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The Study of Optimism in a Freshman College Student Population: An Analysis of the Optimism about College Life Scale

Patrick John Barlow

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THE STUDY OF OPTIMISM IN

A FRESHMAN COLLEGE STUDENT POPULATION:

AN ANALYSIS OF THE OPTIMISM ABOUT COLLEGE LIFE SCALE

An Abstract of a Thesis

Submitted

In Partial Fulfillment

of the Requirements for the Degree

Master of Arts

Patrick John Barlow

University of Northern Iowa

August 1996

ABSTRACT

The purpose of the present study was to investigate the usefulness of the Optimism about College Life Scale (OCLS: Prola, 1984) as it related to conceptually similar (Life Orientation Test: Scheier & Carver, 1985; Generalized Expectancy for Success Scale: Fibel & Hale, 1978) and dissimilar (Beck Hopelessness Scale: Beck, Weissman, Lester, & Trexler, 1974; Self-rating Depression Scale: Zung, 1965; State-Trait Anxiety Inventory: Spielberger, Gorsuch, & Lushene, 1970) scales. A second focus of the study was to determine the relation of the OCLS to actual college life as measured by grade point average and an adjustment to college measure adapted from Aspinwall and Taylor (1992). Freshmen college students were participants in this study. Pearson correlations, structural equation models, and stepwise regression equations were used to support the ability of the OCLS to measure optimism and relate to college life. The OCLS correlated significantly in the predicted direction with the conceptually similar scales (Life Orientation Test, r =.46; Generalized Expectancy for Success Scale, r =.63; $p \leq$ .001) and dissimilar scales (Beck Hopelessness Scale, $r =$ -.41; Self-rating Depression Scale, $r = -.51$; State-Trait Anxiety Inventory, $r = -.56$; $p \leq .001$). A two-factor oblique structural equation model supported the ability of the OCLS to load on a distinct factor of optimism $\chi^2 (4, \underline{N} = 199) =$ 4.25, $p \geq .001$; BNFI = .99, BNNFI = 1.00, CFI = 1.00. The

results of the stepwise regression equation indicated that the OCLS contributed significantly to the prediction of grade point average and explained 12% of the variance in the data. Additional exploratory factor analyses, Pearson correlations, and structural equation models were conducted and their results reported. The implications of these findings, in the light of previous research, along with the limitations of the study and directions for further research were discussed.

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This study by: Patrick John Barlow

Entitled: THE STUDY OF OPTIMISM IN A FRESHMAN

COLLEGE STUDENT POPULATION: AN ANALYSIS

OF THE OPTIMISM ABOUT COLLEGE LIFE SCALE

has been approved as meeting the thesis requirements for the Degree of Master of Arts

7-15-96
Date   Beverly A. Koppel, Ph.D., Chair, Thesis Committee

7-15-96
Date   Augustine Osman, Ph.D., Committee Member

7-15-96
Date   Frank Barrios, Ph.D., Committee Member

8-6-96
Date   John W. Somervill, Ph.D., Dean, Graduate College

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER I

INTRODUCTION

<u>Review of the Literature</u>

The study of positive expectations and their effect on an individual's behavior has been pursued by many researchers including Julian Rotter (Rotter, 1966), Albert Bandura (Bandura, 1977), and most recently Martin Seligman (Seligman, 1990). In these works, the positive effects of taking an optimistic perspective were supported. Specifically, Rotter developed the concept of differentiating persons who rely on attributing control to external sources versus internal sources. This division was found to predict how people may alter their expectancies following a successful or unsuccessful behavior. Those who attribute the outcome of an event to chance or means out of their control (external) will not raise their expectancies for an event after a success, while also not lowering them after a failed attempt. The opposite is true for those who perceive that their efforts impact the occurrence of a behavior (internal).

Later, Bandura (1977) investigated self efficacy which he defined as the expectation that people have regarding their ability to successfully perform a behavior. Typically, self efficacy is studied in relation to a specific behavior and a specific situation in which the behavior is to occur. Bandura places great emphasis on self efficacy in therapy and in behavior in general. However, not all situations require

a sense of personal responsibility in order for behavior to occur.

Seligman (1990), known for his work studying depression as a development of learned helplessness (Seligman, 1975), has recently investigated learned optimism, which suggests that positive expectancies can be acquired by a change in attributing the causes of events. People who accept a helplessness model often attribute the negative events of life to personalized, permanent, and pervasive causes that cannot be escaped. Seligman (1990) suggests that a person can develop an optimistic, hopeful outlook by taking these "three P's" and using them to demonstrate that negative outcomes may not always occur and to give credit for positive events to the individual.

The construct of optimism has recently been the subject of an increase in interest due in part to the development of new measures of optimism (Prola, 1984; Prola & Stern, 1984; Scheier & Carver, 1985, 1992). In 1985, Scheier and Carver designed the Life Orientation Test (LOT), which is a measure based on a theory of behavioral self-regulation (Carver & Scheier, 1981) in which goal-directed behavior is thought to be a product of a system that works as follows: an individual initiates a behavior with a goal in mind and then tries to act in a manner designed to achieve that goal. If a discrepancy is found between the current behavior and that which should attain the goal, a process occurs to minimize

the discrepancy. This process will result in an immediate alteration in behavior unless there appears to be an impediment. In this situation an evaluation is made as to how likely the attempts at overcoming the impediment are to succeed. Over time, a generalized expectancy in regards to the outcome of behavior may be developed. The expectation that one's behavior will generally result in positive outcomes and that "good rather than bad things will happen . . . " (Scheier & Carver, 1985, p. 219) has been labeled optimism. Pessimism is the expectation that one's behavior will result in negative outcomes and bad things will generally tend to happen. Scheier and Carver's (1985) aim was to construct a measure of these generalized expectancies so that predictions across a wide range of tasks could be made.

Prior to Scheier and Carver (1985), researchers had not attempted to measure generalized expectancies outside of a laboratory setting and had limited their scope to specific levels of expectancy matched to specific outcomes. Previous studies also confounded the construct of optimism with other variables, for example, "morale, meaningfulness, well-being, and attributions . . ." (Scheier & Carver, 1985, p. 223). The work of Scheier and Carver produced a tool that was to be used to measure optimism at the level of generalized outcomes.

A more specific instrument, the Optimism about College Life Scale (OCLS) was developed for use with first-year students in college (Prola, 1984). It was hoped that this tool could be used as a checklist to highlight possible areas of difficulty for the student to examine and discuss with college staff. The author thought it might be possible to use this scale to assess the optimism students would have about their college careers in general. The items were quantified and tested to be psychometricaly sound, making the scale a valid research tool (Prola, 1984; Prola & Stern, 1984).

The importance of measuring the construct of optimism includes helping to see how people feel about a situation, and determining "what people do and achieve in times of adversity" (Scheier & Carver, 1992, p. 202). Research on this construct would then have implications into what behaviors individuals would engage in, their potential to accomplish a goal in spite of impediments, and their feelings about their situations.

Life Orientation Test (LOT)

Studies concerning optimism, as measured by the LOT, have focused on the effects this disposition has on emotional well-being, physical health, and coping strategies (Scheier & Carver, 1992). The issues of whether optimism is a unidimensional construct and whether the LOT is confounded

with neuroticism, self-mastery or trait anxiety have also been raised (Chang, D'Zurilla, & Maydeu-Olivares, 1994; Marshall & Lang, 1990; Marshall, Wortman, Kusulas, Hervig, & Vickers, 1992; Scheier, Carver, & Bridges, 1994; Smith, Pope, Rhodewalt, & Poulton, 1989).

Emotional Well-Being

The research on emotional or psychological states has focused on postpartum depression, heart bypass surgery, breast cancer, abortion, and general distress. Carver and Gaines (1987) found that levels of postpartum depression were inversely correlated to levels of prepartum optimism when controlling for initial dysphoria. Scheier et al. (1989) studied heart bypass patients who were tested using the LOT before surgery and stated that optimistic patients showed less pre-operative hostility and depression. After surgery, the optimists reported more feelings of happiness and relief than the pessimists. At six months post-operation the optimists reported better quality of life as measured by Andrews and Withey's (1976) Quality of Life Scale.

Other research (Carver et al., 1993), has focused on breast cancer patients with early stage cancer who underwent *surgery to remove the tumors. At three, six, and twelve* months after surgery the optimists were found to have lower levels of distress when controlling for initial distress symptoms. Similarly, Cozzarelli (1993) has found that optimistic women report better post-abortion adjustment as

compared to women who are pessimistic. Optimistic college students also displayed less general distress than pessimistic students (Aspinwall & Taylor, 1992).

<u>Physical Health</u>

The physical health of subjects has also been studied in relation to levels of optimism. Optimistic college students reported fewer physical symptoms in the last four weeks of a semester (Scheier & Carver, 1985). In the Scheier et al. (1989) study involving cardiac bypass patients, it was found that optimists were less likely to have a heart attack during surgery and more likely to have faster rates of recovery with a quicker return to vigorous activity.

<u>Coping Strategies</u>

Behaviors engaged in during stress have also been tested *(Scheier, Weintraub, & Carver, 1986). Optimists tend to use* different methods of coping. Active, problem-oriented techniques, seeking social support, and rephrasing events in a positive light are the actions that optimists take in reaction to stress. Pessimists, in contrast, cope by using denial, distancing, emotionally focused techniques (e.g., pessimists will refuse to believe that they are under stress, will try to forget the stressful event, and will not follow a plan of action but rather attend to their affective experience), and disengagement from their goals.

