

**Educational Research and
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The Development of the Whole Person

Women's Ego Development from Entrance to Five Years After College

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Paper presentation, *Adult
Development Across the Life
Span* (A. Neumann, Chair), at the
annual meeting of the American
Educational Research
Association, April 8, 1994.

cite as:

Reisetter Hart, J., & Mentkowski, M. (1994, April). *The development of the whole person: Women's ego development from entrance to five years after college*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans. Milwaukee, WI: Alverno College Institute.

Printed 2003

This publication is available from:

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Graphic Design: Lynn Chabot-Long, Project Specialist, Educational Research and Evaluation

Table of Contents

ABSTRACT	1
INTRODUCTION	2
The Theory of Ego Development	4
Research Questions in the Context of Institutional and Program Assessment in Higher Education	6
METHODS	6
Setting	6
Design	6
Sample	7
Procedures	7
The Sentence Completion Test	7
Instrument Scoring	8
Reliability of SCT Scoring	8
The Alumnae Questionnaire	8
The Behavioral Event Interview	8
Data Analysis	8
Aggregate Trends	8
Individual Change Patterns	9
Individual Trajectories: "Pure" Patterns	9
RESULTS	9
Aggregate Trends	9
Individual Change Patterns	9
Individual Trajectories: "Pure" Patterns	11
DISCUSSION	11
ENDNOTES	14
REFERENCES	15
APPENDIX A: PURE PATTERNS	18

ABSTRACT

This paper presents data from the Alverno College Longitudinal Study of student and alumnae development on Loevinger and Wessler's (1970) measure of ego development, the Sentence Completion Test (SCT). Loevinger's theory of ego development has taken as its aim the study of the whole person, the self. This comprehensive theory subsumes moral development, cognitive development, interpersonal relations, character development, and personality development. Empirical research using the SCT has generally supported change in ego development during adolescence, and stability of ego development during college. Little or no longitudinal research has been done examining ego development in adulthood. The current findings (1) contribute to the body of literature on the SCT and (2) extend the longitudinal data to five years after college. Aggregate results showed that ego development during college remained stable in the *Self-Aware* level and then increased toward the *Conscientious* level for five-year alumnae. The authors also examine intra-individual and inter-individual change patterns in ego development. Analyses of growth patterns over time on the SCT are related to perceptions of leadership and self-development in five-year alumnae. These change patterns have potential for informing educators of patterns of change that influence individual student learning. The authors (3) interpret the findings in light of the questions of who changes on ego development and why. At the level of the individual, "pure" patterns of growth and regression can challenge theory and suggest potential for further analyses of related variables that may affect ego development in college. Finally, the authors (4) draw implications from the findings for the role of higher education in the development of women.

INTRODUCTION

As higher education continues to define the outcomes of college and to address issues of student achievement of curriculum goals, developmental theory has been a significant perspective guiding these complex issues (Chickering, 1981; Mentkowski, 1983; Pascarella & Terenzini, 1991; Loxley & Whiteley, 1986). Research in the areas of moral development, intellectual development, and personal growth has provided insight into the expectations we might have for college graduates, and has informed the ways in which we as educators have developed curricula. Generally, faculty and administrators have agreed that one of the broad goals for a college education is the cognitive and affective development of individual students.

One outcome for students articulated by faculty and administrators at Alverno College is personal growth, along with life-long learning, intellectual complexity, and integration of performance (Alverno College, 1993). This goal of education is supported not only by Alverno faculty in their development of curriculum, but is also a central value for our society. Individuals who continue their search for maturity may realize the kind of integrity that is reflected in the ability to execute society's collective values and goals and to make decisions that affect us all (Mentkowski, 1988).

Some educators are reluctant to pursue educational goals of personal growth for their students because they are influenced by theories of personality that suggest that the broad structure of personality is not malleable after fundamental consolidations of early development are complete. Some individuals may argue that personality traits are developed long

before a student is accepted into a college and that the same might be true for qualities such as personal maturity, ethical responsibility, and capability for integrated performance. These views of personality assume that college or life events do not have a significant effect. From this perspective, it may seem pointless to faculty to examine the important outcome of personal growth especially since researchers have not found growth in ego development during college.

Indeed, the research has generally shown that a stable level of ego development, as an indicator of personal growth, is reached at some time during the late adolescent years. The most relevant research studies on the effects of *college* on ego development using longitudinal designs have primarily shown relatively stable patterns throughout the college years, with students entering and leaving college at the adult normative level of *Self-Aware (I-3/4)*. These studies have suggested that either no change, or even slight regression, exists for women during college (Mentkowski & Strait, 1983; Loevinger, Cohn, Bonneville, Redmore, Streich, & Sargent, 1985). Our cross-sectional study has suggested some positive change (Mentkowski, 1988), but we think that cross-sectional designs are much less suitable to the task of identifying change, or its direction, than the previously discussed longitudinal research.

