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# Identity Development in Late Adolescence: Causal Modeling of Social and Familial Influences

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*The purpose of this study was to develop a causal model to examine the ways in which familial and social variables influence identity development in late adolescence. Four hundred and ten 18- to 21-year-old male and female college students at a large Midwestern university completed a questionnaire assessing familial security, familial and social relations, and three dimensions of identity. The resulting causal models indicated that security in familial relations enhanced identity development directly, and also indirectly by initially enhancing adolescents' social confidence and degree of interpersonal affiliation. However, the pattern of interaction among these variables varied with sex and with the specific identity measure used. It is suggested that security in familial relations may provide the support for meaningful exploration and experimentation, and enhance aspects of adolescents' sociability, which, when taken together, may enhance the identity formation process.*

## INTRODUCTION

Identity formation is viewed as a complex psychosocial process that constitutes one of the major developmental tasks of adolescence (Erikson, 1959, 1968). According to Erikson (1968), identity is a search for what to

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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. Identity formation is thought to proceed developmentally 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 clear definition of self (Erikson, 1968).

It has been proposed that identify consists of at least three related yet separate components: ego identity, self-identity, and the achievement of a sense of meaning or purpose in life (Damon, 1983; Erikson, 1959, 1968; Marcia, 1980). Ego identity refers to the formation of an ideological worldview, which in part includes a set of personal values regarding occupational goals, religious values, and political beliefs. Self-identity refers to an individual's perception of self, including self-sameness and continuity of self over time. Finally, the task of formulating a purpose or meaning in life is a third dimension of identity development. Erikson (1968) has suggested that identity is ideally experienced as a sense of well-being, with those who have a secure identity feeling "at home" with themselves and confident about knowing their place and direction in life.

Recent research on the antecedent conditions of identity formation suggests that certain familial and social factors may influence the developmental course of identity. Specifically, family relationship patterns that are characterized by both "connectedness" and "individuality" seem to promote identity formation, as do peer relationships. Each of these potential sources of influence is discussed in turn below.

### *Familial Influences on Identity Development*

Connectedness within the family interaction pattern refers to a supportive, sensitive, and responsive family environment (Grotevant and Cooper, 1985). Research suggests that parenting styles characterized by warmth, feelings of closeness and security, support, acceptance, and frequent demonstrations of praise appear to enhance the identity formation process during adolescence (Adams and Jones, 1983; Allen, 1976; LaVoie, 1976; Marcia, 1983; Matteson, 1974). Conversely, adolescents who perform "lowest" on identity assessments have typically been described as having experienced rejecting and detached home reactions, with parents perceived as being indifferent, inactive, uninvolved, detached, and rejecting (Jordan, 1970, 1971; Matteson, 1974). This latter group of adolescents also tends to lack confidence in parental supports (Marcia, 1983).[2]

[2]These parental characteristics (i.e., those that "enhance" vs. those that "hinder" identity development) are surprisingly similar to those described by Ainsworth *et al.* (1978) regarding the

In addition to a supportive and secure family environment, families who provide for individuality (i.e., allowing expressions of the distinctiveness of self) and autonomy, and who exert minimal parental control within the family interaction pattern, also appear to enhance adolescent identity formation (Adams and Jones, 1983; Grotevant, 1983; Grotevant and Cooper, 1985; Marcia, 1983). Individuality and autonomy within the family network provides adolescents with opportunities to explore identity alternatives, which has been cited elsewhere as a necessary prerequisite for identity consolidation (Marcia, 1983; Matteson, 1974; Orlofsky *et al.*, 1973). It appears individuals need to explore and experiment with the many social roles, belief systems, and other areas of choice available to them before they can knowingly decide upon and ultimately integrate these identity options into a self-chosen identity. Exploring and experimenting with identity options assists adolescents in discovering their respective likes and dislikes, skills and abilities, and their unique personal attributes.

Family interaction patterns that are characterized by both connectedness and individuality may enhance opportunities for adolescents' exploration of identity alternatives in several ways. Connectedness may provide the security and self-esteem that is needed in order for adolescents to be able to take risks and explore identity alternatives (Grotevant, 1983; Marcia, 1983). In other words, having a "dependable home base" allows one to explore identity alternatives. Marcia (1983), in fact, states that without the support, security, and encouragement for meaningful exploration and experimentation, a true sense of identity would be difficult to achieve. As Marcia points out, this idea is similar to Bowlby's (1969) attachment–exploration model of the early years of life, whereby successful infant exploration is contingent upon secure parental attachment. A similar point is made by Smith and Smith (1976), who propose that early secure attachments play a facilitative role in the separation-individuation process during adolescence, which, according to Josselson (1980), is a precursor to the development of autonomy in adolescents. As discussed above, autonomy is an important, if not necessary, ingredient of the identity formation process. Individuality within the family relationship pattern can promote the development of a sense of self that is distinctive and unique (Grotevant, 1983). Parental sensitivity to adolescents' increased need for autonomy may help promote the exploration of identity alternatives by allowing adolescents to seek exposure to diverse models and options (Hartup, 1979). Conversely, families that are unable to change in

development of secure, and, conversely, insecure parent-infant attachment relationships during the early years of life. That is, parents of securely attached infants are characteristically reliable sources of comfort, and are responsive, sensitive, "warm," and available to their infants. Parents of insecurely attached infants, by contrast, tend to be less sensitive and responsive, less available, and may be "detached" from and even rejecting of their infants.

order to accommodate their adolescents' need for autonomy may inhibit their ability to explore identity-relevant options.