Optimism as a Unidimensional Construct

The dimensionality of the LOT and the construct of optimism in general was critiqued by Chang et al. (1994) in their factor analysis of the LOT scores of college students. In this study, the items on the LOT were found to load on two factors. Positively worded items loaded on the first factor and negatively worded items loaded on the second factor. In addition to these results, the Beck Hopelessness Scale (Beck et al., 1974) was found to be unidimensional and the Optimism and Pessimism Scale (Dember, Martin, Hummer, Howe, & Melton, 1989) was found to be multidimensional. The results of this study supported a two-dimensional model of the optimism construct. Chang et al. (1994) supported the idea that optimism and pessimism are partially independent constructs (shown by correlations ranging from $r = -.40$ to $r = -.60$) that lie on different dimensions and are not just polar opposites on a single dimension.

Marshall et al. (1992) also added support to the claim that the LOT may measure optimism and pessimism as two dimensions. In this study, the LOT and an adapted version of the Beck Hopelessness Scale (BHS) were administered to navy recruits along with the NEO Five-Factor Inventory (Costa & McCrae, 1989) which is a measure of neuroticism and extraversion, and the Positive and Negative Affect Schedule (Watson, Clark, & Tellegen, 1988). The scores were factor

analyzed and found to show two factors, labeled optimism and
pessimism, for the LOT and the Beck Hopelessness Scale. Once
again for the LOT, the positively worded items loaded on the
optimism factor and the negative items loaded on the
pessimism factor. Further analyses showed significant
positive relations between the LOT optimism factor with
extraversion and with positive affect. The LOT pessimism
factor was significantly and positively related to
neuroticism and negative affect. The conclusion is that the
LOT is measuring two constructs, instead of the two opposites
of one construct.

In the development of the LOT, Scheier and Carver (1985)
also found that the positively worded items loaded on one
factor, while the negatively worded items loaded on a second
factor. The researchers found that the positive items shared
a higher degree of disturbance than the negative items when
the data was analyzed using confirmatory factor analysis.
Scheier and Carver concluded that the positively worded items
were easier to understand and may cause a "measurement error
due to response style" (Scheier & Carver, 1985, p. 226). It
was also found, using principal-factors factor analysis and
LISREL VI (Jöreskog & Sörbom, 1978), that both a single
factor and two factor solution fit the data. The assertion
is that the LOT may be considered unidimensional because "all
of the items loaded at least .50 on the first unrotated
factor extracted from the initial principal-factors analysis"

and that the factors found by LISREL VI two-factor solution correlated with an r = .64. Scheier and Carver (1985) indicated that "it may be most reasonable to treat the scale as unidimensional for most purposes" (p. 227).

Optimism linked to Neuroticism, Self-Mastery, and Anxiety

Optimism has also been investigated in relation to neuroticism, self-mastery, and anxiety (Marshall & Lang, 1990; Smith et al., 1989). Smith et al. (1989) used the LOT in addition to the Generalized Expectancy for Success Scale (GESS; Fibel & Hale, 1978), the A-Trait form of the State Trait Anxiety Inventory (A-Trait; Spielberger, Gorsuch & Lushene, 1970), and the Taylor Manifest Anxiety Inventory (TMAS; Taylor, 1953) to investigate the relation of the LOT with neuroticism, coping, and symptom reports. Their results led to two conclusions. First, the construct of optimism has limited discriminant validity as shown by its close correlation with neuroticism as measured by the A-trait and TMAS. Second, the relation of optimism to symptom reports and coping methods is due to other factors. This conclusion was supported when the correlations between the LOT with symptom reports lost significance when the effects of neuroticism were controlled. Additionally, the correlations among the LOT and four out of five coping behaviors were rendered non-significant when the effects of A-trait scores were controlled.

Marshall and Lang (1990) pursued the relation of the LOT scores to self-mastery and depression. They found that both self-mastery and optimism were inversely correlated with depression (r = -.61 and r = -.49, respectively). Additionally, they reported that the constructs of optimism and self-mastery were correlated (r = .71), but still empirically distinct. In the prediction of depression, only self-mastery was found to be significantly associated with symptom levels. Marshall and Lang concluded that the power of optimism to predict depression may be due to its relation to self-mastery.

Scheier and Carver's (1992) response to the previous critiques was a clarification of the terms neuroticism and self-mastery. The construct of neuroticism "is conventionally viewed as a multifaceted construct which consists partly (though not entirely) of pessimism" (Scheier & Carver, 1992, p. 216). Therefore, any effect attributed to neuroticism may be, in fact, caused by a factor other than pessimism. Scheier and Carver also highlighted the fact that trait anxiety is not as complex as neuroticism, but the items used to measure anxiety may cause it to correlate with optimism. This may be a product of items that have a pessimistic tone or items that deal with a construct that is partially related to both optimism and trait anxiety which would produce an artificial relation.

Self-mastery can be defined as the perception that one exerts control over the events in one's life (Scheier et al., 1994). This may be related to optimism in that this control may give positive expectations about the future, but as Scheier et al. (1994, p. 1064) pointed out, there is "a sense of personal responsibility" for that expectation. This distinguishes optimism from self-mastery because there is no strong sense that an optimist needs control in order to maintain a positive outlook.

Scheier and Carver (1992) also issued a disclaimer about the measures used by Smith et al. (1989). They disputed the use of the Generalized Expectancy for Success Scale (GESS), which asks for a range of responses to specific situations, as the best indicator of convergent validity. "The assumption is that a measure of generalized expectancies can be derived by summing the person's specific expectancies across domains" (Scheier & Carver, 1992, p. 216). This can not be assumed to happen as supported by low correlations between specific and general positive expectancies (Scheier et al., 1989).

Academic Issues

In general, the research on the LOT has related optimism to positive outcomes and behaviors. A majority of this research has been conducted in the area of physical and mental health related concerns. A limited number of studies (Aspinwall & Taylor, 1992; Prola & Stern, 1984; Robbins,

Spence, & Clark, 1991) have looked into the characteristics of college students in relation to the effects of optimism on academic performance and/or adjustment to college.

Aspinwall and Taylor (1992) investigated how the personality factors of optimism, locus of control, desire for control, and self-esteem might predict psychological adjustment to college, health, motivation, and academic performance. The effects of individual differences (in optimism, locus of control, self-esteem, and desire for control) were examined to see if they directly affected adjustment, health, motivation, and academic performance or if they were mediated by the use of coping strategies, social support, and enhanced motivation. A sample of 672 college freshmen (394 women, 277 men, and 1 unreported; 47% White, 25% Asian, 13% Hispanic, and 6% African-American) was used. The ages of the subjects ranged from 16 to 19 years ($\underline{M}$ = 17.86). These undergraduates were tested within their first days of arrival at college and three months later. The subjects were mailed questionnaires and asked to complete the Life Orientation Test (LOT; Scheier & Carver, 1985), a modified version of the Rosenberg Self-Esteem Inventory (Rosenberg, 1965), Rotter's Locus of Control Scale (Rotter, 1966), Burger's Desire for Control Scale (Burger & Cooper, 1979), Derogatis' Affect Balance Scale (Derogatis, 1975), the Ways of Coping Instrument (Folkman & Lazarus, 1980), and the UCLA Social Support Inventory (Dunkel-Schetter,

Feinstein, & Call, 1988). These measures were used to assess initial mood, personality factors possibly used in the adjustment process, the methods used to cope with the transition to college, and the social support available to the subjects.

Three months later, the students who responded to the first set of scales were sent another packet with the following inventories: the Index of Well-Being (Campbell, Converse, & Rodgers, 1976), the Perceived Stress Scale (Cohen, Kamarck, & Mermelstein, 1983), four items from Dunkel-Schetter and Lobel's (1990) Assessment of Academic Stress, a scale developed by the researchers for the subject's self-reported adjustment to college, the Cohen-Hoberman Inventory of Physical Symptoms (Cohen & Hoberman, 1983), and an inventory developed by the researchers to measure motivation to succeed in college. Two years later, subjects' cumulative grade point average, in addition to their combined verbal and math scores from the Scholastic Aptitude Test (SAT), were obtained from the Registrar.

Two structural equation models were developed before the data were analyzed using a structural equations computer program known as EQS (Bentler, 1989). The first model allowed direct paths from the optimism, self-esteem, locus of control, and desire for control measures to their effects on the factors of Adjustment to College, Health Symptoms, and Social Support. The coping styles were set up to determine

if they mediated any effects of the variables in the first model. The second model was used to determine the effects of self-esteem, optimism, locus of control, and desire for control on motivation and GPA. The SAT scores were also allowed in the second equation to control for prior academic ability. The motivation measure was allowed in the second model to determine whether it mediated the effects of any of the other measures.

Aspinwall and Taylor (1992) found that optimism was the only one of the four variables (optimism, self-esteem, locus of control, and desire for control) to have a significant direct effect on adjustment to college. None of the four variables (optimism, self-esteem, locus of control, and desire for control) had direct effects on health-symptoms. The indirect effects of optimism, self-esteem, and locus of control were mediated by the methods of coping where as greater optimism, high self-esteem, and an internal locus of control predicted less use of avoidant coping, which in turn predicted better adjustment. Greater optimism and desire for control predicted more active coping and then better adjustment. None of the four variables had direct effects on health symptoms but, as adjustment to college predicted less health symptoms, those variables that predicted better adjustment indirectly predicted less health symptoms.

The second model demonstrated that the effects of desire for control and self-esteem on academic performance were

mediated by increased motivation to succeed in college, which then predicted higher grades. Desire for control also had a direct effect on grades by predicting lower GPA. This result was explained by Aspinwall and Taylor (1992) in that students with a high desire for control might remain in demanding courses that would tend to lower GPA.