In sum, neither our own longitudinal study (Mentkowski, 1988), nor the studies of others have shown change during the college years (cf. Pascarella and Terenzini, 1991). Moreover, Loevinger has speculated that the level of ego development achieved by the end of adolescence will be maintained throughout adulthood, including during and after college (Jane Loevinger, Personal

Communication, July 22, 1990). This would suggest that the ego development theory is most congruent with the perspective that college educators cannot expect to support the broad development of students.

Nonetheless, within the context of the available theory and research, there are several observations that lead toward a more optimistic conclusion. First, Loevinger's speculation that researchers will find adult stability in ego development is curious, given that theorists in related paradigms (moral and epistemological development) have strenuously argued that broad change in underlying developmental structures is common during the college years. Indeed, Loevinger (1993) has insisted on the tight connection between these theories, and research has supported the expectation that moral and epistemological development robustly continues during college (e.g., Colby, Kohlberg, Biggs, & Lieberman, 1983; Perry, 1970; Rest, 1979).

A second and related observation is that Loevinger's theory of ego development does not foreclose the possibility of change in adulthood. Indeed, Loevinger's theory provides a mechanism for tracking broad development while acknowledging that some aspects of broad personality are recognizably stable across the life span. Loevinger has been reluctant to develop her theoretical speculations beyond the empirical findings. She has largely foregone the opportunity to speculate on change in adulthood, even where it may seem implied by some of her theoretical statements.

A third observation is that little is known about the range of ego development in adulthood. Basically, the research on

adolescence (Redmore & Loevinger, 1979) has demonstrated change, and what is known about adulthood has typically come from research with college students. Little, if anything, is known about individuals who do not pursue college careers, and few longitudinal studies have addressed ego development after college. Although the few longitudinal studies that have been done have not shown change in ego development (White, 1985), there is a glimmer of some attainment of the upper levels of ego development. Helson, Mitchell, and Hart (1985) found that some women reached the upper levels of ego development, and the women themselves reported that they had experienced change across their life span. Though this is limited self-report data, and the SCT was only administered one time, it raises the question about when the attainment of higher functioning in ego development happens. And, if these changes occur in adulthood, who experiences change in ego development and why do they change?

Similar questions about stability and change arise when one examines the overall pattern of research findings across studies using the SCT. For adults, proportionally more individuals appear to score at least at the *Consciousness* level (I-4), if not higher (Helson & Wink, 1987; Nettles & Loevinger, 1983; Mentkowski & Strait, 1983; Vaillant & McCullough, 1987). In contrast, the *Consciousness* level did not regularly appear in samples of adolescents (Redmore & Loevinger, 1979). The modal *Self-Aware* level (I-3/4) emerges in virtually every study. Might this be some evidence for increasing maturity on the SCT? We are not familiar with research that has addressed where, when, and how the shift to the higher

levels occurs, and research using aggregate findings of stability based on means may include individual patterns that warrant further attention.

Alverno faculty members believe that research evidence on whether and how curricula can influence personal growth and integrated performance is essential to refining their vision of what is possible for students to achieve during college and afterward. Current employment conditions appear to call for individuals who can cope with a world of uncertainty, rapid change, and global interrelationships (Handy, 1989). We believe this to imply that more individuals may benefit from achieving higher levels of personal growth, let alone potential benefits for greater life satisfaction and self-realization.

Given that the theoretical and empirical case is not closed, we argue that curriculum development can be enhanced by better understanding of the complexities of personal growth, and that educators join us in wanting to develop curriculum to promote the personal growth of their students, even though they may not promise it as an outcome of college. Teaching that is illumined by an understanding of developmental frameworks has as a basic principle the creation of curriculum where assignments and interpersonal interactions foster ego development. Such curricular goals assume the belief that personal growth does change over time. But what are the more explicit relationships between teaching strategies and student learning? What are the components of teaching or the elements of curriculum that facilitate or inhibit personal growth?

Loevinger's construct of ego development (1970; 1976) supports the premise

that personal growth and integrity can be developed in adulthood. Ego development can be expected to relate to one of higher education's loftier goals, the transformative integration of cognitive development into the very character of students and alumnae. As Loevinger states, "the transition between the *conformist* and *conscientious* levels is marked by heightened consciousness of self and inner feelings." Such a broad construct holds the promise of further extending educators' conceptualization of college outcomes into the integrative domains of human development.

Thus, Alverno educators want to know whether there are developmental patterns in individuals' intellectual, ego, and moral development that could influence how faculty teach for personal growth. They ask what accounts for integrated performance of intellectual and interpersonal abilities. They question whether their ability to educate for personal growth, integrated performance, and self-sustained learning is keeping pace with the demanding context and choices that graduates face in the world of work. And they continue to probe which curricular elements contribute to the development of personal growth, integrated performance, and life-long learning.