### *Peer Influences on Identity Development*

In addition to parenting styles and family structure, peer relations have also been suggested as influencing identity formation. Friendships and peer relations appear to enhance identity formation in a variety of ways, including facilitating adolescents' self-knowledge (Erikson, 1959, 1968), providing adolescents with feelings of continuity and a sense of who they are (Berndt, 1982), and providing a "group" identity that may function as a defense against identity diffusion (McKinney *et al.*, 1982; Siegel, 1982; Smart, 1978). Peer relations may aid adolescents in their separation from their parents (Siegel, 1982), help validate their sense of self and self-worth (Lemon *et al.*, 1972), and provide a "safe" environment to explore and experiment with identity alternatives (McKinney *et al.*, 1982; Smart, 1978). According to Marcia (1983), interpersonal relations are vitally important to the identity development process, since identity is a psychosocial issue and thus develops in relation to others. In other words, individuals are who they are because they stand in some unique relation to others.

### *Familial Influences on Peer Relations*

The family relationship patterns described above as enhancing identity development (i.e., connectedness and individuality) may play an influential role in the development of adolescent peer relations, which could in turn impact identity formation. Individuality within the family network, for example, may simply provide for more opportunities for peer involvement. Connectedness within parent–adolescent relations, on the other hand, may in part enhance adolescents' self-esteem and confidence, and provide a model for interpersonal relations that could extend to and enhance involvement and interaction with peers. Such a relationship has been documented during the early years of life, whereby secure parent–child relations have been found related to later sociability and social competence (Easterbrook and Lamb, 1979; Waters *et al.*, 1979). More recently, secure parent–adolescent relations have been shown to promote social competence and to satisfy peer relations during adolescence as well (Bell *et al.*, 1985; Gold and Yanof, 1985; Hartup, 1983). According to Gold and Yanof (1985), adolescent peer relationships are significantly affected by both the values regarding and the capacities for intimacy that characterize the parent–adolescent relationship. Thus, familial relations may not only influence identity directly, but also indirectly by first influencing peer relations.

### *Summary and Purpose of Study*

In summary, the above studies are in general agreement about which familial variables (i.e., closeness coupled with individuality) and social variables (i.e., peer relations) influence identity development in adolescence. Although studies to date have not empirically demonstrated the causal ordering of these variables and the ways in which these variables influence one another, they suggest that (1) familial connectedness and individuality may influence identity directly, as discussed earlier, and also indirectly by enhancing adolescents' peer relations, and (2) familial security coupled with individuality may be a common basis and developmental prerequisite of the social (i.e., peer relations) and familial (i.e., closeness and autonomy) correlates of identity formation noted in previous studies. The primary purpose of the current study was to address these notions by developing a causal model predicting identity development. Specifically, it was expected that parent-adolescent closeness and autonomy would enhance, and be subsumed by, familial security that allowed for individuality. Second, it was anticipated that familial security would enhance peer relations. Third, it was expected that both familial security and peer relations would enhance identity development.

There were two other goals of this study. First, the majority of studies to date have focused on only one of several possible dimensions of identity, namely, ego identity. Self-identity and meaning-in-life have been virtually ignored. In the current study, four measures assessing features of the three dimensions of identity (i.e., ego, self-, and meaning-in-life) were used, and the resulting patterns of variable relations were compared. Second, in previous studies gender differences in identity formation have been found (e.g., Douvan and Adelson, 1966; Gilligan, 1982; Hodgson and Fischer, 1979; Marcia, 1983), but they have not been sufficiently understood or explained. In the current study, gender differences were also examined.

## METHOD

### *Subjects*

The subjects were 410 18- to 21-year-old undergraduate students ($\bar{X}$ = 19.3 years; 180 males and 230 females) from a large Midwestern university. Most were from middle-class homes, with 85% of the subjects reporting an annual parental income of $25,000 or more. All subjects had both parents who were alive and present in the home at least through the subject's early adolescent years. Subjects were solicited from introductory psychology courses and received extra course credit for their participation. The data presented here are part of a larger study of identity development in late adolescence (Kamptner, 1984).

### *Instruments*

*Familial Security.* To measure security in parent-adolescent relationships, the familial scale from the Security Assessment Tests (Ainsworth and Ainsworth, 1958) was used. This 36-item scale was designed to assess the extent of security experienced by the individual in his/her familial relationships. The four subscales that comprise this scale include Independent Security (i.e., feeling secure in relations with parents, while having confidence in one's self), Immature-Dependent Security (i.e., exaggerated reliance on one's parents), Insecurity (i.e., unhappy and insecure relations with parents), and "Deputy Agents" (i.e., use of defense mechanisms). The reliability coefficients for these subscales, based on internal consistency, range from .66 to .90 (Ainsworth and Ainsworth, 1958). Items were presented on a 5-point Likert scale (1, *strongly disagree*; 5, *strongly agree*).

*Familial Relations.* Familial variables that have been identified in previous research as influencing identity development were included: parental warmth and approval, parental autonomy, and family cohesion. First, to measure parental warmth, approval, and autonomy, Items 5–10 of the Parental Socialization Style Questionnaire (adapted from LaVoie, 1976) were used. These items measure adolescents' perception of the affection, approval, and autonomy that their parents demonstrate toward them (e.g., "How often does your mother show her warmth, love, and affection toward you?" "How free and independent does your father allow you to be?"). Subjects responded to each item (2 items for each of the above three constructs) on a 5-point Likert scale (1, *not at all*; 5, *always*), separately for each parent. 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 ranging from .43 to .59 for the entire scale.

