dependencies on the family are given up, and when

one acquires a sense of self with distinct boundaries (Blos, 1967). In order to achieve a separation, however, children must first have had secure attachments to their caregivers (Szurek, 1971), while continuing to have basic trust in them (Smith & Smith, 1976).

Brandt (1977) has noted the similarity between adolescence and the separation-individuation phase of early childhood. First, the central conflict is to break away from a dependent relationship. The outcome of that process, seeing oneself as a separate psychological entity, is the same for both the toddler and the adolescent. Second, both begin a process of 'needing to modify pre-existing body and self-images' ("differentiation"). Third, as with the toddler, the achievement of individuality and identity is dependent on the formation of a new kind of relationship with the parent.

The adolescent's family plays a crucial role in the adolescent's struggle toward achieving a separate identity. Adolescents must relinquish parental ties and childhood identities if they are to establish a separate identity outside of the family, and at the same time maintain the continuity of parental and familial relationships. Both parents and adolescents must make major adjustments in order for the adolescent to become an autonomous individual (Anthony, 1969; Lidz, 1969). This separation process normally occurs within the context of an enduring parent-child relationship, and the conflict that typically ensues is a necessary condition for growth (Siegel, 1982).

Parenting Styles

Studies suggest that particular parenting styles may either enhance or hinder the identity development process, and may have

different implications for males than for females. In general, identity development may be enhanced if the relationship between both parents and with the adolescent is warm and positive, and if the same-sex parent is a salient role model (Conger, 1973). "High-identity" males and females also typically report less restrictiveness, regulation, and control by their parents, more freedom and independence, and frequent praise (Adams & Jones, 1983; LaVoie, 1976).

To examine the relationship between identity and parenting styles more closely, an area of research addressing this issue will be discussed next. One of the primary identity assessment instruments currently in use (to be discussed in more detail in a later section) categorizes individuals according to four different "ego-identity" statuses which vary according to whether or not individuals have experienced "crisis" (a questioning period) and made "commitments" (choices) regarding occupational, religious, and political preferences (Adams, Shea, & Fitch, 1979; Marcia, 1966). These statuses include "identity achievers" (individuals who have both questioned and made choices in these areas); "identity moratoriums" (individuals who have questioned but not made definite choices yet); "identity foreclosed" (individuals who have made choices without any questioning); and "identity diffused" (individuals who have neither questioned or made choices). Using this classification scheme, the following relationships between particular parenting styles and identity statuses (and gender differences within these identity statuses) have been noted. Since the majority of this research has been conducted on males, the general discussions for each status pertain primarily

to them. A discussion pertaining to females follows each general discussion.

Identity achievers. These adolescents are usually described as having experienced minimal parental control, high parental praise, parental support, a sense of industry, and they tend to be self-reflective (Jordan, 1971; Marcia, 1983; Matteson, 1974). Mothers of identity achievers tend to be viewed as moderately accepting and positively involved, and fathers as moderately involved but low in acceptance (Cushing, 1971). Both achievers and moratoriums have been found to be fairly critical of their parents, and were likely to report themselves as being in conflict with their families, with sons not likely to turn to their families when making important life decisions. This tension in the family has been viewed as related to the ambivalence over the adolescent's attempts at individuation. In general, achievers were fairly balanced in their views of their parents, and both parents and adolescents reported a positive, though moderately ambivalent, relationship with each other (Jordan, 1970, 1971).

For females, factors that correlated with advanced identity development included a warm and positive relationship between both parents and themselves (Conger, 1973; Douvan & Adelson, 1966), a democratic parenting style by fathers (Enright, Lapsley, Drivas, & Fehr, 1980) and minimal maternal restrictiveness with freedom to discuss concerns and problems with parents (LaVoie, 1976). Data are consistent with previous research showing that advanced identity achievement is associated with a parenting style that encourages autonomy and enhances the individuation process (e.g., Enright et al., 1980; LaVoie, 1976). In a study by Adams and Jones (1983),

females in both the identity achieved and moratorium statuses viewed their mothers as encouraging independence and rarely engaging in controlling or regulating behavior. Both achievers and moratoriums tended to be more certain of their mother's affections than the other two statuses (Allen, 1976). For females, the identity formation process was in part associated with interpersonal relationship mechanisms within the family and/or peer group.

In a different study, females in the achieved status sensed a lack of acceptance from their fathers and a lack of possessiveness from their mothers (Morse, 1973). They perceived their family as "pushing them out of the nest." These females have also been characterized as having adopted, lived through, and partially rejected traditional social norms, and may have rearranged their personal lives to suit their occupational and ideological needs (Miller, 1980).

Identity moratorium. Adolescents in this category tended to live in encouraging and independent family environments, characterized by autonomy, activity, and self-expression (Jordan, 1971; Matteson, 1974). Relationships with parents tended toward being ambivalent, with sons viewing their parents in inconsistent terms, and not uncommonly engaged in a struggle to free themselves from their mothers (Jordan, 1971). Mothers of moratoriums were perceived as intrusive, controlling, insistent, and rejecting, while fathers appeared moderately positively involved and moderately high in both acceptance and rejection (Cushing, 1971). Moratoriums tended to view their parents as being disappointed in them or as disapproving

of them, and they tended to give in less to their parents than individuals in other statuses (Matteson, 1974).

Female moratoriums seemed to be more critical of their mothers than females in the other identity statuses, and viewed themselves as unlike their mothers (Allen, 1976). Miller (1980) describes them as wanting to be themselves but feeling guilty, defiant, approval-seeking, and afraid.

Identity foreclosures. These individuals typically experienced a warm and supportive home with little overt expressions of emotions (Jordan, 1971; Matteson, 1974). They tended to have the closest relationships with their parents of all the identity statuses (Cushing, 1971), evaluated their parents the most favorably, and described their families as child-centered. Parents were viewed as accepting and positively involved, yet somewhat controlling and possessive (Cushing, 1971). Fathers of foreclosures tended to be fairly possessive, dominating, and intrusive with their sons (without encouraging emotional expression), while being more supportive and encouraging of their daughters. Foreclosure sons were quite willing to involve their families in making important life decisions. They tended to have confidence in parental support plus a sense of industry, but had no self-reflection (Marcia, 1983). Parents were almost unanimously viewed as accepting and encouraging, and Jordan (1970, 1971) has described these individuals as participating in a "love affair" with their families. Sons saw their parents as accepting and encouraging, and the parents viewed themselves as child-centered and protective. Matteson (1974) found these families to be the most task-oriented of the statuses.

Female foreclosures viewed their fathers as accepting, child-centered, and positively involved, and they experienced both parents in a less hostile way than females in other statuses (Morse, 1973). They appeared to be the least aware of mother-daughter differences and seemed unable to risk criticizing their mothers (Allen, 1976). Their identity appeared to be securely tied to their families (Miller, 1980), and they viewed themselves as nurturing, loving, and devoted.

Identity diffused. These individuals usually experienced rejecting and detached home relations, with very negative fathers (Jordan, 1970, 1971; Matteson, 1974). Parents were perceived as indifferent, inactive, detached, uninvolved, not understanding, and rejecting (Jordan, 1971; Matteson, 1974). These adolescents also lacked confidence in parental supports (Marcia, 1983). Among Danish youth, Matteson (1974) noted that the fathers of males seemed markedly inactive compared to the "coercive" involvement of foreclosure fathers. Both males and females in this category reported feeling the most distant from their families. Mothers were perceived as the least possessive and intrusive, and fathers were the least accepting and high in rejection and withdrawal (Cushing, 1971).

Diffused females reported little positive involvement or child-centeredness from their mothers, and experienced less withdrawal of relationships on the part of their fathers (Morse, 1973). This feeling of disconnectedness and distance from the same-sex parent supports Matteson's (1974) notions about Diffusion families. Miller (1980) has described these women as doubtful of their adult femininity, viewing their mothers as nonemulatable or discouraging,

and their fathers as idealized but unattainable. They also appear to be afraid of being hurt or betrayed, and any consistent "identity" tends to be a negative one.

In general, some studies have suggested that the nature of the relationship with the same-sex parent is more strongly related to the adolescent's identity status than is the relationships with the opposite-sex parent (Waterman, 1982). However, it has also been suggested that fathers, in some unspecified way, are the predominate socializers of children for commitment, and that the father's democratic style may best facilitate identity development in both male and female children (Enright et al., 1980).

It appears that both parenting style and the nature of the adolescent-parent relationship have implications for the developmental pathway of identity formation. Furthermore, these implications may vary according to gender. The critical factors appear to be confidence in parental support and exploration, family relationships and autonomy, and self-esteem.

Exploration, a sense of industry, and a self-reflective approach to the future are all antecedents of identity development, and have as their common base confidence in parental support (or trust). In order to explore identity alternatives and take risks, which is cited as a necessary prerequisite for identity consolidation, adolescents need to feel that they have a dependable home base (i.e., secure attachments) (Marcia, 1983). This notion is similar to Bowlby's (1969) paradigm of the attachment-exploration model whereby successful infant exploration is contingent upon firm parental attachment. The ideal "amount" of autonomy is often unclear--"not enough" autonomy may mean that the

adolescent will find it difficult to explore new situations and ideas to incorporate into a sense of identity, whereas "too much" autonomy may leave the adolescent without a sense of boundaries or a secure "home base" from which to explore (Hill, 1980). Autonomy is usually viewed, however, as being closely intertwined with identity development, both as a necessary condition for identity formation as well as being enhanced by it (Orlofsky, Marcia, & Lesser, 1973; Matteson, 1974).

Grotevant (1983) has described the influential nature of the family and has suggested that family connectedness (e.g., support, cohesiveness, and acceptance) and individuality within family interaction patterns are associated with positive identity formation during late adolescence. Early adolescence is a time of transition which requires a renegotiation of family rules and roles for successful adaptation, and the family's ability to adapt to the changing needs of the early adolescent has significant implications for the process of identity formation. Young adolescents seek more autonomy. This does not imply detachment from the family or total freedom from parental influence, but rather a transformation in the emotional bond with parents (Hill & Steinberg, 1976). Families that cannot or will not change to accommodate adolescents' needs for increased autonomy may inhibit their ability to explore identity-relevant options unfamiliar to their families. On the other hand, parents who are sensitive to the adolescent's need for more autonomy promote exploration by allowing adolescents to seek exposure to diverse models and options, and by allowing them to become involved with their peers (Hartup, 1979; Hill, 1980). Parenting

styles that encourage the development of autonomy and self-directedness in adolescents include warmth, support, consistency in rule enforcement, and the use of inductive discipline. Parental restrictiveness or excessive permissiveness, on the other hand, tends to be characteristic of adolescents who are less self-directed and rebellious (Douvan & Adelson, 1966).

Harmonious family relationships tend to be associated with high self-esteem and effective social functioning in adolescence (Rutter, 1980; Rutter, Quinton, & Yule, 1976), whereas family disharmony is associated with behavior problems and is thought to interfere with the development of close relationships in adulthood (see Rutter, 1971, 1980). At least a moderate amount of self-esteem is needed to allow for the risk-taking and exploration associated with the process of identity development. In early adolescence, antecedents of identity achievement include the degree of openness and flexibility (Grotevant, 1983), which have their roots in self-esteem (e.g., LaVoie, 1976). Adolescents with high self-esteem are more likely than their low self-esteem peers to have the confidence and competence to be more open to new experiences and to be able to take risks inherent in identity exploration (Grotevant, 1983).

It may be appropriate at this point to pause and examine the overall picture of familial attachment and identity (or individuation) from infancy through adolescence. During infancy, high quality attachments can facilitate the beginnings of self-individuation (or concept-of-self) by promoting the self-other distinction, developing trust in the environment based upon contingent responsiveness by the caregiver, and promoting within the infant the sense of mastery and

control that provides the basis for autonomy and exploration. High quality attachments in childhood can further promote autonomous functioning and exploratory behaviors, increase the development of the self-other distinction, and possibly increase the child's social experiences. This in turn may decrease the child's egocentrism and increase the self-other distinction or individuation. Through more extensive exploration, more feedback from the environment is acquired, giving the individual increasingly more information. In summary,

Thus, the family context most likely to facilitate the adolescent's developing sense of identity is one that maneuvers within the dynamic tension between individuality and connectedness. Individuality facilitates the developing sense of self as distinctive and unique; connectedness provides the security and self-esteem which permits the adolescent to venture out and explore. (Grotevant, 1983, pp. 233-234)

Identity Development: An Overview

In this section, an overview of research and theory of identity development will be presented. In general, identity encompasses an existential position, an inner organization of needs, abilities, and self-perceptions that constitute an on-going process throughout life. It is an internal, self-constructed organization of motivations, abilities, and beliefs, through which one derives a sense of continuity, self-consistency, and uniqueness (Marcia, 1980).

Perhaps no other individual has addressed this topic in greater depth and detail than Erik Erikson. The majority of the attempts at

operationalizing the construct of identity have emanated from his writings, and many of the identity assessment techniques currently in use are derived from his theory. Erikson (1968) has proposed that identity consists of at least two related yet separate components, ego-identity and self-identity. Ego-identity refers to making commitments to such things as vocations, religious values, and political beliefs. Self-identity, however, refers to the individual's self-perceptions and role-images, and is similar to the general idea of self-concept. Achieving a consolidation of identity constitutes one of the major development tasks of adolescence (Erikson, 1959).

According to Erikson (1968), identity is an on-going, dynamic process, a search for what to believe in, what to live for, and what to be loyal to. It is viewed as an "integration of self-images" and a necessary condition for the achievement of a social adulthood. Erikson (1968) has suggested that identity is ideally experienced as a sense of well-being, with those having a secure identity feeling "at home" with themselves, knowing where they are going, and feeling confident of receiving recognition from others who are important to them. In his writings, Erikson has emphasized the issues of self-sameness, a sense of continuity, and inner cohesiveness as being characteristic of identity, which is experienced by both the individual and by others (Erikson, 1956, 1968; see also Bourne, 1978 for a review). Identity formation is thought to proceed in development through a psychosocial moratorium, which is a period of time when the adolescent is expected to explore life alternatives, and finally make commitments and establish a fixed self-definition

(Erikson, 1968). Developmental issues that may become the focus of an identity crisis may include choosing an occupation and developing an ideological world view, which may be either religious or political in nature. Other issues include sex-role appropriate behavior and sexual orientation.

Erikson has also commented on the relationship between identity formation and having a sense of purpose in life ("basic life commitments), although this does not seem to be developed or operationalized as a content area of identity as has ego-identity. He has proposed that identity consolidation includes achieving a feeling of continuity with the past, having meaning in one's present, and having a direction for the future (Erikson, 1975). Such commitments to world views are said to give individuals a sense of purpose, protecting them from identity confusion (Erikson, 1968).

Developmental Course of Identity Formation

In general, the transition from adolescence to adulthood involves a progressive strengthening of the sense of identity (Waterman, 1982). Before the high school years, there seems to be little interest in identity-related questions (Ciacco, 1971; Meilman, 1979). Many studies of identity development during the high school years have found only limited differences between increases in identity development and increases in year in school (Archer, 1982; Pomerantz, 1979; LaVoie, 1976; Howard, 1960).

The greatest gains in identity formation tend to occur during the college years (Waterman, 1982). Numerous studies suggest that senior men and women have a stronger sense of identity than do their freshman counterparts, with identity achiever status appearing to be the most

stable status during the college years, and moratorium the least stable (Waterman, Geary, & Waterman, 1974).

Operationalizing the Concept of Identity

Attempts at operationalizing identity have focused mainly on Erikson's theory of ego-identity. These attempts have generally taken one of the following forms: 1) semi-structured interviews, 2) self-report questionnaires, or 3) self-descriptive Q-sorts, using adjectives or phrases (see Bourne, 1978 for a review). The most influential assessment of identity so far has been provided by Marcia (1964, 1966). Using the two major dimensions of Erikson's theory of identity formation, interpersonal "crisis" and "commitment", Marcia conceptualized four statuses of ego-identity formation. "Crisis" refers to a time of questioning of potential identity elements, while "commitment" involves making a firm investment in specific identity elements and actively implementing them (Marcia, 1966).

Using a semi-structured clinical interview (Marcia, 1964; 1966) or a recently developed self-report questionnaire (Adams, Shea, & Fitch, 1979), adolescents can be classified as being identity achieved, moratorium, foreclosed, or diffused in the areas of political, occupational, or religious ideologies. These four statuses are defined and discussed below in terms of findings from recent studies:

Identity achieved. These are individuals who have experienced a psychosocial moratorium and a period of crisis, and have explored ideological alternatives before developing firm personal commitments (Adams & Montemayor, 1983). In sum, they have experienced both crisis and commitment.

These individuals are typically more aware of their own uniqueness and likeness to others--they feel more competent, explore more, are more objective in their outlook, are more realistic about both their positive and negative characteristics (Marcia, 1980), and may possess the most mature level of moral judgment of the four statuses (Podd, 1972). They appear more stable, more goal-oriented, and able to cope with sudden environmental changes (Marcia, 1980). They tend to have the highest grade-point-average of all subjects (Cross & Allen, 1970). Along with Moratoriums, they tend to score higher in achievement motivation and self-esteem than the other two statuses (Orlofsky, 1978). These individuals perform better on concept attainment tasks under stress, and are less susceptible to self-esteem manipulation (Marcia, 1967). They also tend to be more reflective (as opposed to impulsive) in their decision-making styles (Waterman & Waterman, 1974).

In their relationships with others, Achievers (and Moratoriums) are more likely to have deeper and more committed intimate relationships, while those in the other two statuses are more likely to have either superficial relationships or to be isolates (Kacerguis & Adams, 1980; Orlofsky et al., 1973).

Identity moratorium. Individuals in the Moratorium status are currently experiencing the questioning and exploring of the identity crisis, but they have not yet arrived at their own self-defined commitments (Adams & Montemayor, 1983). In sum, there is crisis without commitment. In comparison to the other statuses, these individuals tend to have the highest anxiety levels (Marcia, 1967), and are the lowest in authoritarianism (Marcia, 1980).

Identity foreclosed. Individuals in this status category report stable commitments, but have not experienced a true crisis period. They have acquired their commitments from others (usually parents or other authority figures), and have adopted them without testing them or exploring other alternatives, a process similar to the acquisition of early childhood identifications (Adams & Montemayor, 1983). A benefit of making premature commitments may be an increased sense of security (Archer & Waterman, 1983).

Foreclosures tend to display the most authoritarian behavior of all the statuses (Marcia, 1966, 1967; Marcia & Friedman, 1970; Matteson, 1974; Schenkel & Marcia, 1972). One possible reason for this has been suggested by Bourne (1978)--since Foreclosures retain a strong identification with their parents' standards and values without undergoing much differentiation of their own views, they are more likely to uphold notions of obedience, loyalty to conventional societal standards, and respect for authority.

In interpersonal relationships, Foreclosed and Diffused individuals more frequently have stereotyped relationships (Marcia, 1980).

Identity diffused. These individuals have not experienced a motivation to explore their sense of self nor a compulsion to explore life alternatives or establish ideological commitments (Adams & Montemayor, 1983). Diffusions are not committed to anything nor are they actively trying to make a commitment. They may never have been in a crisis, or they may have had a period of questioning but were not able to resolve it and emerged without making a firm choice. In sum, they have had neither a crisis nor made any commitments.

According to Marcia (1966, 1976), these individuals are typified more by apathy and a lack of engagement with the world than by anxiety. In interpersonal relationships, Diffused individuals appear to be the least self-revealing and tend to have stereotyped relationships.

Gender Differences in Identity

An expanding literature suggests that identity development may be very different for females than for males, and there is reason to believe that the ego-identity statuses may have different psychological implications for males than for females (Marcia, 1980). In general, the identity achievement status is often associated with relatively good adaptive abilities, whereas the identity diffusion status is often associated with problems in coping for both sexes. However, the pathways to these "statuses" appear to differ, with the key difference being in the nature and function of affiliation, or interpersonal relationships, with others.

Males

Some of the major topics of concern for adolescent males found in studies revolve around occupational issues, activity, and achievement (Douvan & Adelson, 1966; Josselson, Greenberger, & McCononchie, 1977a). Young men tend to define themselves in terms of their competence (Hodgson & Fischer, 1979), and tend to emphasize amiability, cooperation, and ability to control aggressive impulses in their relationships with others (Douvan & Adelson, 1966). Males may use friendships as a means of external achievement, including shared goal-seeking enhancement and heterosexual ego-building

(Thorbecke & Grotevant, 1982). Conversation patterns of late-adolescent males tend to emphasize activity-oriented topics (Johnson & Aries, 1983). Men tend to rate loyalty as the most important dimension of love relationships (Reedy, Birren, & Schaie, 1981). The interpersonal relationships of less mature males tend to be characterized more as ego-builders rather than true emotional intimacy (Josselson et al., 1977a).

Male adolescents' identity development revolves around the issues of gaining autonomy, assertiveness, and independence (Dusek & Flaherty, 1981). Matteson (1975) suggests that this process in males seems to reflect the cultural expectation of autonomy and personality differentiation. Since these are some of the same issues addressed by the ego-identity status inventories, it is not surprising that males tend to show up more often than females as "identity achieved." In other words, the socialization process for males is congruent with what is assessed by these identity inventories. The following studies illustrate this.

College men appear to be more "committed" than women in the identity areas of occupation, religion, and politics (Hodgson & Fischer, 1979). For young men, vocational identity appears to be positively related to masculinity, orientations toward mastery, and a lack of concern about the negative evaluations of others (Grotevant & Thorbecke, 1982). Occupational identity for males has been found to be the most salient factor contributing to advanced identity status (Fitch & Adams, 1983). For males, positive correlations between several interpersonal identity ratings and mastery and competitiveness

suggest that the issues of separateness and autonomy are important in their self-definitions, even in terms of relationships (Thorbecke & Grotevant, 1982).

Females

While males tend to define themselves in terms of separation and autonomy, it appears that women define themselves within the context of their interpersonal relationships; i.e., through intimacy and affiliation. Affiliation seems to be one of the primary concerns of females (Douvan & Adelson, 1966), and more than one study has indicated the tendency for women to define themselves in terms of who they are in relation to others (Hodgson & Fischer, 1979).

The identity of females seems to revolve around the issues of interpersonal relations, as reflected in friendship concerns and concerns with empathy, nurturance, and the expressive role (Dusek & Flaherty, 1981). Adolescent females tend to use friendships to help differentiate themselves from others, build their self-esteem, and as a buffer against stress. At least one study has reported that adolescent females appear to be more "identity achieved" than males in the friendship domain (Thorbecke & Grotevant, 1982). Interpersonal ties are used to sharpen their sense of self-differentiation and to gain a more articulated representation of themselves (Josselson, Greenberger, & McConochie, 1977b). There is more salience of friendships and relationships for young women than for young men (Douvan & Adelson, 1966). Girls want friends to be loyal, trustworthy, and reliable sources of emotional support. At all ages, they seem to be more likely than males to expect understanding from

their friends, while males are more likely to expect mutual aid (Kon & Losenkov, 1978). Conversational topics of late-adolescent females tend to focus on themselves and their close relationships as compared with the activity-oriented topics characteristic of males (Johnson & Aries, 1983). Women tend to rate emotional security (e.g., feelings of concern, caring, trust, comfort, and being able to depend on one another) as being the most important dimension of love relationships (Reedy et al., 1981).

Achievement of identity in females has been suggested as developing through "connectedness" with others and through interpersonal relationships, centering around intimacy (Matteson, 1975). It seems to involve a component of developing an ideology about interpersonal relationships (Grotevant, Thorbecke, & Meyer, 1982), which is generally ignored on most identity instruments that tend to emphasize occupational, power, or mastery situations. Stein and Bailey (1973) suggest that the areas of socialization, and the strengthening of both interpersonal relationships and interpersonal skills are the areas that characterize females' achievement goals. In one study, adolescent females that were classified as being more psychosocially mature were found to use interpersonal relationships for identity resolution, to provide self-differentiating experiences by exploring and clarifying their identities in relation to others. Compared with high-maturity males, these same females were less focused on career goals as sources of self-esteem: "They are, in a word, identity seekers; attempting to discover who they are and who they want to be in relation to the significant others in their lives" (Josselson et al., 1977b, p. 159).

Thorbecke and Grotevant (1982) propose that the process of interpersonal and vocational identity formation is more interrelated for females than for males, with vocational identity inversely related to competitiveness. The lack of correlation between interpersonal identity and mastery, and the negative correlation between competitiveness and friendship commitment highlights the importance of the network of relationships to these females (Thorbecke & Grotevant, 1982).

The foreclosure status has been cited as being a more "adaptive" status, with the moratorium status being a less adaptive status for women (Orlofsky, 1978). On several variables (conformity, field dependence, locus of control, difficulty of college major, and anxiety) foreclosure women perform more like achievement women, while moratorium women perform more like those of the diffusion status (Marcia & Friedman, 1970; Schenkel & Marcia, 1972; Toder & Marcia, 1973). Foreclosures have been found to score the highest on self-esteem, while identity achievement females score the lowest (Marcia & Friedman, 1970, although Schenkel and Marcia (1972) failed to replicate this finding). In summary, identity patterns are more complex among females, and appear to be quite different from those of males.

Why the Sex Difference?

Matteson (1975) suggests that identity consolidation in males reflects the cultural expectation of greater independence and autonomy, and encouragement to develop highly differentiated, autonomous personalities. In contrast, these qualities do not appear to be supported for females, who tend to be encouraged to make early

identity commitments. Prior to the college years, males are generally granted more freedom to explore than are females, and more females than males tend to show dependency.

Marcia and Friedman (1970) suggest a different but related explanation for the sex differences that appear in identity research. They propose that there is a lack of social support for females going through an identity crisis and working towards achieving greater personality differentiation and autonomy. Traditionally, females have been expected to "find" their identities (pre-determined) through marriage and child rearing, with these roles encouraged and rewarded by the culture. Consequently, women who struggle to develop their own beliefs and life style face uncertainty, conflict, and receive much less acceptance and guidance than women who foreclose on traditional values and roles (Toder & Marcia, 1973; Schenkel & Marcia, 1972).

Gilligan (1982) suggests that differences in interpersonal identity formation may imply different achievement styles--separation versus connectedness. In contrast to men, women tend to use values that are based on a sense of connectedness and attachment to others, and their self-perceptions of interpersonal achievement are rooted in the context of human relationships and in their ability to care for others. To Gilligan, the role of separation defines and "empowers" the male self, whereas for females it is the ongoing process of attachment that defines and sustains identity. For females there is a fusion of identity and intimacy, with women defining their identity through relationships of care and intimacy. In contrast, the sequential ordering of the identity-intimacy relationship (as outlined by Erikson) is viewed as characterizing the development of men more

than it does women. In summary, women are viewed as developing within attachment and affiliation with others, with their sense of self organized around making and maintaining interpersonal relationships.

Summary and Hypotheses

In conclusion, attachment is a life-span phenomenon that is not only important in itself, but also has a clear and wide-spread impact on other social-personality processes as well. Perhaps one of the most significant functions of attachment has to do with the security it provides. With this security ("secure base"), social, emotional, and personality processes (or development) proceed in a positive way. The studies discussed in this review support this notion. The primary factors influencing attachment security, which indirectly influences other social-personality processes, include family relationships, parenting styles, and relationships with others. Differences in the quality of any of these variables may have consequences for development in the areas mentioned above. Finally, there is the issue of the reason for gender differences in identity, in terms of it being an "inherent" difference in orientation or a by-product of differences in other variables influencing identity.

There are several problems with the current research on identity development that leave many questions both unasked and unanswered. First, the issue of sex differences has barely been explored--the majority of studies have been conducted on males, and the few that have included females have done so using the same traditional assessment instruments. A second problem with this research is that self-identity, as a part of identity, has been largely ignored. The

measures that are most frequently used for identity assessment focus on "external" issues of vocational, religious, and political commitments. The "internal", self-identity issues, such as concept-of-self and purpose in life, have not been addressed in depth. As mentioned earlier, Erikson has made reference to this "existential" aspect of identity, and it would seem worthwhile to explore it as an equally relevant variable in identity development. Newman and Newman (1979) have suggested that as individuals' self-boundaries become increasingly defined, they inevitably confront feelings of separation or isolation, which may in turn increase their desire for (physical or psychological) affiliation with others. In a sense, then, the issues of attachment, loneliness, and individuation may be interwoven with one another in potentially complex ways.

The purpose of the present exploratory investigation is to examine the relations among attachment security, relatedness to others, parenting styles, family relationships, autonomy, gender, and identity in late adolescence in a causal model predicting identity. The specific goal is to develop and test a causal model to determine the direct and indirect variables influencing ego- and self-identity formation. In addition, the following hypotheses are offered.

Hypothesis 1

The degree of security or insecurity experienced by an individual will influence their relatedness to others, their autonomy, their self-esteem, and their identity 'status.'

Hypothesis 2

Parenting styles and family relations will most directly influence the degree of security experienced by the individual.

Hypothesis 3

Security, autonomy, gender, degree of relatedness to others, parenting styles, and family relationships will influence the status of an individual's ego- and self-identity.

Hypothesis 4

Gender and parenting styles will be the primary (exogeneous) predictors of identity.

The theoretical causal model with the hypothesized variable relationships is illustrated below in Figure 1.

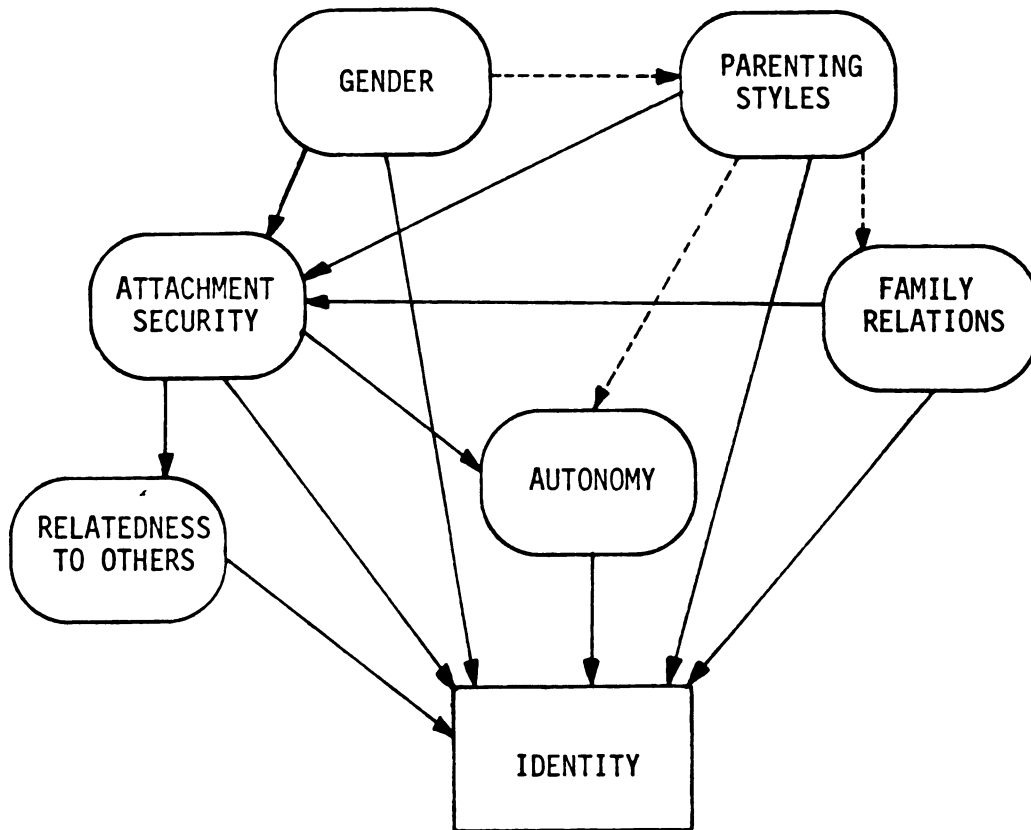


Figure 1. Theoretical Relations Predicted Among Gender, Attachment Security, Relatedness to Others, Parenting Styles, Familial Relations, Autonomy, and Identity in Late Adolescence (Solid Lines Indicate Predicted Relations Between Variables; Broken Lines Indicate Potential Indirect Influences)

METHOD

Subjects

The participation of 18- and 21-year old students enrolled in psychology courses at a large midwestern university was solicited by announcements made individually to classes and by a letter distributed to approximately 960 students during the first two weeks of the spring term (Appendix A).