The Theory of Ego Development

Before we can adequately address whether Loevinger's theory of ego development will carry the educator's vision, we need to examine the theoretical assumptions of the theory. Loevinger conceptualized the ego, or the development of the self, as a holistic process that is unitary, partly ineffable, partly structural, partly substantive, and imperfectly coherent (Loevinger, 1984). Each of the levels serves as a typology for personali-

ty, somewhat corresponding to particular ages across the life span. Loevinger's theory of ego development (1976) has taken as its aim the study of the whole person, a person whose striving, perceptions, beliefs, and attitudes are greater than a sum of their parts. According to Loevinger, the concept of the ego itself is virtually indistinguishable from intellectual development or psychosocial development (Loevinger, 1976). The ego is the "master trait" of the person, the self.

Loevinger's comprehensive theory of ego development subsumes a number of developmental constructs and also integrates alternative views of personality development. The theory argues for the stabilization of personality typologies and also predicts structural, sequential growth throughout the life span. The nine levels of ego development constitute qualitatively different frames of reference for perceiving and responding to experience. The first three are typically found in individuals of precollege age: *Symbiotic* (I-1), *Impulsive* (I-2), and *Self-Protective* (Delta). The three middle levels are the most frequently observed levels in college-age students and adults: *Conformist* (I-3), *Self-Aware* (I-3/4), and *Conscientious* (I-4). The upper three levels are: *Individualistic* (I-4/5), *Autonomous* (I-5), and *Integrated* (I-6).

The first two levels, *Symbiotic* (I-1), *Impulsive* (I-2), are observed in childhood. Within this period, children learn to control their own impulses and become capable of delayed gratification. Their focus is on rewards and punishment. The next level, present typically in adolescents and sometimes in college students is the *Self-Protective* (Delta) level. This is characterized by cognitive simplicity. The interpersonal style is manipulative, and preoccupations

include control, and a desire to protect oneself. One fears being caught and externalizes blame.

Typically observed in late adolescence and early adulthood, the *Conformist* level is characterized by a desire to belong, to be "normal" and "happy," and to fill one's role. There is also a preoccupation with appearance, acceptability, and approval. Helping and superficial niceness characterize the interpersonal style. In the *Self-Aware* level, the individual is aware of alternatives, and is preoccupied with the self as separate from a group where conformity to socially prescribed roles is no longer necessary. Introspection, self-consciousness, and the awareness of qualifications to general rules emerge. At the *Conscientious* level, a sense of choices emerges, and the self is seen as the origin of a person's destiny. Self-evaluated standards and rules are important, as is an awareness and concern with ideals and self-respect. The interpersonal style is intensive, with greater concern for communication.

The highest three levels of ego development are not as articulated as the lower or middle levels. Generally, the *Individualistic* level is characterized by a heightened sense of individuality and a concern for emotional independence and dependence. At the *Autonomous* level, individuals acknowledge and deal with inner conflict, and personal and relational atmosphere of autonomy, show tolerance for ambiguity, and cherish individuality and personal relationships. At the *Integrated* level, the individual reconciles inner conflicts and renunciation of the unattainable. Individuals at the *Integrated* level also cherish individuality, and the identity is actualized.

Research Questions in the Context of Institutional and Program Assessment in Higher Education

A major purpose of assessment at Alverno is to generate information that can be used to improve individual student learning and programs. At the course or program level, aggregate information that communicates average differences between groups often does not give the kind of information that Alverno educators need to improve teaching and curriculum. One assumption might be that the educator's chief role is to help adults adjust to the life phase that fits their role and age, as well as helps them cope and succeed with transitions (Cross, 1981). This assumption has implications for understanding developmental patterns within the contexts where our students are functioning. As educators, we must begin to tease apart different developmental patterns, those that show regression as well as those that show growth. To be meaningful to educators, changes in student outcomes must also ultimately be linked to learning in a course, a general education sequence, or the curriculum as a whole (Mentkowski, 1990).

If we are to look underneath the broad patterns of stability, we then come to the following set of research questions: What various patterns of development have been demonstrated during the college years, and why have these particular individuals changed? Who showed growth and who showed regression? Why is that so?

What does understanding these patterns of development say to educators who are trying to develop curriculum and improve practice? We have learned that an important question for researchers

interested in working with educators is: How might aggregate patterns be described in ways that preserve individual growth patterns?

METHODS

Setting

Alverno College is a four-year liberal arts college for women in Milwaukee, Wisconsin, 2,500 degree students in both weekday and weekend time frames. Generally, students are from southeastern Wisconsin, are first-generation college students, and work during and after college. Since 1973, graduation from Alverno has required students to demonstrate eight specified abilities to an explicit level of effectiveness in the context of disciplinary or professional content: communication, analysis, problem solving, valuing, social interaction, global perspectives, effective citizenship, aesthetic response. Faculty have determined and taught these abilities in general education courses and in a variety of disciplines. They have made them explicit through criteria and assessed them in multiple modes and contexts through their student performance assessment system. Alverno has tested these abilities by collaborating with many other institutions and their faculty through a variety of consortia that cross the educational spectrum from elementary to professional schools (Consortium for the Improvement of Teaching, Learning and Assessment, 1992).