Robbins et al. (1991) assessed the effects of a group of desirable traits (optimism, instrumentality (i.e., being self-assertive) and achievement strivings) and a group of undesirable traits (anxiety, stress reactivity, anger, and alienation) on health variables (self-reported complaints, health maintenance behaviors and beliefs) and academic performance (academic expectations and actual GPA). A sample of 467 college students (225 males, 242 females) was taken from introductory psychology classes. The subjects were given a test packet and asked to complete the Taylor Manifest Anxiety Scale (MAS; Taylor, 1953), two scales developed by Tellegen (1982) the Stress Reactions Scale (SR) and the Alienation Scale (Al),and the Life Orientation Test (LOT; Scheier & Carver, 1985). In addition to the previous scales, the researchers developed scales for Anger Irritability (Ang), Positive Instrumentality (I+), Achievement Strivings (AS), Academic Expectations (AcExp), Health Complaints (HC), and Health Maintenance Activities and Beliefs (HMA, HMB). The grade point averages (GPA) and Scholastic Aptitude Test (SAT) scores for the subjects were provided by the registrar.

It was hypothesized that the undesirable trait scales would correlate positively with each other and the desirable trait scales would correlate positively with each other. The correlations between the desirable and undesirable scales were predicted to be negative. The entire set of scales, except for Achievement Strivings, was predicted to correlate with Health Complaints. Health Maintenance Activities and Beliefs were predicted to correlate with only the desirable measures. Optimism, Achievement Strivings, and Positive Instrumentality were the only measures predicted to correlate with GPA and Academic Expectations.

The overall findings showed a negative correlation between the measures for the desirable and undesirable traits. Health Complaints were negatively correlated with the LOT and Positive Instrumentality (I+) and positively correlated with the Alienation Scale (Al), Anger-Irritability (Ang), Manifest Anxiety Scale (MAS), and Stress Reactions Scale (SR). Health complaints were related only to the anxiety and stress reaction measures when the influence of all measures was controlled. Health Maintenance Activities and Beliefs were generally found to correlate negatively with the undesirable traits and positively with the desirable traits. The LOT and Achievement Strivings (AS) remained significantly correlated with Health Maintenance Beliefs (HMB) and Health Maintenance Activities (HMA) when the effects of the other scales were controlled. With regards to

GPA, SAT scores, and Academic Expectations (AcExp), the LOT was found to correlate significantly with only the latter. Achievement Strivings was found to correlate with GPA and Academic Expectations (AcExp), but not SAT scores. Positive Instrumentality (I+) correlated with SAT scores and Academic Expectations (AcExp).

Robbins et al. (1991) have shown that optimism, as measured by the LOT, demonstrates a positive correlation with beliefs about health and expectations about college grades, while correlating negatively with health complaints. A similar pattern was also found in the other studies using the LOT in which higher optimism is linked to positive outcomes or traits. It is possible that other optimism measures may show a similar pattern.

Optimism about College Life Scale (OCLS)

In contrast to the Life Orientation Test (LOT; Scheier & Carver, 1985), the Optimism about College Life Scale (OCLS; Prola, 1984) has not been used as extensively in research. A search of the PsychLit database produced only one other study (Prola & Stern, 1984) in addition to the validation study by Prola (1984). In Prola's (1984) original study, 144 entering freshmen (90 females, 54 males, ages ranging from 15 to 22 years, M = 17.55) were administered the scale along with a short form of the Taylor Manifest Anxiety Scale (Bendig, 1956), the Zung Depression Scale (Zung, 1965), the Maudsley Personality Inventory (Eysenck, 1962), and the Descriptive

Tests of Language Skills (1980) prior to beginning classes.

It was noted that about half of the students were from ethnic

minorities. The results supported the psychometric validity

of the scale with a coefficient alpha of .85 (Prola, 1984).

Pearson correlations were calculated among the variables.

The divergent validity was shown by significant negative

correlations with the Zung Depression Scale (r = -.44),

Taylor Manifest Anxiety Scale (r = -.26), and the Maudsley

Personality Inventory: neuroticism (r = -.22).

Prola and Stern (1984) used the OCLS to determine the

relation between GPA, semesters in attendance, and credits

earned with scores on the scale. Their subjects consisted of

103 high school seniors admitted to college (67 males, 36

females; mean age = 17.9 years) who were administered the

OCLS, which was included in a packet with other tests used

for placement purposes. The students' GPA, semesters in

attendance, and credits earned were taken from the students'

file two years later. Pearson correlations were computed.

The results indicated a significant positive correlation

between college GPA and optimism (r = .22). However, when

the high school grade point average was controlled for, the

relation between college GPA and OCLS score moved out of the

range of significance (r = .17, $p \geq$ .05). The only other

significant correlation found was between the OCLS and high

school grade point average (r = .22).

Statement of the Problem

The research on the LOT has supported its discriminant and convergent validity and focused on the effects of dispositional optimism on mental well-being, physical health, and methods of coping (Scheier & Carver, 1985, 1992; Scheier et al., 1994). Few studies (Aspinwall & Taylor, 1992; Robbins et al., 1991) have examined the LOT's usefulness in relation to college performance and optimism. Likewise, the OCLS has not undergone extensive research in this area, but has shown promise as a research and counseling tool. Therefore, examining the LOT and OCLS in relation to college optimism and academic performance would add to the existing body of knowledge.

Optimism, defined as the generalized expectancy to believe in positive outcomes (Scheier & Carver, 1985), would lead to a hypothesis that higher levels of optimism would lead a student to hope for high academic performance. The present study then seeks to measure optimism along with other personality variables to determine if the OCLS is a valid measure of optimism about college that does relate to actual college behavior as shown by grade point average.

The Optimism About College Life Scale and Life Orientation Test and the Generalized Expectancy for Success Scale will serve to measure the construct of optimism. In an attempt to assess the discriminant validity of the OCLS, the

Beck Hopelessness Scale, the Self-Rating Depression Scale,
and the State-Trait Anxiety Inventory will be used to measure
hopelessness, depression, and anxiety respectively. In order
to control for the effects of prior academic achievement from
confounding any possible relation between the OCLS and grade
point average, the high school rank, and composite ACT scores
of the subjects will be used to identify those students
entering college with higher academic ability. Additional
measures of college adjustment and student's estimated grade
point average will be used in the analysis of the level of
optimism and current mood.

<div align="center">Hypotheses</div>

The purpose of this study was to determine if the OCLS
is a reliable measure of optimism with a college student
population. The following hypotheses were examined:

Hypothesis 1: The Optimism about College Life Scale (OCLS)
    will demonstrate a significant positive correlation with
    the Life Orientation Test (LOT).

Hypothesis 2: The OCLS will show a significant positive
    correlation with an eight-item adjustment to college
    measure adapted from Aspinwall and Taylor (1992).

Hypothesis 3: The OCLS will show a significant positive
    correlation with the Generalized Expectancy for Success
    Scale (GESS) and show significant negative correlations
    with the Beck Hopelessness Scale (BHS), the State-Trait
    Anxiety Inventory (STAI) Trait Score, and the Self-
    Rating Depression Scale (SDS).

Hypothesis 4: The OCLS and LOT will load on a single-factor
    of optimism.

Hypothesis 5: Measures of optimism will load on a separate
    factor from the BHS, STAI, and SDS.

Hypothesis 6:   The OCLS will show a significant positive
        correlation with actual college performance as measured
        by grade point average.

Hypothesis 7:   The OCLS will positively predict college
        performance as measured by GPA in a regression analysis.

Exploratory analyses were also conducted to provide

further information regarding the measurement of optimism. A

factor analysis of the LOT and OCLS was completed to

investigate the structure of these instruments. Regression

analyses, using variables other than the OCLS to predict

grade point average, were conducted. The correlations

between all the variables were investigated for potential

significant results other than those expected in the

hypotheses. The mean scores, standard deviations, ranges,

and alpha reliability coefficients of each measure were also

examined and reported.

CHAPTER II

METHOD

Subjects

Participants in the study were 199 undergraduate freshmen at a midwestern university who volunteered for this study in return for extra credit points in their introductory psychology courses. The sample was characterized as young (mean age = 18.70 years), mostly female (65.8 %), and mostly Caucasian (96.5%). A minority of the subjects were the first members of their immediate family to attend college (23.6%). A majority of the subjects' parents had attended college (67.8%).

Instrumentation/Materials

Academic Performance:

The participants' first semester grade point average (on a scale where A = 4.0), composite ACT score, and high school class rank were obtained from the registrar's office upon the completion of the fall semester with the written consent of the subjects. (See Appendix A.)

Demographic Questionnaire:

This instrument was designed by the researcher to collect demographic information including student identification number, social security number, gender, race, age, and parent's educational level. (See Appendix B.)

Life Orientation Test (LOT):

The LOT is an eight-item self-report measure, with four filler items, that assesses generalized expectancies for positive versus negative outcomes. Participants are asked to state their level of agreement with statements such as "In uncertain times, I usually expect the best" and "I hardly ever expect things to go my way," using a five-point response scale from 0 (strongly disagree) to 4 (strongly agree). Four items are worded in the positive direction and 4 are worded in a negative direction. Item scores are totaled after reversing the scoring for the negative items, with high scores representing greater optimism. The scale has satisfactory internal consistency reliability indices as given by a Cronbach alpha of .76 and a test-retest reliability (4 weeks) of .79 (Scheier & Carver, 1985). (See Appendix C.)

Grade Prediction Questionnaire:

A four-question measure developed by the researcher was administered to participants to obtain their estimation of their current grade point average (GPA), their final GPA, their current grade in their introductory psychology class and their final grade in the class. The subjects were asked to respond using a four-point scale from 1 (below C) to 4 (an A) in which higher scores indicate higher grades. (See Appendix D.)

Self-Rating Depression Scale (SDS):

The SDS is a 20-item scale focused on measuring the affective, physiological, and psychological symptoms of depression. Ten of the items are positively phrased and ten are worded negatively. Participants are asked to rate their agreement as to how the items are present in their current lives on a scale from 1 (some or a little of the time) to 4 (most or all of the time). The scale is scored by summing the items and an index is derived by dividing this sum by 80. An acceptable level of reliability (split-half = .73) has been demonstrated along with good concurrent validity with the Beck Depression Inventory, and the Hamilton Rating Scale for Depression (Zung, 1965). (See Appendix E.)