Four-hundred-eighty-one students (211 males, 264 females, and 6 whose gender was incorrectly coded) participated in this study and completed the questionnaire. Seventy-one questionnaire response forms (14.8%) were later discarded (31 males, 34 females, and 6 with unclear gender) for one or more of the following reasons: the subject was over the 21-year old age limit, the questionnaire response form had more than three items of missing data, or responses to items on the response form were outside the range for the corresponding questions. This left a final total of 410 subjects (180 males and 230 females) for the final analyses.

Demographic information for subjects participating in the study was collected at the time of testing and consisted of six items requesting information on the subject's age, gender, year in school, living accommodations while going to school, parents' approximate annual income, and current parent marital situation (Appendix B). The results from these items are presented in Table 1 for the total group,

and for males and females separately. For the total group, the mean age of the subjects was 19.3 years, with males slightly older than females. Most of the students were first- and second-year college students, with more females than males in their first year of college. Most of the students lived in campus dormitories at the time of testing. For the total group, over 85% of the students' parents earned an annual income of over \$25,000; 55% earned over \$40,000 per year, with little difference between the males' and the females' families. Finally, in most of both male and female families, both parents were currently living together.

Instruments

The questionnaire administered to each subject at the time of testing consisted of 492 Likert-type items assessing the major psychological factors under investigation in this study: attachment security, relatedness to others, parenting styles, family relations, autonomy, identity, and self-esteem. Twenty-two scales were used to measure different dimensions of each of the seven factors. The factors, the scales used to assess the factors, and the specific instruments from which the scales were derived are listed in Table 2 and discussed in more detail below.

Attachment Security

Two scales from Ainsworth and Ainsworth's (1958) security assessment tests (Familial Security and Extra-Familial Security) were included in the questionnaire to assess the degree to which an individual felt secure or insecure in both familial and non-familial relationships.

Table 1

Subject Demographic Information

	Total Group (N=410)	Males (N=180)	Females (N=240)
	<u>M</u> =19.3 yrs	<u>M</u> =19.5 yrs	<u>M</u> =19.2 yrs
<u>Age</u>			
18 years	24.9%	16.1%	31.7%
19 years	34.1	37.2	31.7
20 years	25.6	28.9	23.0
21 years	15.4	17.8	13.5
<u>Year in School</u>			
Freshman	46.8	40.6	51.7
Sophomore	26.6	31.1	23.0
Junior	19.0	20.0	18.3
Senior	7.6	8.3	7.0
<u>Current Living Accommodations</u>			
At home with parents	2.4	3.3	1.7
In a house with friends	6.1	8.9	3.9
In an apartment with friends	12.0	12.8	11.3
Alone on a house or apartment	1.5	2.2	.9
In a dormitory	75.9	69.4	80.9
Other	2.2	3.3	1.3
<u>Annual Parental Income</u>			
less than 10,000	3.4	4.4	2.6
10,000-25,000	12.0	9.4	13.9
25,000-40,000	30.0	31.7	28.7
40,000-60,000	30.7	31.7	30.0
more than 60,000	23.9	22.8	24.8
<u>Parent's Marital Status</u>			
Living together	79.0	78.3	79.6
Divorced	14.9	16.1	13.9
Separated	1.7	1.1	2.2
One or both deceased	4.4	4.4	4.3

Table 2

Psychological Variables, Instruments, and Scales

1. Attachment-Security	<u>Security Assessment Tests</u> (Ainsworth & Ainsworth, 1958)	a) Familial security b) Extra-familial security
2. Relatedness to Others	<u>Fundamental Interpersonal Relations Orientation-Behavior</u> (Schutz, 1978)	a) Affection
	<u>Personality Research Form</u> (Jackson, 1967)	b) Nurturance c) Affiliation d) Succorance
3. Parenting Styles	<u>Parental Socialization Style Questionnaire</u> (LaVoie, 1976)	a) Punishment b) Fairness c) Autonomy d) Approval e) Warmth
4. Family Relations	<u>Family Adaptability and Cohesion Evaluation Scales</u> (Olson, Bell, & Portner, 1978)	a) Family Cohesion b) Family Adaptability
5. Autonomy	<u>Personality Research Form</u> (Jackson, 1967)	a) Autonomy
6. Identity (ego)	<u>Objective Measure of Ego-Identity Status (OMEIS)</u> (Adams, Shea, & Fitch, 1979)	a) Identity Diffused b) Identity Foreclosed c) Identity Moratorium d) Identity Achieved
(Erikson)	<u>Eriksonian Identity Instrument</u> (Constantinople, 1969)	a) Identity
(self)	<u>Tennessee Self-Concept Scale</u> (Fitts, 1965)	a) Self-identity: positive concept of self
(philosophical)	<u>Security Assessment Tests</u> (Ainsworth & Ainsworth, 1958)	a) Philosophical security
7. Self-esteem	<u>Tennessee Self-Concept Scale</u> (Fitts, 1965)	a) Self-esteem

The purpose of the original forms of these tests was to both assess the extent of security experienced by an individual and to describe the methods by which an individual tried to attain or maintain security. Four scales were initially developed to measure security in the following areas: familial, extra-familial, avocational, and philosophical.

Within each of these four areas, the authors describe different "levels" or degrees of security, ranging from independent security to insecurity. For the Familial Security scale, these levels are: 1) independent-security, defined as having confidence in one's own competence to "make one's own way"; emancipation from dependence on parental support, help, and control; and continuing to have satisfactory relationships with parents, 2) immature-dependent security, defined as reliance on one's own parents for help, advice, and affection (with satisfaction in doing so); and experiencing satisfaction in the warm, close, relationships with one's own parents, and 3) insecurity, defined as unhappy relationships with parents, with friction between an individual and their parents (especially over emancipation issues); and insecure state of dependence; oversensitivity to parental disapproval; fear of failure in living up to parental standards; fear of loss of dependency; and lacking in self-confidence in regard to emancipation. (Reliability coefficients for these three "levels," based on internal consistency and a sample size of 175 first- and second-year college students, are reportedly .90, .66, and .67 respectively) (Ainsworth & Ainsworth, 1958). The 24 items, along with their original classification into security levels, are in Appendix C.

The Extra-Familial Security scale is similarly organized according to "levels" of security: 1) independent-security, defined as self-confidence in social situations; and satisfaction with one's social skills and status, 2) mature-dependent security, defined as security derived through the sense of warmth and belonging of interdependent, mutually contributing relationships, 3) immature-dependent security, defined as reliance upon others for help, advice, affection, and approval; in need of emotional support from others; trying to prolong this dependency state by trying to please those on whom they are dependent, and 4) insecurity, defined as feelings of loneliness and isolation, and failure to form close relationships with others. (Reliability coefficients for these four levels are reportedly .60, .55, .61, and .72 respectively). The 30 items, along with their original security classification, are also listed in Appendix C. Items from both scales were randomly presented in the questionnaire.

In the original study, subjects responded to each item with a "0" for false, a "1" for true, and "cannot say/undecided" if neither a true or false response applied. Total scores for the scales were then equal to the sum of the responses. In the present study, items were presented on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree).

Relatedness to Others

Four scales were included to measure aspects of an individual's "relatedness" toward other people. "Relatedness" refers to the degree to which one enjoys being with others, makes efforts to establish and

maintain relationships with others, is affectionate toward others, wants to care for and be cared for by others, and gives sympathy and comfort to others.

The first scale used was the Expressed Affection scale from the Fundamental Interpersonal Relations Orientation-Behavior Scale (FIRO-B) (Schutz, 1978). Expressed affection refers to how affectionate a person behaves toward other people. High scores indicate a desire for a great deal of exchange of affection and warmth, and low scores indicate a preference for more personal distance from people with more impersonal "business-like" relationships. The internal consistency of this scale is reportedly .93, with test-retest reliability (one month) reported to be .76, and with satisfactory content validity (Schutz, 1978).

In its original form, the 9 items of this scale were scored as either "accepted" or "rejected" (using the same response choices as those used in the present questionnaire). The scale score then represents the number of items "accepted" for the scale. In the present questionnaire, however, the same response choices were numbered so as to conform to a Likert-scale format. Half of the items were later reverse scored so that high scores on each item would have the same meaning, and items were then summed to attain an overall scale score. The items are listed in Appendix D.

The remaining three scales assessing "relatedness to others" were the Nurturance, Succorance, and Affiliation scales from the Personality Research Form (Jackson, 1967). The Nurturance scale assesses the degree to which one gives sympathy and comfort to others, helps others, is interested in caring for others, and likes to do

favors for others. The Succorance scale assesses the extent to which an individual seeks sympathy, protection, care, help, and reassurance from others. The Affiliation scale assesses the degree to which one experiences pleasure in being with others, how readily they "accept" others, and how much effort they make to establish and maintain social relationships with others. Test-retest reliabilities for these three scales are reportedly .82, .84, and .79 respectively. Validity coefficients reportedly range from .34 to .72, .55 to .60, and .43 to .80 respectively (Jackson, 1967).

Each of the three scales consists of 20 Likert-scale items (1 = strongly agree, 5 = strongly disagree). Half of the items were later reverse-scored so that high scores for each item would have the same meaning. Items in each scale were then summed to attain a total score for each scale, with higher scores indicating "greater" nurturance, succorance, or affiliation. The three scales are in Appendix E.

Parenting Styles

Parenting styles, as perceived by the subject, were assessed with a 10-item Likert-type scale adapted from LaVoie (1976). Subjects responded to the following five items for each of their parents: how fair the punishment was that they received; how often their parents tried to control or regulate their lives; how free and independent their parents allowed them to be; how often their parents expressed approval or praise toward them; and how often their parents showed warmth, love, and affection toward them. Reasonable but limited predictive validity has been reported for these items, and Adams and Jones (1983) report modest but significant internal consistency

between child-rearing perceptions and test-retest correlations for these items ranging from .43 to .59. Each item had a 5-point Likert-scale response range (1 = not at all, 5 = always). The scale is presented in Appendix F.

Family Relationships

The Family Adaptability and Cohesion Evaluation Scales (FACES) (Olson, Bell, & Portner, 1978) were used to assess the subjects' perceptions of closeness ("cohesion") and flexibility ("adaptability") within their family of origin. This scale yields two subscale scores, Family Cohesion and Family Adaptability. Family Cohesion refers to the individual's perception of the balance in their family between emotional closeness and individual autonomy. High scores on this scale (307 - 378) indicate extreme closeness and limited individual autonomy in the family. Middle range scores (235 - 306) indicate a balance between bonding and autonomy, whereas low scores (162 - 234) indicate low emotional bonding and high individual autonomy. Family Adaptability refers to the family's ability to adapt and be flexible to changes and situational stress by adjusting its power structure, role relationships, and relationship rules. High scores on this scale (239 - 294) indicate a family that is perceived by the subject as being capriciously organized with readily shifting rules, roles, and power structures. Middle range scores (183 - 238) indicate a balance between stability and change, whereas low scores (168 - 182) characterize a family that is viewed by the subject as being rigidly organized and inflexible. The internal consistency (alpha) reliability of the total scores for Cohesion and Adaptability are reportedly .83 and .75 respectively (Olson, Bell, & Portner, 1978).

Subjects responded to the 111-item inventory on a Likert-type scale (1 = true none of the time, 4 = true all of the time). The inventory is outlined in Appendix G.

Autonomy

The Autonomy scale from the Personality Research Form (Jackson, 1967) was included as a measure of how "independent" individuals viewed themselves as being. The Autonomy scale reportedly assesses the degree to which one tries to resist and break away from restraints, confinements, or restrictions; and enjoys being unattached, free, and not tied to people, places, or obligations. Test-retest reliability is reportedly .77, with validity coefficients ranging from .54 or .66 (Jackson, 1967).

The scale consists of 20 items on a Likert scale (1 = strongly agree, 5 = strongly disagree). Half of the items were later reverse-scored so that high scores on each item had the same meaning. These item scores were then summed into a total scale score, with higher total scores on this scale implying greater autonomy. The scale is listed in Appendix H.

Identity

The dimensions of identity assessed in this questionnaire included: 1) ego-identity, as defined and described by Erikson, and 2) self-identity, defined as individuals' self-conceptions, descriptions, concept-of-self, as well as ideologies concerning meaning in life. To assess ego-identity, the Objective Measure of Ego-Identity Status (OMEIS) (Adams, Shea, & Fitch, 1979) and Constantinople's (1969) Eriksonian Identity Instrument were used. To investigate self-identity, two scales were used: the Self-Identity

scale from the Tennessee Self-Concept Scale (Fitts, 1965), and the Philosophical Security test from Ainsworth and Ainsworth's (1958) Security Assessment tests. Each of these scales is discussed below.

Objective Measure of Ego-Identity Status (OMEIS). The OMEIS (Adams, Shea, & Fitch, 1979) is a 24-item scale assessing the presence or absence of "crisis" and "commitment" in the areas of occupational, religious, and political choice. Based on Marcia's (1966) original identity status interview, subjects responded to this pencil-and-paper version by indicating on a Likert-type scale the degree to which they agree or disagree with each statement (1 = strongly disagree, 6 = strongly agree). These responses then provide indices for subscales reflecting four identity status categories: Identity Diffusion, Identity Foreclosed, Identity Moratorium, and Identity Achieved. Original validation studies with both male and female subjects by Adams et al. (1979) suggest good internal consistency of the scales and partial congruence with Marcia's (1966) original ego-identity interviews. The scale items and the scoring procedure are located in Appendix I.

Eriksonian Identity Instrument. The Eriksonian Identity Instrument (Constantinople, 1969) is a 60-item scale reflecting the successful and unsuccessful resolution of each of Erikson's first six stages of psychosocial development: 1) Trust vs. Mistrust, 2) Autonomy vs. Shame and Doubt, 3) Initiative vs. Guilt, 4) Industry vs. Inferiority, 5) Identity vs. Role Diffusion, and 6) Intimacy vs. Isolation. This instrument is a revision of a Q-sort measure (Wessman & Ricks, 1966) which consists of 5 items reflecting the successful resolution of each stage, and 5 items reflecting the

unsuccessful resolution of each stage for a total of 60 items. This measure was designed to assess subjects' (particularly college students') relative identity achievement as regards the first six of Erikson's eight stages. According to Erikson, the primary tasks to be mastered during the late adolescent period include re-evaluating beliefs and attitudes of both the past and present with an eye to the future, and "settling" on an identity. Toward this end, this instrument was designed to examine the normative pattern of development in late adolescence as an operationalization of Erikson's first six stages (Constantinople, 1969).

This instrument reportedly has some construct validity, and test-retest reliabilities for the three stages that Constantinople considered to be most relevant to college students (Industry vs. Inferiority, Identity vs. Role Diffusion, and Intimacy vs. Isolation) range from .45 to .81 for a 6-week interval (Constantinople, 1969). No validity estimates were available for the subscales.

In her original study, Constantinople (1969) substituted a 7-point Likert-type scale for the Q-sort format and found that this new format provided data equivalent to the original Q-sort measure. Correlations between the Q-sort and the 7-point scale for 53 pilot subjects ranged from .68 to .97 for the 4th, 5th, and 6th Eriksonian stages. The present study used these same items on a 5-point Likert scale (1 = never or almost never true of me, 5 = always or almost always true of me), and as in the original study, requested that subjects respond to each item by describing how characteristic or uncharacteristic the word or phrase was of them. Item scores for each scale were then summed to obtain 12 subscale scores. The

present study also used wording that was revised from the original form. This wording is the same as that used by Brahms (1978), who found that subjects were frequently confused by the original wording. Both versions are included in Appendix J.

Tennessee Self-Identity Scale. The third identity instrument used in this study was the self-identity scale from the Tennessee Self-Concept Scale (Fitts, 1965). The self-identity scale is composed of 30 Likert-scale items (1 = completely false, 5 = completely true) which reportedly assesses how individuals view themselves physically, morally, personally, socially, and within the context of their family. The "physical self" refers to the individual's view of their body, their state of health, their physical appearance, skills, and sexuality. The "moral-ethical self" refers to an individual's view of moral worth, their relationship with God, feelings of being "good" or "bad," and satisfaction with their religion or lack of it. "Personal self" reflects the individual's sense of personal worth, their feeling of adequacy as a person, and their evaluation of their personality. "Family self" refers to one's feelings of adequacy, worth, and value as a family member, and their perception of themselves in reference to their family. Finally, "social self" reflects the person's sense of adequacy and worth in their social interactions with others. Reliability (test-retest) is reportedly .91 for this scale, and content validity and discriminative validity are demonstrated in the scale manual (Fitts, 1965). Half of the items were later reverse-scored so that high scores on each item reflected the same meaning. Item scores were then summed together for a total

score. High scores on this scale indicate a positive concept of self with regard to the five dimensions of the "who I am" parameter. These scale items are in Appendix K.

Philosophical Security Test. The final identity instrument included in the questionnaire was the Philosophical Security test from the Ainsworth and Ainsworth (1958) Security Assessment tests. This scale reportedly assesses an individual's security in their philosophy or meaning in life, and was included as an attempt to assess the "existential" dimension of self-identity. Different "levels" of security within this scale include: 1) mature-dependent security, defined as feeling a sense of belonging, in one's intimate relationships with others and in the world at large; feeling that one has a significant contribution to make in the larger scheme of things; and having worked through one's religious beliefs or philosophy of life and has made them one's own, 2) immature-dependent security, defined as feeling confident that one will be looked after and that one need not take responsibility for one's own future; accepting dogmas and codes without questioning them or working them through for oneself, and preferring rules to choices, and 3) insecurity, defined as feeling insignificant, helpless, futile, without purpose, isolated, and frustrated; feeling that one lives in a hostile world, and having an uneasy preoccupation with the future, death, and the hereafter. Reliability coefficients for these three levels, based on internal consistency, are reportedly .59, .66, and .60 respectively. The 24 Likert-scale items (1 = strongly disagree, 5 = strongly agree) are listed in Appendix L according to their original security level

classification (items were randomly mixed for presentation in the questionnaire).

Self-Esteem

The final instrument included in the questionnaire was the complete Tennessee Self-Concept Scale (Fitts, 1965), a measure of overall level of self-esteem. (The self-identity subscale from this scale was discussed above). This scale consists of 100 self-descriptive statements to which subjects respond by indicating the degree to which each statement is self-descriptive. Subjects use these items to describe themselves physically, morally, personally, socially, and in terms of their family as defined earlier. High scores reflect high self-esteem, defined as liking and having confidence in oneself, and feeling that they are valuable and worthwhile individuals. Low scores reflect doubt about one's own worth, including feeling undesirable, anxious, depressed, unhappy, with little faith or confidence in themselves. The test-retest reliability coefficient is reportedly .92, with content and discriminative validity reported in the manual (Fitts, 1965).

The 100 items comprising this scale are on a Likert scale (1 = completely false, 5 = completely true), with half of the items later reversed scored so that high scores on each item reflected the same meaning. The complete scale is listed in Appendix K.

Procedure

Students were asked to indicate their interest in participating in this study by signing up in advance for testing sessions that were scheduled three times per week throughout the term. Each testing

session could accommodate from 20 to 45 students. Students who participated in the study received extra course credit. Students were assured beforehand that their participation would be completely anonymous, since the only identifying information coded onto the questionnaire response form was their age and gender.

At each testing session, participants received and signed a research consent form indicating their voluntary participation in the study (Appendix M). Participants next completed several questions requesting demographic information, and then responded to the questionnaire items by marking their responses to each item onto computer data scoring sheets. (Each computer scoring sheet had been pre-coded with a subject number and page number). The average total time to complete the questionnaire was about 1½ hours. After completing the questionnaire, students were given a debriefing letter that provided more information about the study (Appendix N).

Data Analysis

To examine the relations among attachment security, relatedness to others, parenting styles, family relationships, autonomy, identity, and gender in a causal model predicting identity, the data analyses were carried out in three steps: 1) preliminary data analyses, which involved refining two scales with confirmatory factor analyses before the raw data could be reduced to scale scores, 2) standard analyses of the data, including descriptive and inferential statistical analyses, and 3) path analysis, which included developing and testing causal models predicting identity.

Preliminary Analyses

Before the raw data could be reduced to individual scale scores, the reliability and construct validity of two instruments used in this study were examined using confirmatory factor analysis ("cluster" analysis). The two instruments for which there were questions regarding their reliability and validity were the Security Assessment tests (Ainsworth & Ainsworth, 1958) and the Eriksonian Identity Instrument (Constantinople, 1969).

In the original form, the Security Assessment tests were "validated" on a sample of 175 college students, and the authors recommend at the end of their report that certain items from the scales be deleted, and that further work should be done on the scales. For the Eriksonian Identity Instrument, both the reliabilities and the item content were questionable. Constantinople (1969) stated that the psychometric status of this instrument was "adequate but not impressive." Sommers (1979) found even lower reliabilities (alphas) than did Constantinople for the 12 subscales using a sample of 106 women. Furthermore, the item content of several of the subscales did not appear to be highly unidimensional. Consequently, it was decided at the outset of this study to examine the internal consistency and reliabilities of these instruments.

The confirmatory factor analysis program from PACKAGE (Hunter, Cohen, & Nicol, 1982), groups or "clusters" sets of observed variables that are thought to be meaningfully similar measures of the same underlying trait or construct. Through statistical computations, these clusterings or groupings of the data either "fit" the observed correlations or they do not. If they do not "fit," one can modify

them by eliminating individual items, transfer the items to different clusters, or recategorizing the clusters (Hunter, 1977).

A perfect cluster is a set of items or variables which all measure exactly the same underlying trait (i.e., it is unidimensional). There are three tests for assessing the unidimensionality of a cluster: 1) homogeneity of content (all the variables measure the same thing from a substantive point of view--they are all homogeneous in content), 2) internal consistency (all of the variables have doubt about the same quality in measuring the underlying trait to within sampling error), and 3) parallelism (items in a unidimensional cluster have similar patterns of correlations with items in other clusters or other traits) (Hunter & Gerbing, 1982). In calculating the clusters for this study communalities were used. This approach implicitly corrects for attenuation and hence eliminates the effect of error of measurement from the estimated correlations between items and factors or between factors and factors. Cluster analysis improves on standard factor analysis by requiring content homogeneity and parallelism (Hunter, 1981).

Output from the cluster analyses reported in this study include coefficient alphas, internal consistency (defined above), and part-whole correlations. Coefficient alpha is the reliability coefficient for clusters, an unbiased estimate of the reliability of a cluster score (if the cluster satisfies the three criteria of unidimensionality). It is a measure of the lack of error in a cluster score, and the closer its value is to 1.00, the more reliable the measurement of the underlying variable (Hunter & Gerbing, 1982). Part-whole correlations are correlations between items of a cluster

and their cluster true score (those scores that would be obtained if the constructs were measured without error) (Hunter & Gerbing, 1982).

Standard Analyses

The second phase of the data analysis involved reducing the raw data to individual scale scores and performing descriptive, correlational, and inferential analyses on them. Data for the total group and for males and females separately were analyzed. Means, standard deviations, Pearson correlations, and multivariate analyses of variance were performed on these data sets.

The SPSS program for multivariate analysis of variance was used to examine group difference among the variables since there was a large number of dependent variables in this study. The MANOVA program provided a method for standardizing alpha levels to a specified constant, thus reducing the possibility of a Type II error (Bray & Maxwell, 1982).

Significant differences among groups in the sample were indicated by the MANOVA program by an initial multivariate F-test. If the overall F was significant, the univariate F-tests could be examined, which specified where in the sample these differences were occurring. If there were more than two levels of a significant independent variable, the usual ANOVA post hoc comparison techniques were applied (Bray & Maxwell, 1982).

In this study, MANOVA was employed to analyze the relationships between sex and the dependent variables, to analyze the relationships between the four OMEIS ego-identity statuses (identity diffused, foreclosed, moratorium, and achieved) within sex across the dependent variables, and the analyze sex by identity status across the variables.

Path Analysis

Path analysis was employed to develop and test a causal model to determine the direct and indirect effects of gender, attachment security, relatedness to others, parenting style, family relations, and autonomy in predicting identity.

Path analysis is a procedure that systematically combines the use of partial and multiple correlation to study the causal relationships among a set of variables (Hunter & Gerbing, 1982). Path analysis estimates the magnitude of the relationships between variables, and uses these estimates to give information about the underlying causal processes. With these techniques, one can measure both direct and indirect effects of one variable onto another (Asher, 1976). Path analysis is an application of multiple regression where multiple regression is used to describe the entire structure of linkages between independent and dependent variables, and it assesses the logical consequences of a structural model designed beforehand from a causal theory. An experimenter's causal theory specifies a particular "ordering" of the variables in a model that reflects a presumed structure of cause-effect relationships. Multiple regression is then used to determine the influence of each variable on other variables that follow it in the hypothesized causal order. Each arrow in the model represents a hypothesized path of causal influence, and regression can estimate the relative strength of each separate path.

If a variable has only one antecedent variable, then the path coefficient (the values indicated on the arrows in the path diagrams) is the correlation between the dependent variable and its antecedent.

If there are two or more antecedents to a particular variable in the path model, then the path coefficients are beta weights.

The output from the path analyses reported in this study includes path coefficients (described above), observed correlations, reproduced correlations, and observed minus predicted correlations (error). Observed correlations are the data-produced correlations of cluster scores from one's sample. Reproduced correlations are the correlations among the variables in the path diagram that are reproduced from the set of path coefficients, and are the sum of direct, indirect, and spurious effects (Hunter & Gerbing, 1982). The observed minus the predicted correlations are the obtained correlations compared with the predicted correlations (i.e., error), which generates a test of the model (Hunter & Gerbing, 1982). The sum of squared deviations is the sum of squared errors in reproducing the correlation matrix from the path.

A specialized PATH analysis routine in PACKAGE (Hunter et al., 1982) was used. This program provides statistics for evaluating the fit of the model which are not provided by a program designed only for regression analyses.

RESULTS

This summary of results follows the sequence described in the previous section. The preliminary data analyses are described first, followed by the standard analyses. The third part presents the path analyses, which are the primary focus of this study. A fourth section includes an overall summary of the results in relation to the formally stated hypotheses.

Preliminary Analyses

Missing Data

For the analyses below, missing data were replaced by mean response scores for those items. In no cases were there more than three missing data items per subject. For all subjects participating in the final analyses, there were 22 items (.02%) missing for males, and 21 items (.02%) missing for females.

Confirmatory Factor Analysis

Cluster analysis with correction for attenuation was performed on the Security Assessment Tests (Familial, Extra-Familial, and Philosophical scales) and the Eriksonian Identity Instrument in order to examine more closely the reliability and validity of the original subscale groupings. These analyses were performed on the total group ($N = 410$), and on the male ($n = 180$) and female groups ($n = 230$).

The initial confirmatory factor analysis on the three Security Assessment Tests using Ainsworth and Ainsworth's (1958) original scale groupings revealed acceptable but not impressive coefficient alphas with poor internal consistency and part-whole correlations. These data are presented in Table 3. The coefficient alphas for the ten scales ranged from .50 to .83 for the total group, with the ranges varying slightly for the male and female groups. The internal consistency of the scales for the total group ranged from .00 to .63, with negative correlations appearing in both male and female groups.

By modifying the items in the clusters, the final cluster analysis produced, in most cases, higher coefficient alphas, better homogeneity of content (internal consistency), and clusters that were more parallel for the total group, and for the male and female subgroups. The revised item groupings and cluster meanings are listed in Table 4. Table 5 includes the coefficient alphas, internal consistency values, and the part-whole correlations for these revised cluster subscales. (Coefficient alpha values are mathematically proportional to the number of items within a cluster, so clusters with fewer items will have overall lower alphas).