Design

The Alverno College Longitudinal Study of student and alumnae abilities, learning, development, and performance from entry to five years after college is a comprehensive study on the effects of

college. Participants contributed over a ten-year period, and completed a battery of human potential instruments three times during college-entrance (T1), two years later (T2), and near graduation (T3—and as five-year alumnae (T4). Measures of abilities, learning styles, motivation, cognitive, moral and ego development ($n = 17$) were collected along with indepth, confidential perspectives interviews (Mentkowski & Much, 1980, revised 1985; Much, 1979), surveys of students and alumnae perceptions and background characteristics, and behavioral event interviews (McClelland, 1978) of alumnae. The latter serves as criterion measure for alumnae performance across professions. Student participation rates ranged from 84% to 99%; for alumnae, participation ranged from 59% to 88% across the components of the study.

Sample

The longitudinal sample is composed of all women who entered college in Fall 1976 or Fall 1977 ($N = 770$). The 1977 class included students who enrolled in both a weekday and a weekend time frame. Rules for inclusion in the sample frame and the estimate of participation rates vary according the question being asked (see Table 1). The sample can be divided to answer questions specifically addressing graduates, questions specifically aimed at graduates included in the longitudinal sample frame who met eligibility rules by completing a number of instruments at two of the three administrations during the college years, or questions aimed at alumnae more generally. This last category includes both graduates and non-graduates, and is the longitudinal sample we use when responding to questions asked more specifically about development of

women over time. This is the sample used for the current analyses, and 248 (69% of those eligible) alumnae completed the SCT. Complete data across all four times of assessment are available on the SCT for 153 participants, and is the primary sample for analyses reported here.

Students are women of traditional and nontraditional age. The age range of the sample at entrance was 17 to 53, with a mean of 24 years. In comparison to the current enrollment, the longitudinal sample tended to be younger, with fewer students from cultural and racial backgrounds other than Caucasian. They are typically first-generation college students (78%) who worked before, during, and after college. Most women had a professional major such as business and management, nursing, education, or communications, and 95% graduated. As five-year alumnae, they report paid employment as their primary activity (82%). Five years after college, 73% have married, 51% have had children, and 45% have enrolled in some type of further educational experience post college

Procedures

The Sentence Completion Test

The Sentence Completion Test (SCT) (Loevinger & Wessler, 1970; Loevinger, Wessler, & Redmore, 1970; Loevinger, 1985) was one of 17 human potential measures administered as part of a comprehensive longitudinal study. The SCT is a production task that attempts to elicit an individual's level of ego development. As a cognitive-structural theory, Loevinger views the construct of ego development as a sequential pattern of change that occurs throughout the life span. Ego development is a global

process that includes changes in impulse control, character development, interpersonal style, conscious preoccupations, and cognitive style (Loevinger & Wessler, 1970). It is part of a unified and dynamic whole, the master trait underlying the personality.

Instrument Scoring

In completing the task, participants are instructed to complete 36 sentence stems such as "My mother and I ..." or "I feel sorry..." or "Education..." The items are then individually scored according to instructions and guidelines in the manual (Loevinger & Wessler, 1970; Loevinger, Wessler, & Redmore, 1970). For the purpose of this paper, we are using the "automatic ogive" scoring rules for summarizing an individual's total protocol. The responses were scored by the first author and another rater. Both were trained according to Loevinger, Wessler, and Redmore's manual. Scoring consistency was achieved during the training phase, and as within the range recommended by the scoring manual.

Reliability of SCT Scoring

In order to give feedback to faculty about developmental patterns in the longitudinal study, student data was scored and reported prior to collecting the alumnae data (Mentkowski, Miller, Davies, Monroe, & Popovic, 1981). During the alumnae scoring, 75 protocols from the student years were randomly inserted in the alumnae data set. Scorers of alumnae data remained blind to date of protocol completion. Overall, the alumnae scoring team achieved 89.3% absolute agreement ($r = .94$, $p < .01$) with prior scoring for the Total Protocol Rating (TPR). A t-test did not reveal any mean differences, $t = .70$, $p < .48$, between that prior scoring and the

rescoring of the student data by the alumnae scoring team.

The Alumnae Questionnaire

At the five-year alumnae assessment, participants also completed an alumnae questionnaire (Alverno College Office of Research and Evaluation, 1985). This questionnaire elicited student perceptions, background information, employment history, career goals, and career expectations. The response rate for the alumnae questionnaire component of the study was 82%.