Second, the Family Cohesion scale from the Family Adaptability and Cohesion Evaluation Scales (FACES; Olson *et al.*, 1978) was used to assess the subjects' perceptions of closeness (i.e., "cohesion") within their family of origin. Family cohesion refers to the individual's perception of the balance in their family between emotional closeness and individual autonomy. High scores on this 54-item scale indicate extreme closeness and limited individual autonomy in the family (e.g., "Family members have little need for friends because the family is so close," "Family members are totally involved in each other's lives"). The internal consistency (alpha) reliability of the total scores for the Cohesion scale is .83 (Olson *et al.*, 1978). Subjects responded to the inventory on a Likert-type scale (1, *true none of the time*; 4, *true all of the time*).

*Social Relations.* Four scales were included to measure dimensions of adolescents' social involvements. Since other studies have demonstrated that

friendships and peer relations can promote the identity development process, scales were selected to assess the parameters of social affiliation and involvement, as well as how confident adolescents felt in social relations and situations.

First, the Nurturance and Affiliation scales from the Personality Research Form were used (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 things for others (e.g., "If someone is lonely, I spend some time trying to cheer them up"). The Affiliation scale measures the degree to which one experiences pleasure in being with others, how readily one "accepts" others, and how much effort one makes to establish and maintain social relationships (e.g., "Having friends is very important to me"). Test-retest reliabilities for these two scales are .82 and .79, with validity coefficients ranging from .34 to .80, respectively (Jackson, 1967). The two scales consist of 20 items each, and they were presented in a Likert-scale format (1, *strongly agree*; 5, *strongly disagree*)

Second, the Expressed Affection scale from the Fundamental Interpersonal Orientation-Behavior Scale (FIRO-B; Schutz, 1978) was used to assess how "affectionate" a person behaves toward other people. High scores indicate a desire for a great deal of exchange of affection and warmth (e.g., "I try to have close, personal relationships with people"), while low scores indicate a preference for more personal distance from people with impersonal "business-like" relationships. The internal consistency of this 9-item scale is .93, with a test–retest reliability of .76 and satisfactory content validity (Schutz, 1978). Items were presented on a Likert-type format.

Finally, to measure adolescents' perceived security or confidence in social relations, the Extra-Familial Security scale from Ainsworth and Ainsworth's (1958) Security Assessment Tests was used. This scale is comprised of five subscales, which include Independent Security (i.e., self-confidence in social situations), Mature-Dependent security (i.e., security derived through interdependency), Immature-Dependent security (i.e., reliance upon others), Insecurity (i.e., loneliness and isolation), and Deputy Agents (i.e., use of insecurity defense mechanisms). Reliability coefficients for these subscales range from .55 to .72. The 42 items were presented on a 5-point Likert scale (1, *strongly disagree*; 5, *strongly agree).*

*Identity.* Since most studies have focused on only one of several dimensions of identity, four scales were included in an attempt to address its multidimensional nature as defined by Erikson and others.

First, to assess ego identity, the Objective Measure of Ego-Identity Status (Adams *et al.*, 1979) was used. This 24-item Likert-type scale (1, *strongly disagree*; 6, *strongly agree*) measures the presence or absence of "crisis" and "commitment" in the areas of occupational, religious, and political choice. Subjects' responses provide indices for subscales reflecting four identity sta-

tus categories (Identity Diffusion, Identity Foreclosure, Identity Moratorium, and Identity Achieved). Original validation studies with males and females suggest good internal consistency of the scales (Adams *et al.*, 1979). Only those 6 items reflecting identity achievement were used in the final analysis of this study, since a continuous, undimensional measure of ego-identity was needed for use in the path analyses. (The entire scale, by contrast, simply categorizes individuals into one of four or more identity status groups.)

Second, the Self-Identity scale from the Tennessee Self-Concept Scale (TSCS; Fitts, 1965) was used. This scale consists of 30 Likert-scale items (1, *completely false*; 5, *completely true*), and assesses how individuals view themselves within five "domains": physical self, moral-ethical self, personal self, social self, and family self (e.g., "I am an attractive person," "I am an important person to my friends and family".) This scale was used as an assessment of the "perception of self" aspect of self-identity, since it evaluates one's positive concept of self with regard to five dimensions of the "who am I" parameter. (Unfortunately, however, it does not assess the self-sameness dimension of self-identity). Test–retest reliability for this scale is .91, and content and discriminative validity are demonstrated in the scale manual (Fitts, 1965).

Third, the Philosophical Security test from Ainsworth and Ainsworth's (1958) Security Assessment Tests was used as an assessment of Erikson's (1959, 1968) meaning-in-life dimension of identity. This scale reportedly assesses the degree to which an individual has defined, and feels secure in, his/her meaning or purpose in life. This scale is comprised of four subscales, including Mature-Dependent Security (i.e., having worked through and defined one's meaning in life), Immature-Dependent Security (i.e., having accepted others' dogmas), Insecurity (i.e., feeling without purpose), and Deputy Agents (i.e., use of defense mechanisms). Subjects responded to these 36 items on a Likert scale (1, *strongly disagree*; 5, *strongly agree*). Reliability coefficients for these subscales, based on internal consistency, range from .59 to .66.