Optimism about College Life Scale (OCLS):

This scale is made up of fifteen positively worded items used to assess the level of optimism about specific college-related concerns of freshman students. Participants are asked to respond to the likelihood of situations occurring to them during their undergraduate career. A four-point scale ranging from an excellent chance (3) of the situation occurring, a good chance (2), a fair chance (1), to a poor chance (0) was used. Some sample items are "I will be able to study well enough" and "I will get satisfactory grades." The scores are totaled, with high scores indicating greater optimism. The psychometric properties include an internal-

consistency of .85 (coefficient alpha) (Prola, 1984). (See
Appendix F.)

Beck Hopelessness Scale (BHS):

This scale is a 20-item true false measure of
generalized negative expectancies about one's own future
(Beck & Steer, 1988). Of the items, 11 are worded negatively
and nine are worded positively. Higher scores indicate
greater pessimism or hopelessness. Beck et al. (1974) has
reported a Cronbach alpha of .93, while Beck, Steer, Kovacs,
& Garrison (1985) have demonstrated its ability to predict
suicide. (See Appendix G.)

College Adjustment Questionnaire (ADJ):

The researcher also adapted a short questionnaire from
Aspinwall and Taylor (1992) to assess the participants'
current level of adjustment to college. An eight-item
measure scored in a Likert-type format from 1 (much less
happy/adjusted) to 5 (much more happy/adjusted) was used.
Higher scores show better adjustment. Some sample items
would be, "Compared to the average freshman, how happy do you
think you are?" and "How well do you think you have adjusted
to college, socially?" (See Appendix H.)

Generalized Expectancy for Success Scale (GESS):

The Generalized Expectancy for Success Scale is a 30-
item measure designed to assess participants' beliefs that an
event will occur in their lives in the future. Subjects are
asked to respond on a 5-point scale from 1 (highly

improbable) to 5 (highly probable). Some sample items would be, "In the future I expect that I will: have a successful marital relationship" and "In the future I expect that I will: succeed in the projects I undertake". Fibel and Hale (1978) report reliabilities in the range of .82 to .91 for split-half and .80 to .89 for test-retest reliability. Construct validity was also reported to be good (Fibel & Hale, 1978). (See Appendix I.)

State-Trait Anxiety Inventory (STAI):

The state/trait form of the STAI is a measure of anxiety composed of 40 Likert items evaluating the extent to which a participant experiences a variety of feelings such as happiness, self-confidence, tension, and disappointment. Examples of items would be "I feel content" and "I worry too much over something that really doesn't matter." The inventory has been used extensively in research and has well-documented psychometric properties (Spielberger et al., 1983; Watson & Clark, 1984). (See Appendix J.)

<div align="center">Procedure</div>

The instruments were placed in a test packet along with an informed consent form that was given to the participants during a session of their introductory psychology course. The researcher gave a brief description of the nature of the study and the assurance that the data would be kept confidential. The participants were then asked to complete the packet and return it immediately to the researcher.

The grade point average, ACT score, and high school class rank were received directly from the Registrar after the fall semester grades were tabulated.

Research Design/Statistical Procedures

The data were analyzed in an attempt to examine the Optimism about College Life Scale's relation to grade point average, its ability to measure the construct of optimism, and its ability to predict college performance. Analyses of the data were conducted using the Statistical Program for the Social Sciences (SPSS for Windows 6.1, 1995) and the structural equations program EQS for Windows 5.1 (Bentler, 1995).

Correlations among all measures were calculated. Then, the correlations between the academic data and the OCLS were inspected. If a significant correlation existed between the OCLS and first semester GPA, then partial correlations were calculated to determine the effect of previous academic performance on GPA. Stepwise regression analyses using the OCLS, GESS, and LOT as predictors, were conducted to evaluate the contribution of each variable to the prediction of GPA.

The ability to measure optimism was first analyzed by evaluating the relations among items of the OCLS and the LOT in several structural equation models: a one-factor null, a two-factor orthogonal, a two-factor oblique, and a second-order model. Specifically, the one-factor null model allows the items of the LOT and OCLS to load on a single factor.

(See Figure 1.) In the two-factor orthogonal model (see Figure 2), the individual items of the OCLS and the LOT were allowed to load on their respective factors. However, the factors were not allowed to correlate. Next, in the two factor oblique model (see Figure 3), the items on the OCLS and LOT were allowed to load on their respective factors and these factors (OCLS and LOT) were allowed to correlate. Then, in the second-order model (see Figure 4) the first-order OCLS and LOT factors were allowed to load on a common or third factor (general affect). Finally, the Bentler-Bonett Normed Fit Index (BNFI, values .90 or greater), Bentler-Bonett Nonnormed Fit Index (BNNFI, values .90 or greater), and the Comparative Fit Index (CFI, values .90 or greater) were used to evaluate the fit of the null, orthogonal, oblique, and second-order models. A Chi-square index was also calculated for each model.

In summary, the one-factor null model checks whether the LOT and OCLS items are convergent on a single construct, at the item level. A two-factor orthogonal model tests whether the items of the LOT and the OCLS measure two independent constructs while the items of each scale are related to their respective factors. The two-factor oblique model determines whether the items of the scales load on factors that represent each scale and are correlated. If the LOT and OCLS first-order factors load significantly on a second-order factor then it will be shown, more powerfully than the two-