The Behavioral Event Interview

In addition, the alumnae also participated in a Behavioral Event Interview (BEI) (McClelland, 1978) in which they described their performances in specific contexts. The participants' construction of the unfolding of the performance is probed by the interviewer with focusing questions. The scoring of three performances in the interview transcripts provided a data base on the different abilities present in alumna performances. This data could then be analyzed in relation to growth as measured on the SCT in order to provide more precise pictures of these individuals' performances in context (Rogers in collaboration with Kleinman, Wagner, & Schwan Minik, 1994). The response rate for this component of the study was 74%.

Data Analysis

Aggregate Trends

Aggregate trends were analyzed for the age groups and times of assessment through an Age (3) by Time (4) repeated measures Multivariate Analysis of Variance (MANOVA) for unequal interval

lengths and N's. Orthogonal a priori linear, quadratic, and cubic contrasts were specified in the MANOVA. Based on aggregate scores, this analysis produces a broad picture of the changes in ego development over time, including main effects and interactions through time with age at entrance to college.

Individual Change Patterns

In order to investigate individual change patterns, we categorized change into three levels from entrance to college to performance of five-year alumnae. Of the 153 individuals who completed SCTs at all four assessments, 37 participants with "other" patterns were excluded from this analysis. These other patterns generally showed a great deal of variability across levels over the four data points, and did not clearly fit into one of the three change patterns of interest. The remaining 116 individual patterns were classified into one of the following categories: (a) "growth" (positive Time 1 (T1) to Time 4 (T4) change), (b) "stable" (no T1 to T4 change), and (c) "regression" (negative T1 to T4 change). The percentages in each group are 37%, 37%, and 26% respectively.

Participants included in this sub-analysis completed both the SCT and the alumnae questionnaire components of the study, and we correlated level of individual growth with a range of background characteristics and experiential variables. Chi-square tests did not reveal significant differences between the groups according to participant's age or level of career achievement as an alumna. No difference occurred on the following background variables: first-generation college student, parents' educational level, or mother's occupation level. Significant correlations for father's occupation, $r(113) = .20$, $p < .05$, were indicated.

Individual Trajectories: "Pure" Patterns

In order to generate these categories of individual change they are further divided into more "pure" types. These "pure" patterns represent individual patterns that are characteristic across all four times of assessment for a number of individuals, and we identified them by charting all 57 individual patterns. These categorizations of individual change supplement the MANOVA approach to studying aggregate trends through time.

RESULTS

Aggregate Trends

The repeated measures Multivariate Analysis of Variance (MANOVA) for unequal interval lengths and sample sizes—with a priori linear, quadratic and cubic contrasts—yielded statistically significant linear, $F(1,150) = 16.9$, $p < .01$, and quadratic, $F(1,150) = 10.26$, $p < .01$, effects through time (see Figure 1). Ego development during college, in the aggregate, remained stable in the *Self-Aware* level ($M = 5.3$; I-3/4), and then increased toward the *Conscientious* level ($M = 5.7$; I-4) for five-year alumnae.

Age did not yield robust effects, $F(2,150) = 1.74$, $p < .18$. We did not find robust relationships between parents' occupational status and participants' ego development through time, $F(1,145) = .91$, $p < .41$.

Individual Change Patterns

The aggregated change pattern on the SCT is one of no change during college and one of change after college. However, classification of individual trajectories on ego development showed a

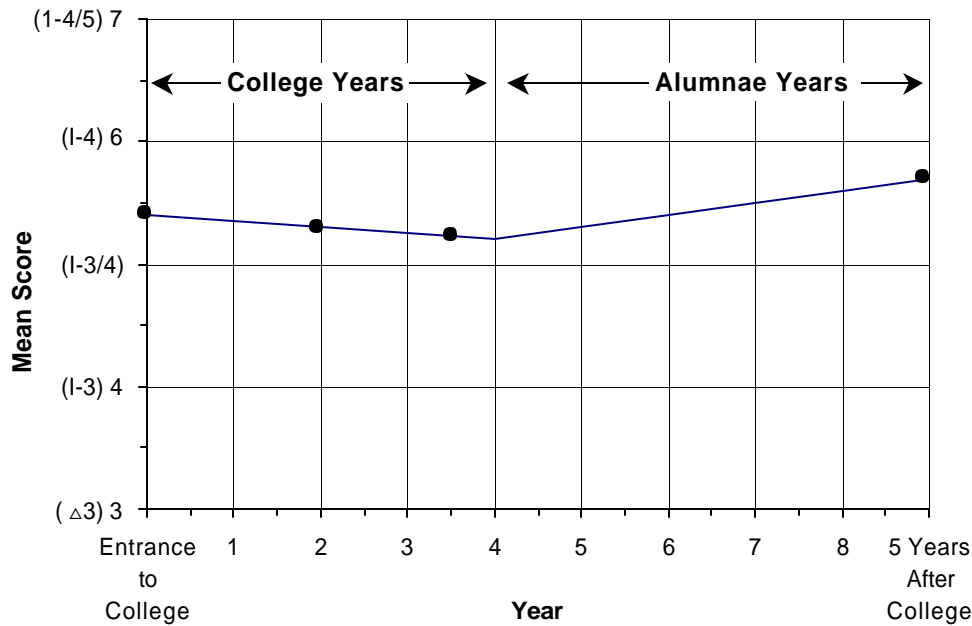


Figure 1: Sentence Completion Test of Ego Development: Automatic Total Protocol (TPR) Rating of 36 Items

variety of patterns, some of which qualify these aggregate analyses. Identifying a sub-group of those who were characterized by a “growth” trajectory—i.e., positive change from T1 to T4—provided the basis for the next analysis.