Finally, the Eriksonian Identity Instrument (Constantinople, 1969) was used as a more inclusive measure of identity that subsumes the other three notions. This instrument was designed to assess subjects' (especially college students') identity achievement relative to the normative pattern of development in late adolescence described by Erikson (Constantinople, 1969). It consists of 5 items reflecting the successful resolution, and 5 items reflecting the unsuccessful resolution of each stage of Erikson's first six stages of psychosocial development. This instrument has some construct validity, and test–retest reliabilities for the three stages that Constantinople considered to be the most relevant to college students (i.e., Industry vs. Inferiority, Identity vs. Role Diffusion, and Intimacy vs. Isolation) range from .45 to .81 for a six-week interval (Constantinople, 1969). In the current study, the scales for these same three stages were used. Subjects responded to each item on a 5-point Likert-

type format (1, *never or almost never true of me*; 5, *always or almost always true of me*). Revised wording for several of the items outlined by Brahms (1978) was used, since she found that subjects were frequently confused by the original wording.

*Background Information.* In addition to the above scales, subjects also completed several items regarding their personal background, including their age, gender, parental income, and parental marital status.

### *Procedure*

A questionnaire that was comprised of the above scales was administered in small group sessions. The entire questionnaire took approximately 1½ hours to complete.

## RESULTS

### *Preliminary Analyses*

Before the raw data were reduced to scale scores, the reliability and construct validity of the Familial, Extra-Familial, and Philosophical Security Assessment test were examined using confirmatory factor analysis (i.e., "cluster" analysis). The confirmatory factor analysis program from PACKAGE (Hunter *et al.*, 1982) groups of "clusters" sets of items or variables that are considered to be meaningfully similar measures of the same underlying trait or construct, and evaluates each resulting factor (cluster) according to its unidimensionality (i.e., homogeneity of content, internal consistency, and parallelism) (Hunter and Gerbing, 1982). Communialities were used in calculating the factors for this study, which implicitly corrected for attenuation.

Confirmatory factor analysis was first performed on the three Security Assessment tests using Ainsworth and Ainsworth's (1958) original subscale groupings, since the authors recommended at the end of their report that further work needed to be done on the scales. The results revealed acceptable but not impressive coefficient alphas (range: .43–.84), with poor internal consistency (range: -.09–.64) and part-whole correlations (range: .11–.80). By slightly modifying the items in the clusters, the final clusters produced, in most cases, factors with higher coefficient alphas, better internal consistency, and clusters that were more parallel. The revised item groupings comprising each new factor and the corresponding statistical information are available from the author.

The mean scores for the total group, and for the male and female groups, were then calculated. A multivariate analysis of variance was used

to compare the total group and gender mean scores for each of the variables. The multivariate $F$ test (using Hotelling's test) was significant ($F[1, 40] = 4.52, p < .0001$) for sex differences among the variables. This confirmed the presence of sex differences and provided a justification for grouping the males and females separately for the remaining analyses. (These results showed in part that males scored significantly higher than females on measures of independence-autonomy from parents, and feelings of inferiority and isolation. Females, however, scored significantly higher than males on measures of social affiliation, father approval and warmth, industry, and positive self-concept.)

### *Clusters and Path Models*

Next, confirmatory factor analysis (Hunter *et al.*, 1982) was used to cluster the social and familial variables needed for use in the path analyses. Ten clusters were created, each satisfying the criteria for unidimensionality. The new cluster titles, definitions, composition, and statistical information are presented in Table I. Using these clusters, path analytic models were constructed separately for the male and female groups for each of the four identity measures. This resulted in a total of eight path analytic models.

Correlations among the final clusters were then calculated, correcting for attenuation. These data were then used to construct the path models, using the ordinary least squares to estimate path coefficients. The results for the path analyses, including the observed correlations (i.e., the data-produced correlations of cluster scores), the reproduced correlations (i.e., the correlations among the variables in the path diagram that are reproduced from the set of path coefficients, and which are the sum of direct, indirect, and spurious effects), and the errors in the reproduction (i.e., the observed minus the reproduced correlations) showed that the path analyses fit the data quite well. Thus, the models reflected the lowest error of other possible variable combinations.

To evaluate the path models, individual comparisons were checked against their reproduced values, and the overall fit of the path model was assessed (Hunter, 1983). To assess the individual correlations, test values ($d^*$) were generated for evaluating the individual discrepancies (i.e., the "deviation" values listed in the error matrix) using the procedure outlined by Hunter (1983). The results indicated 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 model, the chi-square goodness-of-fit test was used (Hunter, 1983) to compare 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. Results from this test showed that

**Table I.** Final Clusters for Path Analyses: Definition, Cluster Content, Coefficient Alphas, Internal Consistency, and Part-Whole Correlations ($N$ = 140)