factor oblique model, that the two inventories are measuring the same latent construct.
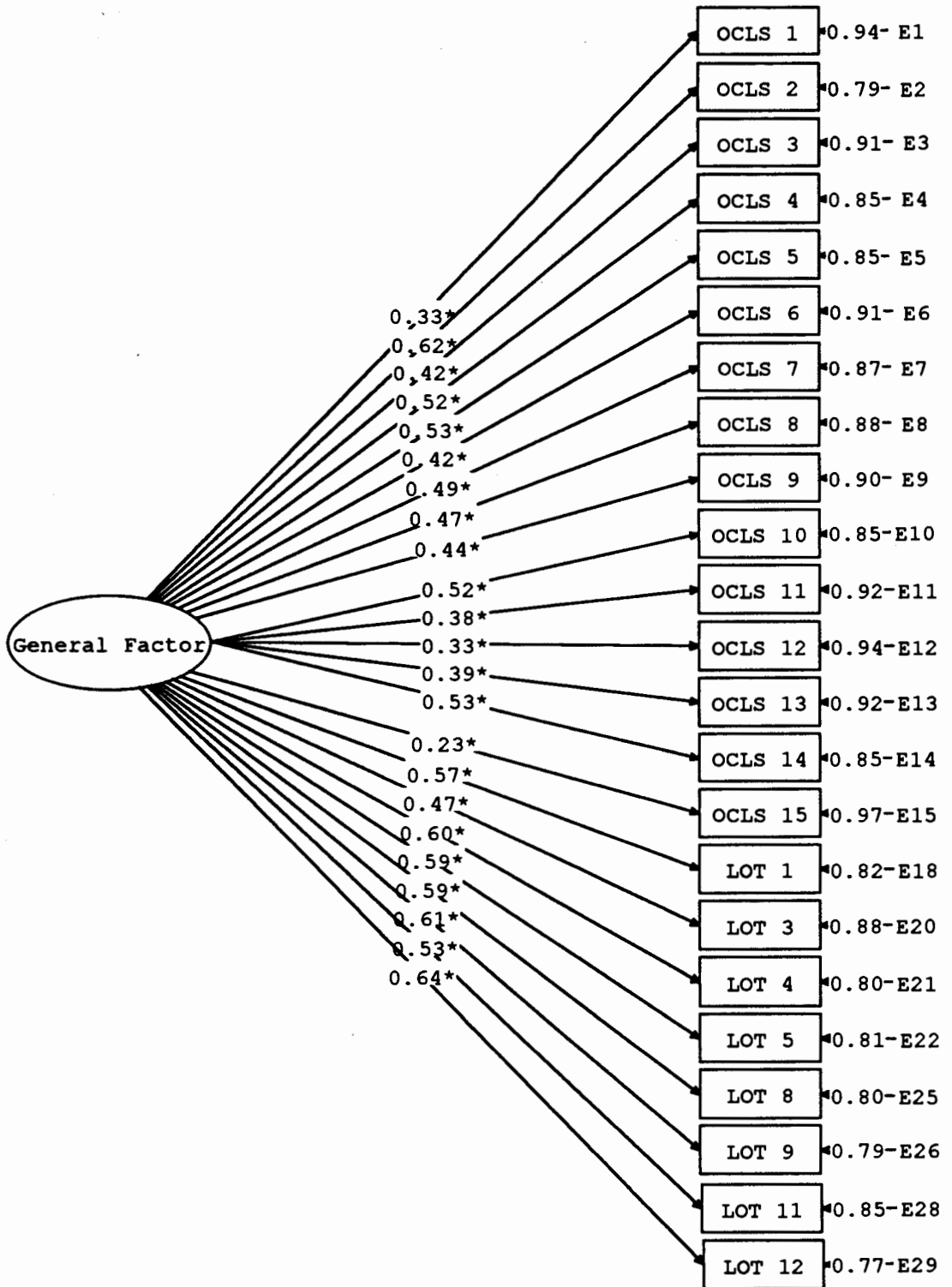
Figure 1. One-factor Null Model of OCLS and LOT Items.
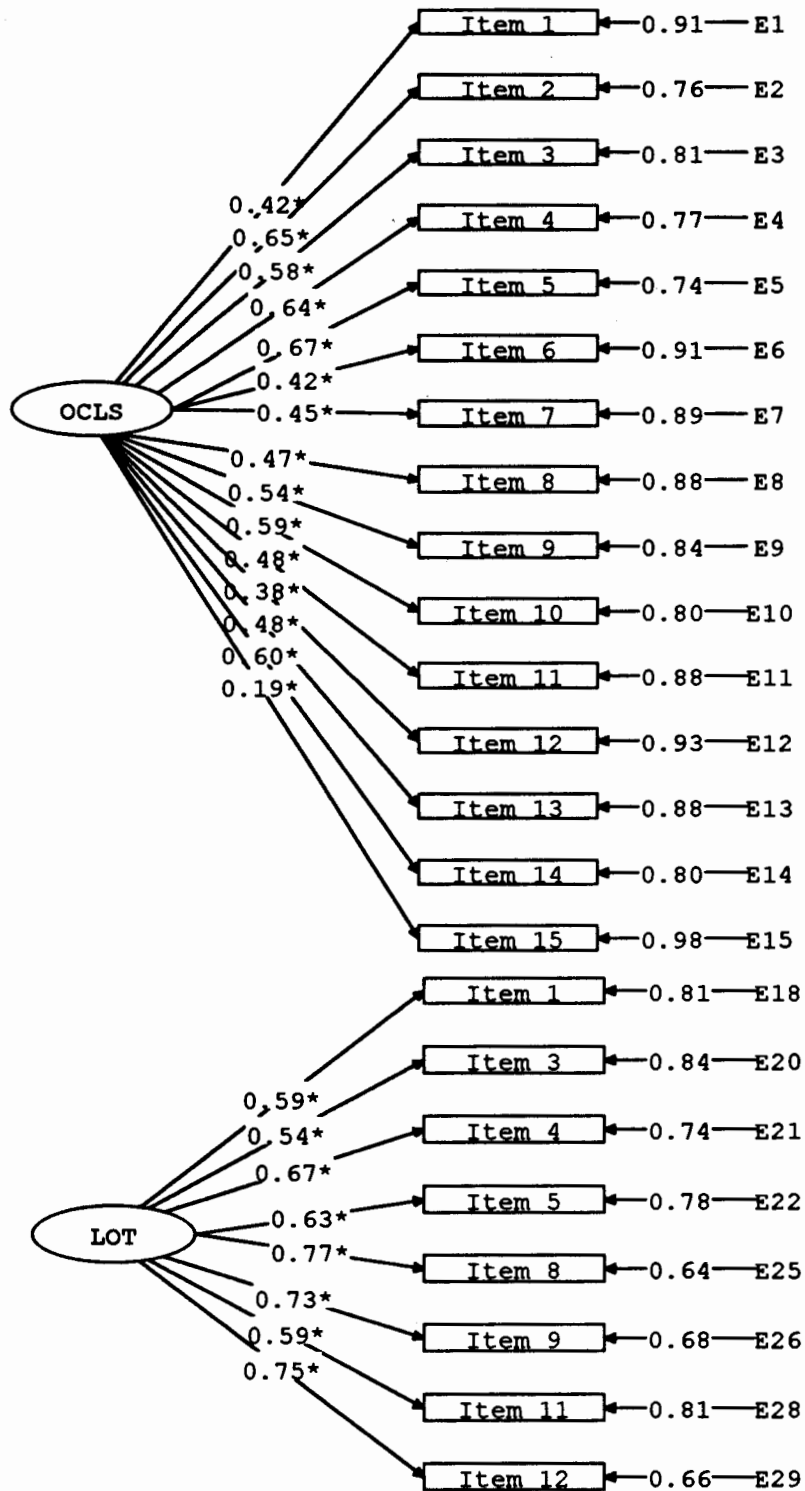
Figure 2. Two-factor Orthogonal Model of OCLS and LOT Items.
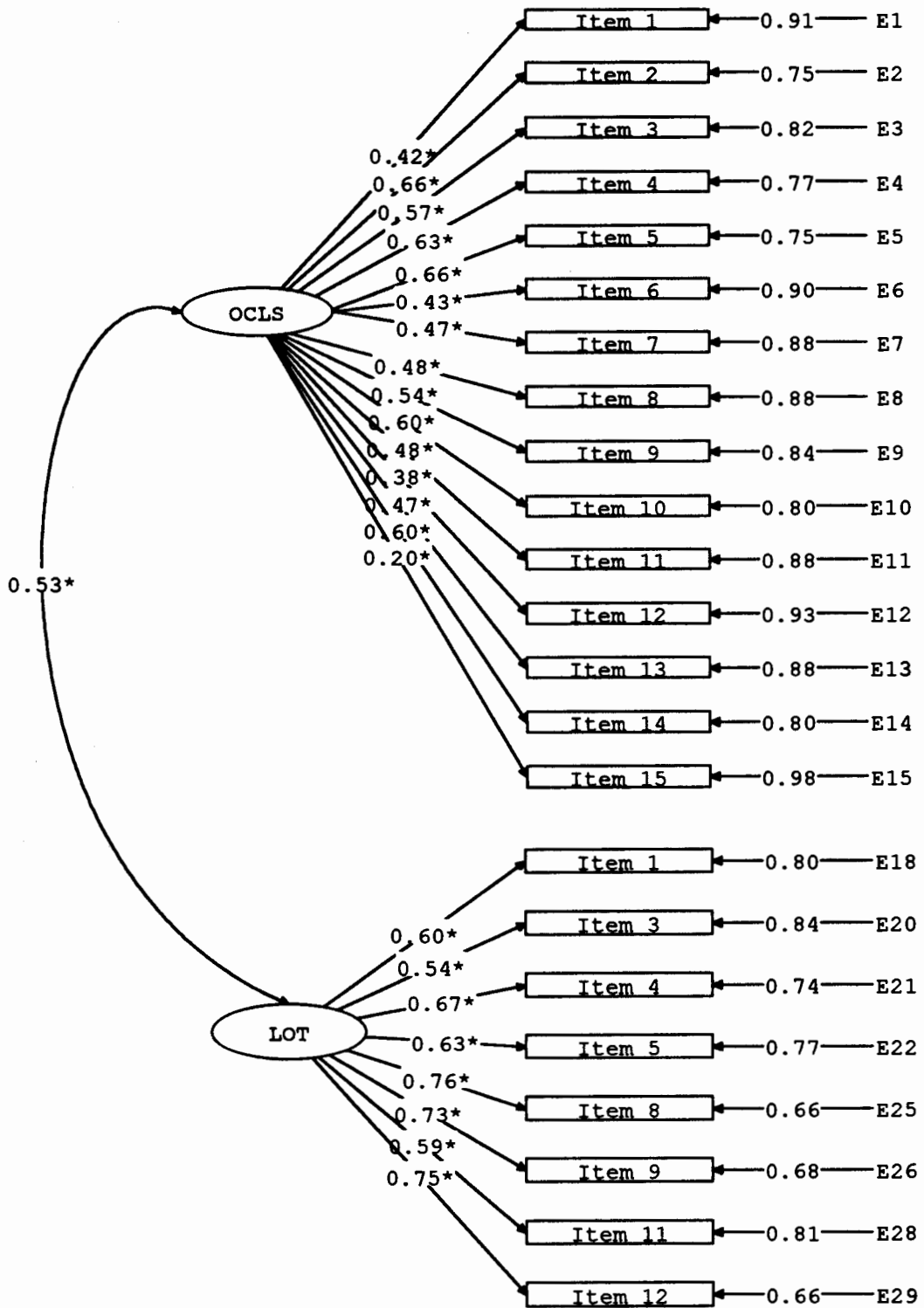
Figure 3. Two-factor Oblique Model of OCLS and LOT Items.
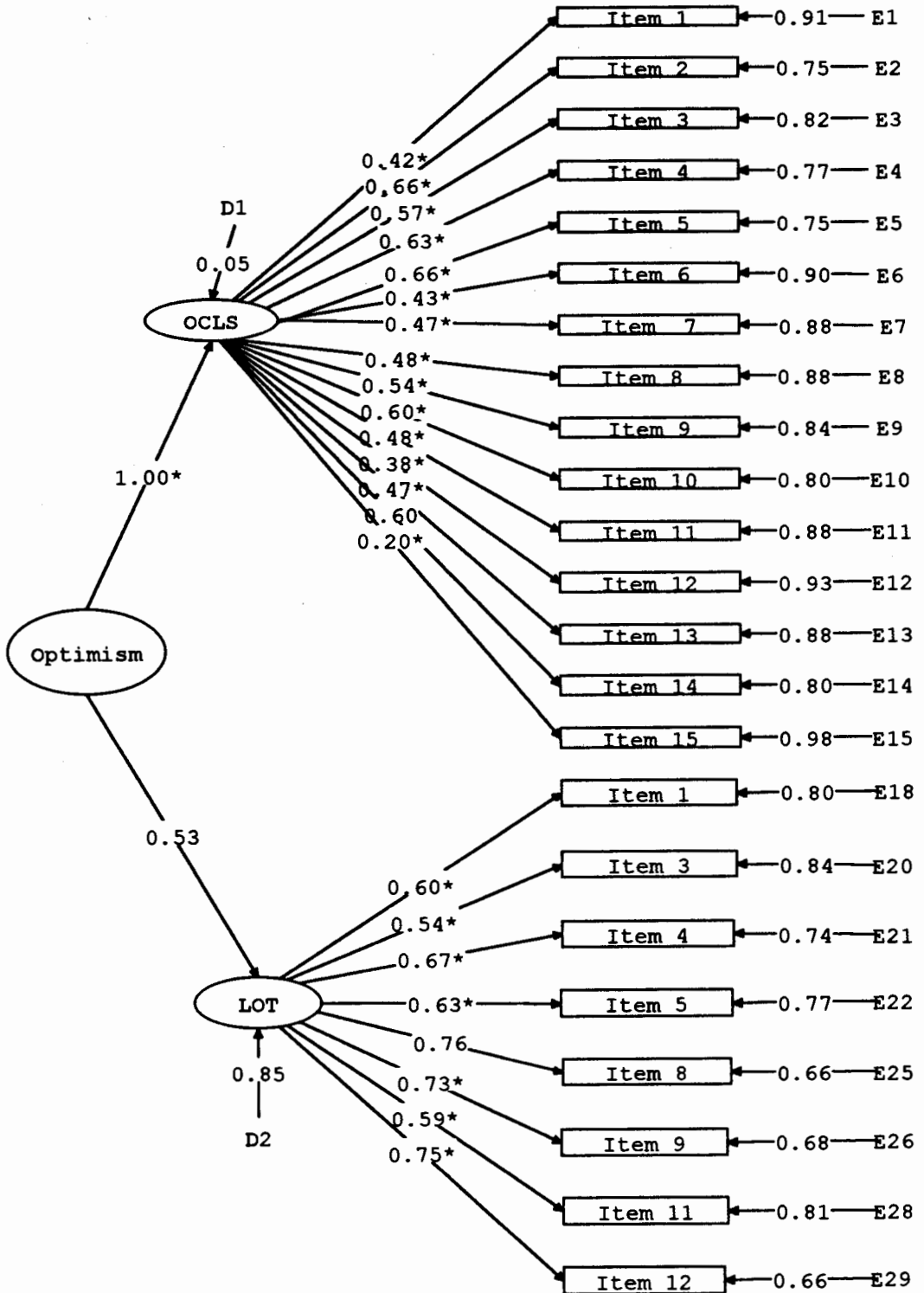
Figure 4. Second-Order Model of OCLS and LOT Scales.