Growth, where the individual trajectory was the unit of analysis, was correlated with several variables from the alumnae questionnaire. Individuals who showed growth in ego development also reported that they were invested in paid employment, and that this was the primary activity that consumed most of their time, $r(108) = .26, p < .01$. They also reported being satisfied with their paid employment, $F(2,111) = 3.12, p < .05$. Growth was also associated with the socio-economic level of their father’s occupation, $r(113) = .20, p < .05$, and the career level achieved by five-year alumnae, $r(112) = .21, p < .05$. Those with “growth” patterns were also more likely to report being selected for a leadership role, $r(113) = .22, p < .05$, and for having increased goals for leadership

roles, $r(113) = .22, p < .05$. Alumnae showing “growth” patterns report having increased abilities for understanding the complexity of situations, implementing plans to achieve goals, taking on challenges, and initiating actions, average $r(113) = .25, p < .01$. Compared to others in a similar role, alumnae showing more growth in ego development report a greater ability to organize people and resources, make oral presentations, share personal expertise, and consider a range of alternatives, average $r(113) = .22, p < .05$.

In addition, for alumnae, the SCT showed significant correlations with just three of the 33 abilities that comprised four main ability factors in the BEI data: *diagnostic pattern recognition*, $r(144) = .17, p < .05$, *formal communications*, $r(144) = .22, p < .01$, and *developing self*, $r(144) = .014, p < .01$.

Individual Trajectories: "Pure" Patterns

Examination of individual patterns of ego development over all four assessment points revealed 57 separate patterns for 153 individuals. Four individuals show continuous decline across college as well as into their alumna years. Eight show substantial and continuous growth throughout the study. Other "pure" patterns, such as, stability ($n = 20$), are more frequent. Information on the individuals identified for "pure patterns" of growth and regression is presented in more detail in Appendix A.

DISCUSSION

This study extends research on the ego development of women to five years after college. Findings suggest that ego development during college remained stable in the *Self-Aware* level (I-3/4) and that many alumnae make unforeseen developmental leaps after college, and are moving into *Conscientiousness* (I-4). While this aggregate change is small on the scale of measurement, it is large in the scale of developmental theory. Aggregate gain in alumnae ego development challenges current speculations that ego development is complete by the end of adolescence. Unlike Browning (1987), we did not find robust relationships between parents' socio-economic status and participants' ego development through time.

This paper also identifies different growth patterns on the Sentence Completion Test from the beginning of college to five years after, relates these patterns to characteristics and experiences of the women, and then draws implications for who changes and why. The findings suggest that women who take on more complex and

varied roles are more likely to make gains in ego development after college. In particular, the women who gained were the women who achieved higher career levels and who reported more leadership responsibilities and perceived gains in leadership abilities.

On the one hand, if leadership responsibilities lead to ego development, then recent trends where women take on new responsibilities in the workforce and in civic leadership positions could lead to the broadest kind of development of women. At the *Conscientious* level of ego development, these women demonstrate the capacity for detachment, empathy, complex reasoning and taking responsibility for their own actions. They have internalized their own personal ethical sense of responsibility and integrity. Together, these findings suggest that moving into the *Conscientious* level of ego development is either a result of or a cause of achieving leadership positions.

On the other hand, if ego development leads to achievement of leadership responsibilities, then the aggregate jump in ego development to levels above the norm after college might be interpreted as a delayed effect of college. College may enable women to explore multiple and complex roles without committing to premature consolidation into more limiting roles. The effect of consolidation after significant exploration of possible selves may enable greater ego development. In either case, the education of women for leadership roles should have beneficial effects. While the statistical associations are small, they suggest new insights into the possibilities for ego development after adolescence.

Loevinger's construction of ego development points toward individual, personal,

cognitive complexity and a capacity for integrity that supports responsible action in situations characterized by complexity and even dissonance. This sort of integrated growth that accommodates the sense of connectedness among multiple perspectives, the capacity for critical thinking, and ability to perform in context may be seen as a generalized college outcome. This construction of personality and personal growth, is meaningful for the Alverno faculty and can inform curriculum development.