| Cluster | Definition | Content | Coefficient alpha | Internal consistency | Part-whole correlation |
|---|---|---|---|---|---|
| 1. Familial Security | Secure relations with parents; confident of parental support; autonomy in parent-adolescent relationship | Familial Security scale (items 1, 6, 11,[a] 12,[a] 15, 17,[a] 20, 23,[a] 32[a]) (Ainsworth and Ainsworth, 1958) | .51 | .34–.38 | .60 |
| 2. Extra-Familial Security | Feels secure with people; is socially confident | Extra-Familial scale (items 1, 2, 3,[a] 5,[a] 8, 12,[a] 17, 22,[a] 23,[a] 24, 27,[a] 28,[a] 34, 35, 37,[a] 38,[a] 40,[a] 42,[a]) (Ainsworth and Ainsworth, 1958) | .79 | .55–.60 | .74–.77 |
| 3. Social Relatedness | High social (peer) affiliation; is affectionate and nurturant toward others | Affection, Nurturance, and Affiliation scales (Jackson, 1967) | .76 | .41–.47 | .66–.85 |
| 4. Family Cohesion | Close and cohesive family relations; limited individual autonomy | Family Cohesion Scale[b] (Olson *et al.*, 1978) | 1.00 | 1.00 | 1.00 |
| 5. Parental Autonomy | Parents allow adolescent freedom and independence | Mother and Father Autonomy (LaVoie, 1976) | .66 | .49–.52 | .71 |
| 6. Parental Warmth | Expressed approval, praise, and warmth of parents toward adolescent | Mother and Father Approval, Mother and Father Warmth (LaVoie, 1976) | .77 | .30–.70 | .66–.70 |
| 7. TSCS Self-Identity | Positive view or regard of one's self; positive self-concept | Self-Identity scale[b] (Fitts, 1965) | 1.00 | 1.00 | 1.00 |
| 8. Eriksonian Identity | Identity achievement relative to the normative pattern of development (Erikson's Stages 4–6) | Industry, Inferiority,[a] Identity, Role Diffusion,[a] Intimacy, Isolation[a] scales (Constantinople, 1969) | .85 | .28–.69 | .62–.79 |
| 9. Ego-Identity | Has questioned and made choices regarding religion, occupation, and and politics | Ego-Identity Achievement[b] (Adams *et al.*, 1979) | 1.00 | 1.00 | 1.00 |
| 10. Meaning-In-Life | Achievement in defining a sense of meaning and purpose in life | Philosophical Security scale (items 1, 2,[a] 6, 7,[a] 11, 13,[a] 16, 17, 18,[a] 19,[a] 29,[a] 31,[a] 34[a]) (Ainsworth and Ainsworth, 1958) | .64 | .47–.50 | .69 |

[a]Items reverse scored.
[b]Cluster comprised of one scale and therefore not subjected to confirmatory factor analysis.

**Table II.** 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 | ($d^*$) | $df$ | $\chi^2$ | $p$ |
|---|---|---|---|---|---|---|
| Fig. 1 | TSCS Self-Identity | (Males) | .25 | 9 | .0004 | ns |
| | | (Females) | .23 | 6 | .0000 | ns |
| Fig. 2 | Eriksonian Identity | (Males) | .26 | 8 | .8721 | ns |
| | | (Females) | .23 | 5 | .3448 | ns |
| Fig. 3 | Meaning-in-Life | (Males) | .28 | 8 | .2500 | ns |
| | | (Females) | .24 | 5 | .3226 | ns |
| Fig. 4 | Ego-Identity | (Males) | .26 | 9 | .2890 | ns |
| | | (Females) | .27 | 1 | .2688 | ns |

all of the chi-square values were nonsignificant, indicating that the models fit the data well. The results from the individual comparisons test and the goodness-of-fit test are presented in Table II.

The estimated path coefficients are shown in the path diagrams in Figs. 1–4. The path coefficient between parental autonomy and parental warmth was .44 for males and .62 for females, indicating a moderately high correspondence between these two clusters. However, these two clusters had different effects on familial security. Parental autonomy was positively correlated with familial security (.70 for males, .51 for females), whereas parental warmth was negatively correlated with it (-.52 for males, -.28 for females).

The causal antecedents of extrafamilial security (i.e., social confidence) included parental warmth (.73 for males, .42 for females) and familial security (1.10 for males, .80 for females). Familial security was the causal intermediary between parental autonomy and social confidence, suggesting that parental autonomy alone detracts from social confidence, but enhances it when coupled with feelings of security in familial relationships.

Parental warmth was also a causal antecedent of family cohesion (.25 for males, .47 for females) and, for females only, social relatedness (.30). In addition, parental warmth had a low to moderate positive correlation with the TSCS Self-Identity scale, the Eriksonian Identity scale, and for males only, the Meaning-in-Life scale.

Causal antecedents of social relatedness included parental autonomy (.37 for males, .14 for females) and social confidence (.55 for males, .22 for females). Familial security alone appeared to detract from social relatedness, but with social confidence as causal intermediary, it seemed to enhance it. One interpretation of this might be that having confidence in social relations and social situations leads to increased involvement in them. Finally, parental warmth enhanced social relatedness for females (.30) but not for males (-.09).

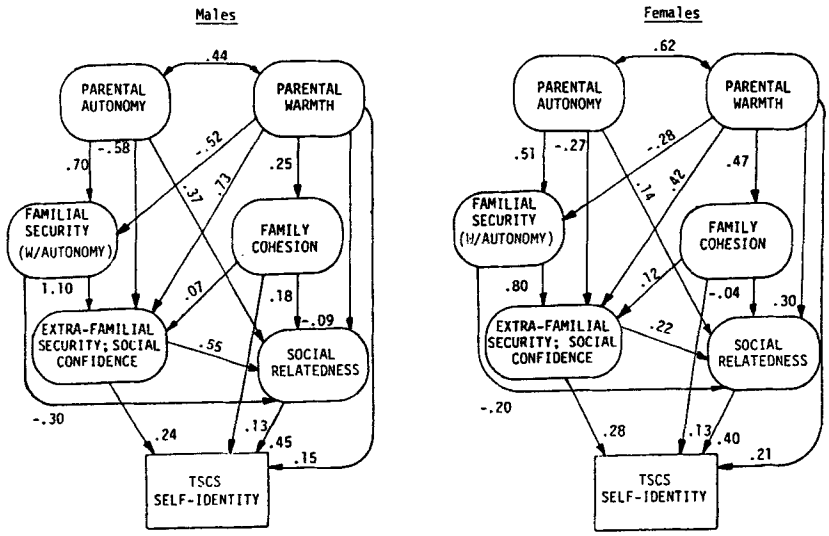


**Fig. 1.** The ordinary least squares estimates of the path coefficients for males and females for the TSCS Self-Identity scale (Fitts, 1965).