The next stage of the analyses involved the use of the SDS, BHS, and STAI Trait Anxiety scores. A procedure similar to the one used to analyze the LOT and OCLS items was conducted to determine whether the factors that the OCLS, LOT, SDS, BHS, and STAI scales load onto fit better as null, oblique, orthogonal or second-order models. A null model loaded all the scales on a single factor (see Figure 5). The OCLS and LOT were allowed to load on an optimism factor while the SDS, BHS, and STAI Trait scores were loaded on a negative affectivity factor in the orthogonal model (see Figure 6). The optimism and negative affectivity factors were allowed to correlate in the oblique model (see Figure 7). A final model (see Figure 8) was constructed to determine whether these second-order factors for optimism and negative affectivity loaded on a higher factor. These models were applied to the data and the three fit indices along with a Chi-square index were calculated for each model.
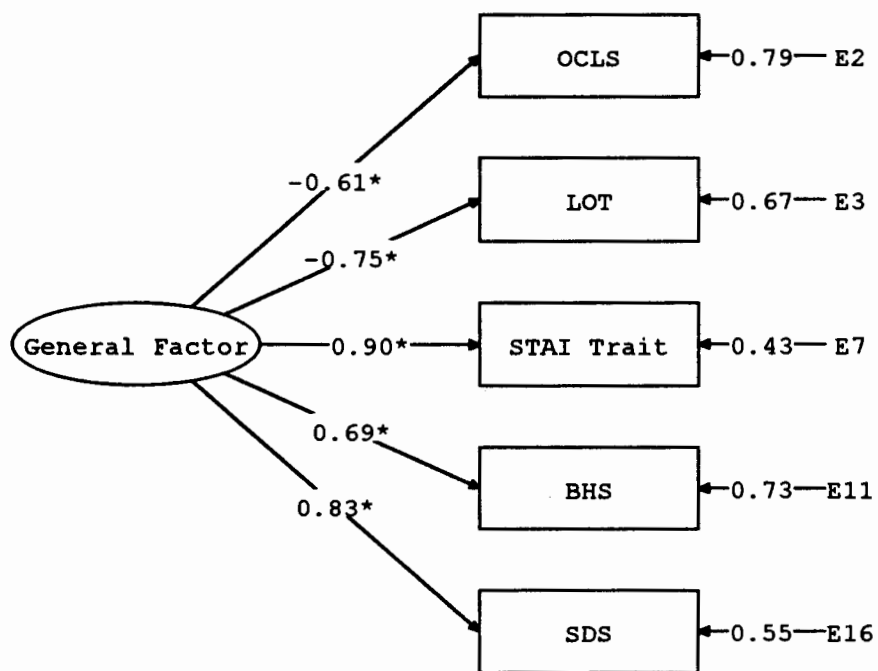
Figure 5. One-factor Null Model of OCLS, LOT, STAI-Trait, BHS, and SDS Scales.
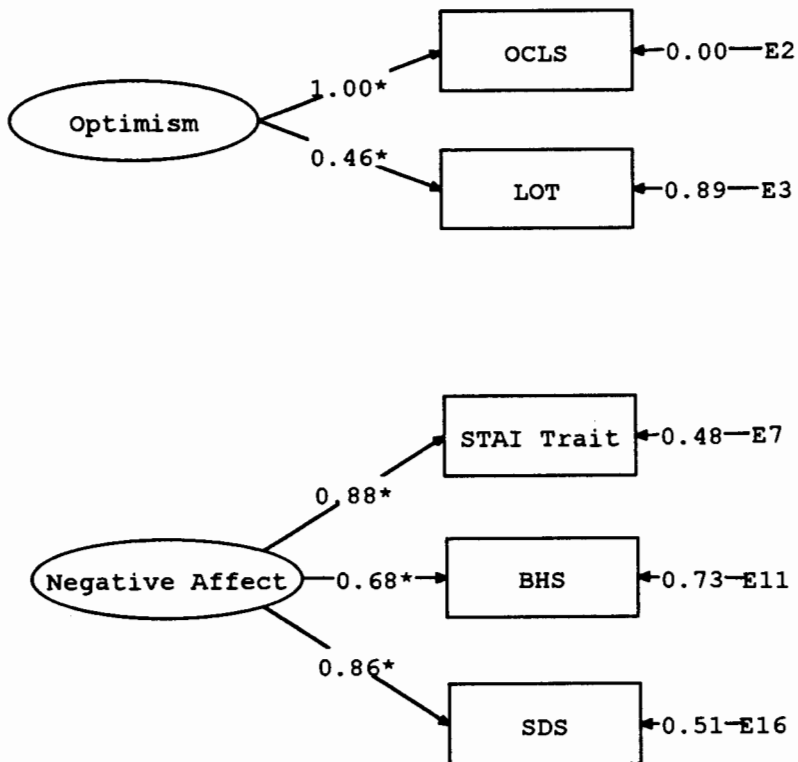
Figure 6. Two-factor Orthogonal Model of OCLS, LOT, STAI-Trait, BHS, and SDS Scales.
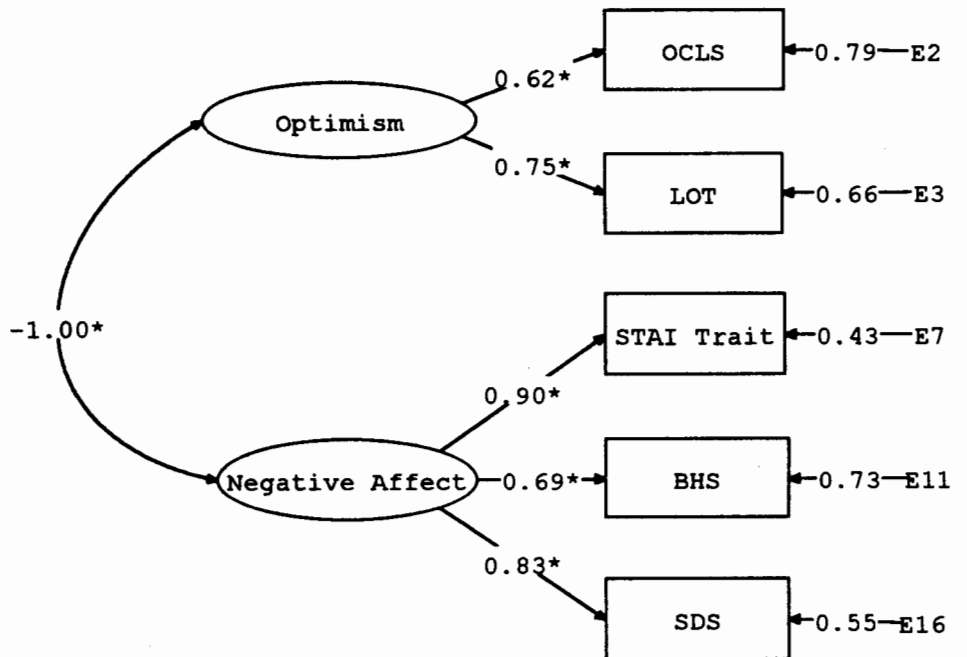
Figure 7. Two-factor Oblique Model of OCLS, LOT, STAI-Trait, BHS, and SDS Scales.
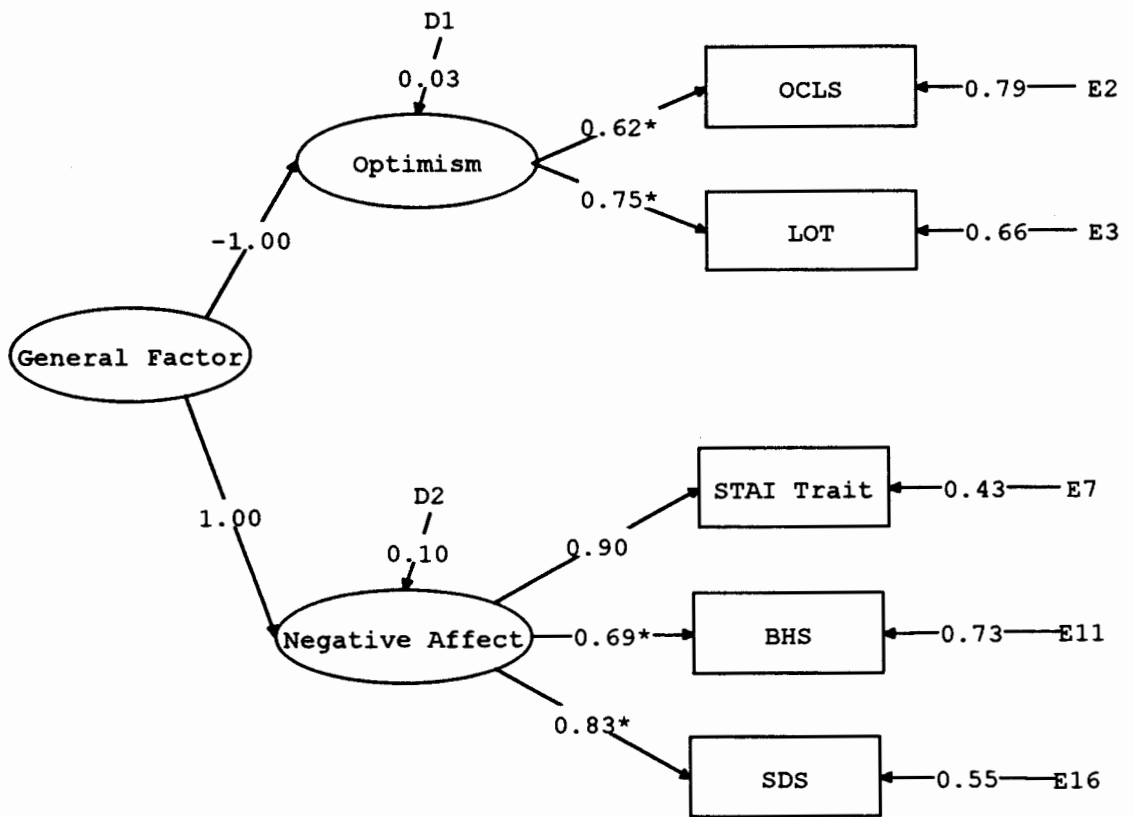
Figure 8. Second-Order Model of Optimism and Negative Affect Factors.