We do not yet have enough understanding of the dynamics of transition, or the conditions that promote development, or the impact of college, to establish highly structured programs geared toward ego development. However, elements of the transition process could include exposure to higher-level reasoning, opportunities to take others' roles and perspectives, discomfiting discrepancies between one's actual experiences in a situation, and one's current explanations and beliefs.

However, assessment strategies that generate aggregate information are not helpful for those faculty intent on improving learning for each student (Mentkowski, 1990). Some individual trajectories challenge current theory and speculation. In addition, when one begins to examine the individual patterns, one notes that the aggregate mean pattern does not characterize development for each individual student. Furthermore, four of 153 individuals showed "pure" regression and eight of 153 individuals showed "pure" growth patterns during college as well as after college. Generally, only the "catch-up" patterns where the adult norm level was achieved during college and the stable patterns are completely consistent with theory. That four individuals show

continuous decline across college as well as into their alumna years is somewhat inconsistent with theory. Eight show substantial and continuous growth throughout the study, which also qualifies generalizations that ego development is completed by end of adolescence. Other "pure" patterns, such as stability ($n = 20$), are more frequent and are consistent with the theory. By not examining individual patterns, these four individuals are collapsed into the mean. If our goal as educators is to enhance development for each individual student, we are doing a disservice by not examining what can be learned from these four students who neither develop, nor stay stable.

There is virtually no research that examines patterns of growth and regression in ego development on the SCT in relation to the context of women's lives. As in the study of personality, there is a need to study development within the context of individual lives, their life structures, or social climate (Helson, 1993; Lerner, 1988; Levinson, 1978). Helson, Mitchell, and Hart (1985) classified portions of the lives of their *Autonomous* women according to stages or life structures proposed by Levinson (1978), using retrospective data to describe the activities that made up their lives. This first step at looking at women's lives is interesting, but we do not really consider this a contextual study in that ego development is not examined in relation to the influences of social climate or personal constructions of a life structure. For us, the next step would need to include a better understanding of environments, stressors, roles, and perceptions of individual lives, rather than just descriptions of years within a life span, alone.

As part of our next step, we plan to examine ego development using our

indepth, confidential perspectives interviews (Mentkowski & Much, 1980, revised 1985; Much, 1979). These interviews were completed longitudinally by a sub-sample of women at the end of each year in college and as five-year alumnae. For illustrative purposes, we have selected one example. As educators, we are interested learning more about those individuals who do not develop during college, therefore, we have selected one woman who had a “pure” regression pattern for illustrative purposes. This woman showed continuous decline in ego development during and after college had an ego level that went from the adult normative level of *Self-Aware* at entrance to college to a *Ritual-Traditional* level five years after college.

As an alumna, she is employed as a secretary in the public schools, a position she obtained shortly after she graduated from college. She appears to have entered college as very career oriented. She wanted to make a name for herself, get a good, well paying job after college, and hoped to move into a career. After college, she made some effort to do so, but has been unsuccessful. She recognizes that what she learned in college can be applied in work settings, and is generally satisfied with both her college

experience and her career overall. She describes herself as “someone who doesn’t set big goals.”

When asked about her career during the interview, she refers to the organization as “a caste-type system.” She expresses frustration about being asked to do particular tasks in her job for others in the organization who have more status and income. She prefers unchallenging tasks.

... it gets a little frustrating when you are given a challenging task and people who are in the same grade or qualification or pay scale per se, are given the real mindless thing to do and you’re both taking home the same amount of money, but the reward for a good job is more work. Then it can get to be frustrating...

This example points to some of the contextual relationships that need to be studied in relation to ego development. It is unclear whether her ego level is influencing her life choices or whether her environment is reinforcing her ego level. These interactions need further examination. However, we think that this further examination has potential for informing educators of patterns of change that will influence individual student learning.

ENDNOTES

- ¹ Reisetter Hart, J., & Mentkowski, M. (1994, April). The development of the whole person: Women's ego development from entrance to five years after college. In A. Newmann (Chair), *Adult development across the life span*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans.
- ² Research on ego development has primarily used the Sentence Completion Test (SCT) (Loevinger & Wessler, 1970; Loevinger, Wessler, & Redmore, 1970; Loevinger, 1985).

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APPENDIX A: PURE PATTERNS

Downward Patterns

Entrance: Adult norm
Alumnae: Below adult norm

These three women entered college at or above the adult norm in ego development. During college all three showed regression, with the regression continuing after college as well. All at Time 4 were below the adult norm of Self-Aware (I-3/4). Two of the three women were 18 years old at entrance, the third was 21. Two of the three also had fathers in professional positions, and at least one parent was college educated. Only one of the participants was a first-generation college student.

All three women were single during college, were primarily commuters, and had married by their Time 4 assessment. Two of the three had one child. All three worked at entrance and during college in positions that did not require a college degree (Ben-Ur & Rogers, 1993). All three graduated. Their majors were Art, Nursing, and Elementary Education. Though two women worked at positions requiring a college degree after graduation, only one did so by the Time 4 assessment. All three have worked part-time since college. One was not working at the Time 4 assessment.