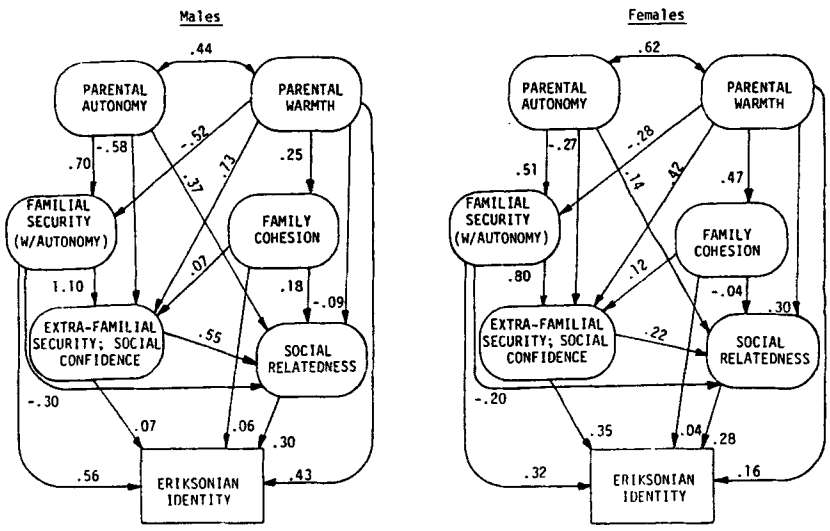


**Fig. 2.** The ordinary least squares estimates of the path coefficients for males and females for the Eriksonian Identity instrument (Constantinople, 1969).

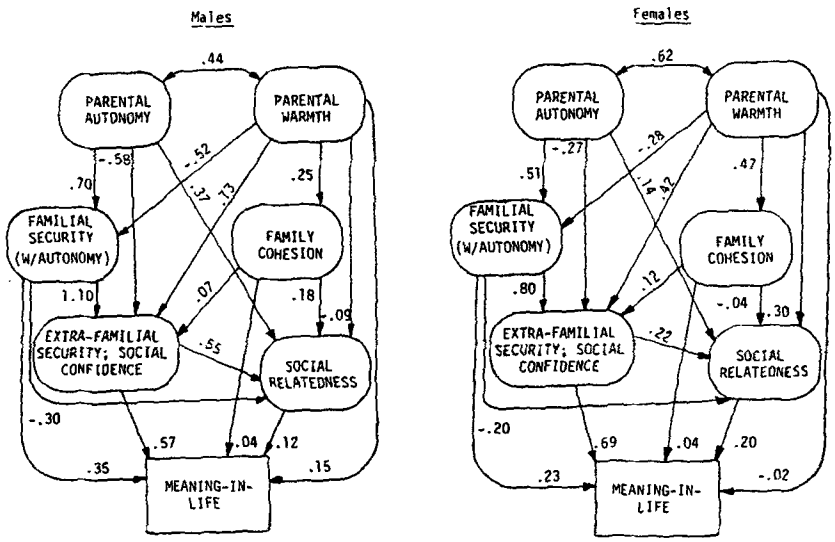


**Fig. 3.** The ordinary least squares estimates of the path coefficients for males and females for the Philosophical Security test (Ainsworth and Ainsworth, 1958).

The direct impact of the above familial and social variables differed for each of the four identity measures. First, for the TSCS Self-Identity scale (Fig. 1), a measure of "positive" self-concept, the highest causal antecedents were social relatedness (.45 for males, .40 for females) and social confidence (.24 for males, .28 for females). For the Eriksonian Identity scale (Fig. 2), a measure of the successful resolution of identity-related issues, causal antecedents varied with gender. For males, the highest causal antecedents were familial security (.56), social relatedness (.30), and parental warmth (.43). For females, the antecedents were familial security (.32), social relatedness (.28), and social confidence (.35), suggesting a slightly stronger effect of social, compared with familial, variables for females than for the males. For the Meaning-in-Life scale (Fig. 3), the highest causal antecedents were social confidence (.57 for males, .69 for females) and familial security (.35 for males, .23 for females), and for females only, social relatedness (.20). Although this latter finding suggests that security and confidence in other areas of an adolescent's life may be the highest predictor of feeling secure in his/her purpose and place in life, part of the reason for the high correlation among these three "security"-related variables may also be due to shared variance—i.e., the three scales were from the same battery of tests, and similar item formats tend to contribute to inflated correlations among variables. Finally, for the Ego Identity measure (Fig. 4)—an assessment of having gone through crisis and commitment in regard to occupational, religious, and political