A confirmatory factor analysis was next performed on the 12 subscales of the Eriksonian Identity Instrument. The results revealed low coefficient alphas, poor internal consistency, and unsatisfactory part-whole correlations for several of the subscales. These data are presented in Table 6 for the total group, and for the male and female groups. In general, the subscales for stages 4, 5, and 6 of the Eriksonian instrument had slightly higher alphas, marginally better internal consistency (with no negative values), and slightly more

Table 3

Coefficient Alphas, Internal Consistency, and Part-Whole Correlations for
the Original Scale Groupings of the Security Assessment Tests

Scale	Coefficient Alpha			Internal Consistency			Part-Whole Correlation		
	Total Group	Males	Females	Total Group	Males	Females	Total Group	Males	Females
Familial Security									
a) Independent	.50	.54	.43	.03-.39	-.03-.57	-.05-.22	.17-.57	.12-.67	.21-.44
b) Immature- dependent	.72	.69	.74	.12-.45	.11-.42	.10-.47	.48-.61	.47-.57	.44-.66
c) Insecure	.77	.76	.77	.01-.58	-.05-.64	-.03-.66	.27-.59	.30-.58	.22-.60
Extra-Familial									
a) Independent	.75	.75	.75	.09-.58	.04-.60	.14-.56	.30-.68	.20-.77	.39-.74
b) Mature- dependent	.61	.62	.60	.04-.39	.04-.39	.04-.42	.32-.60	.27-.60	.36-.51
c) Immature- dependent	.73	.67	.75	.08-.63	.04-.58	.09-.65	.33-.78	.21-.80	.33-.78
d) Insecure	.83	.82	.84	.12-.59	.12-.49	.08-.61	.41-.71	.41-.70	.45-.72
Philosophical									
a) Mature- dependent	.67	.72	.63	.09-.38	.09-.44	.05-.35	.31-.62	.30-.67	.31-.55
b) Immature- dependent	.58	.62	.55	.00-.44	.05-.52	-.09-.54	.17-.67	.23-.70	.14-.74
c) Insecure	.79	.77	.80	.01-.58	.00-.53	-.02-.55	.16-.70	.11-.69	.16-.73

Table 4

Revised Scale Groupings from the Security Assessment Tests,
Scale Definitions, and Item Content

Revised Scale	Definition	Items (from original scale)
Familial Security		
a) Independent-secure	-Secure independence from parents; feels secure in family relationships	11, 15, 20, 25
b) Dependent-secure	-Dependent secure; comfort with close relationship with parents	13, 16, 21, 24, 28, 29
c) Insecure	-Feels insecure; poor relationships with parents; parents interfere	17, 23, 30, 31, 32
d) Insecure-dependent	-Feels insecure but dependent on parents; not live up to parent's standards	18, 19, 22, 26, 27, 33
Extra-Familial Security		
a) Independent-secure	-Secure in social relationships; confidence in social groups	35, 36, 40, 46, 51, 56, 57
b) Dependent-secure	-Dependent on others for security; pleasure in intimate relationships with others	42, 45, 47, 48, 52, 53, 61
c) Insecure	-Insecure with others; sensitive to disapproval	37, 54, 55, 62, 64
d) Insecure-isolated	-Feels insecure and isolated	39, 44, 49, 50, 59, 60
Philosophical Security		
a) Independent-secure	-Has achieved and feels secure in sense of meaning and purpose in life	65, 69, 72, 76, 77
b) Dependent-secure	-Dependent on others and on "higher power"	67, 75, 81, 83
c) Insecure	-Insecure of place in life; feels a lack of control in life	66, 70, 73, 78, 79, 85, 86, 87

Table 5

Coefficient Alphas, Internal Consistency, and Part-Whole Correlations for
the Revised Scale Groupings of the Security Assessment Tests

Scale	Coefficient Alpha			Internal Consistency			Part-Whole Correlation		
	Total			Total			Total		
	Group	Males	Females	Group	Males	Females	Group	Males	Females
Familial Security									
a) Independent-secure	.54	.60	.43	.10-.41	.06-.57	.11-.25	.31-.65	.25-.70	.33-.50
b) Dependent-secure	.72	.69	.74	.12-.45	.11-.42	.10-.47	.48-.61	.47-.57	.44-.66
c) Insecure	.79	.76	.81	.27-.64	.17-.64	.32-.66	.59-.73	.54-.74	.64-.69
d) Insecure-dependent	.67	.67	.66	.13-.38	.08-.50	.17-.34	.44-.60	.39-.71	.45-.55
Extra-Familial									
a) Independent-secure	.80	.80	.80	.17-.58	.10-.61	.18-.59	.39-.75	.47-.78	.43-.73
b) Dependent-secure	.81	.79	.82	.19-.63	.16-.58	.18-.65	.49-.74	.49-.72	.47-.79
c) Insecure	.75	.69	.79	.25-.53	.19-.46	.26-.58	.53-.64	.51-.61	.55-.73
d) Insecure-isolated	.77	.78	.76	.18-.59	.26-.56	.08-.61	.45-.71	.51-.66	.40-.75
Philosophical Security									
a) Independent-secure	.68	.73	.63	.14-.39	.17-.44	.12-.37	.49-.63	.52-.66	.44-.61
b) Dependent-secure	.64	.67	.60	.19-.42	.19-.66	.18-.43	.43-.65	.49-.83	.38-.66
c) Insecure	.82	.79	.84	.15-.55	.08-.57	.17-.62	.46-.74	.38-.75	.42-.74

Table 6

Coefficient Alphas, Internal Consistency, and Part-Whole Correlations for
the Original Scale Groups of the Eriksonian Identity Instrument

Stage/Scale	Coefficient Alpha			Internal Consistency			Part-Whole Correlation		
	Total Group	Males	Females	Total Group	Males	Females	Total Group	Males	Females
1 Trust	.67	.68	.67	.09-.46	.00-.59	.19-.41	.40-.68	.52-.78	.45-.64
1 Mistrust	.63	.61	.64	.16-.49	.04-.56	.16-.44	.43-.70	.29-.76	.39-.67
2 Autonomy	.48	.46	.49	-.02-.56	-.05-.60	-.02-.67	.03-.76	.04-.79	.01-.84
2 Shame-Doubt	.33	.35	.30	-.14-.37	-.09-.44	-.24-.39	-.07-.61	.02-.68	-.15-.58
3 Initiative	.65	.63	.67	.12-.46	.07-.56	.14-.42	.35-.66	.25-.76	.42-.60
3 Guilt	.42	.40	.44	-.11-.40	-.14-.43	-.09-.36	-.11-.64	-.16-.67	-.06-.61
4 Industry	.77	.79	.75	.29-.49	.30-.57	.31-.51	.57-.70	.55-.72	.59-.71
4 Inferiority	.67	.69	.64	.10-.52	.07-.44	.06-.50	.31-.68	.33-.67	.25-.70
5 Identity	.76	.77	.77	.20-.55	.31-.58	.19-.56	.45-.72	.48-.76	.44-.73
5 Role Diffusion	.47	.51	.44	.06-.37	.01-.49	.03-.28	.17-.61	.12-.68	.16-.53
6 Intimacy	.66	.67	.63	.17-.39	.19-.39	.08-.43	.34-.62	.41-.63	.28-.64
6 Isolation	.60	.62	.58	.16-.39	.10-.39	.08-.40	.44-.52	.40-.61	.40-.51

acceptable part-whole correlations. Attempts were made to improve the reliability and validity of these clusters by modifying the item content, but in some cases this resulted in very few items remaining in the cluster. The decision was then made to retain the original scale composition, but eliminate the first three of the six stages. The remaining three stages (Industry vs. Inferiority, Identity vs. Role Diffusion, and Intimacy vs. Isolation) were thus retained for further analysis. These same three stages were also the focus of Constantinople's (1969) studies, since they were regarded as the most relevant and salient stages for college students.

Standard Analyses

Descriptive, correlational, and inferential analyses were next performed to provide information about the data before performing the path analyses. In addition, the nature of the OMEIS ego-identity instrument was examined more carefully, since its predecessor (the ego-identity status interview developed by Marcia) is currently the most frequently used identity assessment tool.

Mean Scores: Total Group, Males, and Females

The mean scores for the total group, and for the male and female groups are presented below in Table 7. A multivariate analysis of variance was also performed to compare male and female mean scores on each of the variables. The multivariate F test (using Hotellings test) was highly significant $F(1, 40) = 4.52, p = 0$, revealing significant sex differences among the variables. The individual univariate F test results are also presented in Table 7.

Table 7

Mean Scores and MANOVA (By Sex) for the Male and Female Groups

Variable	Total Possible Score	Total Group (N = 410) (\bar{M})	Males (N = 180) (\bar{M})	Females (N = 230) (\bar{M})	F	P
<u>Security</u>						
Fam. Ind. Sec.	(20)	11.65	12.54	10.95	29.22	<.001
Fam. Dep. Sec.	(30)	19.61	19.41	19.76	.61	.435
Fam. Insec.	(25)	11.20	11.14	11.24	.05	.830
Fam. Dep. Insec.	(30)	15.94	15.72	16.12	.77	.380
XFam. Ind. Sec.	(35)	24.23	24.35	24.14	.16	.685
XFam. Dep. Sec.	(35)	28.22	27.29	28.96	14.18	<.001
XFam. Insec.	(25)	15.81	15.25	16.24	5.27	.022
XFam. Ins. Iso.	(30)	17.76	17.00	17.55	.89	.346
<u>Relatedness</u>						
Affection	(54)	36.56	34.89	37.87	22.78	<.001
Nurturance	(100)	76.13	72.41	79.04	57.96	0
Succorance	(100)	60.78	57.72	63.18	33.48	<.001
Affiliation	(100)	76.08	72.95	78.53	35.46	0

(table continues)

Variable	Total Possible Score	Total Group (N = 410) (M)	Males (N = 180) (M)	Females (N = 230) (M)	P
<u>Parenting Styles</u>					
Mo. Punish.	(5)	3.74	3.79	1.10	.294
Fa. Punish.	(5)	3.56	3.58	.06	.808
Mo. Control	(5)	2.82	2.81	.01	.911
Fa. Control	(5)	2.65	2.66	.02	.888
Mo. Aut.	(5)	3.78	3.83	.80	.373
Fa. Aut.	(5)	3.77	3.90	6.23	.013
Mo. Approval	(5)	3.92	3.89	.35	.553
Fa. Approval	(5)	3.60	3.46	5.71	.017
Mo. Warmth	(5)	3.96	3.89	1.28	.258
Fa. Warmth	(5)	3.41	3.18	12.23	.001
<u>Family Relations</u>					
Fam. Cohesion	(378)	245.69	246.99	1.24	.265
Fam. Adapt.	(294)	179.72	182.38	10.17	.002
<u>Autonomy</u>	(100)	57.31	59.42	28.28	<.001

(table continues)

Variable	Total Possible Score	Total Group (N = 410) (M)	Males (N = 180) (M)	Females (N = 230) (M)	P
<u>Identity</u>					
OMEIS-Diffused	(36)	20.05	20.12	19.99	.776
OMEIS-Foreclosed	(36)	16.10	16.01	16.17	.728
OMEIS-Moratorium	(36)	19.38	18.86	19.80	.063
OMEIS-Achieved	(36)	24.40	24.59	24.25	.422
Erik-Industry	(25)	19.06	18.67	19.37	.010
Erik-Inferiority	(25)	12.13	12.64	11.74	.001
Erik-Identity	(25)	19.74	19.70	19.77	.823
Erik-Role Diffus.	(25)	12.74	12.99	12.54	.051
Erik-Intimacy	(25)	19.69	19.12	20.14	<.001
Erik-Isolation	(25)	11.50	11.92	11.17	.003
Pos. Self-Iden.	(150)	122.90	120.56	124.73	<.001
Phil-Indep. Sec.	(25)	18.93	18.78	19.04	.419
Phil-Dep. Sec.	(20)	11.24	10.91	11.49	.073
Phil-Insec.	(40)	19.63	19.69	19.57	.846
<u>Self-Esteem</u>	(450)	336.66	334.81	338.10	.331

The univariate F test results from the MANOVA indicate that males scored significantly higher than females on Familial Independent Security, $F(1, 408) = 29.22, p < .001$; Father Autonomy, $F(1, 408) = 6.23, p = .013$; Family Adaptability, $F(1, 408) = 10.17, p = .002$; and Autonomy, $F(1, 408) = 28.28, p < .001$. On the Eriksonian Identity Instrument, males scored significantly higher on Inferiority, $F(1, 408) = 10.70, p = .001$, and on Isolation, $F(1, 408) = 9.01, p = .003$.

Conversely, females scored significantly higher than males on Extra-Familial Dependent Security, $F(1, 408) = 14.18, p < .001$; Extra-Familial Insecurity, $F(1, 408) = 5.27, p = .022$; and on all four relatedness measures--Affection, $F(1, 408) = 22.78, p < .001$; Nurturance, $F(1, 408) = 57.96, p = 0$; Succorance, $F(1, 408) = 33.48, p < .001$; and Affiliation, $F(1, 408) = 35.46, p = 0$. As respects parenting styles, females had significantly higher scores than males on Father Approval, $F(1, 408) = 5.71, p = .013$, and Father Warmth, $F(1, 408) = 12.23, p = .001$. On the Eriksonian Identity Instrument, females scored higher on Industry, $F(1, 408) = 6.73, p = .01$, and Intimacy, $F(1, 408) = 15.38, p < .001$. Finally, females also scored higher on Positive Self-Identity, $F(1, 408) = 12.77, p < .001$.

In summary, males scored higher than females on measures of independence and autonomy from the parents, had slightly more adaptable families, and scored higher than females on Inferiority and Isolation. Females, however, scored significantly higher than males on relatedness to others, Father Approval and Father Warmth, Industry, and Positive Self-Identity.

Normative or sample data were available for several instruments used in this study, including the Personality Research Form, the

Eriksonian Identity Instrument, and the Tennessee Self-Concept Scales (see Appendix 0). For the Personality Research Form scales, both males and females in the current study scored higher than those in the normative samples on Nurturance, Succorance, and Affiliation. On the Eriksonian Identity Instrument, males in the current study scored lower on Intimacy and higher on Industry and Identity compared with the data reported by Constantinople (1969). Females in the current study scored higher than the sample on Industry, Identity, and Intimacy. Finally, for the Tennessee Self-Concept Scales, both males and females in the current study scored slightly lower than the normative sample on both the Positive Self-Identity scale and the overall Self-Concept scale.

Male and Female Groups: Pearson Correlations

Pearson correlations were computed on those variables specified in the formally stated hypotheses. Each matrix relating to the stated hypotheses is briefly summarized below.

Attachment security by relatedness to others (Table 8). Familial Independent Security was negatively correlated to Succorance for all subjects, and positively correlated to Affection for males, and negatively correlated for females. Familial Dependent Security was positively correlated with Succorance for both males and females. Familial Insecurity was in general negatively correlated with Relatedness to Others, especially for males. Familial Dependent Insecurity was generally negatively correlated with Affection, Nurturance, and Affiliation, but positively correlated with Succorance for all subjects.

For extra-familial security, the correlations with Relatedness to Others were slightly but consistently higher. Extra-Familial Independent Security was positively correlated with Affection, Nurturance, and Affiliation, but negatively correlated with Succorance. Extra-Familial Dependent Security was positively correlated with all four of the relatedness variables. Extra-Familial Insecurity was positively correlated with Succorance, and Extra-Familial Insecure-Isolated was inversely related to Affection, Nurturance, and Affiliation, but positively correlated with Succorance.

In sum, the correlations of the familial security scales with the relatedness variables were fairly low, with the exception of the Succorance measure. Succorance appeared to be related in opposite ways to the other "relatedness" variables. For the extra-familial security test, security was positively correlated with Relatedness to Others, while insecurity was generally negatively correlated with Relatedness to Others (with the exception of Succorance). For males, Affection was positively related to both Familial and Extra-Familial Independent Security, while for females it was negatively or low positively related.

Attachment security by parenting styles (Table 9). For familial security, Familial Independent Security was negatively related to parental warmth and approval, more so for males than for females. Familial Dependent Security was positively correlated with parental warmth and approval, and slightly positively correlated with parental autonomy for females. Familial Insecurity and Familial Dependent Insecurity were both negatively correlated with fair parental

Table 8

Pearson Correlation: Familial and Extra-Familial Security
by Relatedness to Others for Males (m) and Females (f)

		Affection	Nurturance	Succorance	Affiliation
<u>Familial Security</u>					
Independent-secure	(m)	.16*	-.02	-.41***	.00
	(f)	-.13	-.10	-.44***	-.09
Dependent-secure	(m)	.01	.19*	.37***	.11
	(f)	.15*	.06	.34***	.08
Insecure	(m)	-.20**	-.20**	.07	-.29***
	(f)	-.14*	.05	.04	-.19**
Insecure-dependent	(m)	-.18*	-.19**	.39***	-.16*
	(f)	-.07	-.12	.34***	-.17**
<u>Extra-Familial Security</u>					
Independent-secure	(m)	.37***	.25***	-.33***	.41***
	(f)	.17*	.16*	-.21***	.34***
Dependent-secure	(m)	.27***	.44***	.18*	.40***
	(f)	.31***	.38***	.31***	.50***
Insecure	(m)	-.13	-.04	.39***	-.18*
	(f)	.10	.11	.42***	-.06
Insecure-isolated	(m)	-.29***	-.17*	.25***	-.30***
	(f)	-.08	-.10	.13*	-.27***

* $p \leq .05$
 ** $p \leq .01$
 *** $p \leq .001$

punishment, parental autonomy, parental approval and warmth, and positively correlated with parental control.

For the extra-familial security scales, Extra-Familial Independent Security had low positive correlations with parental autonomy, parental approval, and parental warmth. Extra-Familial Dependent Security had fairly low correlations with all of the parenting variables. Extra-Familial Insecurity and Extra-Familial Insecure-Isolated both had low negative correlations with parental autonomy, parental approval, and parental warmth, and a low positive correlation with parental control.

In summary, secure independence from the family was negatively related to parent warmth and approval, while secure independence in the general social context was positively related to these variables. Dependent security, both within and outside of the family, was positively correlated with parental warmth and approval. Finally, insecurity in both familial and extra-familial relationships was negatively related to fair parental punishment, parental autonomy, parental warmth and approval, with low positive but consistent correlations with parental control.

Attachment security by family relations (Table 10). The correlations between the attachment security measures and the two family relations measures (Family Cohesion and Family Adaptability) were in general quite low. Family Cohesion was positively correlated with Familial Dependent Security, Extra-Familial Independent Security, and Extra-Familial Dependent Security, and negatively correlated with Familial Insecurity and Extra-Familial Insecure-Isolated. Family Adaptability had very low correlation with all of the security scales. In summary, Family Cohesion was positively correlated with dependent

Table 9

Pearson Correlations: Familial and Extra-Familial Security by Parenting Styles for Males (m) and Females (f)

	Mo. Punish.	Fa. Punish.	Mo. Control	Fa. Control	Mo. Aut.	Fa. Aut.	Mo. Approval	Fa. Approval	Mo. Warmth	Fa. Warmth
<u>Familial Security</u>										
Independent-secure	(m) -.01 (f) -.05	-.01 .00	-.06 -.04	-.09 -.04	.13 .11	.11 .05	-.21** -.12	-.18* -.07	-.25*** -.18**	-.25*** -.06
Dependent-secure	(m) .10 (f) .18**	.11 .05	.00 -.11	.01 -.06	-.02 .14*	-.02 .18**	.22** .30***	.25*** .19**	.24*** .31***	.29*** .20**
Insecure	(m) -.21** (f) -.28***	-.27*** -.17*	.18* .37***	.11 .24***	-.27*** -.36	-.20** -.25***	-.31*** -.49***	-.40*** -.37***	-.31*** -.51***	-.46*** -.41***
Insecure-dependent	(m) -.08 (f) -.16*	-.12 -.18**	.23** .12	.22** .12	-.30*** -.21***	-.28*** -.19**	-.05 -.09	-.06 -.20**	.04 -.05	-.11 -.20**
<u>Extra-Familial Security</u>										
Independent-secure	(m) .00 (f) .11	.08 .14*	-.12 -.11	-.01 -.10	.16* .20**	.02 .16*	.06 .21***	.17* .16*	.10 .22***	.23** .21***
Dependent-secure	(m) .11 (f) .03	.01 .10	-.07 -.10	-.01 -.02	.07 .16*	.03 .12	.07 .11	.03 .11	.12 .09	.14 .16*
Insecure	(m) -.03 (f) -.13	-.11 -.08	.15* .14*	.12 .15*	-.17* -.18*	-.15* -.07	-.10 -.20**	-.08 -.16*	-.10 -.10	-.14 -.12
Insecure-isolated	(m) -.06 (f) -.14*	-.15* -.25***	.19** .15*	.13 .06	-.18* -.18**	-.12 -.15*	-.07 -.23***	-.17* -.15*	-.11 -.13*	-.21** -.18**

* $p \leq .05$ ** $p \leq .01$ *** $p \leq .001$

security in the family, and with security in extra-familial relationships.

Attachment security by autonomy (Table 11). Autonomy was positively correlated with Familial Independent Security and slightly correlated with Extra-Familial Independent Security, but negatively correlated with familial and extra-familial dependent and insecure relationships. These trends were fairly similar for both sexes.

Attachment security by identity (Table 12). For the OMEIS ego-identity statuses, the identity diffusion status was positively correlated with insecurity both within and outside of the family, and was negatively correlated with Extra-Familial Independent Security and Extra-Familial Dependent Security. Identity foreclosure status was positively correlated with Familial Dependent Security, Familial Dependent Insecurity, and Extra-Familial Insecurity, and had a low negative correlation with Familial Independent Security. Identity moratorium status was positively correlated with Familial and Extra-Familial Insecurity, and was negatively correlated with Extra-Familial Independent Security. Identity achieved status had quite different patterns of relationships with the security scales for males compared to females. For males, the identity achieved status was positively correlated with Extra-Familial Independent Security and Extra-Familial Dependent Security, and had low negative correlations with Familial and Extra-Familial Insecurity. For females, all correlations of security with the identity statuses were very low.

For the Eriksonian Identity Instrument, the patterns for males and females were very similar. In general, security was positively

Table 10

Pearson Correlations: Familial and Extra-Familial Security
by Family Relations for Males (m) and Females (f)

		Family Cohesion	Family Adaptability
<u>Familial Security</u>			
Independent-secure	(m)	-.04	.11
	(f)	-.13	.04
Dependent-secure	(m)	.17*	-.09
	(f)	.32***	.00
Insecure	(m)	-.20**	.10
	(f)	-.34***	.06
Insecure-dependent	(m)	-.01	.12
	(f)	-.10	.01
<u>Extra-Familial Security</u>			
Independent-secure	(m)	.24***	-.03
	(f)	.27***	.12
Dependent-secure	(m)	.17*	-.04
	(f)	.19**	.13
Insecure	(m)	.02	.12
	(f)	-.08	.12
Insecure-isolated	(m)	-.20**	.05
	(f)	-.13*	.11

* $p \leq .05$

** $p \leq .01$

*** $p \leq .001$

Table 11

Pearson Correlations: Familial and Extra-Familial Security
by Autonomy for Males (m) and Females (f)

		Autonomy
<u>Familial Security</u>		
Independent-secure	(m)	.39***
	(f)	.34***
Dependent-secure	(m)	-.28***
	(f)	-.28***
Insecure	(m)	.05
	(f)	.00
Insecure-dependent	(m)	-.18*
	(f)	-.19**
<u>Extra-Familial Security</u>		
Independent-secure	(m)	.11
	(f)	.16*
Dependent-secure	(m)	-.14
	(f)	-.31***
Insecure	(m)	-.26***
	(f)	-.37***
Insecure-isolated	(m)	-.06
	(f)	-.03

* $p \leq .05$
 ** $p \leq .01$
 *** $p \leq .001$

correlated with the positive factors of Erikson's fourth, fifth, and sixth stages: Industry, Identity, and Intimacy. Conversely, insecurity was negatively correlated with Industry, Identity, and Intimacy, and positively correlated with Inferiority, Role Diffusion, and Isolation.

For Positive Self-Identity, there was a general positive correlation between this variable and security, and a negative correlation with insecurity.

For the philosophical security test, having a secure philosophy of life was positively correlated with familial and extra-familial security, and negatively correlated with insecurity. Dependent Philosophical Security was positively related to dependent security and insecurity, and slightly negatively correlated with Familial Independent Security. Insecure Philosophy was positively correlated with insecurity and negatively correlated with security.

In sum, security was in general positively correlated with the enhancement of identity, and insecurity was generally negatively correlated with identity. Specifically, security was positively related to the Industry, Identity, and Intimacy scales of Erikson's stages, positive self-identity, security in philosophy of life, and ego-identity 'achievement' (for males). Conversely, insecurity was related to the Inferiority, Role Diffusion, and Isolation scales from the Eriksonian Identity Instrument, poorer self-identity, insecure meaning in life, and the foreclosed, moratorium, and diffused identity statuses.

Table 12

Pearson Correlations: Familial and Extra-Familial Security
by Identity for Males (m) and Females (f)

		OMEIS			Eriksonian Identity Instrument			Self-Identity			Philosophical Security				
		Diff- fused	Fore- closed	Mora- torium	Achieved	In- dustry	Infer- iority	Identity	Role- diffusion	In- timacy	Iso- lation	Pos. Self- identity	Indep. Secure	Dep. Insecure	
<u>Familial Security</u>															
Independent-secure	(m)	.06	-.15	-.05	.08	.19**	-.14	.18*	-.08	.13	-.09	.14	.16*	-.19*	.14
	(f)	-.12	-.19**	-.11	.11	.17**	-.13*	.20**	-.07	.03	-.12	-.12	-.05	.21**	-.20**
Dependent-secure	(m)	-.07	.30***	.05	.04	.00	-.02	.08	-.09	.07	-.02	.11	.03	.31***	.08
	(f)	-.02	.31***	.06	.02	-.03	.02	.05	.05	.04	.03	.20**	.14*	.27***	-.07
Insecure	(m)	.22**	-.03	.30***	-.10	-.27***	.25***	-.41***	.27***	-.26**	.32***	-.36***	-.15*	-.08	.39***
	(f)	.21***	.10	.22***	-.04	-.15*	.30***	-.34***	.25***	-.14*	.27***	-.40***	-.30***	-.03	.42***
Insecure-dependent	(m)	.22**	.27***	.30***	-.24***	-.44***	.44***	-.46***	.31***	-.35***	.42***	-.39***	-.34***	.12	.56***
	(f)	.14*	.30***	.20**	-.04	-.33***	-.33***	-.46***	.28***	-.27***	.37***	-.32***	-.32***	.20**	.50***
<u>Extra-Familial Security</u>															
Independent-secure	(m)	-.21**	-.14	-.39***	.27***	.41***	-.43***	.54***	-.36***	.43***	-.48***	.43***	.52***	.14	-.51***
	(f)	-.17**	-.02	-.28***	.09	.25***	-.31***	.65***	-.32***	.44***	-.46***	.47***	.52***	.05	-.54***
Dependent-secure	(m)	-.09	-.07	-.12	.20**	-.01	-.07	.17*	-.17*	.24***	-.26***	.29***	.27***	.22**	-.14
	(f)	-.14*	-.01	-.09	.10	-.06	.02	.16*	-.09	.33***	-.21***	.40***	.26***	.22***	-.17*
Insecure	(m)	.21**	.28**	.29***	-.15*	-.29***	.31***	-.44***	.38***	-.31***	.41***	-.31***	-.36***	.10	.51***
	(f)	.11	.15*	.27***	-.01	-.28***	.36***	-.48***	.35***	-.24***	.31***	-.20**	-.32***	.22***	.58***
Insecure-isolated	(m)	.17*	.12	.32***	-.13	-.19*	.28***	-.43***	.38***	-.34***	.47***	-.40	-.26***	.02	.55***
	(f)	.12	.00	.25***	-.02	-.16*	.25***	-.44***	.30***	-.31***	.43***	-.37***	-.35***	.14*	.64***

* $p < .05$ ** $p < .01$ *** $p < .001$

Attachment security by self-esteem (Table 13). Self-esteem was positively correlated with Familial Independent Security (for males), Extra-Familial Independent Security, and Extra-Familial Dependent Security. It was negatively correlated with both the familial and non-familial insecurity variables, however. It was interesting to note that security in non-familial relationships was more highly correlated with self-esteem than was security in familial relationships. In other words, this suggests that friendships enhance one's self-esteem more than the relationships one has with one's family.

Autonomy by identity (Table 14). Autonomy had surprisingly low correlations with most of these identity variables. There were, however, negative correlations with the identity foreclosure status, Positive Self-Identity, and Dependent Philosophical Security.

Relatedness by identity (Table 15). The identity diffused status was in general negatively correlated with the four relatedness variables. The identity foreclosure and moratorium statuses were both negatively correlated with Affection, Nurturance, and Affiliation, and positively correlated with Succorance. Furthermore, the identity achieved status was positively correlated with Affection, Nurturance, and Affiliation for males only.

For the Eriksonian identity scales, Industry, Identity, and Intimacy were positively correlated with Affection, Nurturance, and Affiliation, and negatively correlated with succorance. For Inferiority, Role Diffusion, and Isolation, the opposite held true--they were negatively correlated with Affection, Nurturance, and Affiliation, and positively correlated with Succorance. The trends

Table 13

Pearson Correlations: Familial and Extra-Familial Security
by Self-Esteem for Males (m) and Females (f)

		Self-Esteem
<u>Familial Security</u>		
Independent-secure	(m)	.21**
	(f)	.03
Dependent-secure	(m)	.02
	(f)	.12
Insecure	(m)	-.44***
	(f)	-.48***
Insecure-dependent	(m)	-.50***
	(f)	-.48***
<u>Extra-Familial Security</u>		
Independent-secure	(m)	.55***
	(f)	.58***
Dependent-secure	(m)	.24***
	(f)	.26***
Insecure	(m)	-.45***
	(f)	-.41***
Insecure-isolated	(m)	-.56***
	(f)	-.54***

* $p \leq .05$
 ** $p \leq .01$
 *** $p \leq .001$

Table 14

Pearson Correlations: Ego- and Self-Identity by
Autonomy for Males (m) and Females (f)

		Autonomy
<u>OMEIS</u>		
Diffused	(m)	.12
	(f)	-.08
Foreclosed	(m)	-.16*
	(f)	-.21**
Moratorium	(m)	.04
	(f)	-.09
Achieved	(m)	-.05
	(f)	.05
<u>Eriksonian Identity Instrument</u>		
Industry	(m)	.07
	(f)	.15*
Inferiority	(m)	.01
	(f)	-.11
Identity	(m)	.06
	(f)	.05
Role Diffusion	(m)	-.05
	(f)	.01
Intimacy	(m)	-.08
	(f)	-.08
Isolation	(m)	.06
	(f)	.03
<u>Positive Self-Identity</u>	(m)	-.15*
	(f)	-.21***
<u>Philosophical Security</u>		
Independent-secure	(m)	.12
	(f)	.09
Dependent-secure	(m)	-.32***
	(f)	-.29***
Insecure	(m)	-.02
	(f)	-.07

* $p \leq .05$

** $p \leq .01$

*** $p \leq .001$

were similar for both sexes, with the correlations for males higher than the females'.

Positive Self-Identity was positively correlated with Affection, Nurturance, and Affiliation, but had no relationship to Succorance.

Independent Philosophical Security was positively correlated with Affection, Nurturance, and Affiliation, and negatively correlated with Succorance. Dependent Philosophical Security was positively correlated to all four relatedness variables for males, and to Nurturance and Succorance for females. Philosophical Insecurity was in general negatively correlated with Affection, Nurturance, and Affiliation, and positively correlated with Succorance.

In summary, Succorance was inversely related to the other three relatedness variables, with the latter positively correlated with enhanced ego-identity, the positive scales of Erikson's stages, positive self-identity, and security in philosophy of life. Relatedness was negatively correlated with the identity diffusion and foreclosure statuses, the negative scales of the Eriksonian instrument, and insecurity in philosophy of life.

Parenting styles by identity (Table 16). Most of the correlations of the ego-identity statuses with the parenting variables were quite low. The identity diffusion status was positively correlated with maternal control for males only; and for males only, it was negatively correlated with maternal autonomy, parental approval, and paternal warmth. The identity foreclosure status was positively correlated with paternal control for males only, and negatively correlated with parental autonomy. The identity moratorium status was positively correlated with paternal control for males only,

Table 15

Pearson Correlations: Ego- and Self-Identity by
Relatedness for Males (m) and Females (f)

		Affection	Nurturance	Succorance	Affiliation
<u>OMEIS</u>					
Diffused	(m)	-.05	-.22**	-.01	-.20
	(f)	-.13*	-.15*	.10	-.18**
Foreclosed	(m)	-.06	-.10	.25***	-.10
	(f)	-.10	-.02	.27***	-.06
Moratorium	(m)	-.05	-.15	.21**	-.25***
	(f)	-.03	-.14*	.16*	-.14*
Achieved	(m)	.18*	.32**	-.05	.31***
	(f)	.04	.08	-.09	.07
<u>Eriksonian Identity Instrument</u>					
Industry	(m)	.22**	.27***	-.29***	.23**
	(f)	.03	.10	-.23	.12
Inferiority	(m)	-.18*	-.32***	.24***	-.22**
	(f)	-.05	-.13*	.18**	-.09
Identity	(m)	.21**	.31***	-.27***	.35***
	(f)	.16*	.16*	-.19**	.29***
Role Diffusion	(m)	-.15	-.23**	.21**	-.29***
	(f)	-.09	-.18**	.09	-.19**
Intimacy	(m)	.42***	.54***	-.11	.54***
	(f)	.30***	.35***	.03	.45***
Isolation	(m)	-.36***	-.41***	.22**	-.54***
	(f)	-.29***	-.30***	.11	-.38***
<u>Positive Self-Identity</u>	(m)	.36***	.50***	-.09	.49***
	(f)	.30***	.32***	.09	.56***
<u>Philosophical Security</u>					
Independent-secure	(m)	.15	.36***	-.21**	.24***
	(f)	.18**	.19***	-.21***	.27***
Dependent-secure	(m)	.13	.28***	.30***	.13
	(f)	.09	.18**	.30***	.07
Insecure	(m)	-.17*	-.25***	.20**	-.31***
	(f)	-.02	-.13	.21***	-.26***

* $p \leq .05$

** $p \leq .01$

*** $p \leq .001$

and negatively correlated with parental autonomy, approval, and warmth. The identity achieved status was positively correlated for males only with parental autonomy, and paternal approval and warmth.