CHAPTER III

RESULTS

The first hypothesis, that the OCLS will demonstrate a significant positive correlation with the LOT, was supported. As shown in Table 1, the OCLS was significantly correlated ($\underline{r}$ = .46, $\underline{p}$ ≤ .001) with the Life Orientation Test (LOT).

Table 1

Correlations Between OCLS Scores, Academic Data, and other Scale Scores

Measures	LOT	GESS	STAI	BHS	SDS	GPA	ADJ
OCLS	.46**	.63**	−.56**	−.41**	−.51**	.26**	.48**
LOT	1.00**	.52**	−.68**	−.55**	−.59**	.18*	.49**
GESS	.63**	1.00**	−.60**	−.55**	−.57**	.01	.46**
STAI	−.68**	−.60**	1.00**	.60**	.75**	−.15**	−.59**
BHS	−.55**	−.55**	.60**	1.00**	.59**	−.05	−.42**
SDS	−.59**	−.57**	.75**	.59**	1.00**	−.13	−.52**
GPA	.18*	.01	−.15**	−.05	−.13	1.00**	.18*
ADJ	.49**	.46**	−.59**	−.42**	−.52**	.18*	1.00**

Note. $\underline{N}$ = 199. OCLS = Optimism about College Life Scale; LOT = Life Orientation Test; GESS = Generalized Expectancy for Success Scale; STAI = State-Trait Anxiety Inventory (trait score); BHS = Beck Hopelessness Scale; SDS = Self-rating Depression Scale; GPA = Grade Point Average; ADJ = College Adjustment Questionnaire. * denotes $\underline{p}$ ≤ .05. ** denotes $\underline{p}$ ≤ .001.

The second hypothesis, that the OCLS will show a significant positive correlation with an eight-item adjustment to college measure (Aspinwall & Taylor, 1992), was also supported. The OCLS was significantly correlated with an eight-item adjustment to college measure (r = .48, p ≤ .001) adapted from Aspinwall and Taylor as shown in Table 1.

Likewise, the third hypothesis, that the OCLS will show a significant positive correlation with the GESS and show significant negative correlations with the BHS, STAI-Trait Form, and SDS, was supported. The OCLS was positively correlated with the Generalized Expectancy for Success Scale (GESS) (r = .63, p ≤ .001) and negatively correlated with the Beck Hopelessness Scale (BHS) (r = -.41, p ≤ .001), the State-Trait Anxiety Inventory (STAI) Trait Score (r = -.56, p ≤ .001), and the Self-Rating Depression Scale (SDS) (r = -.51, p ≤ .001).

The fourth hypothesis, that the OCLS and LOT would load on a single factor of optimism, was not supported (see Table 2). The structural equation models were first run using the Maximum Likelihood (ML) estimation method which assumes multivariate normality in the data. Upon inspecting the EQS output for the models, it was found that the data's skewness and kurtosis were at a level that the assumption of normality was violated. Therefore, the analyses were run again using the Elliptical Reweighted Least Squares (ERLS) estimation method which takes skewed data and moves it closer to a

normal distribution. This procedure did increase the values
of the fit indices from the original method, but did not
affect the significance of the Chi-square values. As shown
in Table 2, the one-factor null (Figure 1), two-factor
orthogonal (Figure 2), and the two-factor oblique (Figure 3)
models were not a good fit to the data with the Chi-square
values being significant at $p \leq .001$. The fit indices for
the one-factor null model did not reach significance while
the two-factor oblique and orthogonal were close. The
second-order model (Figure 4) also approached significant fit
indices but the Chi-square was significant at $p \leq .001$.

Table 2

Structural Equation Model Statistics for the Analyses of the

LOT and OCLS

Model	Chi-Square	df	Practical Fit Indices		
			BNFI	BNNFI	CFI
One-Factor Null	1007.02**	230	.70	.73	.75
Two-Factor Orthogonal	578.04**	230	.83	.88	.89
Two-Factor Oblique	549.40**	229	.84	.89	.90
Second-order	549.39**	226	.84	.89	.90

Note. LOT = Life Orientation Test; OCLS = Optimism about College Life
Scale; BNFI = Bentler-Bonett Normed Fit Index; BNNFI = Bentler-Bonett
Nonnormed Fit Index; CFI = Comparative Fit Index. Due to the skewness
of the data the estimation method of Elliptical Reweighted Least Squares
(ERLS) was used for these models. ** denotes $p \leq .001$.

The fifth hypothesis, that measures of optimism will load on a separate factor from the BHS, STAI Trait Form, and SDS, was supported. This hypothesis was analyzed using the structural equation models presented in Figures 5, 6, 7, and 8. As shown in Table 3, the one-factor null, two-factor oblique, and second-order models were a good fit to the data with the Chi-square values lacking significance and the fit indices ranging from .93 to 1.00. The one-factor null model (see Figure 5) showed a common factor with the optimism scales loading negatively (OCLS = -.61, LOT = -.75) on the factor, while the negative affectivity scales loaded positively on this factor (STAI-Trait = .90, BHS = .69, SDS = .83). In the two-factor oblique model (see Figure 7), a perfect negative correlation between the optimism factor and the negative affectivity factor was obtained. Also the scales demonstrated high factor loadings on their respective factors. The second-order model (see Figure 8) also produced optimism and negative affectivity factors that loaded on the higher factor at -1.00 and 1.00 respectively. The two-factor orthogonal model did not show a good fit to the data with a significant Chi-square and fit indices ≤ .65.

In support of the sixth hypothesis, that the OCLS will show a significant positive correlation with grade point average, the OCLS was positively correlated (r = .26, p ≤ .001) with actual college performance as measured by grade point average. The magnitude of this correlation decreased (r

= .16), but remained significant ($p \leq .05$), when the effect
of ACT score and High School Class Rank were controlled for
in a partial correlation.

Table 3

Structural Equation Model Statistics for the Analyses of the

OCLS, LOT, STAI-Trait Form, BHS, and SDS

			Practical Fit Indices		
Model	Chi-Square	df	BNFI	BNNFI	CFI
One-Factor Null	4.26	5	.99	1.00	1.00
Two-Factor Orthogonal	172.00**	5	.65	.31	.65
Two-Factor Oblique	4.25	4	.99	1.00	1.00
Second-order	4.25	1	.99	.93	.99

Note. OCLS = Optimism about College Life Scale; LOT = Life Orientation
Test; STAI = State-Trait Anxiety Inventory; BHS = Beck Hopelessness
Scale; SDS = Self-rating Depression Scale; BNFI = Bentler-Bonett Normed
Fit Index; BNNFI = Bentler-Bonett Nonnormed Fit Index; CFI =
Comparative Fit Index. The estimation method of Maximum Likelihood (ML)
was used for these models. ** denotes $p \leq .001$.

The seventh hypothesis, that the OCLS will positively
predict of college performance as measured by GPA, was
evaluated using stepwise multiple regression analyses.
Student's GPA served as the dependent variable in the
analysis. The total scores from the OCLS, LOT, and GESS

served as the independent variables. The results of the analyses are presented in Table 4. The OCLS was entered in the equation on the first step and maintained a significance level $p \leq .001$. The final regression equation placed the OCLS with the highest weight as compared to the GESS and LOT while explaining 12% of the variance.

Table 4

Stepwise Regression Analysis for Variables Predicting GPA (N = 199)

Variable	$\underline{B}$	$\underline{SE}$ $\underline{B}$	β	Sig.
Step 1				
OCLS	.0314	.0084	.2566	.0003
Step 2				
OCLS	.0507	.0106	.4141	.0000
GESS	−.0141	.0049	−.2509	.0043
Step 3				
OCLS	.0460	.0108	.3758	.0000
LOT	.0244	.0114	.1715	.0338
GESS	−.0178	.0051	−.3164	.0007

Note. R^2 = .0658 for Step 1; R^2 = .1040 for Step 2; R^2 = .1245 for Step 3; OCLS = Optimism about College Life Scale; GESS = Generalized Expectancy for Success Scale; LOT = Life Orientation Test

An exploratory factor analysis of the LOT, using a principal components method, produced loadings (see Table 5) that were different than anticipated. A clear difference in the loading was not found as both the positively and negatively worded items loaded highly on the first factor (loadings ranging from .56 to .78). The negatively worded items did load negatively on a second factor (loadings ranging from -.28 to -.47) which differentiated them from the positively worded items. The eigenvalues, which were set at 1.00 for inclusion, for the factors did show a stronger first factor (eigenvalue = 4.06) as compared to the second factor (eigenvalue = 1.09).