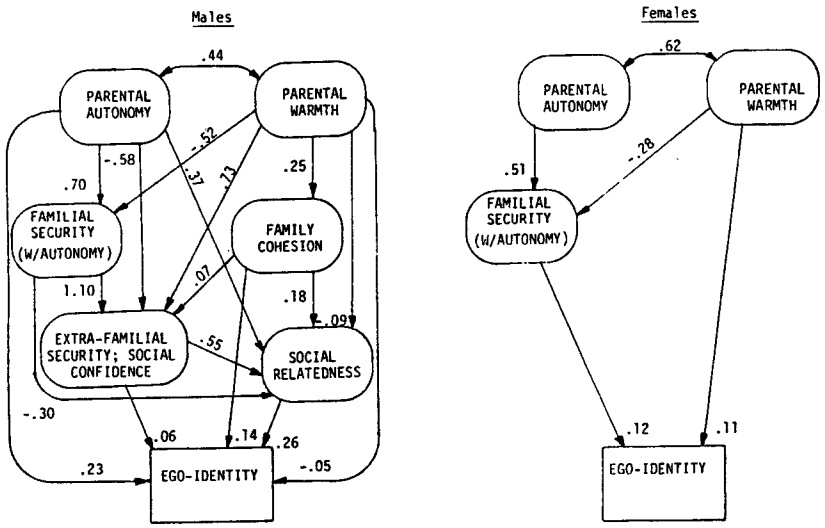


**Fig. 4.** The ordinary least squares estimates of the path coefficients for males and females for the Ego-Identity measure (Adams *et al.*, 1978).

choices—the causal antecedents were gender specific. For males, the causal antecedents included relatedness to others (.26) and parental autonomy (.23), while for females there was practically no relation whatsoever between this identity scale and the other cluster variables.

## DISCUSSION

The goal of this study was to develop a causal model of identity development, and to examine the overall causal ordering and patterns of interaction among the familial and social variables as they relate to four measures of identity. In general, to a large extent the results supported the original hypotheses. Security in the parent-adolescent relationship does appear to play a role in the identity development process in late adolescence. Specifically, parental warmth and autonomy were found to predict familial security (although not in the expected direction). Familial security, in turn, enhanced identity development directly, and also indirectly by first enhancing adolescents' social involvements. This pattern, however, varied with gender and with the identity measure used. In sum, these findings support Grotevant and Cooper's (1985) work on the importance of connectedness and individuality for identity formation, and suggest that familial factors influence adolescent sociability, which, in turn, affects identity development. The following discussion examines each of these findings in more detail.

### *The Causal Model*

First, familial security was predicted by parental warmth and parental autonomy. The finding that familial security was enhanced by parental autonomy and not by parental warmth, however, was initiality rather surprising. However, the scale used to assess familial security emphasized security and confidence in parental support, coupled with "individuality" (i.e., independent and autonomous functioning on the part of the adolescent, as opposed to security of a more "dependent" nature). Conversely, the negative correlation between parental warmth and familial security may be interpreted within the framework that adolescents have a hard time becoming independent or autonomous from parents who are overly "warm." The inverse relationship between marked parental warmth and adolescent autonomy is similar to the family environments of adolescents classified as "Identity Foreclosed" (Jordan, 1970, 1971; Marcia, 1983; Matteson, 1974). These are individuals who have adopted choices and belief systems of others rather than independently questioning or exploring identity alternatives on their own. It is also characteristic of these individuals that they typically experience their relationship with their parents as very close and very warm. Jordan (1970, 1971), in fact, has described these individuals as being in a "love affair" with their families. This lack of support for separation from parents may foster dependent rather than independent security in adolescent-parent relationships, and may circumvent adolescents' exploration of identity alternatives, which seems a critical element of the identity formation process (Marcia, 1980). This interpretation is also supported by the lack of a strong correlation between familial security and family cohesion.

Familial security did influence the adolescent sociability variables included in this study. As illustrated in the causal models, security in the parent-adolescent relationship—along with parental warmth—greatly enhanced adolescents' social confidence, which in turn enhanced their social relatedness. This finding concurs with studies of the effects of secure parent-child relations during the early years of life, whereby positive correlations between attachment security and later social competence and social interaction have been found (Arend *et al.*, 1979; Lieberman, 1977; Pastor, 1981; Sroufe, 1978; Waters *et al.*, 1979). These studies suggest that secure attachments promote social competence and social interaction in the following ways: by fostering confident exploration of the social as well as the physical surroundings, by developing in children a positive expectation that other interpersonal experiences will also be positive, and by indirectly giving children the opportunity to learn from peers. Quite possibly, similar causal mechanisms may be functioning during adolescence as well, as suggested by recent studies (e.g., Gold and Yanof, 1985).

In all of the models (except the ego identity model for females), familial security was found to enhance identity formation directly, and also indirectly by first enhancing adolescents' social confidence and social relatedness. The pattern of this influence varied with the particular identity measure used. Familial security had a direct influence on meaning-in-life and Eriksonian identity. In these cases, familial security may function to provide the support and trust that aid in the development of self-esteem, the process of psychological separation from parents (i.e., individuation), and the exploration of alternatives that is deemed so important for identity consolidation. These findings are supported by Erikson's theory of psychosocial development, which states that the successful resolution of earlier psychosocial tasks (i.e., trust and confidence in parental support, autonomy, etc.) place the adolescent in a better position to successfully resolve the task of identity consolidation (Constantinople, 1969). Similar interpretations by others suggest that the prerequisites of identity development have as their common base confidence in parental support. Marcia (1983), for example, has hypothesized that without this basic trust in parental acceptance, adolescents may have a greater tendency to gravitate from any firm emotional grounding toward identity diffusion. Similarly, Grotevant (1986) has proposed that after the adolescent has formed a secure basis of attachment to his/her parents, s/he can then comfortably move away from them in order to facilitate the building of his/her own identity.