For the Eriksonian identity scales, Industry, Identity, and Intimacy were positively correlated with parental autonomy, warmth, and approval. Inferiority, Role Diffusion, and Isolation were all negatively correlated with these same variables. Intimacy was also positively correlated with fair parental punishment, and isolation was positively correlated with parental control and regulation.

Positive Self-Identity was positively correlated with fair parental punishment, and with parental autonomy, warmth, and approval. However, it was negatively correlated with parental control and regulation.

Correlations between Independent Security in Philosophy and parenting styles were all extremely low. Dependent Philosophical Security was positively correlated with Father Approval and Father Warmth for males only. Philosophical Insecurity was negatively correlated with parental punishment, autonomy, warmth, and approval.

In summary, parenting styles were fairly unrelated to the four ego-identity statuses for females, although they were related to ego-identity status for males. Overall, parental autonomy, parental approval, and parental warmth were positively correlated with positive self-identity, with Industry, Identity, and Intimacy, and for males, with Ego-Identity Achievement.

In regard to family relationships, Family Cohesion had very low correlations with the ego-identity statuses with the following exception--it was positively correlated with Ego-Identity Achievement

Table 16
Pearson Correlations: Parenting Styles and Family Relations by Ego- and
Self-Identity for Males (m) and Females (f)

		OMEIS			Eriksonian Identity Instrument				Self-Identity			Philosophical Security			
		Dif. fused	Fore. closed	Moratorium	Achieved	In industry	Inferiority	Identity	Role-diffusion	In-timacy	Isolation	Pos. Self-identity	Self-Indep. Secure	Dep. Insecure	
Parenting Styles															
Mo. Punish	(m)	-.11	-.06	-.13	.00	.07	-.05	.07	-.14	.20**	-.01	.26***	-.01	-.13	-.06
	(f)	-.07	-.09	-.11	-.03	.14*	-.24***	.15*	-.05	.16*	-.20***	.26***	.10	-.02	-.18**
Fa. Punish	(m)	-.06	.03	-.14	.05	.10	-.14	.16*	-.23**	.30***	-.13	.28***	.02	-.14	-.16*
	(f)	-.06	-.13*	-.07	.03	.09	-.17*	.12	-.07	.14*	-.19**	.29***	.10	-.13*	-.20**
Mo. Control	(m)	.23**	.16*	.18*	-.08	-.11	.06	-.15*	.06	-.13	.19**	-.20**	-.02	.07	.16*
	(f)	-.01	.02	.07	.01	.00	.09	-.08	.17**	-.11	.14*	-.18**	-.11	.04	.15*
Fa. Control	(m)	.12	.27***	.19*	-.08	-.09	.16*	-.14	.14	-.17*	.20**	-.28***	-.04	.19*	.21**
	(f)	.01	-.03	.08	.02	-.07	.14*	-.13	.10	.01	.17**	-.18**	-.11	.08	.14*
Mo. Aut.	(m)	-.26***	-.19*	-.19*	-.22**	.21**	-.12	.27***	-.13	.23**	-.24***	.23**	.12	-.06	-.24***
	(f)	-.09	-.17*	-.12	.23**	.14	-.16*	.19**	-.13*	.16*	-.17**	.27***	.15*	.01	-.17*
Fa. Aut.	(m)	-.14	-.27***	-.15*	.23**	.21**	-.28***	.26***	-.21**	.30***	-.22***	.37***	.13	-.10	-.25***
	(f)	-.03	-.12	-.03	.06	.17*	-.17**	.19**	-.10	.13	-.13*	.29***	.12	-.04	-.16*
Mo. Approval	(m)	-.23**	-.14	-.19*	.07	.12	-.09	.21	-.17*	.25***	-.17*	.23**	.08	.05	-.18*
	(f)	-.07	.07	-.12	.07	.15*	-.23***	.23***	-.14*	.21***	-.15*	.35***	.13*	.05	-.19**
Fa. Approval	(m)	-.29***	.03	-.24**	.20**	.23**	-.17*	.26***	-.14	.28***	-.22**	.24***	-.01	.23**	-.18*
	(f)	-.03	-.15*	-.12	.07	.16*	-.22***	.22***	-.21***	.15*	-.18**	.41***	.06	-.07	-.24***
Mo. Warmth	(m)	-.12	-.01	-.15*	.05	.11	-.12	.17*	-.19**	.17*	-.14	.27***	.08	.19**	-.16*
	(f)	-.07	.03	-.05	.08	.10	-.19**	.24***	-.13*	.21***	-.17**	.30***	.11	.06	-.14*
Fa. Warmth	(m)	-.24***	.06	-.26***	.20**	.28***	-.32***	.35***	-.22**	.44***	-.31***	.31***	.08	.23	-.23**
	(f)	-.12	-.10	-.12	.08	.20**	-.20**	.29***	-.18**	.21***	-.26***	.39***	.14*	.05	-.26***
Family Relations															
Family Cohes.	(m)	-.07	.14	-.05	.23**	.14	-.17*	.24***	-.15	.27***	-.14	.34***	.14	.10	-.13
	(f)	.01	.08	.04	.07	.17**	-.13*	.22***	-.09	.19**	-.15*	.36***	.17*	.18**	-.13*
Family Adapt.	(m)	.11	.08	.13	.01	-.05	.09	-.04	.04	-.08	.17*	-.09	.07	-.02	.07
	(f)	.11	.00	.24***	-.01	-.01	.08	.05	.10	.03	.03	.09	.09	.05	.10

* $p \leq .05$ ** $p \leq .01$ *** $p \leq .001$

for males. For the Eriksonian scales, Family Cohesion was positively correlated with Industry, Identity, and Intimacy, and negatively correlated with Inferiority, Role Diffusion, and Isolation. Family Cohesion was positively correlated with Positive Self-Identity and with philosophical security. In sum, Family Cohesion was positively correlated with enhanced identity. Family Adaptability had very low correlations with the identity scales, except that it was positively correlated with the moratorium ego-identity status for females.

To summarize the correlations with regard to the hypotheses, security was related to many of the variables as predicted. In general, security was positively correlated with relatedness, while insecurity was negatively correlated with this variable. Extra-familial security was positively correlated with parental warmth and approval, while independent familial security was inversely related to these variables. Conversely, insecurity was negatively related to parental autonomy, approval, and warmth. Security was not related to familial adaptability, but was in general positively correlated with familial cohesion. Independent security was positively correlated with autonomy, while dependent security and insecurity were negatively correlated with this variable. In regard to identity, security was positively correlated with enhanced identity, while insecurity had a negative effect on these variables. Self-esteem was positively correlated with security, and negatively related to insecurity. Autonomy had very low positive correlations with the identity measures, but was negatively related to the foreclosed ego-identity status, positive self-identity, and dependent security in philosophy of life.

Relatedness (excluding the succorance variable) was positively correlated with enhanced identity. Finally, parental autonomy, parental approval, parental warmth, and family cohesion were generally positively correlated with positive self-identity, the industry, identity, and intimacy scales of the Eriksonian measure, and for males, with ego-identity achievement.

The OMEIS Ego-Identity Statuses

In the next analysis, the OMEIS identity statuses (diffused, foreclosed, moratorium, and achieved) were examined because the predecessor of this instrument, the ego-identity interview developed by Marcia (1966), is one of the most frequently used approaches to the study of identity.

To examine this instrument more closely, males and females were classified into the four identity statuses according to the prescribed scoring procedure and criteria for status assignment (Adams, Shea, & Fitch, 1979; see also Appendix I). It was not possible to classify all subjects into an individual identity status according to the scoring criteria. Nevertheless, 160 (of 180) males and 201 (of 230) females were able to be classified into one of the four identity status categories.

Means for each of the four statuses were calculated for the male and female groups for each of the variables. A multivariate analysis of variance (MANOVA) was then computed to determine whether or not there were significant differences among these four identity groups for each gender. The overall multivariate F test was significant (using Hotellings test) for both males $F(3, 108) = 1.45$, $p = .006$,

and females $F(3, 108) = 1.60$, $p < .001$, indicating significant differences among the four identity statuses for the male and female groups. Post hoc comparison tests were then performed if the univariate F test for that variable was significant at the .05 level or below, in order to discern which identity groups differed significantly from each other on a particular variable. Three post hoc comparison tests were used--Student-Newman-Keuls, Tukey, and Tukey-B from the SPSS routine (Nie, Hull, Jenkins, Steinbrenner, & Bent, 1975). A fourth test was used (the Least-Significant Difference Test) in four instances where the initial three tests failed to discriminate among identity groups even though the overall F test indicated a significant difference. The use of the LSD test has been indicated for those particular contrasts. The means and the post hoc comparison test results are presented in Table 17.

Males. For males, there were many significant differences among the identity status groups for the variables. For the attachment security scales, the diffused group scored significantly lower on Familial Independent Security than the foreclosed, moratorium, and achieved groups, $F(3, 156) = 5.34$, $p = .002$. Foreclosed subjects scored significantly higher on Familial Dependent Insecurity than both the moratorium and achieved groups, $F(3, 156) = 6.24$, $p < .001$. The achieved group scored significantly higher on Extra-Familial Independent Security than both the diffused and moratorium groups, $F(3, 156) = 5.36$, $p = .002$.

On the relatedness scales, the achieved males scored significantly higher on Nurturance than the diffused, foreclosed, and moratorium

Table 17

Mean Scores and Univariate ANOVAs for Identity Status for Males and Females

Variable	Total Possible Score	Mean Scores for Males (n = 160)				Mean Scores for Females (n = 201)			
		Diffused (n=17; 9%)	Foreclosed (n=16; 9%)	Moratorium (n=97; 54%)	Achieved (n=30; 17%)	Diffused (n=13; 6%)	Foreclosed (n=26; 11%)	Moratorium (n=136; 59%)	Achieved (n=26; 11%)
		p				p			
Security									
Fam. Ind. Sec.	(20)	13.47*	11.63+	12.38+	12.97+	.316	10.31	11.04	12.00
Fam. Dep. Sec.	(30)	16.24	21.94	19.44	19.07	.002	19.92	19.44	19.46
Fam. Insec.	(25)	11.35	9.81	11.11	10.43	.606	13.54	10.75	10.77
Fam. Dep. Ins.	(30)	16.59	19.06+	15.29*	13.53*	<.001	17.15	15.52	16.42
XFam. Ind. Sec.	(35)	23.41*	24.75	23.73*	27.73+	.002	23.54	24.79	23.69
XFam. Dep. Sec.	(35)	27.24	27.56	27.17	28.37	.556	29.69	28.88	30.73
XFam. Insec.	(25)	15.47	15.63	15.20	13.90	.389	16.69	15.65	16.42
XFam. Ins. Iso.	(30)	18.88	18.06	18.18	15.97	.113	18.77	16.79*	19.35+
Relatedness									
Affection	(54)	35.24	33.69	34.58	36.87	.281	37.39	38.48	37.96
Nurturance	(100)	69.29*	71.13*	71.78*	77.83+	.003	75.77	79.27	79.04
Successance	(100)	51.47*	63.25+	57.90*	55.43*	.001	64.92	62.43	61.65
Affiliation	(100)	71.82	73.88	72.17	77.10	.091	77.23	79.23	78.46
Parenting Styles									
Mo. Punish.	(5)	3.94	3.88	3.73	3.83	.793	3.62	3.77	3.54
Fa. Punish.	(5)	3.71	3.50	3.50	3.70	.722	3.31	3.59	3.46
Mo. Control	(5)	3.06	2.94	2.68	2.77	.364	2.54	2.82	2.69
Fa. Control	(5)	2.47*	3.31+	2.60*	2.50*	.013	2.69	2.68	2.69
Mo. Autonomy	(5)	3.59	3.75	3.84	4.17	.122	3.62	3.80	3.92
Fa. Autonomy	(5)	3.94	3.56*	3.89	4.27+	.036	3.62	3.68	3.77
Mo. Approval	(5)	3.77	3.88	3.91	4.07	.629	3.69	3.98	3.96
Fa. Approval	(5)	3.18*	3.81	3.42*	3.90+	.034	3.92	3.79	3.81
Mo. Warmth	(5)	4.12	4.06	3.88	3.93	.738	3.69	3.99	4.00
Fa. Warmth	(5)	2.94	3.63	3.13	3.60	.085	3.39	3.70	3.65
Family Relations									
Fam. Cohesion	(378)	241.24*	249.38	243.99*	255.53+	.032	243.46	244.42	244.65
Fam. Adapt.	(294)	184.77	180.06	180.98	182.63	.689	173.54	178.22	173.08
Autonomy									
Autonomy	(100)	62.18	57.94	59.17	59.73	.343	55.69	56.60	54.96

(table continues)

Variable	Total Possible	Mean Scores for Males (n = 160)				Mean Scores for Females (n = 201)			
		Diffused		Foreclosed		Diffused		Foreclosed	
		(n=17; 9%)	(n=17; 9%)	(n=16; 9%)	(n=16; 9%)	(n=13; 6%)	(n=13; 6%)	(n=26; 11%)	(n=26; 11%)
Identity									
ERIK-Indust.	(25)	17.35*	17.88*	18.85*	20.57+	17.62*	18.92	19.68+	19.85+
ERIK-Infer.	(25)	13.41+	13.50+	12.65+	10.87*	12.77	11.89	11.40	11.35
ERIK-Iden.	(25)	18.77*	19.50	19.93	21.40+	20.15	19.69	19.99	20.31
ERIK-Role D.	(25)	13.47	14.00+	12.81	11.90*	12.69	12.96	12.33	12.23
ERIK-Intim.	(25)	18.29*	18.44*	19.20*	20.60+	20.08	19.23	20.52	20.46
ERIK-Iso.	(25)	11.82	12.88+	11.85+	10.53*	11.77	11.89	10.81	11.35
Pos. Self-Iden.	(150)	116.12*	119.25	120.80	128.20+	122.23	125.42	125.39	127.12
PHIL-Ind. Sec.	(25)	17.77*	19.31*	18.45*	21.07+	18.69	18.50	19.02	20.42
PHIL-Dep. Sec.	(20)	8.00*	13.25+	10.99*	11.30*	10.92	12.81	11.40	11.85
PHIL-Insec.	(40)	21.35	21.19	19.55	17.23	21.46	20.42	18.30	18.58
Self-Esteem	(450)	328.53*	334.92*	335.26*	360.40+	325.77	323.50	342.14	345.85

"+" = significantly higher than "**"

groups, $F(3, 156) = 4.73$, $p = .003$. Males in the foreclosed status scored significantly higher on Succorance than the diffused, achieved, and moratorium males, $F(3, 156) = 5.47$, $p = .001$.

On parenting styles, males in the foreclosed status scored significantly higher on Father Control than the diffused, moratorium, and achieved groups, $F(3, 156) = 3.72$, $p = .013$. Achieved males scored significantly higher on Father Autonomy than did the males in the foreclosed group, $F(3, 156) = 2.92$, $p = .036$. The achieved males scored significantly higher on Father Approval/Praise than both the diffused and moratorium groups, $F(3, 156) = 2.96$, $p = .034$ (using the LSD post hoc comparison test). Achieved males also scored significantly higher on Family Cohesion than both the diffused and moratorium groups, $F(3, 156) = 3.02$, $p = .032$ (using the LSD post hoc comparison test).

For the Eriksonian identity scales, the achieved group scored generally higher than the other groups on Industry, Identity, and Intimacy, and lower than the other groups on Inferiority, Role Diffusion, and Isolation. The achieved group scored significantly higher on Industry than diffused, foreclosed, and moratorium groups, $F(3, 156) = 5.90$, $p = .001$, and significantly lower on Inferiority than the other three groups, $F(3, 156) = 4.51$, $p = .005$. The achieved group scored significantly higher on Identity than the diffused group, $F(3, 156) = 4.06$, $p = .008$, and significantly lower on Role Diffusion than the foreclosed group, $F(3, 156) = 3.10$, $p = .028$. Males in the achieved group scored significantly higher on Intimacy than the diffused, foreclosed, and moratorium males, $F(3, 156) = 4.01$, $p = .009$, and significantly lower on Isolation

than both foreclosed and moratorium males, $F(3, 156) = 3.63$, $p = .014$.

The achieved group also scored significantly higher on Positive Self-Identity than diffused subjects, $F(3, 156) = 4.23$, $p = .007$. For security in philosophy of life, the achieved group scored significantly higher on Independent Philosophical Security than the other three statuses, $F(3, 156) = 5.63$, $p = .001$. The foreclosed group scored significantly higher on Dependent Philosophical Security than the diffused, moratorium, and achieved subjects, $F(3, 156) = 7.62$, $p < .001$. Finally, on overall self-esteem, the achieved group scored significantly higher than the other three groups, $F(3, 156) = 5.57$, $p = .001$.

Females. In sharp contrast to males, however, a very different picture emerged for the female identity status groups. There were only two significant differences among the identity status groups. The achieved females scored higher on Extra-Familial Dependent insecurity than both foreclosed and moratorium females, $F(3, 197) = 2.75$, $p = .044$ (using the LSD post hoc comparison test). Also, diffused females scored significantly lower on Industry than both moratorium and achieved females, $F(3, 197) = 3.36$, $p = .020$.

Summary. In summary, the four OMEIS ego-identity statuses did differentiate among groups of males but they did not differentiate among the females. The patterns of performance of the male identity groups were similar to those reported in other studies. Diffused males were significantly lowest on comfort with close, dependent relationships with parents; lowest on secure independent confidence in social groups; lowest on sense of meaning and purpose in life;

lowest on dependency on a higher power or on others; lowest on Nurturance and Succorance; lowest on Industry, Identity, and Intimacy; lowest on Father Control; lowest on Positive Self-Identity; and lowest on overall self-esteem.

Foreclosed males scored significantly highest on dependent relationships with parents; highest on insecure dependency; highest on dependency on a higher power or on others for meaning in life; lower than those in the achieved status on Nurturance; highest on Succorance; highest on Inferiority, Role Diffusion, and Isolation; highest on Father Control; and lowest on Father Autonomy.

Moratorium males' scores fell between the highest and lowest scores of the other groups on the significant variables.

Finally, males in the achieved status scored significantly lowest on insecure dependency on parents; highest on Extra-Familial Independent Security; highest on having achieved a sense of meaning and purpose of life; highest on Nurturance; highest on Industry, Identity, and Intimacy, and lowest on Inferiority, Role Diffusion, and Isolation; highest on Father Autonomy; highest on Positive Self-Identity; and highest on overall self-esteem.

MANOVA on Sex by Ego-Identity Status

Next, a MANOVA was performed on the total group of those subjects who were classified into identity statuses ($N = 361$), using sex and identity status as independent variables. The purpose was to determine whether significant interactions were occurring that might clarify the different patterns of significance found for the male and female identity statuses. The results from the initial MANOVA (Hotellings test) demonstrated significant main effects for sex,

$F(1, 36) = 4.16$, $p = 0$; and identity status, $F(3, 108) = 1.56$, $p < .001$, and a significant sex by identity status interaction ($F(3, 108) = 1.31$, $p = .023$). There were significant sex by identity status interactions for four variables: Extra-Familial Independent Security, Extra-Familial Insecurity-Isolated, Father Control, and Father Approval. The results of the univariate F tests for sex, identity status, and the sex by identity status interactions are presented in Table 18.

For the sex by identity status interactions, simple effects tests from the SPSS MANOVA routine were then run in order to clarify their nature. The results of this analysis are presented in Table 19. Each of the significant interactions is discussed below.

For the variable Extra-Familial Independent Security, males in the achieved status scored significantly higher than females in the same status, $t(55) = 3.06$, $p = .002$. Furthermore, these males scored higher than males in the other three statuses. By contrast, females in the achieved status scored lower on this variable than females in the foreclosed and moratorium statuses (refer to Table 17 for the male and female group means).

For the Extra-Familial Insecure-Isolated variable, males in the moratorium status scored higher than females in the same status, $t(232) = 2.15$, $p = .032$, and females in the achieved status scored higher than males in the same status, $t(55) = 2.61$, $p = .009$. Males in the moratorium status scored higher than males in the foreclosed and achieved groups, with males in the achieved group scoring the lowest of all the male groups. For females, however, those in the moratorium status scored lower than those in both the

Table 18

MANOVA for Sex by Identity Status

MANOVA	df	F	p
Sex	36	4.16	0
Identity Status	108	1.56	4.538E-004
Sex x Identity Status	108	1.31	.023

Univariate F Tests

Variable	Sex by Identity Status		Sex		Identity Status	
	F (3, 353)	p	F (1, 353)	p	F (3, 353)	p
	df		df		df	
<u>Security</u>						
Fam. Ind. Sec.	.99	.397	24.04	<.001	2.26	.081
Fam. Dep. Sec.	1.61	.187	1.18	.279	5.44	.001
Fam. Insec.	1.01	.387	.06	.799	1.04	.374
Fam. Dep. Ins.	2.04	.107	1.21	.272	5.50	.001
XFam. Ind. Sec.	3.99	.008	.01	.936	2.00	.113
XFam. Dep. Sec.	.22	.885	19.09	<.001	2.37	.070
XFam. Insec.	.90	.443	3.63	.058	.47	.700
XFam. Ins. Iso.	3.81	.010	1.47	.226	.83	.480
<u>Relatedness</u>						
Affection	.86	.463	21.79	<.001	1.31	.270
Nurturance	2.40	.067	53.17	0	3.58	.014
Succorance	2.30	.077	33.61	0	4.25	.006
Affiliation	1.43	.234	34.85	0	1.13	.336
<u>Parenting Styles</u>						
Mo. Punish.	.98	.403	.91	.341	.22	.880
Fa. Punish.	.83	.480	.15	.701	.43	.732
Mo. Control	1.17	.321	.19	.663	.56	.644
Fa. Control	3.53	.015	.02	.885	.35	.786
Mo. Autonomy	.37	.772	1.07	.301	2.78	.041
Fa. Autonomy	.64	.591	7.57	.006	2.10	.100
Mo. Approval	.38	.765	.39	.531	.85	.468
Fa. Approval	3.10	.027	4.19	.041	1.43	.233
Mo. Warmth	.81	.487	.75	.387	1.15	.329
Fa. Warmth	1.52	.209	9.83	.002	1.11	.344
<u>Family Relations</u>						
Fam. Cohesion	1.18	.316	.59	.443	1.73	.161
Fam. Adapt.	1.37	.252	8.09	.005	.22	.886

(table continues)

Variable	Sex by Identity Status		Sex		Identity Status	
	F (3, 353)		F (1, 353)		F (3, 353)	
	df	p	df	p	df	p
<u>Autonomy</u>						
Autonomy	.96	.414	22.00	<.001	1.75	.157
<u>Identity</u>						
ERIK-Indust.	1.45	.229	4.01	.046	8.28	<.001
ERIK-Infer.	1.80	.147	10.92	.001	4.68	.003
ERIK-Iden.	1.43	.234	.02	.896	2.86	.037
ERIK-Role D.	.79	.502	2.75	.098	3.24	.022
ERIK-Intim.	1.50	.215	14.84	<.001	4.74	.003
ERIK-Iso.	2.39	.068	5.86	.016	3.31	.020
Pos. Self-Iden.	1.23	.299	10.75	.001	4.59	.004
PHIL-Ind. Sec.	.70	.551	1.06	.303	7.33	<.001
PHIL-Dep. Sec.	1.70	.167	3.74	.054	7.63	<.001
PHIL-Insec.	.79	.501	1.13	.289	3.70	.012
<u>Self-Esteem</u>						
Self-Esteem	1.93	.124	.55	.459	6.13	<.001

Table 19
MANOVA: Simple Effects Test for Sex Within Identity Status

Variable	Diffused		Foreclosed		Moratorium		Achieved	
	T (1, 29)	p	T (1, 41)	p	T (1, 232)	p	T (1, 55)	p
df	df		df		df		df	
<u>Security</u>								
Fam. Ind. Sec.	2.93	.004	1.50	.135	3.46	.001	1.23	.219
Fam. Dep. Sec.	2.30	.022	.09	.925	.00	.997	.34	.735
Fam. Insec.	1.29	.196	1.03	.305	.60	.551	.27	.785
Fam. Dep. Ins.	.44	.733	1.07	.288	.38	.706	2.40	.017
XFam. Ind. Sec.	.07	.944	.16	.873	1.61	.108	3.06	.002
XFam. Dep. Sec.	1.63	.104	1.96	.051	3.16	.002	2.16	.032
XFam. Insec.	.77	.440	.42	.677	.81	.421	2.20	.029
XFam. Ins. Iso.	.06	.949	1.07	.287	2.15	.032	2.61	.009
<u>Relatedness</u>								
Affection	.94	.350	1.36	.174	4.71	<.001	.66	.512
Nurturance	2.07	.040	3.44	.001	6.62	<.001	.53	.598
Succorance	3.95	<.001	.99	.324	3.68	<.001	2.51	.013
Affiliation	1.59	.113	1.85	.065	5.75	<.001	.55	.583
<u>Parenting Styles</u>								
Mo. Punish.	.93	.352	1.24	.215	.26	.795	1.16	.247
Fa. Punish.	1.01	.315	.68	.499	.65	.513	.83	.408
Mo. Control	1.50	.134	.08	.936	1.15	.253	.30	.768
Fa. Control	.65	.517	3.01	.003	.70	.487	.77	.440
Mo. Autonomy	.08	.933	.90	.370	.29	.774	1.04	.301
Fa. Autonomy	.99	.322	.09	.932	1.71	.088	2.08	.038
Mo. Approval	.23	.817	.89	.373	.63	.531	.46	.644
Fa. Approval	2.03	.043	1.47	.142	2.75	.006	.35	.730
Mo. Warmth	1.13	.258	.99	.321	.86	.391	.24	.807
Fa. Warmth	1.02	.308	.44	.663	3.60	<.001	.17	.865

(table continues)

Variable	Diffused		Foreclosed		Moratorium		Achieved	
	T	df	T	df	T	df	T	df
<u>Family Relations</u>								
Fam. Cohesion	.29	.773	.38	.703	.16	.877	1.94	.053
Fam. Adapt.	2.06	.040	.56	.574	1.41	.161	2.42	.016
<u>Autonomy</u>								
Autonomy	2.47	.014	1.96	.051	2.71	.007	2.50	.013
<u>Identity</u>								
ERIK-Indust.	.27	.788	1.25	.212	2.39	.017	1.02	.309
ERIK-Infer.	.65	.514	1.91	.508	3.51	.001	.67	.503
ERIK-Iden.	1.39	.164	.22	.823	.16	.873	1.51	.133
ERIK-Role D.	.91	.364	1.41	.161	1.56	.119	.53	.596
ERIK-Intim.	1.93	.055	.99	.321	3.95	<.001	.21	.837
ERIK-Iso.	.06	.951	1.29	.198	3.22	.001	1.25	.211
Pos. Self-Iden.	1.49	.138	1.74	.082	3.09	.002	.36	.717
PHIL-Ind. Sec.	.81	.417	.82	.413	1.36	.174	.77	.439
PHIL-Dep. Sec.	2.48	.014	.44	.664	.98	.330	.64	.525
PHIL-Insec.	.05	.960	.41	.679	1.61	.108	.86	.388
<u>Self-Esteem</u>								
Self-Esteem	.23	.817	1.11	.268	1.60	.111	1.68	.095

diffused and achieved groups, with females in the achieved group scoring the highest of all female groups.

For the variable Father Control, males in the foreclosed status scored significantly higher than females in the same status, $t(41) = 3.01$, $p = .003$. Males in the foreclosed group scored higher on this variable than the other three male groups. In contrast, females in the foreclosed status scored lower on this variable than the other three female groups.

For the variable Father Approval, females in the diffused group scored significantly higher than males in the same status, $t(29) = 2.03$, $p = .043$, and females in the moratorium status scored significantly higher than males in that status, $t(232) = 2.75$, $p = .006$. Males in the diffused status scored lower on this variable than the other three male groups. In contrast, females in the diffused status scored higher on this variable than the remaining three female groups. Also, males in the moratorium status scored much lower on this variable than females in this status.

In summary, the results from the sex by identity status interactions indicate that the patterns of relationships with other variables may be quite different for males compared with females who are classified within the same identity status. The significant interactions presented above indicate that males in the achieved status may have quite different profiles than females in the same status. Males in the achieved group scored the highest of the four identity statuses on Extra-Familial Independent Security, whereas females in the same status scored the lowest. These females also scored the highest of the four female statuses on Extra-Familial

Insecure-Isolated, while males in the achieved status scored the lowest. There were similar trends on other variables as well.

Summary. The major points illustrated in the above analyses are summarized below. First, there were sex differences in performance on the variables. Females generally scored higher than males on relatedness, Father Approval, Industry, and Positive Self-Identity. Males, by contrast, tended to score higher than females on measures of independence and autonomy (including Father Autonomy), Inferiority, and Isolation. Second, correlations revealed that security was positively correlated with relatedness to others, parental warmth and approval, Family Cohesion, enhanced identity development, and self-esteem. Identity was positively correlated with relatedness to others, parental autonomy, and parental warmth and approval. Third, the four ego-identity statuses were significantly different from one another on many variables for males, but not for females. The sex by identity status interactions indicated that the pattern of relations to variables are different for male identity status groups compared to the female groups. In summary, ego-identity may function in a different way for males as compared to females.

Path Analyses

The purpose of this last data analysis section was to develop and test causal models for predicting identity development, which was the primary goal of this study. The preceding data analyses were necessary in order to gain a better understanding of the data prior to developing and testing the causal models.

Clusters and Cluster Correlations

The first step in path analysis was to create clusters (i.e., factors) from the variables that measured the psychological factors described earlier (attachment security, relatedness to others, parenting styles, family relations, autonomy, and identity). Thirteen clusters were created from the 22 scales (see Table 20). Several contained variables that were originally inversely related to other variables within the same cluster. These were recoded and included if they fit the criteria for unidimensionality for their respective cluster. The recoded variables are those that have an "-R" following their variable name. The reliability and validity information of each new cluster, including coefficient alpha, internal consistency, and part-whole correlation, is presented in Table 21 for the total group, and for the male and female groups.

Next, correlations among the clusters were computed for the total group, for males, and for females. These data are presented in Tables 22, 23, and 24 respectively. The variable relationships that were predicted in the initial hypotheses were then inspected and compared with the results found on the Pearson correlations.

Attachment security by relatedness. For females, Relatedness to Others was positively correlated with Extra-Familial Security and Enmeshed Security. For males, this variable was positively correlated with Familial Independent Security, Extra-Familial Security, and Enmeshed Security. In sum, Relatedness to Others was generally positively correlated with security, as found earlier.