These three women reported no involvement in volunteer or personal development since college, though two of the three reported low involvement during college. None has continued her education.

Entrance: Above adult norm
Alumnae: Adult norm

A fourth participant also showed regression in ego development both during college and afterward, although she began college with a high level of ego development for adults she regressed to a more typical level for adults after college. She was 23 years old at entrance, and was married with one child. She was divorced during her first two years at college, and had not remarried by the Time 4 assessment. She commuted to campus throughout college. She also was not a first-generation college student.

She worked at entrance to college in a position that did not require a college degree. She received a BA in nursing, obtained an entry position that required a college degree immediately after college, and advanced to a management position by Time 4 assessment. She worked full-time during the interval between college and the alumnae assessment.

She also reported that she had a low level of involvement in unpaid employment during college, and a high level of involvement in volunteer and personal development activities since college. She had been enrolled in graduate school, but had not yet received another degree by the Time 4 assessment.

Upward Patterns

Entrance: Adult norm
Alumnae: Above adult norm

These five women showed changes in ego development during college that would not necessarily be predicted by the theory. These changes after college gain a level substantially higher than the adult norm.

Three of these women were traditional-age college students, two were nontraditional-age (37 and 50 years old). The two older women had at least one parent who did not complete high school, and the younger woman had parents who completed high school. All were first-generation college students. However, two of the younger students reported that their father had a professional or managerial position.

Four of the five women reported living in a dormitory during at least part of their college careers, including the oldest women who lived in the dormitory when separated from her husband (by the Time 3 assessment). Only one traditional-age woman lived on campus throughout.

The two older women were married; the three younger women were single. Only one of the women changed her marital status by the Time 4 assessment. One younger woman was married after college. One of the older women reported that she had separated at the Time 3 assessment, but reported no change in marital status after that. The 50-year-old woman had five children at entrance to college. However, none of the other women had any children.

Two of the three younger women held positions that did not require a college degree at entrance to college. The third did not work during college. Only one of the younger women obtained a college entry position as her first job after college. The other two obtained positions that preferred but did not require a college degree. All were still working at the Time 4 assessment, and had received a BA (Management, Nursing, and Music Therapy). One was still not working in a college entry position, and had worked

part-time; the second woman had obtained a college entry position by the Time 4 assessment, the third still held a college entry position.

Both older women held college entry positions before they entered college, continued to work throughout college, and at the Time 4 assessment. Both received a BA (Management). One still held a college entry position, and had some part-time work after college. The second had continued to work full-time and had advanced to the highest level position for her field (the 50-year-old with five children).

All five women reported little or no involvement in unpaid employment during college. None of the younger women reported involvement in volunteer work or personal development after college. However, both of the older women reported high levels of involvement in both activities after college. None of the five had attended graduate school.

Entrance: Below adult norm
College: "Caught-up" to adult norm
Alumnae: Above adult norm

These three women showed upward change in ego development during college, but caught up to the adult norm during college. The change continued after college to levels slightly above the adult norm.

These three women were age 23, 24 and 35 at entrance. Two of the three were first-generation college students. All were single with no children throughout college and afterward, and commuted to campus throughout. All were working at entrance to college in positions that did not require a college degree. Two advanced to other positions during their

college years. One advanced to a college entry position, the other moved to the highest position in her field. All three received a BA (one in Nursing, the others in Management). They still held positions at similar levels five years after college; all were working full-time.

All three reported low or no involvement in unpaid employment during college. However, after college, all three reported high levels of involvement in volunteer work and personal development. None had been to graduate school.

Table 1: Participation Rates on the Sentence Completion Test by Sample Frame Definitions

Sample Frame Definition	Number Collected	Number in Sample Frame	Percent of Participation
All graduates, as five-year alumnae ^a	225	339	66%
Graduates in the Longitudinal Study sample frame ^b , as five-year alumnae	225	308	73%
Graduates and Non-Graduates in the Longitudinal Study Sample Frame ^c , as Five-Year Alumnae	248	358	69%
Graduates and Non-Graduates in the Longitudinal Study Sample Frame ^c , as Five-Year Alumnae who Participated at Four Times of Assessment	153	358	43%

^a This sample frame includes all students who entered Alverno in 1976 or 1977 in either the Weekday or Weekend College time frame and who graduated by the time of data collection for five-year alumnae.

^b The same as above, except excludes those who did not complete at least five human potential measures during at least two of the three administrations during the student years. Failure to meet this eligibility inclusion rule for prior completion may have resulted either from non-participation or from not being on campus during an administration. Lack of completion of the initial assessment of human potential measures, in itself, led to designation as ineligible for subsequent administrations.

^c Meeting the same eligibility rules as the category immediately above, except it includes alumnae who did not graduate.