As an indirect influence on identity, familial security strongly enhanced social confidence (except for females on the Ego-Identity measure). Social confidence in turn enhanced identity directly in some cases, and in most cases it influenced identity indirectly by first enhancing adolescents' social relatedness. Overall, social confidence and social relatedness had the most consistently enhancing effect on most of the identity measures. As discussed earlier, social relations appear to play an important role in the identity development process during adolescence by facilitating self-knowledge, providing a group identity separate from home, validating adolescents' self-worth, and by allowing them to safely explore identity options (Erikson, 1968; Grotevant *et al.*, 1982; Lemon *et al.*, 1972; McKinney *et al.*, 1982; Thorbecke and Grotevant, 1982).

### *Gender Differences*

Although the pattern of relations among the variables was fairly similar for males and females on three of the four identity models (TSCS Self-Identity, Eriksonian Identity, and the Meaning-in-Life), there were gender

differences in the strength of the path coefficients among the variables and on the Ego-Identity measure.

The gender differences in the strength of the path coefficients showed that in most cases, males exhibited higher coefficients among the variables than did the females. This suggests a potentially different influence of these variables for males compared with females. In general, the causal models (excluding the ego identity model) suggest a slightly stronger influence of familial variables on sociability and identity for males than for females, and a somewhat stronger influence of social confidence on identity for females compared to males. Although others have remarked that parenting styles and other sources of family influence have different implications for males and females (Adams and Jones, 1983; Douvan and Adelson, 1966; Grotevant and Cooper, 1985; Marcia, 1980), the exact mechanisms by which this occurs are unclear. Whether the differences found in this study actually imply a stronger familial influence on identity for males than for females remains to be clarified by future studies.

In addition to the above, there were also gender differences on the Ego-Identity measure. For males, the pattern of relations among the variables on the ego identity model was similar to the other identity models for the males. For females, however, there was little relationship between ego identity and any of the other variables. This was surprising since there was little difference between males' and females' mean scores for this task. One interpretation may be that, for females, performance was related to some variables other than those included in this study. Such ambiguous results for females on measures of identity with other dependent variables have been noted elsewhere (Constantinople, 1969; Matteson, 1974). An alternative but related interpretation is that unlike the other three identity instruments, this one is more sensitive to traditional gender role socialization practices. The items that comprise this scale (i.e., occupational, political, and religious concerns) relate to decisions regarding institutional ideologies that may be more commonly associated with the traditional upbringings of males than of females. Thus, the correlations between ego-identity and social or familial variables would be expected to be higher for males compared to females. Numerous studies to date have suggested that the identity concerns, developmental pathways, and psychological implications of identity may differ for males and females. Male identity development has been described as focusing on such issues as individual competence, knowledge acquistion, and occupational choices, with female identity developing within and revolving around issues of interpersonal processes and relations to others (Douvan and Adelson, 1966; Gilligan, 1982; Hodgson and Fischer, 1979; Thorbecke and Grotevant, 1982). A third possible reason for the low correlations for females on this measure (and the lower correlations for males, relative to the other male identity models) might be that the use of the abbreviated Ego

Identity scale affected the strength of the relation between this outcome variable and the other variables in the model. The use of an interview assessment, on the other hand, might have produced a richer data set.

### *Comparison of the Four Identity Models*

The results of this study demonstrate that the extent to which familial and social variables influence identity development varies with the nature of the particular identity dimension under investigation. The TSCS Self-Identity scale, a measure of positive self-concept, appeared most directly influenced by social (as opposed to familial) factors, with the pattern of relations among the variables somewhat similar for males and females. This is perhaps not so surprising in light of the important role that peers play during this period of development, where the peer group serves as a bridge between an adolescent's separation from the family nucleus and movement toward a more autonomous adulthood. Breaking away from familial standards and traditions, adolescents typically turn to the peer group for acceptance and approval, and for standards against which to measure themselves.

The Eriksonian Identity measure was influenced by both social and familial variables that varied with gender—for females, the social measures correlated more highly with this instrument than did the familial measures, while the reverse held true for males. The Meaning-in-Life scales correlated most highly with Familial and Extra-Familial Security, which in part supports others' notions that feelings of confidence and security are necessary in order to effectively deal with issues concerning one's meaning and place in life (Marcia, 1983). Finally, the Ego-Identity Achievement measure was enhanced most by parental autonomy and social relatedness, but only for males.

### *Conclusion*

Although the findings reported in this study are in part supported by previous research, a note of caution regarding path analysis and the interpretation of these causal models is in order. While this procedure allows one to test the causal order of influence of variables upon one another according to a theoretical plan, it does not necessarily allow for the discovery of the definitive causes per se. In the current study, while the models arrived at fit the data very well, it is conceivable that other causal agents may exist. For example, since this was a cross-sectional study, based on subjects' own perceptions, it could be argued that their current identity might predispose them to certain perceptions of their familial and social relations. However, although this inverse pattern of influence is possible (but outside the scope

of this study), it is unlikely since research to date involving subjects' identity status relative to independent, objective assessments of familial and social functioning would not support this (Marcia, 1980; Matteson, 1974; Neuber and Genthner, 1977). Clearly a longitudinal study would provide more definitive answers to the causal order of influential factors upon identity.

In conclusion, this study is the first to examine the simultaneous interaction among those variables previously identified as promoting identity development in adolescence. The findings underscore the continued importance of secure parent-child relations (characterized by both connectedness and individuality) in an individual's psychosocial development, and suggest that the various dimensions of identity may be differentially influenced by social and familial processes. In addition, the finding of sex differences in this study and previous studies suggest that the presence or absence of sex differences in performance on identity measures may depend on the identity instrument used. Finally, these findings provide a preliminary model to help in further investigations of the specific mechanisms by which secure, supportive parent-adolescent relationships may be related to identity formation and other developing psychosocial processes.

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