Attachment security by parenting styles. For females, Parental Autonomy was positively correlated with Familial Independent Security,

Table 20

Final Clusters for Path Analyses

Cluster	Variables Comprising Cluster
1. Familial Security: Familial security; independent; secure relations with parents	Fam. Ind. Sec., Fam. Dep. Ins.-R**
2. Extra-Familial Security: Secure with people; social confidence	XFam. Ind. Sec., XFam. Insec.-R, XFam. Ins. Iso.
3. Enmeshed Security: Close, dependent relations with parents and others; needful of enmeshment for security	Fam. Dep. Sec., XFam. Dep. Sec., PHIL-Dep. Sec., Succorance
4. Relatedness to Others: Affectionate, nurturant toward others; likes affiliation with others	Affection, Nurture, Affiliation
5. Family Cohesion: Closeness or cohesiveness of family relations; balance between emotional closeness and individual autonomy	Family Cohesion
*6. Family Adaptability: Flexibility of family to change with circumstances	Family Adaptability
7. Parental Autonomy: How much freedom and independence allowed by parents	Mother Autonomy, Father Autonomy
8. Parental Warmth: Expressed approval, praise, warmth by parents	Mother Approval, Father Approval, Mother Warmth, Father Warmth
*9. Autonomy: Autonomy; prefers no restrictions or restraints	Autonomy
10. Positive Self-Identity: Positive concept of self; self-identity	Positive Self-Identity

(table continues)

Cluster	Variables Comprising Cluster
11. Eriksonian Identity: Industry, Identity, and Intimacy	Industry, Inferiority-R, Identity, Role Diffusion-R, Intimacy, Isolation-R
12. Ego-Identity Achievement: Has questioned and made choices regarding religious, occupational and political issues	OMEIS Achieved
13. Philosophical Security: Has achieved (independently) a sense of meaning, place, and purpose in life	PHIL-Ind. Sec., PHIL-Insec.-R

* Dropped from final analyses

**Recoded

Table 21

Coefficient Alphas, Internal Consistency, and Part-Whole Correlations
for the Final Clusters

Cluster	Coefficient Alpha			Internal Consistency			Part-Whole Correlation		
	Total Group	Males	Females	Total Group	Males	Females	Total Group	Males	Females
Familial Security	.51	.54	.48	.34--.38	.37--.41	.32--.36	.60	.62	.58
Extra-Familial Security	.79	.79	.80	.55--.60	.50--.62	.56--.61	.74--.77	.70--.79	.75--.78
Enmeshed Security	.61	.61	.60	.20--.40	.17--.43	.17--.44	.44--.64	.40--.66	.42--.67
Relatedness to Others	.76	.73	.70	.41--.47	.40--.62	.34--.73	.66--.85	.63--.80	.58--.87
Family Cohesion	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Family Adaptability	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parental Autonomy	.66	.64	.66	.49--.52	.47--.50	.50--.53	.71	.70	.72
Parental Warmth	.77	.76	.78	.30--.70	.31--.65	.28--.66	.66--.70	.65--.69	.66--.71
Autonomy	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Positive Self-Identity	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Eriksonian Identity	.85	.87	.83	.28--.69	.34--.74	.20--.63	.62--.79	.61--.84	.56--.78
Ego-Identity Achievement	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Philosophical Security	.64	.60	.67	.47--.50	.42--.46	.50--.53	.69	.67	.72

Cluster Correlations for the Total Group (Males and Females Combined)

[illegible]

Table 23

Cluster Correlations for Males

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Familial Security	1.00	.67	-.69	.26	-.03	-.01	.47	-.21	.46	.42	.60	.26	.73
2. Extra-Familial Security		1.00	-.14	.46	.18	-.09	.26	.26	.20	.51	.71	.25	.91
3. Enmeshed Security			1.00	.52	.18	-.08	-.07	.46	-.64	.23	.03	.14	.05
4. Relatedness to Others				1.00	.29	-.13	.35	.33	-.36	.65	.64	.39	.54
5. Family Cohesion					1.00	.30	.06	.25	-.10	.34	.25	.23	.21
6. Family Adaptability						1.00	.10	-.12	.09	-.09	-.11	.01	.00
7. Parental Autonomy							1.00	.44	.02	.43	.45	.32	.39
8. Parental Warmth								1.00	-.27	.39	.44	.19	.28
9. Autonomy									1.00	-.15	.00	-.05	.10
10. Positive Self-Identity										1.00	.75	.37	.70
11. Eriksonian Identity											1.00	.47	.90
12. Ego-Identity Achievement												1.00	.42
13. Philosophical Security													1.00

Table 24

Cluster Correlations for Females

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Familial Security	1.00	.72	-.68	.02	-.02	.02	.33	.03	.45	.23	.58	.12	.73
2. Extra-Familial Security		1.00	-.16	.21	.21	-.05	.29	.33	.25	.46	.70	.05	.90
3. Enmeshed Security			1.00	.56	.39	.11	.18	.34	-.73	.36	-.01	.03	.12
4. Relatedness to Others				1.00	.19	.20	.31	.43	-.40	.57	.44	.09	.35
5. Family Cohesion					1.00	.34	.32	.47	-.19	.36	.24	.07	.21
6. Family Adaptability						1.00	.27	.12	-.01	.09	-.03	-.01	-.01
7. Parental Autonomy							1.00	.62	-.03	.39	.32	.01	.29
8. Parental Warmth								1.00	-.11	.53	.43	.11	.32
9. Autonomy									1.00	-.21	.05	.05	.11
10. Positive Self-Identity										1.00	.67	.11	.54
11. Eriksonian Identity											1.00	.19	.73
12. Ego-Identity Achievement												1.00	.32
13. Philosophical Security													1.00

Extra-Familial Security, and Enmeshed Security. Parental Warmth was positively correlated with Extra-Familial Security and Enmeshed Security. For males, Parental Autonomy was positively correlated with Familial Independent Security and Extra-Familial Security only, and Parental Warmth was positively correlated with Extra-Familial Security and Enmeshed Security, but negatively correlated with Familial Independent Security. In sum, consistent with prior results, Parental Autonomy and Parental Warmth were generally positively correlated with security.

Attachment security by family relationships. For both males and females, security was not related to Family Adaptability. Consistent with prior results, Family Cohesion was positively correlated with both Extra-Familial Security and with Enmeshed Security.

Attachment security by autonomy. Consistent with prior results, for both males and females, Autonomy was positively correlated with both Familial Independent Security and Extra-Familial Security, and negatively correlated with Enmeshed Security.

Attachment security by identity. For males, Familial Independent Security and Extra-Familial Security were positively correlated with Positive Self-Identity, Eriksonian Identity, Philosophical Security, and Ego-Identity Achievement; and Enmeshed Security was positively correlated with Positive Self-Identity. For females, Familial and Extra-Familial Security were positively correlated with Eriksonian Identity, Positive Self-Identity, and Philosophical Security. Enmeshed Security was positively correlated with Positive Self-Identity, as it was for males.

Autonomy by identity. For both males and females, there was a negative correlation between Autonomy and all of the identity measures-- Eriksonian Identity, Positive Self-Identity, Ego-Identity Achievement, and Philosophical Security.

Relatedness by identity. For males, there were positive correlations between relatedness and Eriksonian Identity, Positive Self-Identity, Ego-Identity Achievement, and Philosophical Security. For females, there were positive correlations between relatedness and the same identity measures excepting the ego-identity achievement measure.

Parenting styles and family relationships by identity. For males, there were positive correlations between Parental Warmth and Parental Autonomy with Eriksonian Identity, Positive Self-Identity, Ego-Identity Achievement, and Philosophical Security. For females, there were positive correlations between Parental Warmth and Parental Autonomy with Eriksonian Identity, Positive Self-Identity, and Philosophical Security only. Family Cohesion was positively correlated with Ego-Identity Achievement for males; and for all subjects, with Industry, Identity, Intimacy, Positive Self-Identity, and Philosophical Security. Family Adaptability had low correlations with all of the variables.

In summary, the results of the correlations between the clusters were similar to those found earlier. In general, security was positively correlated with Relatedness to Others, Parental Autonomy, Parental Warmth, Family Cohesion (excepting familial security), Autonomy (independent security only), and enhanced identity

development. Furthermore, identity was positively correlated with Relatedness to Others, Parental Autonomy, and Parental Warmth.

Path Analyses

The next step involved developing and testing path models using these clusters. Two of the original 13 clusters were excluded from the path analyses (Family Adaptability and Autonomy) for the following reasons. Family Adaptability was eliminated because it had very low correlations with the other variables (except with Parental Autonomy and Family Cohesion). Autonomy was eliminated since it also had very low correlations with the identity (except with Positive Self-Identity, to which it was negatively correlated). However, Autonomy was positively correlated with Familial Independent Security and Extra-Familial Security, and negatively correlated with Enmeshed Security, Relatedness to Others, Family Cohesion, and Parental Warmth for both males and females. This left a total of 11 clusters used in the final path analyses.

Separate path analyses were then generated for each of the four identity measures (Eriksonian Identity, Positive Self-Identity, Philosophical Security, and Ego-Identity Achievement) for the male and female groups. Paths were first constructed using the independent security measures (Familial Independent Security and Extra-Familial Security) and then by using Enmeshed Security.

Tables 25 through 28 (see Appendix P) present the results for the path analyses for each of the four identity measures using the independent security measures. Data are presented separately for the male and female groups. Each table presents the observed correlations, the reproduced correlations, and the errors in the reproduction (the

observed minus the reproduced correlations). These tables show that the path analyses fit the data quite well. The estimated path coefficients are shown in the path diagrams in Figures 2 through 5.

Evaluation of the Research Models

Path models are usually tested by comparing the observed correlations to the reproduced correlations that are generated by the path model. This comparison can be either 'local' or 'global.' Individual comparisons can be checked against their reproduced values, or the overall fit of the path model can be assessed (Hunter, 1983).

To assess the individual correlations, test values (d^*) can be generated for evaluating the individual discrepancies (i.e., the 'deviation' values listed in the error matrix). Discrepancy values that are larger than these test values in absolute value are "suspect" (Hunter, 1983). For each of the path models, test values were calculated according to the procedure outlined by Hunter (1983). The results showed that no discrepancy in any of the path models was anywhere near as large as its test value, indicating that there were no significant deviations of the observed correlations from the reproduced correlations. To assess the overall fit of the path models, the chi-square goodness-of-fit test was used (Hunter, 1983). This test compares the observed matrix to the reproduced matrix for each of the path models, based upon the paths specified by each model. This test determines how well the observed matrix is approximated by the reproduced matrix. The null hypothesis in this test states that the variable relationships specified by the models are the true models for these variable relationships. Results from this test showed that all of the chi-square values were way below significance, indicating

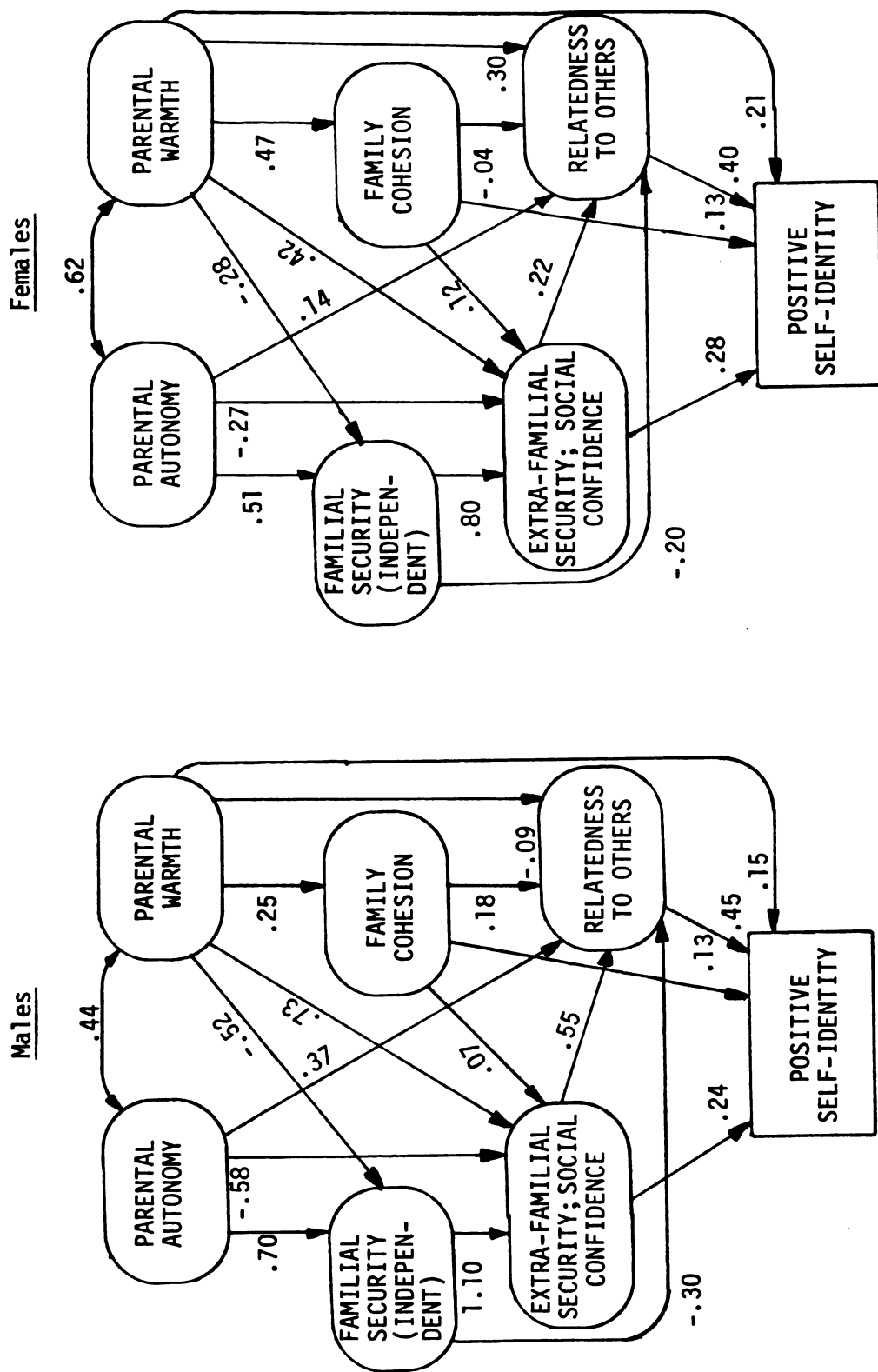


Figure 2. The Ordinary Least Squares Estimates of the Path Coefficients for Males and Females for the Positive Self-Identity Instrument

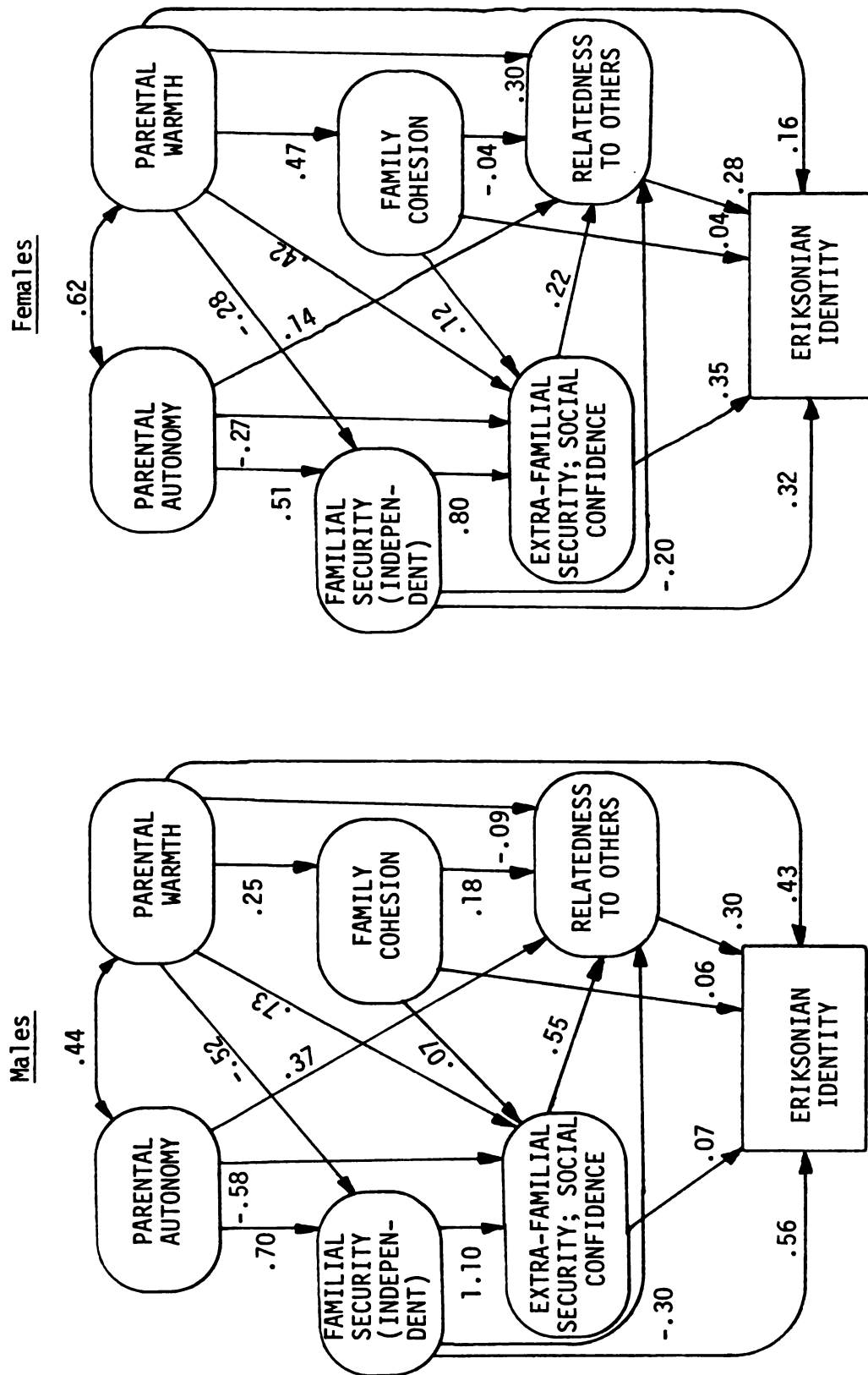


Figure 3. The Ordinary Least Squares Estimates of the Path Coefficients for Males and Females for the Eriksonian Identity Instrument

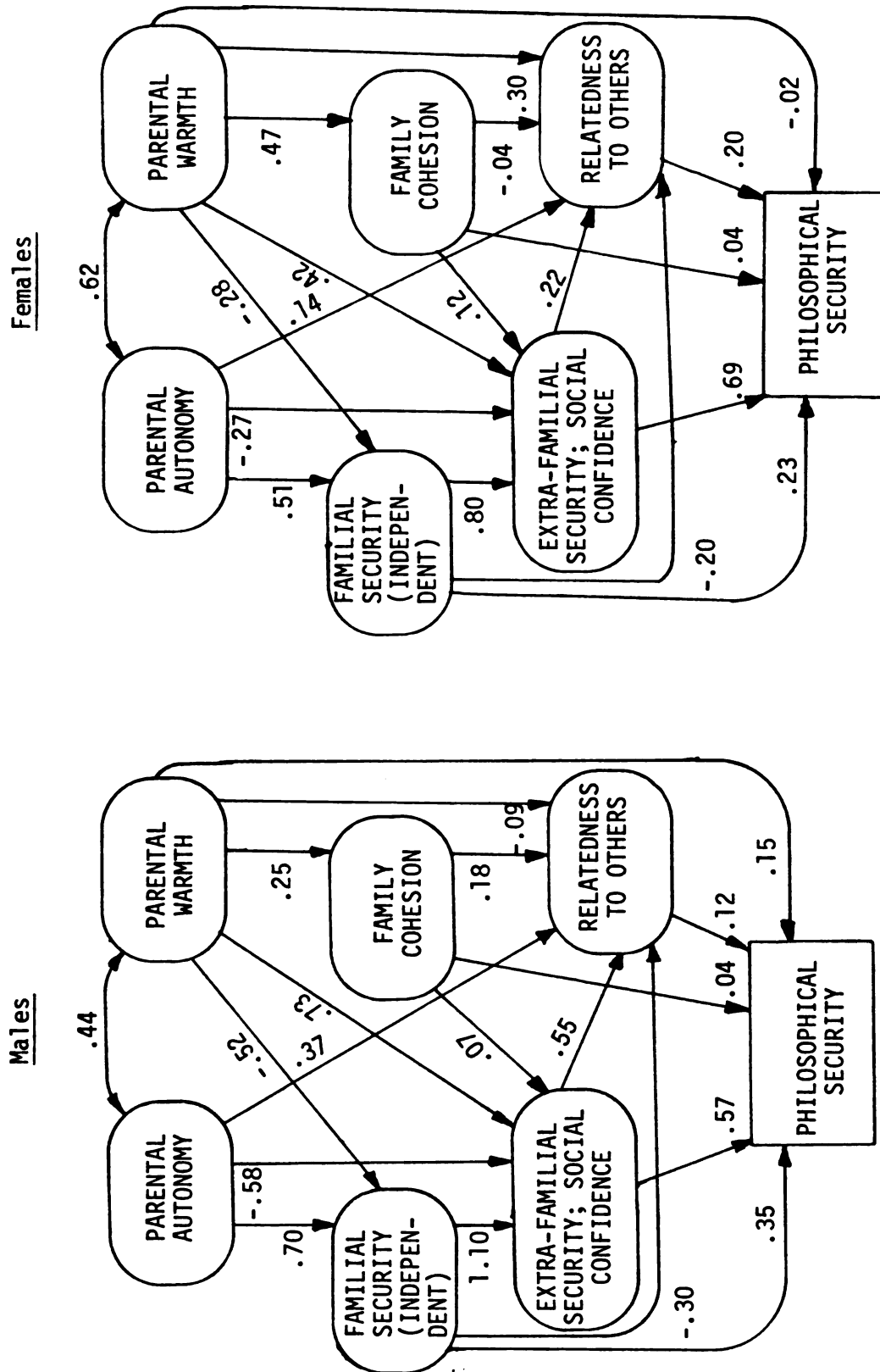


Figure 4. The Ordinary Least Squared Estimates of the Path Coefficients for Males and Females for the Philosophical Security Test

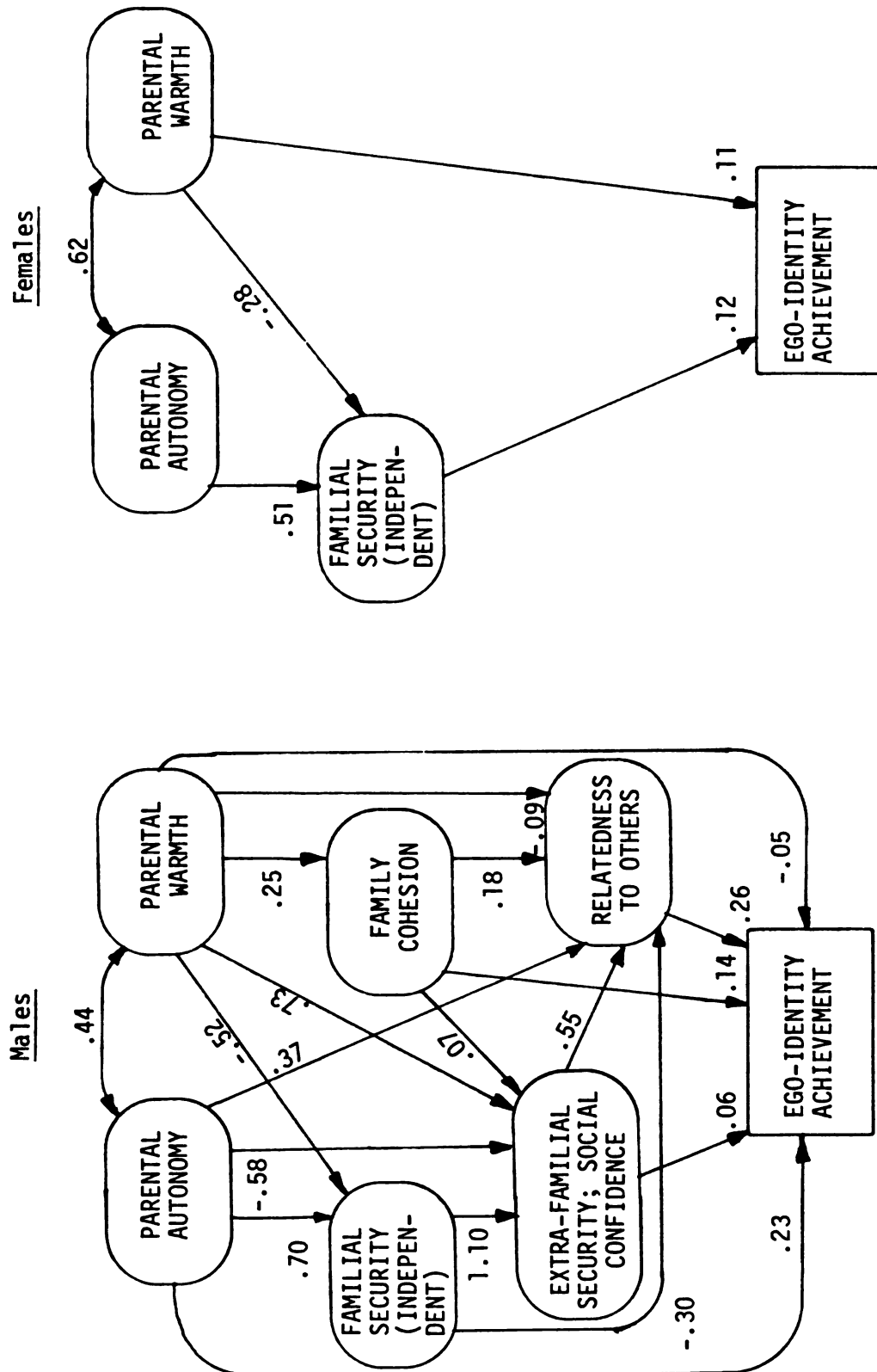


Figure 5. The Ordinary Least Squares Estimates of the Path Coefficients for Males and Females for the Ego-Identity Achievement Scale

that the models fit the data well. The results from the individual comparisons test and the goodness-of-fit test are presented in Table 29 in Appendix P.

General Trends of the Path Models

Parental Autonomy and Parental Warmth were the main predictor (exogenous) variables, and were also related with each other. Parental Autonomy was positively correlated with Familial Independent Security and Relatedness to Others, but negatively associated with Extra-Familial Security. Parental Warmth was positively associated with Family Cohesion, Extra-Familial Security, and identity, but negatively associated with Familial Independent Security. Familial Independent Security was positively related to Extra-Familial Security and with Eriksonian Identity, Philosophical Security, and for males, Ego-Identity. Familial Independent Security was negatively correlated to Relatedness to Others, while Extra-Familial Security was positively correlated with it. The impact of Family Cohesion was related to gender--for males but not for females, Family Cohesion was positively correlated with Relatedness to Others. Finally, Relatedness to Others was positively correlated with identity.

These general patterns indicate that Parental Warmth and Parental Autonomy had substantial impact on both attachment security and on identity. While Parental Autonomy seemed to enhance Familial Independent Security, Parental Warmth had a negative effect on it. By contrast, the opposite held true for Extra-Familial Security--Parental Autonomy had a negative effect while Parental Warmth had a positive effect.

There were also gender differences among the relations illustrated in the path diagrams. First, the path coefficients were in most cases higher for males than for females, indicating overall higher correlations. Second, the pattern of relationships among the variables was fairly similar for males and females on Eriksonian Identity, Philosophical Security, and Positive Self-Identity, but there were marked gender differences on the Ego-Identity Achievement model. Third, Family Cohesion was associated with Relatedness to Others in males but not in females. Fourth, Parental Warmth was associated with Relatedness to Others in females but not in males. Each of these path models is discussed in more detail below.

Positive Self-Identity. For Positive Self-Identity (Figure 2), Parental Autonomy and Parental Warmth were the exogenous variables. The path coefficients were higher for males than for females. Parental Warmth was related to Relatedness to Others for females but not for males. Family Cohesion had a low positive relation to Extra-Familial Security, and was related to Relatedness to Others for males but not for females. Extra-Familial Security had a positive association with this identity measure for both males and females.

In summary, the highest predictors of this measure of self-identity for males were Parental Warmth (.15), Relatedness to Others (.45), Family Cohesion (.13), and Extra-Familial Security (.24). For females, the highest predictors were Parental Warmth (.21), Relatedness to Others (.40), Family Cohesion (.13), and Extra-Familial Security (.28).

Eriksonian Identity. For the Eriksonian Identity measure (Figure 3), there were several differences compared to the previous measure. Familial Independent Security had a much stronger impact

on, and Family Cohesion had almost no correlation with, this instrument. In addition, to the gender differences listed for the previous identity measure, Parental Warmth was more highly related with Eriksonian Identity for males than for females, and Extra-Familial Security had a low correlation with Eriksonian Identity for males but not for females.

In summary, the highest positive influences on Eriksonian Identity for males were Familial Independent Security (.56), Parental Warmth (.43), and Relatedness to Others (.30). For females, the main variables influencing this measure were Familial Independent Security (.32), Parental Warmth (.16), Relatedness to Others (.28), and Extra-Familial Security (.32).

Philosophical Security. For this test (Figure 4), the main variables directly influencing this identity measure for males included Familial Independent Security (.35), Extra-Familial Security (.57), Parental Warmth (.15) and Relatedness to Others (.12). For females, these variables included Familial Independent Security (.23), Extra-Familial Security (.69), and Relatedness to Others (.20).

Ego-Identity Achievement. For this measure (Figure 5), the pattern for males was similar to those in the previous path models, except that Parental Autonomy was directly positively related to Ego-Identity Achievement, with Extra-Familial Security and Parental Warmth having almost no correlation with identity. For males, the main factors influencing this variable were Parental Autonomy (.23), Relatedness to Others (.26), and Family Cohesion (.14). For females, however, there were practically no associations between the cluster variables and this particular identity measure.

Path Models: Enmeshed Security

Path analyses were also performed with these four identity measures using Enmeshed Security in place of the other security variables. The results of these analyses are presented in Tables 30 through 33 in Appendix P, with the path diagrams presented in Figures 6 through 9. A path analysis for females using Ego-Identity Achievement was not run since this variable did not correlated with the other variables (see Figure 5).

In general, Family Cohesion was found to enhance Enmeshed Security for females but not for males, and to enhance Relatedness to Others for males but not for females. Parental Warmth enhanced Relatedness to Others for females but not for males. Enmeshed Security was positively correlated with Relatedness to Others in both males and females. In all cases, however, Enmeshed Security was negatively related to the identity measures.

Summary

The Causal Model

The goal of the present study was to examine the relations among attachment security, relatedness to others, parenting styles, family relationships, autonomy, gender, and identity in late adolescence. The specific goal was to develop and test a causal model to determine the direct and indirect variables influencing ego- and self-identity.

This goal was accomplished through the creation of path models predicting identity. The indirect effects, or those that were causally prior to those variables which had direct influence on identity, included gender (depending on the identity instrument used) and parental autonomy (except for females on the ego-identity achievement measure). The direct effects, those having a direct

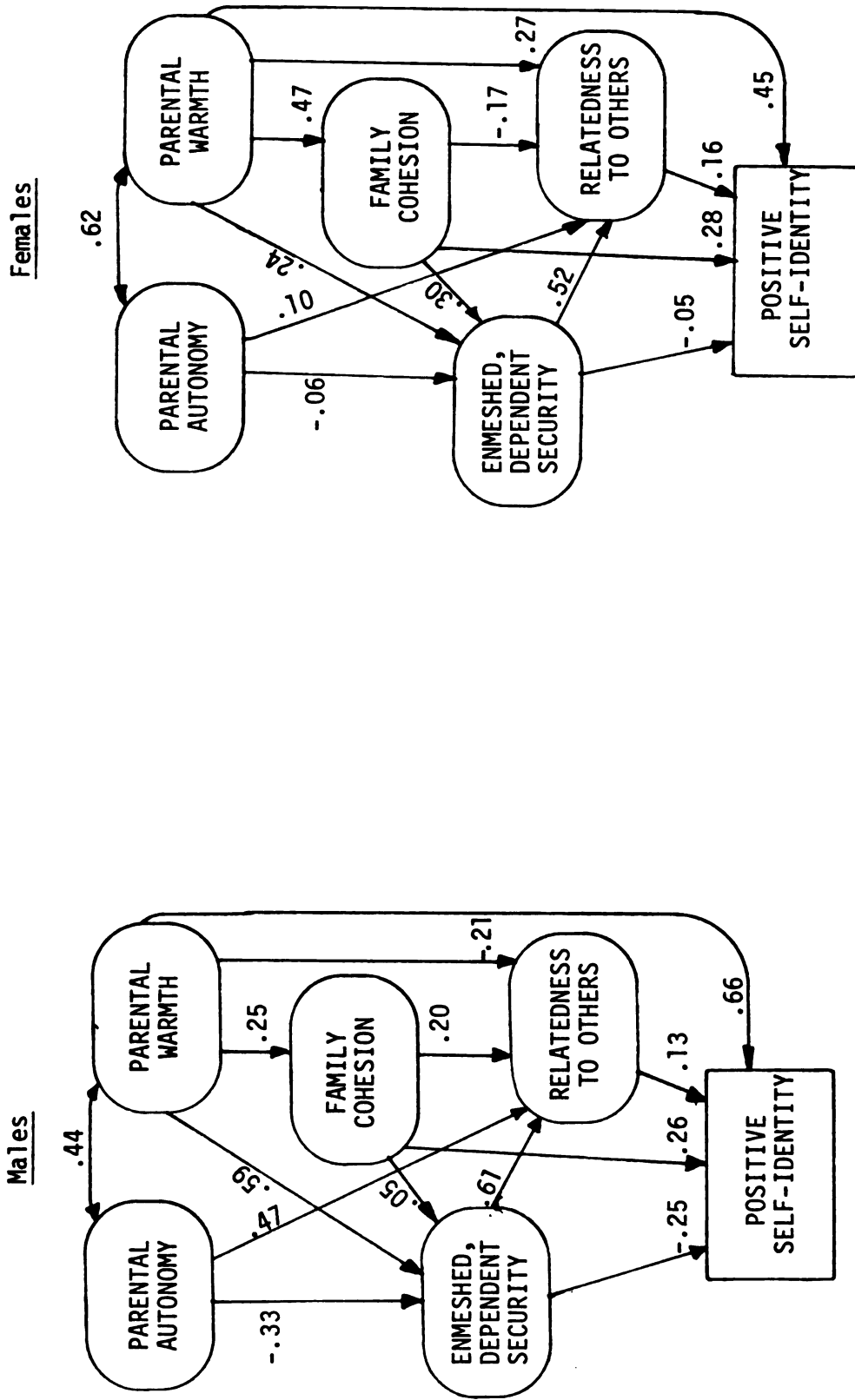


Figure 6. The Ordinary Least Squares Estimates of the Path Coefficients for Males and Females for the Positive Self-Identity Instrument (with Enmeshed Security)

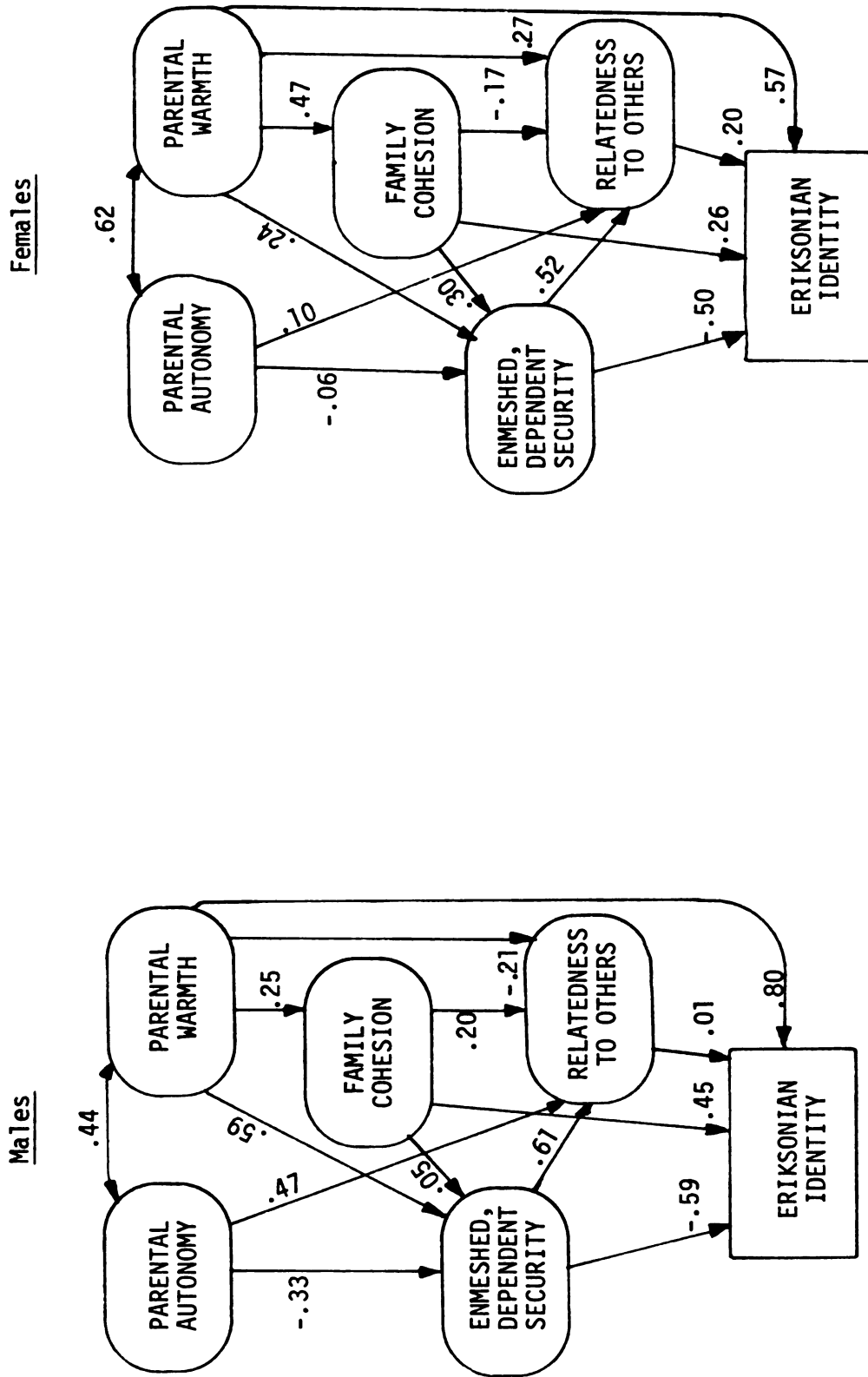


Figure 7. The Ordinary Least Squares Estimates of the Path Coefficients for Males and Females for the Eriksonian Identity Instrument (with Enmeshed Security)

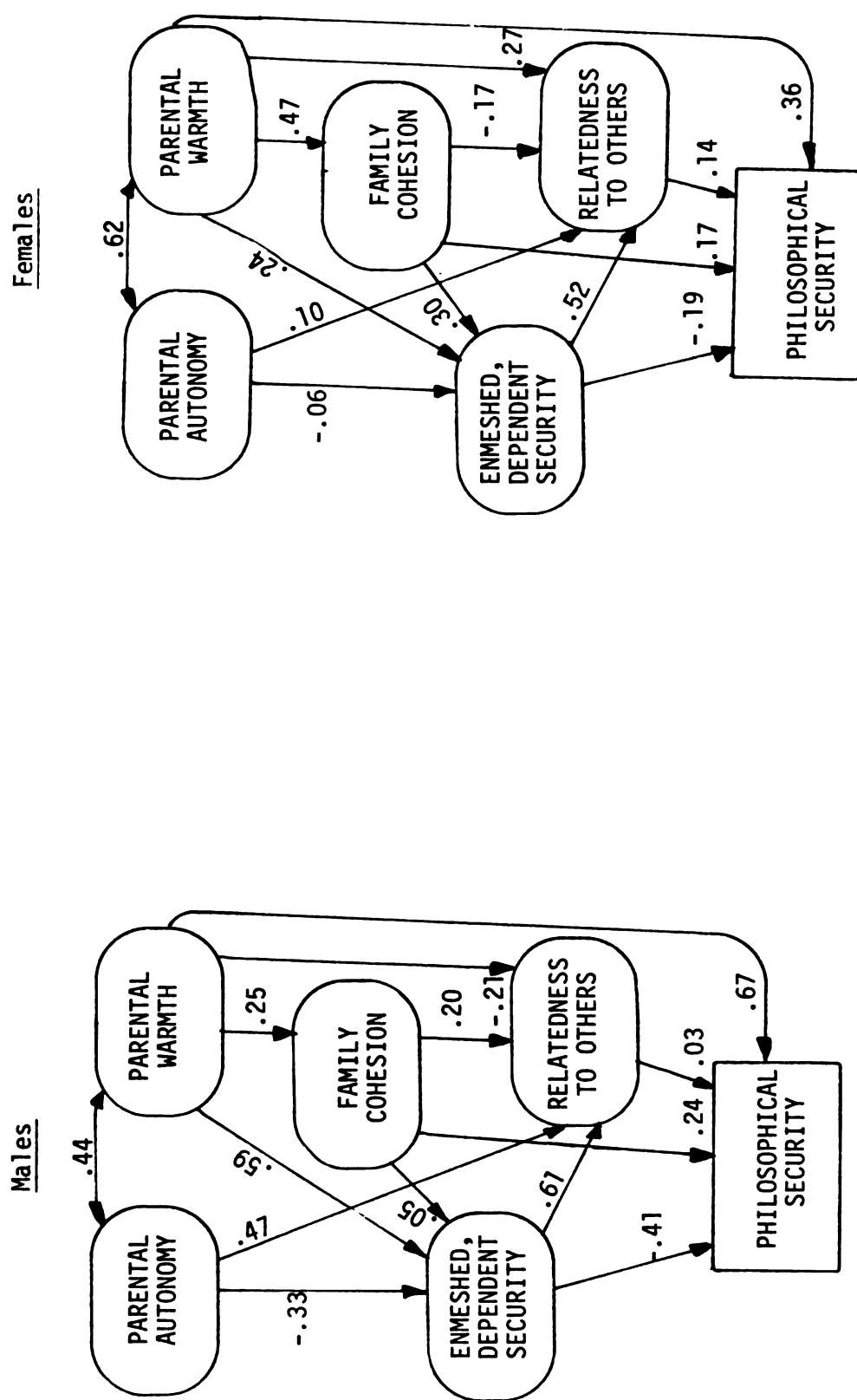


Figure 8. The Ordinary Least Squares Estimates of the Path Coefficients for Males and Females for the Philosophical Security Test (With Enmeshed Security)

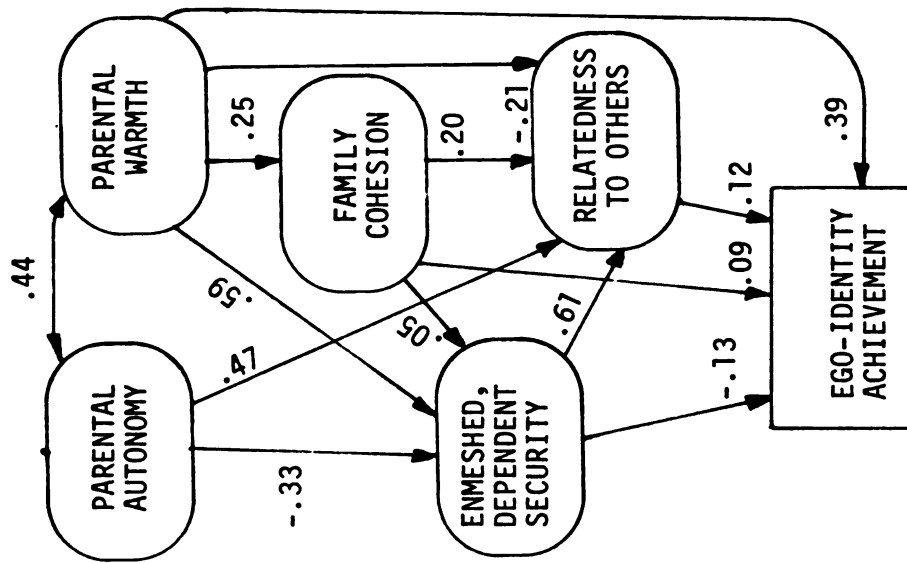


Figure 9. The Ordinary Least Squares Estimates of the Path Coefficients for Males Only
Ego-Identity Achievement Scale (With Enmeshed Security)

impact on identity, generally included familial and extra-familial security, parental warmth, familial cohesion, and relatedness. Those variables having the highest path coefficients (i.e., correlations) with identity for both males and females included familial and extra-familial security, parental warmth, and relatedness to others.

Gender did have an impact on the pattern of the path models. It influenced the relative values of the path coefficients between the variables, and influenced the interrelations among some of the variables (such as with familial cohesion and parental warmth). Also, although the females had patterns of variable relationships that were similar to males on the positive self-identity scale and the Eriksonian Identity Instrument, there was a significant difference between males and females on the ego-identity achievement instrument. For males, the pattern of variable relationships was similar to those on the other identity measures. For females, however, there were practically no relationships with any of the variables.

Hypotheses

In addition to the above, the following hypotheses were formally stated at the outset of this study:

Hypothesis 1:

The degree of security or insecurity experienced by an individual will influence their relatedness to others, their autonomy, their self-esteem, and their identity "status."

In both the Pearson and cluster correlation matrices, security was generally positively correlated with relatedness. Extra-familial

security was more highly correlated than was familial security with this variable, with males having higher correlations than females. Conversely, both familial and extra-familial insecurity were negatively correlated with relatedness (excluding the succorance variable). Independent security had a positive correlation with autonomy, while dependent security and insecurity were negatively correlated. Security (particularly extra-familial) was positively correlated with self-esteem, while both familial and extra-familial insecurity were negatively correlated with it. Finally, security was in general positively correlated with enhanced identity, and insecurity negatively correlated with it. Specifically, security was positively related to the industry, identity, and intimacy scales of Erikson's stages, positive self-identity, security in philosophy, and for males, ego-identity achievement. Conversely, insecurity was related to the inferiority, role diffusion, and isolation scales from the Eriksonian instrument, poorer self-identity, insecure meaning in life, and was not correlated with the ego-identity achievement variable. In sum, the results supported the hypotheses. Security was positively correlated with relatedness, self-esteem, and enhanced identity, while independent security was positively correlated with autonomy.

Hypothesis 2:

Parenting styles and family relations will most directly influence the degree of security experienced by the individual.

As illustrated in the path diagrams, parenting styles (parental autonomy and parental warmth/praise) did have the most direct impact

on the familial and extra-familial security. However, family relationships failed to have much of an impact on any of the variables. The family adaptability variable was deleted from the final path analyses since it failed to correlate with the other variables to any significant degree. Familial cohesion, however, had a low positive correlation with extra-familial security. The causal antecedent of family cohesiveness was parental warmth. In sum, this hypothesis was partially supported--parenting styles did have the most direct effect on security, while family relations only had a low positive relation with extra-familial security.

Hypothesis 3:

Security, autonomy, gender, degree of relatedness to others, parenting styles, and family relationships will influence the status of an individual's ego- and self-identity.

First, security did influence identity. The Pearson correlation matrix illustrated that security was positively correlated with the industry, identity, and intimacy scales from the Eriksonian measure, security in philosophy of life, and positive self-identity. As the path diagrams illustrate, both familial and extra-familial security had direct influence on identity development.

Autonomy had quite low positive relationships with most of the identity variables and was negatively correlated with the ego-identity foreclosure status, positive self-identity, and dependent philosophical security. Parental autonomy was in some cases negatively correlated with identity, moreso for males than for females.

There were also gender differences in the various identity patterns. First, females scored significantly higher than males on the Eriksonian scales of industry and intimacy, while males scored higher on inferiority and isolation. Females also scored significantly higher than males on positive self-identity. Second, when males and females were classified into the four ego-identity statuses, it was found that the four statuses were significantly different on a variety of measures for males but not for females. For the other identity measures, males in the 'achieved' status scored significantly higher on the Eriksonian scales of industry, identity, and intimacy, and lowest on the inferiority, role diffusion, and isolation scales. Males in the achieved status also scored higher than the other groups on positive self-identity, secure philosophy of life, and self-esteem. Finally, there were also gender differences in the path diagrams, as described above.

Relatedness to others also was associated with identity. Excluding the succorance variable (which was usually inversely related to the other relatedness variables), relatedness was positively correlated with ego-identity achievement for males only, with industry, identity, and intimacy from the Eriksonian instrument, and with positive self-identity and security in philosophy. Conversely, relatedness was negatively correlated with the ego-identity diffusion and foreclosure statuses, the Eriksonian scales of inferiority, role diffusion, and isolation, and insecurity in philosophy. When classified into the four ego-identity statuses, males in the achieved status scored higher than the other three statuses on

affection, nurturance, and affiliation, with males in the foreclosed status scoring highest on succorance. These trends did not hold for females in the achieved status, however. Finally, in the path diagrams, relatedness was positively related to identity (except for females and ego-identity achievement).

Parenting styles were also related to ego- and self-identity. As illustrated in the Pearson correlation matrix, parenting styles were for the most part unrelated to the four ego-identity statuses for females, but they were positively related for males. In general, parental autonomy, parental approval, and parental warmth were positively correlated with positive self-identity, with the Eriksonian scales of industry, identity, and intimacy, and for males, with ego-identity achievement. For parenting styles, there were also sex by ego-identity status interactions. Males in the foreclosed status scored higher than the other male groups and all female groups on father control. In contrast to the males in the foreclosed status, females in this status scored lower on this variable than the other three female groups. Also, for the variable father approval, females in the diffused group scored significantly higher than males in the same status, and females in the moratorium status scored significantly higher than males in this status. Males in the diffused status scored lower than did the other three male groups on this variable, while females in this status scored higher than the other three female groups on this variable. In the path diagrams, parental warmth had a positive association with identity, while parental autonomy had a negative relation to identity.

Finally, family relations also influenced identity. Family adaptability had very low correlations with all of the identity measures, but familial cohesion was positively correlated with all of the identity measures (except for females and ego-identity achievement). In the path diagrams, there were positive associations between family cohesion and identity for both males and females for the positive self-identity measure, and for males on ego-identity achievement. In sum, the results provided partial support for this hypothesis.

Hypothesis 4:

Gender and parenting styles will be the primary (exogenous) predictors of identity.

As illustrated in the path diagrams, parental autonomy and parental warmth/praise were the primary predictor variables. Gender influenced both the relative values of the path coefficients, as well as the interrelations among the path variables (depending on the identity instrument used).

DISCUSSION

The nature and scope of the results of this study could easily provoke a lengthy and complex discussion. Currently, however, this discussion will focus on the formally stated hypotheses. The main theme of this study was that attachment security would have an effect on identity in late adolescence. It was hypothesized that there would be gender differences in the path diagrams predicting identity, as well as in the interrelations among the variables. The specific goal was to develop a causal model for predicting identity that included the following variables: attachment security, parenting styles, family relationships, relatedness to others, gender, and autonomy. Furthermore, specific relationships among some of the variables were hypothesized.

Overall, the results provided support for the original hypotheses. Path models for four measures of identity indicated that parenting styles were the primary exogenous variables predicting identity. Parenting styles influenced both familial and extra-familial security, which in turn had both direct and indirect effects on identity. Although most of the paths were structurally similar, there were gender differences in both the strength of the path coefficients and in the interrelationships among the variables. Males and females had similar patterns of variable relationships on three of the four identity measures (positive self-identity, the

Eriksonian identity instrument, and security in philosophy of life), but they differed markedly from one another on the ego-identity scale. For males, the pattern of variable relationships predicting ego-identity was similar to those predicting the other identity measures. For females, however, there were practically no relationships between this identity measure and any of the other variables in this study.

In general, the results of this study also supported the other hypotheses predicting relationships among particular variables. In most cases, security enhanced relatedness to others, self-esteem, and identity. As predicted, parenting styles (parental autonomy and warmth/praise) did have the most direct influence on security. In contrast to expectations, however, family relations did not have a significant impact on other variables--family adaptability was not related to extent to any of the other variables, whereas family cohesion had low positive correlations (in some cases) with security. It was also expected that autonomy would be more highly correlated with some of the identity measures, especially for males, but this was not supported. The main findings of this study are discussed in more detail below.

The Identity Measures

Gender Differences on the Ego-Identity Instrument

One of the major findings of this study was that the OMEIS ego-identity instrument did not 'work' for females, although it did for males. In contrast to males, there was little discrimination among the different identity status groups for females on the

dependent variables. The proportion of subjects categorized into each of the four groups was fairly equal for the separate male and female groups (although there were slightly more males in the achieved status), indicating that the gender difference was not simply because the women were distributed differently among the statuses, or were responding differently to the items.

There may be several reasons for this marked difference between the male and female groups. First, it could be that this particular scale is more sensitive to a key gender difference than are the other identity instruments. For females, the ego-identity instrument was not related to other variables, whereas the other identity instruments were. Second, the differentiation among these statuses for women may be related to variables that were not examined in this study. Third, given the nature of this task, with its focus on occupational, political, and religious issues, the gender differences on this instrument could be due to a difference in the content of socialization practices for male children compared with female children.

Others have also noted ambiguous results with female identity data (Constantinople, 1969). Some studies have found that the identity statuses fail to discriminate between other dependent measures used with females (Matteson, 1974), or that the results of trying to extend the identity status research technique to females have been unsuccessful and confusing (Gallatin, 1975). Furthermore, parenting styles and the resulting social-personality correlates associated with females in the different identity statuses tend to differ from the corresponding descriptions of males.

It has been suggested that the developmental pathways leading to identity are different for females and males, with each gender group, "...choosing to seek the nature of the self by confronting very different questions" (Hodgson & Fischer, 1979, p. 46). During late adolescence, male identity tends to focus on such issues as individual competence and knowledge, and on occupational identity. By contrast, female identity revolves around issues of relating to others, with females tending to have a more firm sense of interpersonal identity (Douvan & Adelson, 1966; Josselson et al., 1977a, 1977b). Interpersonal processes have been suggested to be more closely associated with identity formation for females than for males (Grotevant & Thorbecke, 1982; Hodgson & Fischer, 1979; Schenkel, 1975), with the identity formation process linked to interpersonal relationships within both the family and/or the peer group (Douvan & Adelson, 1966; Erikson, 1968; Josselson et al., 1977b). As mentioned previously, Gilligan (1982) has suggested that attachment and affiliation define and sustain identity for females, with females defining their identity through relationships of care and intimacy with others, and organizing their sense-of-self around making and maintaining interpersonal relationships.

In summary, the identity concerns of females appear to differ from those males. For females, these concerns tend to be relationship- or interpersonally-oriented. However, these issues are not those that are assessed by the ego-identity instrument, which may be in part the reason why this measure was ineffective in distinguishing degrees or statuses of identity among females. The sex difference may be real--ego-identity achievement may not be a

relevant psychological construct for females (as measured by this instrument).

Shortcomings in assessing identity. It seems appropriate to comment on the shortcomings of the ego-identity instrument as a valid assessment of identity. First, it appears that this instrument is used as an assessment of a static "end-product" of the identity process, rather than as an assessment of identity as a point along a developmental continuum. This seems especially evident in light of the studies describing both parenting style correlates and social-personality correlates of individuals in each of the four identity status groups, since parenting styles and social-personality attributes are not likely to change.

Second, this identity instrument has a restricted view of identity, since it includes only items regarding occupation, religion, and politics. To view identity within such a framework ignores much of the richness and complexity inherent in "who one is." Wylie (1961) and Lewis and Brooks-Gunn (1979) have proposed, for example, two aspects of self that seem to offer a more complete picture of this phenomenon. They propose a duality of self that includes a "categorical self" (i.e., self as object) and an "existential self" (i.e., self as subject). The categorical self refers to the attitudes, abilities, and values that comprise one's self-concept, including the labels and descriptive characteristics that individuals apply to themselves relative to their self-perceptions at a given point in time. It is this aspect of self that can be operationalized and measured. The existential self, however, refers to a sense of self as distinct from others and from the world, involving such active processes as thinking,

remembering, and perceiving. It refers to a process-based, continually-evolving sense of self that is distinct from others. In relation to the identity measures used in the current study, the positive self-identity scale and the Eriksonian identity instrument seem to capture the flavor of the categorical self. Although the ego-identity instrument and the philosophical security test involve an aspect of defining one's self in relation to the social world and particular ideologies (i.e., similar to the existential self), both may be more accurately classified as measures of the categorical self since they are both operationalized constructs measuring attitudes and values.

Eriksonian Identity, Positive Self-Identity, and Philosophical Security

In contrast to the ego-identity instrument, the other three measures of identity used in the current study were salient for both males and females. Furthermore, the general pattern of variable relationships in the path models was similar for both males and females, although there were some gender differences in the relative strengths of the path coefficients among variables.

Although the philosophical security test seemed to be conceptually similar to the ego-identity instrument in terms of ideological questioning, it correlated most closely with security in both familial and extra-familial relationships. This finding may also be viewed in light of shared method variance (i.e., the same item format contributes to inflated correlations among variables) since this test was a scale from the same instrument as the familial and extra-familial security tests.

Path Models

The path models did predict strong relationships among the variables. An important outcome of these analyses was the generation of an empirical model that provides a starting point for developing and testing more specific hypotheses. Future studies will include attempting to replicate these findings, introducing new variables into the model, and focusing more closely on explaining and predicting variable relationships.

The path models in this study illustrated that parenting styles (parental autonomy and parental warmth) were the primary exogenous variables. This finding is in agreement with other studies that have examined this relationship and have found that both 'high' identity males and female typically experience less parental regulation and control, with more freedom and praise from parents (Adams & Jones, 1983; Conger, 1973; Douvan & Adelson, 1966; LaVoie, 1976).

According to the path models, parental autonomy correlated positively with parental warmth and familial independent security. Parental autonomy may be a necessary ingredient for independent security, correlating more with "independence" than with "security." Conversely, parental autonomy was negatively correlated with extra-familial security, suggesting that parental autonomy alone does not promote feelings of security with others. Attachment studies of young children that have documented positive correlations between parental warmth, security, and social competence would support this idea (Arend et al., 1979; Easterbrook & Lamb, 1979; Sroufe, 1978; Waters et al., 1979). This is, however, considering parental autonomy alone, not in conjunction with parental warmth or security. Parental

autonomy alone may function to increase feelings of abandonment or insecurity, but when combined with security it may facilitate positive outcomes.

Parental warmth facilitated extra-familial security, which in turn enhanced relatedness toward others. Parental warmth had a negative correlation with familial independent security, which may be because children have a hard time becoming independent or autonomous from parents who are warm. This point is illustrated by the positive correlation between parental warmth and enmeshed security. Children who live in an environment that promotes closeness and cohesiveness may not be encouraged to become independent or autonomous. Rather, dependent secure relationships would be more likely to develop. Parental warmth may therefore enhance security, but not independent security. Parental warmth was also highly correlated with extra-familial security, possibly because it provides for both a "secure base" as well as for social support, which may in turn facilitate the development of self-worth and self-esteem. This is consistent with the attachment literature, which demonstrates that secure attachments and parental warmth enhance social competence, social interaction with others, and confidence in social groups. Also illustrated by the path diagrams, parental warmth enhanced family cohesion and relatedness.

Finally, familial independent security enhanced extra-familial security. Security in familial relationships may function to enhance confidence and satisfaction in relationships with others as well as in social situations in general by providing a foundation of security.

Factors That Enhanced Identity

The variables that directly influenced positive self-identity included extra-familial security, parental warmth, family cohesion, and relatedness. For the Eriksonian identity instrument and the philosophical security test, these variables included extra-familial security, parental warmth, relatedness, and familial independent security. Finally, for males only, for the ego-identity achievement instrument these variables included parental autonomy, family cohesion, and relatedness. Each of these variables is discussed below in terms of how they might function to enhance identity.

First, extra-familial security was positively correlated with most of the identity measures. This variable implies social integration, feeling at ease with others, not feeling isolated, and being confident around others. These factors indicate a certain amount of self-esteem and self-worth, which probably continue to increase with further successful social involvements. Through interacting with others, an individual may receive feedback from others, enhancing self-clarification, feelings of acceptance from others, and affirmation of their self-worth.

The second variable positively influencing identity was parental warmth. Parental warmth may provide security and support. Warm parents may be loving, accepting, and supportive of the child, which may in turn promote feelings of increased self-worth and self-esteem on the part of the child. Such parents may also serve as models of more personal interchanges of an effective nature, which may in turn give children additional feedback about themselves. (In contrast, parents who are "cold" or aloof may never discuss or demonstrate such interpersonal and affective types of issues with their children.)

The third variable influencing identity was family cohesion. Family cohesion may be characterized by close, interpersonal relationships among the family members, emphasizing affectively involved, warm parents. Consequently, it may affect children in a way similar to parental warmth, by providing a basis of security and support.

The fourth variable having a strong, positive effect on identity was relatedness to others. Social exchanges act as a mirror to one's self, enhancing feedback and self-clarification. Friends reinforce each other, promote feelings of acceptance, validate one another's self-worth, and optimally enhance their self-concept.

The fifth variable having a positive influence on both the Eriksonian identity instrument and the philosophical security test was familial independent security. The relationship of this variable to the Eriksonian instrument is not surprising since Erikson's first stages (upon which identity is later based) are trust and security, followed by autonomy. If children arrive at adolescence having sufficiently resolved these earlier issues, they are purportedly in a better position than those who have not resolved them to take on and be successful with the primary task of adolescence--the establishment of a sense of identity.

For the philosophical security measure, family cohesion and parental warmth had little direct influence. This measure did, however, correlate highly with both familial and extra-familial security, indicating that how one does on this task may be most directly a function of overall (independent) security. Although this might support others' ideas that one may need to be "independently" secure

to effectively deal with issues concerning one's meaning and place in life (Marcia, 1983), such interpretations of these data should be made cautiously due to the limitations of the path analysis techniques.

Lastly, on the ego-identity achievement instrument, for males only, both extra-familial security and parental warmth had very low correlations with identity, while parental autonomy was positively correlated. This finding is consistent with other studies which have noted that parental autonomy is a necessary prerequisite for identity achievement, since autonomy may provide adolescents with opportunities to explore, experiment, and arrive at their own decisions and choices.

Attachment Security and Identity

Attachment security appears to influence identity both directly and indirectly. First, attachment may provide security, which then enhances one's autonomy and exploration, in turn facilitating the identity development process. Security in familial relationships may facilitate the 'psychological' separation from parents (a part of the identity process), a process similar to that described in Bowlby's (1969) attachment-exploration model (i.e., successful exploration is contingent upon secure attachments to parents, and without a fear of abandonment during this separation phase). Basic trust in parental and familial support in the face of other changes is suggested to be of critical importance. An implicit assumption of Erikson's theory is that each progressive stage is based upon those preceding it, such that the precursors of identity (autonomy and initiative) would be unlikely to develop without the basic trust implied in confidence in parental support. Marcia (1980) further supports this notion by

suggesting that the prerequisites of identity development (confidence in parental support, a sense of industry or mastery, and self-reflection) have as their common base confidence in parental support. Furthermore, without this fundamental trust in parental acceptance, young adolescents may gravitate from any firm emotional grounding toward identity diffusion (Marcia, 1980).

Attachment security can also enhance identity by first enhancing social relatedness (which in turn enhances identity). By extending the model of early development to the period of adolescence, this finding suggests that secure attachments may function to increase social competence at later ages as well. In turn, interpersonal relationships may promote feelings of continuity, facilitate self-knowledge, provide a vehicle for adolescents' separation from their parents, reinforce fundamental identity patterns, provide adolescents with a sense of status, increase their own sense of identity by belonging to a group outside the family, confirm their sense of who they are, validate their sense of self-worth, and act as an audience on whom to test different roles and behaviors, while receiving immediate feedback. In summary, attachment provides social support, and as such, it provides individuals with feelings of positive affect, affirmation about who they are, and aid (Kahn & Antonucci, 1980). In support of the importance of interpersonal relationships to identity development, Marcia (1983) has remarked that identity is a psychosocial characteristic; and, as such it develops in relation to others. Individuals are who they are because they stand in some unique relation to others, and that without the support, security, and

encouragement for meaningful exploration and experimentation, a true sense of identity would be difficult to achieve.

Finally, attachment security may promote feelings of self-esteem, a sense of perceived control, and mastery. This suggests that individuals who feel cared for and secure may feel more effective and worthwhile as persons. Trust in others, combined with some degree of control or mastery, promotes feelings of competency and efficacy. If people who are significant to individuals respond positively to them, they are in a better position to build up good ideas about themselves. A sense of mastery is partly based upon trust, confidence, and predictability. A sense of control and competence is important to one's sense of worth, sense of well-being, and self-esteem at any age. Lowenthal & Chiriboga (1973) suggest that adult self-esteem is rooted in their feelings of self-confidence, security and a sense of control over their lives. Close relationships with others may increase one's sense of security and confidence, which may in turn enhance the probability of exploration and individuation.

Additional Comments Regarding Path Models

Three additional findings derived from the path models include 1) why males had higher path coefficients than females, 2) why some of the variables were correlated with certain identity measures and others were not, and 3) why enmeshed security was negatively correlated with the identity measures.

First, the higher path coefficients between variables on the path diagrams of males reflected higher correlations among these variables as compared with females, indicating slightly stronger relationships

between familial factors and identity issues. One possible reason for this might have been that if males pursue identity concerns through autonomy and separation, then parenting styles that enhance familial or extra-familial independent security would show higher correlations. (Compared with males, however, the variables directly influencing identity for females seems to be spread among their other social relationships, with autonomy and independence issues not playing a major role.) A second possible reason for these higher correlations concerns the role of the father. It was earlier noted that the father seemed to play a more significant role (i.e., higher correlations with other variables) than the mother. Other studies have suggested that fathers play a more significant role in the socialization of their children (Enright et al., 1980), and that same-sex parents are more critical to adolescents' development (Waterman, 1982). It could be, then, that the fathers' influence is contributing to the overall higher parent- and family-related path coefficients for males.

Second, why did some of the variables directly influencing some identity measure not influence other identity measures? First, parental warmth (for females) and family cohesion may not have been linked with philosophical security since the latter is correlated more highly with independent security than with interpersonal closeness. Second, parental warmth may not have been related to ego-identity achievement for males because autonomy (with its implications) may be more critical for "achievement" on this measure than are the other "relatedness" variables. Third, family cohesion may not have been related to the Eriksonian Identity Instrument since the latter assumes

autonomy as a prerequisite. Fourth, familial independent security may not have been related to the positive self-identity measure because the latter is more "socially"-related and self-concept based, as opposed to being based on autonomy. Finally, parental autonomy may not have been directly related to positive self-identity, the Eriksonian identity instrument, and philosophical security because "successful" performance on these tasks may have had more to do with interpersonal factors, security, and self-esteem as opposed to independence and autonomy.

The third issue concerns the question of why enmeshed security was negatively related to all of the identity measures. Enmeshed dependent security implies reliance on others, especially in making decisions. Enmeshed dependency may preclude the experience of going through the questioning, exploration, and decision-making processes implied in the identity development process. Enmeshed security may be related to fear, a lack of motivation, or to a lack of self-reflection. A possible consequence of this may be lower self-esteem, as evidenced in earlier analyses of this study.

Methodological Considerations

In addition to the problems with the identity assessment instruments discussed previously, a second methodological consideration involves the subjects. The subjects used in this study (undergraduate psychology students) were not necessarily representative of the general population, but they did provide the large subject pool that was necessary for this type of exploratory study. It will be interesting to apply this model to other groups in future studies.

A third consideration was the questionnaire itself. Although it was very lengthy (and no assessment or control for social desirability measure was included), it was felt that the length was necessary in order to examine the many variable relationships. The option of having subjects return for a second session would likely have resulted in a significant amount of incomplete data. Finally, although the data were analyzed a number of times (thereby increasing the probability of finding significant results by chance alone), each analysis was considered to be critical and relevant to this investigation.

Conclusion

Future directions for identity and attachment security research are wide open. The empirical models derived from this study provide the starting point for beginning to ask clear, specific questions regarding the nature of the relationships among the variables, and to attempt to explain and predict relationships. Future research includes addressing the relation of early attachment to later attachment with regard to identity development using a longitudinal design, introducing cognition as a dependent variable, and comparing high vs. low scorers on attachment security to examine how these groups may differ. The identity development process in females also remains relatively unexplored territory and needs to be examined further, and better identity assessment techniques are badly needed. Furthermore, Erikson's model may need to be re-considered in light of possible gender differences in the meaningfulness of psychological constructs relevant to identity. Finally, it would also be a challenge to examine the impact of sex-role socialization on identity.

There were also some unexpected findings in this study. Autonomy did not correlate with other variables in the anticipated directions, although this may in part have been a function of the particular autonomy measure used. It was also surprising that family adaptability did not correlate with any of the variables as anticipated. Perhaps a measure of individual adaptability might have been more directly relevant. The finding of higher scores on this variable for males (compared with females) may suggest not only that families of male children were more "flexible", but perhaps also that male children may have an impact on their families such that they become more flexible. Finally, the philosophical security test correlated most highly with the other security measures, although this may have been due to the fact that it was from the same test battery as the other security measures. It was expected that this test would have a profile more similar to the "crisis and commitment" paradigm of the ego-identity instrument.

It was interesting to note that during the actual test sessions, males seemed to have a more 'difficult' time filling out the questionnaire than did females. They asked more questions, complained more about the instructions, and took significantly longer to complete the questionnaire than did females. Females, by contrast, had very few questions about filling out the questionnaire, showed more interest and enthusiasm, asked more questions regarding the overall study, had no negative responses, and completed the questionnaire in much less time than did the males. This observation may have been due to higher achievement motivation on the part of the males, or because

females had already considered the issues addressed on the questionnaire more extensively than had the males.

In conclusion, attachment security does appear to play a significant role in identity development as well as in other social-interpersonal processes. Although there appeared to be substantial similarities in the identity development process among males and females, there were also differences in outcomes that warrant closer examination. Finally, the roles of parents and social relationships in the identity development process appear to be of critical importance.

APPENDICES

APPENDIX A
Student Letter

APPENDIX A

Student Letter

Michigan State University
Department of Psychology

RELATEDNESS STUDY

Dear Student:

We are conducting a research study on the relations among family and close peer relationships, personal beliefs and values, and sense-of-self (identity). Our special interest is to better understand what the major contributing factors are toward the developing sense-of-self in young adults.

We are looking for 400 students who are 18- and 21-years old to participate in this study. Participation simply involves filling out a questionnaire. Items on the questionnaire are worded so that participants simply indicate how strongly they agree or disagree with each statement. The entire questionnaire will take approximately 1-1½ hours to complete, and it has been approved by the University Committee on Research Involving Human Subjects.

If you can participate in this study, please come to one of the sessions listed below to fill out the questionnaire. If you cannot come to any of these sessions, we will be happy to make other arrangements for you. Your participation will be kept strictly confidential, and no identifying information other than your age and sex will be on the questionnaire. Students enrolled in PSY 160 or 170 will receive 2 extra credits for their participation in this project.

Your participation in this study will be most appreciated, and we look forward to seeing you at one of the sessions listed below. If you should have any questions, please feel free to contact us.

Sincerely,

N. Laura Kamptner, Ph.D. candidate in Psychology

Ellen A. Strommen, Professor of Psychology

Hiram E. Fitzgerald, Professor of Psychology

APPENDIX B

Demographic Information Questions

Are your parents:

- 1) living together
- 2) divorced
- 3) separated
- 4) one (or both) deceased

APPENDIX C

Familial and Extra-Familial Security Assessment Tests

APPENDIX C

Familial and Extra-Familial Security
Assessment Tests

FAMILIAL TEST

Independent Security

Although I value the affection my parents hold for me, I feel that I do not need it to make me feel confident in myself.
I feel on very good terms with my parents, despite the fact that I no longer rely on them for help or advice.
I enjoy the comfortable feeling that I can handle any problem that might come my way without help from my parents.
Although I get on very well with my parents, I do not feel that loss or separation would make any great difference to my life in general.
I feel comfortably free to make my own arrangements with my friends without talking it over with my parents.
One of the reasons that I get along so well with my parents is that I never feel held in by their disapproval.

Immature Dependent Security

I feel so close to my parents that I feel that they will always be my closest friends.
I feel very much at home with my parents, more so than with anyone else that I have ever met.
It is a great comfort to me to realize that I can always count on my parents to help me out of a jam.
It is a great comfort to me that my parents help me to make up my mind.
It is a great comfort to have my parents help me such a lot.
I am happy to fall back on my parents to do the many little things for me that tend to make life more comfortable.

Insecurity

The nagging I get from my parents sometimes irritates me very much.
I am concerned that my relationship with my parents is not all that it might be.
I often feel very regretful that I have not fulfilled my obligations to my parents.
When the going gets tough I often wish that I were back in the happy days of my childhood.
I often get a troubled feeling from wondering if my parents might disapprove of what I am doing.
My family are very kind to me, but I am sorry that I do not have a real warm relationship with them.
I feel discouraged that it is so difficult to live up to what my parents expect of me.
It makes me feel uneasy to think of being completely on my own.
I often feel a sense of regret that I have not had as happy a family life as other people have had.

It bothers me that my parents do not allow me to be more on my own.
It discourages me that my parents interfere so much in my life.
I sometimes worry about the future as a time when I will not get as
much help from my parents as I do now.

EXTRA-FAMILIAL TEST

Independent Study

I feel quite confident of myself when I am with other people.
I feel quite comfortable about how I stand in the eyes of the people I am usually with.
I gain satisfaction from being able to do things well, and this feeling is not lessened when I find other people can do things better.
I don't think about it much, but I feel able to hold my own in any group.
I do enough things well that I feel quite assured of myself in any group of people that I might be with.
Status and prestige do not matter to me because I feel I have my own share.

Mature Dependent Security

I feel so much at home with people that it never occurs to me to feel left out of things.
I get so much satisfaction from my intimate friendships, that it hardly ever occurs to me to be concerned about whether or not people like me.
There is at least one group of people outside my family with whom I feel really at home, and in whose activities I can really join.
I often have a really warm feeling of "being in tune with" my friends.
I never feel uneasy with my friends for fear I'm not getting on with them.
I get a great deal of pleasure from having at least one intimate friend whom I can trust and who trusts me.

Immature Dependent Security

I am very glad that my friends approve of me, for I am very sensitive to disapproval.
I try very hard to make people like me, and I am satisfied that I nearly always succeed.
It is a comfort to me that I can count on my friends to help in making decisions.
It is a comfort to me that my friends give me so much help and support.
I have friends whose help gives me the confidence in myself that I need.
It gives me comfort to know that I have one or two good friends upon whom I can lean for help and encouragement.

Insecurity

I sometimes feel left out of things.
I feel uncomfortable about how I stand in the eyes of the people I am usually with.
I sometimes feel sad, for there is no one to whom I feel really close.

Sometimes I feel unhappy because no one really understands me.
When I am unhappy, I wish I had someone in whom I could confide.
I am very uncomfortable when I feel that I am disapproved of.
I am easily embarrassed in social situations.
Sometimes I have an unhappy feeling that people do not like me.
Sometimes when I am with people I have feeling that I do not "fit in."
It makes me feel very uncomfortable to feel that someone dislikes me.
I am sometimes disappointed in my friends because they let me down
when I need them.
I feel handicapped by my lack of self-confidence when I am with
people.

APPENDIX D

Expressed Affection Scale (FIRO-B)

APPENDIX D

Expressed Affection Scale (FIRO-B)

	Most people	Many people	Some people	A few people	1-2 people	Nobody
1. I try to be friendly to people.	1	2	* 3	4	5	6
2. My personal relations with people are cool and distant.	1	2	3	* 4	5	6
3. I act cool and distant with people.	1	2	3	* 4	5	6
4. I try to have close relationships with people.	1	2	* 3	4	5	6
5. I try to get close and personal with people.	1	2	* 3	4	5	6
6. I try to have close, personal relationships with people.	1	2	* 3	4	5	6
	Usually	Often	Some- times	Occas- ionally	Rarely	Never
7. I try to have close relationships with people.	1	2	* 3	4	5	6
8. I try to have close, personal relationships with people.	1	2	* 3	4	5	6
	Usually	Often	Some- times	A few people	1-2 people	Nobody
9. I try to get close and personal with people.	1	* 2	3	4	5	6

APPENDIX E

Nurturance, Succorance, and Affiliation Scales

APPENDIX E

Nurturance, Succorance, and Affiliation Scales

NURTURANCE

1. I think helping others is a waste of time.
2. Showing people I am interested in their troubles is very important to me.
3. I think children are a nuisance because they require so much care.
4. If someone is lonely, I spend some time trying to cheer them up.
5. I don't like it when friends ask to borrow my possessions.
6. I find satisfaction in giving sympathy to someone who is ill.
7. To me, it seems foolish to try to solve another fellow's problems.
8. I would be an incomplete human being if I did not make every effort to help my fellow man.
9. I think giving sympathy to people does them more harm than good.
10. I like pictures of babies because they are always so cute.
11. I avoid doing too many favors for people because it would seem as if I were trying to buy friendship.
12. Babysitting is a rewarding job.
13. I have never done volunteer work for charity.
14. I often take young people "under my wing."
15. I feel no responsibility for the troubles of other people.
16. I would rather have a job serving people than a job making something.
17. Caring for plants is a bother.
18. I would enjoy spending a lot of time taking care of pets.
19. If I could, I would hire a professional nurse to care for a sick child rather than do it myself.
20. Sometimes when a friend is in trouble, I am unable to sleep because I want so much to help.

SUCCORANCE

1. If I have had an accident, I want sympathy from no one.
2. I always appreciate it when people are concerned about me.
3. I am perfectly capable of solving my personal problems without consulting anyone.
4. I often seek out other people's advice.
5. I would not like to be married to a protective person.
6. When I need money, it makes me feel good to know that someone can help me out.
7. If I feel sick, I don't like to have friends or relatives fuss over me.
8. I think it would be best to marry someone who is more mature and less dependent than I am.
9. I usually make decisions without consulting others.
10. I usually tell others of my misfortunes because they might be able to assist me.
11. I prefer not being dependent on anyone for assistance.
12. The thought of being alone in the world frightens me.
13. I prefer to face my problems by myself.
14. If I ever think that I am in danger, my first reaction is to look for help from someone.
15. When I was a child, I disliked it if my mother was always fussing over me.
16. I like to be with people who assume a protective attitude toward me.
17. I am usually very self-sufficient.
18. When I was a child, I usually went to an adult for protection if another child threatened me.
19. I prefer to take care of things for myself, rather than have others watch out for me.
20. I usually feel insecure unless I am near someone whom I can ask for support.

AFFILIATION

1. Often I would rather be alone than with a group of friends.
2. If a person does a favor for me, I like to do something in return.
3. I think that fame is more rewarding than friendship.
4. When I meet old acquaintances, I usually give them a very warm welcome.
5. I don't spend much of my time talking with the people I see every day.
6. Having friends is very important to me.
7. I don't care whether or not the people around me are my friends.
8. People consider me to be warm and friendly.
9. I am not considered sociable.
10. I think that a person must know how to get along well with others before they can be a success.
11. I seldom put out extra effort to make friends.
12. I need the feeling of "belonging" that comes from having many friends.
13. I don't really have fun at large parties.
14. I think that any experience is more significant when shared with a friend.
15. I don't believe in showing lots of affection toward friends.
16. My friendships are many.
17. I would not be very good at a job which required me to meet people all day long.
18. I like to work with other people rather than all alone.
19. Sometimes I have to make a concentrated effort to be sociable.
20. I choose hobbies that I can share with other people.

APPENDIX F

Perceived Parenting Styles Questionnaire

APPENDIX F

Perceived Parenting Styles Questionnaire

	Not at all	Seldom	Average	Fre- quently	Always
1. How fair is the punishment which you receive from your mother?	1	2	3	4	5
2. How fair is the punishment which you receive from your father?	1	2	3	4	5
3. How often does your mother try to control or regulate your life?	1	2	3	4	5
4. How often does your father try to control or regulate your life?	1	2	3	4	5
5. How free and independent does your mother allow you to be? ("free and independent": "freedom to do as you judge appropriate", and "independent as having the right to make your own choices")	1	2	3	4	5
6. How free and independent does your father allow you to be?	1	2	3	4	5
7. How often does your mother express approval or praise toward you?	1	2	3	4	5
8. How often does your father express approval or praise toward you?	1	2	3	4	5
9. How often does your mother show her warmth, love, and affection toward you?	1	2	3	4	5
10. How often does your father show his warmth, love, and affection toward you?	1	2	3	4	5

APPENDIX G

Family Adaptability and Cohesion Evaluation Scales (FACES)

APPENDIX G

Family Adaptability and Cohesion
Evaluation Scales (FACES)

4 = true all the time 2 = true some of the time
3 = true most of the time 1 = true none of the time

1. Family members are concerned with each other's welfare.
2. Family members feel free to say what's on their mind.
3. We don't have spur of the moment guests at mealtime.
4. It is hard to know who the leader is in our family.
5. It's difficult for family members to take time away from the family.
6. Family members are afraid to tell the truth because of how harsh the punishment will be.
7. Most personal friends are not family friends.
8. Family members talk a lot but nothing ever gets done.
9. Family members feel guilty if they want to spend some time alone.
10. There are times when other family members do things that make me unhappy.
11. In our family we know where all family members are at all times.
12. Family members have some say in what is required of them.
13. The parents in our family stick together.
14. I have some needs that are not being met by family members.
15. Family members make the rules together.
16. It seems like there is never any place to be alone in our house.
17. It is difficult to keep track of what other family members are doing.
18. Family members do not check with each other when making decisions.
19. My family completely understands and sympathizes with my every mood.

4 = true all the time

2 = true some of the time

3 = true most of the time

1 = true none of the time

20. Family ties are more important to us than any friendship could possibly be.
21. When our family has an argument, family members just keep to themselves.
22. Family members often answer questions that are addressed to another person.
23. The parents check with the children before making important decisions in our family.
24. Family members like to spend some of their free time with each other.
25. Punishment is usually pretty fair in our family.
26. Family members are encouraged to have friends of their own as well as family friends.
27. Family members discuss problems and usually feel good about the solutions.
28. Family members share almost all interests and hobbies with each other.
29. Our family is not a perfect success.
30. Family members are extremely independent.
31. No one in our family seems to be able to keep track of what their duties are.
32. Family members feel it's "everyone for themselves."
33. Every new thing I've learned about my family has pleased me.
34. Our family has a rule for almost every possible situation.
35. We respect each other's privacy.
36. Once our family has planned to do something, it's difficult to change it.
37. In our family we are on our own when there is a problem to solve.
38. I have never regretted being with my family, not even for a moment.

4 = true all the time

2 = true some of the time

3 = true most of the time

1 = true none of the time

39. Family members do not turn to each other when they need help.
40. It is hard to know what other family members are thinking.
41. Family members make visitors feel at home.
42. Parents make all of the important decisions in our family.
43. Even when everyone is home, family members spend their time separately.
44. Parents and children in our family discuss together the method of punishment.
45. Family members have little need for friends because the family is so close.
46. We feel good about our ability to solve problems.
47. Although family members have individual interests, they still participate in family activities.
48. My family has all the qualities I've always wanted in a family.
49. Family members are totally on their own in developing their ideas.
50. Once a task is assigned to a family member, there is no chance of changing it.
51. Family members seldom take sides against other members.
52. There are times when I do not feel a great deal of love and affection for my family.
53. When rules are broken, family members are treated fairly.
54. Family members don't enter each other's areas or activities.
55. Family members encourage each other's efforts to find new ways of doing things.
56. Family members discuss important decisions with each other, but usually make their own choices.
57. If I could be a part of any family in the world, I could not have a better match.
58. Home is one of the loneliest places to be.

4 = true all the time 2 = true some of the time
3 = true most of the time 1 = true none of the time

59. In our family, it's important for everyone to express their opinion.
60. Family members find it easier to discuss things with persons outside the family.
61. There is no leadership in our family.
62. We try to plan some things during the week so we can all be together.
63. Family members are not punished or reprimanded when they do something wrong.
64. In our family we know each other's close friends.
65. Our family does not discuss its problems.
66. Our family doesn't do things together.
67. If my family has any faults, I am not aware of them.
68. Family members enjoy doing things alone as well as together.
69. In our family, everyone shares responsibilities.
70. Parents agree on how to handle children.
71. I don't think anyone could possibly be happier than my family and I when we are together.
72. It is unclear what will happen when rules are broken in our family.
73. When a bedroom door is shut, family members will knock before entering.
74. If one way doesn't work in our family, we try another.
75. Family members are expected to have the approval of others before making decisions.
76. Family members are totally involved in each other's lives.
77. Family members speak their mind without considering how it will affect others.
78. Family members feel comfortable inviting their friends along on family activities.

4 = true all the time

2 = true some of the time

3 = true most of the time

1 = true none of the time

79. Each family member has at least some say in major family decisions.
80. Family members feel pressured to spend most free time together.
81. Members of our family can get away with almost anything.
82. Family members share the same friends.
83. When trying to solve problems, family members jump from one attempted solution to another without giving any of them time to work.
84. We have difficulty thinking of things to do as a family.
85. Family members understand each other completely.
86. It seems as if we agree on everything.
87. It seems as if males and females never do the same chores in our family.
88. Family members know who will agree and who will disagree with them on most family matters.
89. My family could be happier than it is.
90. There is strict punishment for breaking rules in our family.
91. Family members seem to avoid contact with each other when at home.
92. For no apparent reason, family members seem to change their minds.
93. We decide together on family matters and separately on personal matters.
94. Our family has a balance of closeness and separateness.
95. Family members rarely say what they want.
96. It seems there are always people around home who are not members of the family.
97. Certain family members order everyone else around.
98. It seems as if family members can never find time to be together.
99. Family members are severely punished for anything they do wrong.

4 = true all the time

2 = true some of the time

3 = true most of the time

1 = true none of the time

- 100. We know very little about the friends of other family members.
- 101. Family members feel they have no say in solving problems.
- 102. Members of our family share many interests.
- 103. Our family is as well adjusted as any family in this world can be.
- 104. Family members are encouraged to do their own thing.
- 105. Family members never know how others are going to act.
- 106. Certain individuals seem to cause most of our family problems.
- 107. I don't think any family could live together with greater harmony than my family.
- 108. It is hard to know what the rules are in our family because they always change.
- 109. Family members find it hard to get away from each other.
- 110. Family members feel that the family will never change.
- 111. Family members feel they have to go along with what the family decides to do.

APPENDIX H
Autonomy Scale

APPENDIX H

Autonomy Scale

1. I would rather submit to any demand of my neighbors than move to a lonely place.
2. I like to be on my own in most matters.
3. If I face a crisis, I immediately look for help.
4. I believe that being able to stand alone is a true sign of greatness.
5. I think that most men should seek help and guidance in all that they do.
6. When I was in school, I preferred to do all my work by myself.
7. I would feel lost and lonely roaming around the world alone.
8. People who try to regulate my conduct with rules are a bother.
9. I find that I can think better when I have the advice of others.
10. When I work alone I frequently do a better job than when I must work with others.
11. I like to have specific directions before I do something.
12. I would like to be alone and my own boss.
13. I like to do whatever is proper.
14. I am quite independent of the opinions of others.
15. I want the sense of security that comes with having my own home.
16. I could live alone and enjoy it.
17. To have a sense of belonging is very important to me.
18. I would rather own a big sailing boat than an expensive house.
19. I want to have people show interest in what happens to me.
20. I think that marriage is just another form of bondage.

APPENDIX I

Objective Measure of Ego-Identity Status (OMEIS)

APPENDIX I

Objective Measure of Ego-Identity Status (OMEIS)

Instructions: Reach each item and indicate to what degree it fits your own impressions as to how it best reflects your thoughts and feelings.

1. I haven't really considered politics. They just don't excite me much.

Strongly Agree	Moderately Agree	Agree	Disagree	Moderately Disagree	Strongly Disagree
-------------------	---------------------	-------	----------	------------------------	----------------------

2. I might have thought about a lot of different things but there's never really been a decision since my parents said what they wanted.

Strongly Agree	Moderately Agree	Agree	Disagree	Moderately Disagree	Strongly Disagree
-------------------	---------------------	-------	----------	------------------------	----------------------

3. When it comes to religion I just haven't found any that I'm really into myself.

Strongly Agree	Moderately Agree	Agree	Disagree	Moderately Disagree	Strongly Disagree
-------------------	---------------------	-------	----------	------------------------	----------------------

4. My parents had it decided a long time ago what I should go into and I'm following their plans.

Strongly Agree	Moderately Agree	Agree	Disagree	Moderately Disagree	Strongly Disagree
-------------------	---------------------	-------	----------	------------------------	----------------------

5. There are so many different political parties and ideals. I can't decide which to follow until I figure it all out.

Strongly Agree	Moderately Agree	Agree	Disagree	Moderately Disagree	Strongly Disagree
-------------------	---------------------	-------	----------	------------------------	----------------------

6. I don't give religion much thought and it doesn't bother me one way or the other.

Strongly Agree	Moderately Agree	Agree	Disagree	Moderately Disagree	Strongly Disagree
-------------------	---------------------	-------	----------	------------------------	----------------------

7. I guess I'm pretty much like my folks when it comes to politics. I follow what they do in terms of voting and such.

Strongly Agree	Moderately Agree	Agree	Disagree	Moderately Disagree	Strongly Disagree
-------------------	---------------------	-------	----------	------------------------	----------------------

8. I haven't chosen the occupation I really want to get into, but I'm working toward becoming a _____ until something better comes along.

Strongly Agree	Moderately Agree	Agree	Disagree	Moderately Disagree	Strongly Disagree
-------------------	---------------------	-------	----------	------------------------	----------------------

9. A person's faith is unique to each individual. I've considered and reconsidered it myself and know what I can believe.

Strongly Agree	Moderately Agree	Agree	Disagree	Moderately Disagree	Strongly Disagree
-------------------	---------------------	-------	----------	------------------------	----------------------

10. It took me a long time to decide but now I know for sure what direction to move in for a career.

Strongly Agree	Moderately Agree	Agree	Disagree	Moderately Disagree	Strongly Disagree
-------------------	---------------------	-------	----------	------------------------	----------------------

11. I really never was involved in politics enough to have to make a firm stand one way or the other.

Strongly Agree	Moderately Agree	Agree	Disagree	Moderately Disagree	Strongly Disagree
-------------------	---------------------	-------	----------	------------------------	----------------------

12. I'm not so sure what religion means to me. I'd like to make up my mind but I'm not done looking yet.

Strongly Agree	Moderately Agree	Agree	Disagree	Moderately Disagree	Strongly Disagree
-------------------	---------------------	-------	----------	------------------------	----------------------

13. I've thought my political beliefs through and realize I may or may not agree with many of my parent's beliefs.

Strongly Agree	Moderately Agree	Agree	Disagree	Moderately Disagree	Strongly Disagree
-------------------	---------------------	-------	----------	------------------------	----------------------

14. It took me awhile to figure it out, but now I really know what I want for a career.

Strongly Agree	Moderately Agree	Agree	Disagree	Moderately Disagree	Strongly Disagree
-------------------	---------------------	-------	----------	------------------------	----------------------

15. Religion is confusing to me right now. I keep changing my views on what is right and wrong to me.

Strongly Agree	Moderately Agree	Agree	Disagree	Moderately Disagree	Strongly Disagree
-------------------	---------------------	-------	----------	------------------------	----------------------

16. I'm sure it will be pretty easy for me to change my occupational goals when something better comes along.

Strongly Agree	Moderately Agree	Agree	Disagree	Moderately Disagree	Strongly Disagree
-------------------	---------------------	-------	----------	------------------------	----------------------

17. My folks have always had their own political and moral beliefs about issues like abortion and mercy killing and I've always gone along accepting what they have.

Strongly Agree	Moderately Agree	Agree	Disagree	Moderately Disagree	Strongly Disagree
-------------------	---------------------	-------	----------	------------------------	----------------------

18. I've gone through a period of serious questioning about faith and can now say I understand what I believe in as an individual.

Strongly Agree	Moderately Agree	Agree	Disagree	Moderately Disagree	Strongly Disagree
-------------------	---------------------	-------	----------	------------------------	----------------------

19. I'm not sure about my political beliefs, but I'm trying to figure out what I can truly believe in.

Strongly Agree	Moderately Agree	Agree	Disagree	Moderately Disagree	Strongly Disagree
-------------------	---------------------	-------	----------	------------------------	----------------------

20. I just can't decide how capable I am as a person and what jobs I'll be right for.

Strongly Agree	Moderately Agree	Agree	Disagree	Moderately Disagree	Strongly Disagree
-------------------	---------------------	-------	----------	------------------------	----------------------

21. I attend the same church as my family has always attended. I've never really questioned why.

Strongly Agree	Moderately Agree	Agree	Disagree	Moderately Disagree	Strongly Disagree
-------------------	---------------------	-------	----------	------------------------	----------------------

22. I just can't decide what to do for an occupation. There are so many that have possibilities.

Strongly Agree	Moderately Agree	Agree	Disagree	Moderately Disagree	Strongly Disagree
-------------------	---------------------	-------	----------	------------------------	----------------------

23. I've never really questioned my religion. If it's right for my parents it must be right for me.

Strongly Agree	Moderately Agree	Agree	Disagree	Moderately Disagree	Strongly Disagree
-------------------	---------------------	-------	----------	------------------------	----------------------

24. Politics are something that I can never be too sure about because things change so fast. But I do think it's important to know what I believe in.

Strongly Agree	Moderately Agree	Agree	Disagree	Moderately Disagree	Strongly Disagree
-------------------	---------------------	-------	----------	------------------------	----------------------

OMEIS SCORING INSTRUCTIONS

DIRECTIONS: Six items have been constructed for each stage of identity subscale. Each subscale has two items reflecting each of the three dimensions of occupation, politics and religion. Items are scored by weighting the "strongly agree" by a value of 6 and the "strongly disagree" with a value of 1. Identity stage subscales are derived by totaling all six items, across the three dimensions, into a summed subscale score. (While occupation, politics and religion scores could be derived for each stage, it should be noted that such a scoring procedure would be experimental in nature, and that the subscales were not originally validated for such a procedure. Therefore, caution should be taken in the analysis of such data.)

For a comprehensive summary of validation attempts on the OMEIS refer to Adams, G.R., Shea, J.A., & Fitch, S.A. "Toward the Development of an Objective Assessment of Ego-Identity Status." Journal of Youth and Adolescence, 1978, in press.

Each item is identified under the appropriate identity stage and the subscale dimension which it is tapping.

	<u>Diffusion</u>	<u>Foreclosure</u>	<u>Moratorium</u>	<u>Identity Achievement</u>
Occupation	8, 16	2, 4	20, 22	10, 14
Politics	1, 11	17, 7	5, 19	13, 24
Religion	3, 6	21, 23	12, 15	9, 18
	<u>6 items</u>	<u>6 items</u>	<u>6 items</u>	<u>6 items</u>

APPENDIX J

Eriksonian Identity Instrument

APPENDIX J

Eriksonian Identity Instrument

Directions: Please indicate how well each of the following words or phrases describes you as you see yourself. Use the 5-point scale noted below:

- | 1 | 2 | 3 | 4 | 5 |
|--|---|---|---|--|
| Never or
almost never
true of me | | | | Always or
almost always
true of me |
-
1. Calm and untroubled
 2. An automatic response to all situations
 3. Likes adventure
 4. Can't reach my goals

 5. Full of confidence
 6. Little concern for the rest of the world
 7. Not able to stand frustration; everything frustrates me
 8. Values independence more than security

 9. Find it difficult to have sexual feelings
 10. Upright and hard working
 11. A fake, pretend to be what I'm not
 12. Honest, not afraid to show myself

 13. Open to new ideas
 14. Careful about details and overorganized
 15. Active
 16. Don't try as hard as I am able

 17. Natural and genuine
 18. Overly concerned with myself
 19. Can't share things with anybody
 20. Free and natural

 21. Afraid of sexual failure
 22. Interested in learning; like to study
 23. Spread myself too thin
 24. Warm and friendly

 25. Always an optimist
 26. Cautious, hesitant, doubting
 27. Ambitious
 28. Waste my time

29. At ease and well mannered
30. Very lonely
31. Pessimistic, little hope
32. Stand on my own two feet
33. Think too much about the wrong things
34. Serious, have high standards
35. Attempt to seem at ease
36. Have sympathetic concern for others
37. Able to take things as they come
38. Feel as if I am being followed
39. Inventive, enjoy finding new answers to new problems
40. Ineffective, don't amount to much
41. Know who I am and what I want out of life
42. Cold and distant
43. Long for lost paradise
44. Quietly go my own way
45. A lot of talking and planning, but little action
46. Get much done
47. Never know how I feel
48. Tactful in personal relations
49. Deep, unshakeable belief in myself
50. Always in the wrong, feeling sorry
51. Sexually aware
52. Living for pleasure, always "fooling around"
53. Proud of my own character and values
54. Secretly don't pay attention to the opinions of others
55. Never get what I really want
56. Good judge of when to comply and when to make myself heard
57. Controlled, never let myself go
58. Do well in my work
59. Afraid to get involved
60. Comfortable in close relationships

Identity Instrument: By Subscale

Basic Trust

- * 1. calm and untroubled--revised wording
(placid and untroubled)--original wording
- *13. open to new ideas
(accessible to new ideas)
- *25. always an optimist
(imperturbable optimist)
- 37. able to take things as they come
- 49. deep, unshakeable faith in himself (herself)

Basic Mistrust

- * 7. not able to stand frustration and everything frustrates him (her)
(incapable of absorbing frustration and everything frustrates him/her)
- 19. can't share things with anybody
- 31. pessimistic, little hope
- *43. longs for lost paradise
(dim nostalgia for lost paradise)
- 55. never gets what he really wants

Autonomy

- * 8. values independence more than security
(values independence above security)
- *20. free and natural
(free and spontaneous)
- 32. stands on his (her) own feet
- 44. quietly goes his (her) own way
- *56. good judge of when to make himself (herself) heard
(good judge of when to assert himself/herself)

Shame and Doubt

- 2. an automatic response to all situations
- *14. careful about details and overorganized
(meticulous and overorganized)
- 26. cautious, hesitant, doubting
- 38. feels as if he (she) were being followed
- *50. always in the wrong, feeling sorry
(always in the wrong, apologetic)

Initiative

- * 3. likes adventure
(adventuresome)
- *15. active
(dynamic)
- 27. ambitious
- *39. inventive, enjoys finding new answers to new problems
(inventive, delights in finding new solutions to new problems)
- 51. sexually aware

Guilt

- * 9. finds it difficult to have sexual feelings
(sexually blunted)
- *21. afraid of sexual failure
(afraid of impotence)
- 33. thinks too much about the wrong things
- *45. a lot of talking and planning, but little action
(big smoke but no fire)
- *57. controlled, never lets himself (herself) go
(inhibited and self-restricted)

Industry

- *10. upright and hardworking
(conscientious and hardworking)
- 22. interested in learning and likes to study
- 34. serious, has high standards
- *46. gets much done
(accomplishes much)
- *47. does well in his(her) work
(excels in his/her work)

Inferiority

- * 4. can't reach his (her) goals
(can't fulfill his/her ambitions)
- *16. doesn't try as hard as he (she) is able
(doesn't apply himself/herself fully)
- *28. wastes his (her) time
(fritters away his/her time)
- 40. ineffective, doesn't amount to much
- *52. living for pleasure, always "fooling around"
(a playboy, always "hacking" around)

Identity

- * 5. full of confidence
(confidence is brimming over)
- 17. natural and genuine
- *29. at ease and well manner
(poised)
- 41. knows who he (she) is and what he (she) wants out of life
- *53. proud of his (her) own character and values
(pride in his/her own character and values)

Role Diffusion

- *11. a fake, pretends to be what he (she) isn't
(a poseur, all facade and pretence)
- 23. spreads himself (herself) thin
- *35. attempts to seem at ease
(attempts to appear at ease)
- 47. never knows how he (she) feels
- *59. afraid to get involved
(afraid of commitment)

Intimacy

- *12. honest, not afraid to show himself (herself)
(candid, not afraid to expose himself (herself))
- 24. warm and friendly
- 36. has sympathetic concern for others
- 48. tactful in personal relations
- *60. comfortable in close relationships
(comfortable in intimate relationships)

Isolation

- * 6. little concern for the rest of the world
(little regard for the rest of the world)
- *18. overly concerned with himself (herself)
(preoccupied with himself/herself)
- 30. very lonely
- *42. cold and distant
(cold and remote)
- *54. secretly doesn't pay attention to the opinions of others
(secretly oblivious to the opinions of others)

APPENDIX K

Tennessee Self-Concept Scales

APPENDIX K

Tennessee Self-Concept Scales

Instructions: Please respond to these items as if you were describing you to yourself. Read each item carefully, then select one of the five alternative responses. Do not omit any item. On your answer sheet put a black mark in the chosen response. If you want to change any answer after marking it, erase the old answer completely.

Responses

Completely false = 1 Mostly false = 2 Partly false and partly true = 3
Mostly true = 4 Completely true = 5

- | | |
|--|---|
| 1. I have a healthy body | 35. I am neither too fat nor too thin |
| 2. I am an attractive person | 36. I like my looks just the way they are |
| 3. I consider myself a sloppy person | 37. I would like to change some parts of my body |
| 4. I am a decent sort of person | 38. I am satisfied with my moral behavior |
| 5. I am an honest person | 39. I am satisfied with my relationship to God |
| 6. I am a bad person | 40. I ought to go to church more |
| 7. I am a cheerful person | 41. I am satisfied to be just what I am |
| 8. I am a calm and easy going person | 42. I am just as nice as I should be |
| 9. I am a nobody | 43. I despise myself |
| 10. I have a family that would always help me in any kind of trouble | 44. I am satisfied with my family relationships |
| 11. I am a member of a happy family | 45. I understand my family as well as I should |
| 12. My friends have no confidence in me | 46. I should trust my family more |
| 13. I am a friendly person | 47. I am as sociable as I want to be |
| 14. I am popular with men | 48. I try to please others, but I don't overdo it |
| 15. I am not interested in what other people do | 49. I am no good at all from a social standpoint |
| 16. I do not always tell the truth | 50. I do not like everyone I know |
| 17. I get angry sometimes | 51. Once in a while I laugh at a dirty joke |
| 18. I like to look nice and neat all the time | 52. I am neither too tall nor too short |
| 19. I am full of aches and pains | 53. I don't feel as well as I should |
| 20. I am a sick person | 54. I should have more sex appeal |
| 21. I am a religious person | 55. I am as religious as I want to be |
| 22. I am a moral failure | 56. I wish I could be more trustworthy |
| 23. I am a morally weak person | 57. I shouldn't tell so many lies |
| 24. I have a lot of self-control | 58. I am as smart as I want to be |
| 25. I am a hateful person | 59. I am not the person I would like to be |
| 26. I am losing my mind | 60. I wish I didn't give up as easily as I do |
| 27. I am an important person to my friends and family | 61. I treat my parents as well as I should (use past tense if parents are deceased) |
| 28. I am not loved by my family | 62. I am too sensitive to things my family say |
| 29. I feel that my family doesn't trust me | 63. I should love my family more |
| 30. I am popular with women | 64. I am satisfied with the way I treat other people |
| 31. I am mad with the whole world | 65. I should be more polite to others |
| 32. I am hard to be friendly with | 66. I ought to get along better with other people |
| 33. Once in a while I think of things too bad to talk about | |
| 34. Sometimes, when I am not feeling well, I am cross | |

67. I gossip a little at times
68. At times I feel like swearing
69. I take good care of myself physically
70. I try to be careful about my appearance
71. I often act like I am "all thumbs"
72. I am true to my religion in my
everyday life
73. I try to change when I know I'm
doing things that are wrong
74. I sometimes do very bad things
75. I can always take care of myself in
any situation
76. I take the blame for things without
getting mad
77. I do things without thinking about them
first
78. I try to play fair with my friends and
family
79. I take a real interest in my family
80. I give in to my parents (use past
tense for deceased parents)
81. I try to understand the other fellow's
point of view
82. I get along well with other people
83. I do not forgive others easily
84. I would rather win than lose in a game
85. I feel good most of the time
86. I do poorly in sports and games
87. I am a poor sleeper
88. I do what is right most of the time
89. I sometimes use unfair means to get ahead
90. I have trouble doing the things that are
right
91. I solve my problems quite easily
92. I change my mind a lot
93. I try to run away from my problems
94. I do my share of work at home
95. I quarrel with my family
96. I do not act like my family thinks I
should
97. I see good points in all the people I
meet
98. I do not feel at ease with other
people
99. I find it hard to talk with strangers
100. Once in a while I put off until
tomorrow what I ought to do today

Scoring Information for Tennessee Self-Concept Scale

	Behavior	Self-Acceptance	Identity
Physical Self			
Positive	69, 85, 70	35, 52, 36	1, 18, 2
Negative	86, 71, 87	53, 37, 54	19, 3, 20
Moral & Ethical Self			
Positive	72, 88, 73	38, 55, 39	4, 21, 5
Negative	89, 74, 90	56, 40, 57	22, 6, 23
Personal Self			
Positive	75, 91, 76	41, 58, 42	7, 24, 8
Negative	92, 77, 93	59, 43, 60	25, 9, 26
Family Self			
Positive	78, 94, 79	44, 61, 45	10, 27, 11
Negative	95, 80, 96	62, 46, 63	28, 12, 29
Social Self			
Positive	81, 97, 82	47, 64, 48	13, 30, 14
Negative	98, 83, 99	65, 49, 66	31, 15, 32
Self-Criticism	84, 100	50, 67, 51, 68	16, 33, 17, 34

Reverse scoring of Negative Items, i.e., if S answered 5 on a negative item, list as 1 on the scoring form (though on that form, keep clear which scores come from P items and which from N items).

However, the answer sheet itself should be used to compute the Distribution Score (D) --negative items are NOT reversed for this purpose. The idea is to get a frequency count of the number of times S used answer 5, 4, etc., irrespective of item content. List the response frequency for the SC scale separately (they enter into the D index, but not the T/F index). To calculate D, operate on the Total (90 + the 10 SC items). Multiply the 5's sum by 2 and the 1's sum by 2; the number of 4's and 2's are NOT multiplied by anything; forget the 3's. Add. --That's D.

For T/F, use the distribution of responses data, for the 90 basic items only (omit SC). (4's + 5's) divided by (1's + 2's) is T/F.

APPENDIX L

Philosophical Security Assessment Test

APPENDIX L

Philosophical Security Assessment Test

Mature Dependent Security

I have worked out a philosophy for living that gives me confidence that I can meet any crises that life may bring.
 It makes me happy to feel that I have a worthwhile place in the world.
 I feel I am becoming more and more the kind of person I want to be.
 I feel a pleasant sense of achievement in knowing that my philosophy of life is based, on the whole, on my own personal grappling with problems.
 I feel a sense of ease in knowing what I want from life is good and is generally within my reach.
 I feel a sense of purpose in life and can therefore accept the fact that I shall never know the final truths about life and death.

Immature Dependent Security

I have peace of mind because I know that my best interests will always be looked after by a higher power.
 I fully accept our society's ideas about what is right and wrong.
 My religion is good because it has definite rules that I can follow.
 I'm happy to have a philosophy that I need not understand.
 I feel easy in my mind when doubt arises because there is always someone I can consult for the answers.
 It gives me peace of mind to know that my fate is decided beforehand.

Insecurity

I feel upset because I can't make my life what I want it to be.
 I cannot really accept the religious beliefs in which I was brought up, yet at times I feel guilty about not being able to.
 I feel helpless because there are so many things that I am unable to control.
 I often feel critical of myself for not living up to what I should be.
 At times I feel a real concern that my ideas about life are getting farther and farther away from those held by my parents.
 I feel uneasy about what lies in store for me in life.
 I deeply regret knowing that I can never undo all my wrongdoings.
 I am despondent about the cruelty of mankind.
 I feel uneasy when I consider life, death, and the hereafter.
 I sometimes feel that I am useless and unworthy.
 I feel that my life is without purpose.
 I feel uneasy because I have no future aims that seem worthwhile.

APPENDIX M
Research Consent Form

APPENDIX M

Research Consent Form

Relatedness Study

Department of Psychology

Participation Consent

The relatedness study is designed to investigate the relations among interpersonal relationships, perceived parenting styles, autonomy, and sense-of-self. A questionnaire that requires a total time of 1- to 1½ hours to complete will be administered.

1. The relatedness study has been explained to me and I understand the explanation that has been given and what my participation will involve.
2. I understand that I am free to discontinue my participation in the study at any time and without penalty.
3. I understand that the results of the study will be treated in strict confidence and that I will remain anonymous. Within these restrictions, group results of the study will be made available to me at my request.
4. I understand that my participation in the study does not guarantee any beneficial results to me.
5. I understand that, at my request, I can receive additional explanation of the study after my participation is completed.

Signed _____

Date _____

APPENDIX N
Debriefing Sheet

APPENDIX N

Relatedness Study Debriefing Sheet

Dear Student:

Thank you for participating in this project. This study was designed to examine the relations among interpersonal relationships, perceived parenting styles, autonomy, sense-of-self, and gender differences in early adulthood. In general terms, the goals of this study are to investigate how these different variables are related to each other, and more specifically, to see which of the above variables was the strongest predictor of one's sense-of-self. In other words, we want to find out what it is that has the most influence or impact on one's identity development.

One's sense-of-self (or identity) may be viewed as having two parts: 1) one's self-perceptions or self-concepts, and 2) one's beliefs regarding ideologies that are "external" to oneself; for example, one's vocational, political, and religious beliefs. We are interested in finding out what effects that family and peer relationships, the degree of one's independence or autonomy, and gender may have in predicting the status of one's ideas and beliefs about themselves and other ideologies. It has been shown that in infancy and early childhood, good "secure" relationships with others promote the development of a sense-of-self, but this has not yet been explored at later ages. It is an especially important question to ask for the period of late adolescence and early adulthood since coming to terms with one's identity is a predominate question during this period, and continues to be an issue at later ages as well. There are also indications in the research literature that the developmental "paths" of sense-of-self may be different for men as opposed to women, and so we want to explore this issue as well.

The findings of this study will also yield more descriptive, developmental, and empirical information on early adult development, and will help to clarify the ways in which various aspects of the young adult's environment function to contribute to both personal and social development. As soon as the data are analyzed, we will be happy to make available to you the general findings of this study (be sure to fill out a 3 x 5 card before you leave if you want this information sent to you).

APPENDIX 0

Normative Sample Means for the Personality Research
Form, the Eriksonian Identity Instrument,
and the Tennessee Self-Concept Scales

APPENDIX 0

Normative Sample Means for the Personality Research Form, the Eriksonian Identity Instrument, and the Tennessee Self-Concept Scales

Personality Research Form Scales (Jackson, 1967)^a

Scale	MALES			FEMALES		
	Normative ^a mean (N=1029)	Current ^b mean	Percentile	Normative ^a mean (N=1002)	Current ^b mean	Percentile
Affiliation	74.90	72.95	49	80.75	78.53	44
Nurturance	63.40	72.41	79	77.25	79.04	60
Succorance	39.40	57.72	89	55.95	63.18	67
Autonomy	43.10	59.42	89	35.40	55.66	89

Eriksonian Identity Instrument (Constantinople, 1969)^c

Scale	MALES			FEMALES		
	Sample mean (N=126)	Current mean		Sample mean (N=102)	Current mean	
Industry	16.61	18.67		17.32	19.37	
Inferiority	13.42	12.64		12.50	11.74	
Identity	16.97	19.70		16.76	19.77	
Role Diffusion	12.21	12.99		12.43	12.54	
Intimacy	17.61	12.12		18.89	20.14	
Isolation	11.22	11.92		10.51	11.17	

(Appendix continues)

APPENDIX 0 Cont.

Tennessee Self-Concept Scales (Fitts, 1965)

	MALES	FEMALES	TOTAL GROUP	Normative mean (N=636) ^d
	Current mean	Current mean	Current mean	
Positive concept of self (self-identity)	120.56	124.73	122.90	127.10
Self-esteem	334.81	338.10	336.66	345.57

^aNormative mean values were multiplied by 5 in order to be comparable to the 5-point Likert scale used in this study.

^bCurrent mean refers to means from the present study.

^cSample means are based on a 1965 sample of college sophomores; sample mean values have been multiplied by 5/7 to be equivalent to data in present study.

^dBased on both males and females combined.

APPENDIX P

Tables 25 through 33

APPENDIX P

Table 25
Positive Self-Identity Scale: The Assessment of the Path Analysis

	Males							Females						
	Observed Correlations							Observed Correlations						
1) Parental Warmth	44	-21	25	26	33	39		62	3	47	33	43	53	
2) Parental Autonomy		47	6	26	35	43			33	32	29	31	39	
3) Familial Independent Security			-3	67	26	42				-2	72	2	23	
4) Family Cohesion				18	29	34					21	19	36	
5) Extra-familial Security					46	51						21	46	
6) Relatedness to Others						65							57	
7) Positive Self-Identity														

	Reproduced Correlations							Reproduced Correlations						
	1	2	3	4	5	6	7	1	2	3	4	5	6	7
1) Parental Warmth	44	-21	25	26	33	39		62	3	47	33	43	53	
2) Parental Autonomy		47	11	26	36	31			33	29	29	31	37	
3) Familial Independent Security			-5	67	26	24				1	72	2	22	
4) Family Cohesion				13	29	33					24	19	37	
5) Extra-familial Security					45	50						21	46	
6) Relatedness to Others						65							57	
7) Positive Self-Identity														

	Observed Minus Predicted Correlations							Observed Minus Predicted Correlations						
	1	2	3	4	5	6	7	1	2	3	4	5	6	7
1) Parental Warmth	0	0	0	0	0	0		0	0	0	0	0	0	
2) Parental Autonomy		0	-5	0	-1	12			0	3	0	0	2	
3) Familial Independent Security			2	0	0	18				-3	0	0	1	
4) Family Cohesion				5	0	1					-3	0	-1	
5) Extra-familial Security					1	1						0	0	
6) Relatedness to Others						0							0	
7) Positive Self-Identity														

Sum of Squared Deviations: .05 .00

Table 26
Eriksonian Identity Instrument: The Assessment of the Path Analysis

	Males							Females						
	Observed Correlations							Observed Correlations						
1) Parental Warmth	1	2	3	4	5	6	7	1	2	3	4	5	6	7
2) Parental Autonomy		44	-21	25	26	33	44		62	3	47	33	43	43
3) Familial Independent Security			47	6	26	35	45			33	32	29	31	32
4) Family Cohesion				-3	67	26	60				-2	72	2	58
5) Extra-familial Security					18	29	25					21	19	24
6) Relatedness to Others						46	71						21	70
7) Eriksonian Identity							64							44

	Reproduced Correlations							Reproduced Correlations						
	1	2	3	4	5	6	7	1	2	3	4	5	6	7
1) Parental Warmth	44	-21	25	26	33	44		62	3	47	33	43	43	
2) Parental Autonomy		47	11	26	36	59			33	29	29	31	41	
3) Familial Independent Security			-5	67	26	60				1	72	2	58	
4) Family Cohesion				13	29	23					24	19	26	
5) Extra-familial Security					45	70						21	70	
6) Relatedness to Others						64								44
7) Eriksonian Identity														

	Observed Minus Predicted Correlations							Observed Minus Predicted Correlations						
	1	2	3	4	5	6	7	1	2	3	4	5	6	7
1) Parental Warmth	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2) Parental Autonomy		0	-5	0	-1	-14			0	3	0	0	-9	
3) Familial Independent Security			2	0	0	0				-3	0	0	0	
4) Family Cohesion				5	0	2					-3	0	-2	
5) Extra-familial Security					1	1						0	0	
6) Relatedness to Others						0								0
7) Eriksonian Identity														

Sum of Squared Deviations:														.01
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Table 27
Philosophical Security Test: The Assessment of the Path Analysis

	Males							Females						
	Observed Correlations							Observed Correlations						
1) Parental Warmth	1	2	3	4	5	6	7	1	2	3	4	5	6	7
2) Parental Autonomy	44	-21	25	26	33	28		62	3	47	33	43	32	
3) Familial Independent Security		47	6	26	35	39			33	32	29	31	29	
4) Family Cohesion			-3	67	26	73				-2	72	2	73	
5) Extra-familial Security				18	29	21					21	19	21	
6) Relatedness to Others					46	91						21	90	
7) Philosophical Security						54							35	

	Reproduced Correlations							Reproduced Correlations						
	1	2	3	4	5	6	7	1	2	3	4	5	6	7
1) Parental Warmth	44	-21	25	26	33	28		62	3	47	33	43	32	
2) Parental Autonomy		47	11	26	36	43			33	29	29	31	34	
3) Familial Independent Security			-5	67	26	73				1	72	2	73	
4) Family Cohesion				13	29	17					24	19	24	
5) Extra-familial Security					45	91						21	90	
6) Relatedness to Others						53							35	
7) Philosophical Security														

	Observed Minus Predicted Correlations							Observed Minus Predicted Correlations						
	1	2	3	4	5	6	7	1	2	3	4	5	6	7
1) Parental Warmth	0	0	0	0	0	0		0	0	0	0	0	0	
2) Parental Autonomy		0	-5	0	-1	-4			0	3	0	0	-5	
3) Familial Independent Security			2	0	0	0				-3	0	0	0	
4) Family Cohesion				5	0	4					-3	0	-3	
5) Extra-familial Security					1	0						0	0	
6) Relatedness to Others						1							0	
7) Philosophical Security							1							0

Sum of Squared Deviations: .01

.01

Table 28
Ego-Identity Achievement: The Assessment of the Path Analysis

	Males							Females			
	Observed Correlations							Observed Correlations			
	1	2	3	4	5	6	7	1	2	3	4
1) Parental Warmth		44	-21	25	26	33	19		62	3	11
2) Parental Autonomy			47	6	26	35	32			33	1
3) Familial Independent Security				-3	67	26	26				12
4) Family Cohesion					18	29	23				
5) Extra-familial Security						46	25				
6) Relatedness to Others							39				
7) Ego-Identity Achievement											

	Reproduced Correlations							Reproduced Correlations			
	1	2	3	4	5	6	7	1	2	3	4
	1	2	3	4	5	6	7	1	2	3	4
1) Parental Warmth		44	-21	25	26	33	19		62	3	11
2) Parental Autonomy			47	11	26	36	33			33	10
3) Familial Independent Security				-5	67	26	21				12
4) Family Cohesion					13	29	24				
5) Extra-familial Security						45	24				
6) Relatedness to Others							39				
7) Ego-Identity Achievement											

	Observed Minus Predicted Correlations							Observed Minus Predicted Correlations			
	1	2	3	4	5	6	7	1	2	3	4
	1	2	3	4	5	6	7	1	2	3	4
1) Parental Warmth		0	0	0	0	0	0		0	0	0
2) Parental Autonomy			0	-5	0	-1	-1			0	-9
3) Familial Independent Security				2	0	0	5				0
4) Family Cohesion					5	0	-1				
5) Extra-familial Security						1	1				
6) Relatedness to Others							0				
7) Ego-Identity Achievement											

Sum of Squared Deviations: .01

.01

Table 29

Evaluation of the Path Models: Test Values for Individual Correlation Discrepancies and the Chi-Square Test for Overall Goodness-of-Fit

			Value for Individual Discrepancy (d*)	df	χ^2	p
<u>Independent Security</u>						
Figure 2	Positive Concept of Self	(males)	.25	9	.0004	ns
		(females)	.23	6	.0000	ns
Figure 3	Eriksonian Identity	(males)	.26	8	.8721	ns
		(females)	.24	5	.3448	ns
Figure 4	Philosophical Security	(males)	.28	8	.2500	ns
		(females)	.24	5	.3226	ns
Figure 5	Ego-Identity	(males)	.26	9	.2890	ns
		(females)	.27	1	.2688	ns
<u>Enmeshed Security</u>						
Figure 6	Positive Concept of Self	(males)	.25	6	.3086	ns
		(females)	.22	3	.0000	ns
Figure 7	Eriksonian Identity	(males)	.26	6	.2941	ns
		(females)	.23	3	.0000	ns
Figure 8	Philosophical Security	(males)	.28	6	.0000	ns
		(females)	.24	3	.3311	ns
Figure 9	Ego-Identity	(males)	.25	6	.5988	ns

Table 30
Positive Self-Identity: The Assessment of the Path Analysis
with Enmeshed Security

	Males						Females					
	Observed Correlations						Observed Correlations					
	1	2	3	4	5	6	1	2	3	4	5	6
1) Parental Autonomy		44	6	-7	35	43		62	32	18	31	39
2) Parental Warmth			25	46	33	39			47	34	43	53
3) Family Cohesion				18	29	34				39	19	36
4) Enmeshed Security					52	23					56	36
5) Relatedness to Others						65						57
6) Positive Self-Identity												

	Reproduced Correlations						Reproduced Correlations					
	1	2	3	4	5	6	1	2	3	4	5	6
1) Parental Autonomy		44	11	-7	36	38		62	29	17	31	35
2) Parental Warmth			25	46	33	39			47	34	43	53
3) Family Cohesion				16	30	35				39	19	36
4) Enmeshed Security					52	23					56	36
5) Relatedness to Others						65						57
6) Positive Self-Identity												

	Observed Minus Predicted Correlations						Observed Minus Predicted Correlations					
	1	2	3	4	5	6	1	2	3	4	5	6
1) Parental Autonomy		0	-5	0	-1	5		0	3	1	0	4
2) Parental Warmth			0	0	0	0			0	0	0	0
3) Family Cohesion				2	-1	-1				0	0	0
4) Enmeshed Security					0	0					0	0
5) Relatedness to Others						0						0
6) Positive Self-Identity												

Sum of Squared Deviations: .01 .00

Table 31
Eriksonian Identity Instrument: The Assessment of the Path Analysis
with Enmeshed Security

	Males						Females					
	Observed Correlations						Observed Correlations					
1) Parental Autonomy	1	2	3	4	5	6	1	2	3	4	5	6
2) Parental Warmth		44	6	-7	35	45		62	32	18	31	32
3) Family Cohesion			25	46	33	44			47	34	43	43
4) Enmeshed Security				18	29	25				39	19	24
5) Relatedness to Others					52	3					56	-1
6) Eriksonian Identity						64						44

	Reproduced Correlations						Reproduced Correlations					
	1	2	3	4	5	6	1	2	3	4	5	6
1) Parental Autonomy		44	11	-7	36	53		62	29	17	31	31
2) Parental Warmth			25	46	33	44			47	34	43	43
3) Family Cohesion				16	30	27				39	19	24
4) Enmeshed Security					52	3					56	-1
5) Relatedness to Others						64						44
6) Eriksonian Identity												

	Observed Minus Predicted Correlations						Observed Minus Predicted Correlations					
	1	2	3	4	5	6	1	2	3	4	5	6
1) Parental Autonomy		0	-5	0	-1	-8		0	3	1	0	1
2) Parental Warmth			0	0	0	0			0	0	0	0
3) Family Cohesion				2	-1	-2				0	0	0
4) Enmeshed Security					0	0					0	0
5) Relatedness to Others						0						0
6) Eriksonian Identity												0

Sum of Squared Deviations: .01 .00

Table 32
Philosophical Security Test: The Assessment of the Path Analysis
with Enmeshed Security

	Males						Females					
	Observed Correlations						Observed Correlations					
	1	2	3	4	5	6	1	2	3	4	5	6
1) Parental Autonomy		44	6	-7	35	39		62	32	18	31	29
2) Parental Warmth			25	46	33	28			47	34	43	32
3) Family Cohesion				18	29	21				39	19	21
4) Enmeshed Security					52	5					56	12
5) Relatedness to Others						54						35
6) Philosophical Security												

	Reproduced Correlations						Reproduced Correlations					
	1	2	3	4	5	6	1	2	3	4	5	6
1) Parental Autonomy		44	11	-7	36	38		62	29	17	31	22
2) Parental Warmth			25	46	33	28			47	34	43	32
3) Family Cohesion				16	30	23				39	19	21
4) Enmeshed Security					52	5					56	12
5) Relatedness to Others						54						35
6) Philosophical Security												

	Observed Minus Predicted Correlations						Observed Minus Predicted Correlations					
	1	2	3	4	5	6	1	2	3	4	5	6
1) Parental Autonomy		0	-5	0	-1	1		0	3	1	0	7
2) Parental Warmth			0	0	0	0			0	0	0	0
3) Family Cohesion				2	-1	-2				0	0	0
4) Enmeshed Security					0	0					0	0
5) Relatedness to Others						0						0
6) Philosophical Security												

Sum of Squared Deviations: .00 .01

Table 33
Ego-Identity Achievement: The Assessment of the
Path Analysis with Enmeshed Security

		Males					
		Observed Correlations					
		1	2	3	4	5	6
1)	Parental Autonomy		44	6	-7	35	32
2)	Parental Warmth			25	46	33	19
3)	Family Cohesion				18	29	23
4)	Enmeshed Security					52	14
5)	Relatedness to Others						39
6)	Ego-Identity Achievement						

		Reproduced Correlations					
		1	2	3	4	5	6
1)	Parental Autonomy		44	11	-7	36	20
2)	Parental Warmth			25	46	33	19
3)	Family Cohesion				16	30	24
4)	Enmeshed Security					52	14
5)	Relatedness Security						39
6)	Ego-Identity Achievement						

		Observed Minus Predicted Correlations					
		1	2	3	4	4	6
1)	Parental Autonomy		0	-5	0	-1	12
2)	Parental Warmth			0	0	0	0
3)	Family Cohesion				2	-1	-1
4)	Enmeshed Security					0	0
5)	Relatedness to Others						0
6)	Ego-Identity Achievement						

Sum of Squared Deviations: .02

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LIST OF REFERENCES

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