An additional factor analysis was performed on the LOT data using the principal components method with a varimax rotation. The loadings found for this analysis (see Table 6) replicated previous findings that show a clear difference between the negatively and positively worded items. The positive items loaded highly on the first factor (loadings ranging from .67 to .84). High loadings on the second factor, ranging from .74 to .78, were found for the negative items. Negative loadings were not found for either factor. Similar to the first factor analysis of the LOT, the eigenvalues were found to be 4.06 for the first factor and 1.09 for the second factor.

Table 5

Principal-Components Factor Analysis of the Life Orientation
Test

Scale item	Factor 1	Factor 2
Positive items		
Item 1	.67	.29
Item 4	.75	.43
Item 5	.71	.48
Item 11	.66	.24
Negative items		
Item 3	.56	-.47
Item 8	.78	-.33
Item 9	.75	-.35
Item 12	.77	-.28

Note. Eigenvalues were set at 1.00 for inclusion; Eigenvalues produced
by the procedure were Factor 1 = 4.06 and Factor 2 = 1.09; LOT items 2,
6, 7, and 10 are filler items in the scale and were not included in this
analysis.

A factor analysis of the OCLS produced a four factor
structure (see Table 7). Most of the 15 items had their
highest loading on the first factor that was extracted
(loadings ranging from .24 to .69). Three subsets of items
showed another pattern. Items 6, 7, and 8 of the OCLS loaded
on a second factor with loadings of .56, .65, and .63
respectively. Items 12 and 13 loaded highly on the third

factor at .61 and .51. Item 11 loaded on the fourth factor at. 48. Similar to the factor analysis of the LOT, the eigenvalues for this procedure were set at 1.00 for inclusion. Concerning the OCLS, the factors showed a stronger first factor (eigenvalue = 4.74) as compared to the second factor (eigenvalue = 1.74), third factor (eigenvalue = 1.15), and fourth factor (eigenvalue = 1.07).

Table 6

Principal-Components Factor Analysis of the Life Orientation Test with a Varimax Rotation

Scale item	Factor 1	Factor 2
Positive items		
Item 1	.67	.27
Item 4	.84	.22
Item 5	.84	.16
Item 11	.64	.29
Negative items		
Item 3	.08	.75
Item 8	.33	.78
Item 9	.29	.78
Item 12	.35	.74

Note. Eigenvalues were set at 1.00 for inclusion; Eigenvalues produced by the procedure were Factor 1 = 4.06 and Factor 2 = 1.09; LOT items 2, 6, 7, and 10 are filler items in the scale and were not included in this analysis.

A comprehensive regression equation was conducted (see Table 8) that used grade point average as the dependent variable while the scores on the OCLS, LOT, GESS, ACT, ADJ, BHS, SDS, STAI Trait Form, STAI-State Form scales along with Parents' educational status, GPA prediction, Age, and status as the first family member to attend college were used as the independent variables. The GPA prediction was entered in the equation on the first step and maintained a significance level $\underline{p} \leq .001$. The final regression equation placed the GPA prediction with the highest weight. The ACT score and High School rank were the only other variables entered into the equation. This regression equation explained 52% of the variance in the GPA.

Finally, the subjects' expected average, ACT score, and high school class rank showed significant correlations with actual GPA with $\underline{r} = .63$, $\underline{r} = .50$, and $\underline{r} = .56$ respectively ($p \leq .001$). A significant correlation was also found between the subjects predicted GPA and actual GPA ($\underline{r} = .63$, $p \leq .001$). Other data concerning the variables and their means, standard deviations, range, and alpha reliability coefficients is presented in Table 9.

Table 7

Principal-Components Factor Analysis of the Optimism about

College Life Scale

Scale item	Factor 1	Factor 2	Factor 3	Factor 4
Item 1	.47	-.09	-.13	.21
Item 2	.67	-.22	-.31	.11
Item 3	.60	-.30	-.25	-.34
Item 4	.64	-.37	-.16	-.11
Item 5	.69	-.15	.09	-.19
Item 6	.49	.56	-.01	-.28
Item 7	.54	.65	-.10	-.07
Item 8	.55	.63	-.21	.02
Item 9	.61	.15	-.15	.35
Item 10	.62	-.26	-.21	.30
Item 11	.53	-.23	.33	.48
Item 12	.44	.12	.61	-.06
Item 13	.53	-.13	.51	-.14
Item 14	.64	-.20	.14	-.40
Item 15	.24	.30	.24	.36

Note. Eigenvalues were set at 1.00 for inclusion; Eigenvalues produced by the procedure were Factor 1 = 4.74, Factor 2 = 1.74, Factor 3 = 1.15, Factor 4 = 1.07.

Table 8

Stepwise Regression Analysis for Variables Predicting GPA
(N = 199)

Variable	B	SE B	β	Sig.
Step 1				
GPA prediction	.6250	.0578	.6250	.0000
Step 2				
GPA prediction	.4670	.0595	.4687	.0000
Rank	.0158	.0027	.3481	.0000
Step 3				
GPA prediction	.4121	.0603	.4138	.0000
ACT score	.0413	.0126	.2001	.0013
Rank	.0126	.0028	.2777	.0000

Note. R^2 = .3906 for Step 1; R^2 = .4874 for Step 2; R^2 = .5163 for Step 3; GPA prediction = subjects predicted grade point average; Rank = high school class percentile rank; ACT score = composite score on the ACT aptitude test.

Table 9

Mean Total Scores, Standard Deviations, Ranges, and Alpha

Reliabilities for Variables

Variable	$\underline{M}$	$\underline{SD}$	Range	(Max. Score)	α
OCLS	44.72	5.69	27–45	(60)	.83
LOT	20.38	4.89	6–32	(32)	.86
GESS	117.07	12.40	81–150	(150)	.91
ADJ	28.13	4.47	14–40	(40)	.84
BHS	2.92	3.37	0–19	(20)	.86
SDS	36.71	7.72	22–61	(80)	.83
STAI-Trait	40.14	10.23	21–72	(80)	.93
STAI-State	41.65	12.12	20–74	(80)	.94
GPA	2.60	.70	0–3.94	(4)	NA
ACT‡	23.13	3.35	16–31	(36)	NA
Rank‡	73.37	15.43	37–99	(99)	NA
GPA pred.	2.53	.70	0–4.00	(4)	.84

Note. OCLS = Optimism about College Life Scale; LOT = Life Orientation Test; GESS = Generalized Expectancy for Success Scale; ADJ = College Adjustment Questionnaire; BHS = Beck Hopelessness Scale; SDS = Self-rating Depression Scale; STAI = State-Trait Anxiety Inventory ; GPA = Grade Point Average; ACT = composite score on the ACT aptitude test; Rank = high school class percentile rank; GPA pred. = subjects' predicted grade point average. All values based on $\underline{N}$ = 199 except for those denoted by an ‡ (ACT $\underline{N}$ = 196; Rank $\underline{N}$ = 184). NA denotes value not available.

CHAPTER IV

DISCUSSION

<u>Optimism about College Life Scale</u>

The ability of the OCLS to measure optimism in a college student population has been substantiated by the results of this study, given that 6 out of 7 experimental hypotheses were supported. Significant correlations with conceptually similar scales (LOT, GESS) and conceptually dissimilar scales (BHS, SDS, STAI-Trait) were found in the predicted direction. The use of structural equation models also helped to demonstrate that the OCLS has shown convergent validity, with the LOT, and divergent validity with the BHS, STAI-Trait, and SDS.

Other findings added weight to the usefulness of the OCLS in a college population. A significant correlation with college grade point average was found that maintained significance when the effects of prior academic ability were controlled. In the prediction of college grade point average, the OCLS was found to help predict GPA and explain a portion of the variance in the data. Also the OCLS was significantly correlated with an adjustment to college measure. It appears that the OCLS measured optimism and is related to actual college life, as measured by GPA and college adjustment.

The scale failed to produce significant results in one set of structural equation models. Different factors may be

at work to explain this result. Data were collected after
the beginning of the fall semester when the subjects had
completed a quarter of a semester. While this allowed
subjects to answer most OCLS items, the last item on the
scale, "I will not be nervous on the first day of classes",
needed to be re-written because that day had passed. This
change may have produced the low factor loading found for
this item as compared to the rest of the OCLS items in the
structural equation models. Some of the responses to LOT
and OCLS items provided data that was skewed such that the
default method of calculating the fit of a structural model
(Maximum Likelihood) had to be abandoned in favor of
a method that reweighted the data to move the values closer
to the normal curve (Elliptical Reweighted Least Squares).
This change did not improve the fit of the model to the data.
It is possible that not enough subjects per item were
available to provide a normal distribution that would better
fit the model.

Although the one set of models did not reach
significance, the fit indices did approach significant
levels. Given that the majority of the data supported both
the OCLS' relation to college life and its ability to measure
optimism, it is believed that the OCLS is a useful tool to
assess the optimism of students beginning their college
careers. As part of orientation materials or other
informational programming, the OCLS could help to highlight

those students who are eagerly anticipating their studies while also bringing the major concerns of students to the attention of college personnel.

In addition to the results concerning the hypotheses, other important information about the OCLS was gained through this study. The internal consistency of the items was tested with an alpha reliability coefficient that showed an acceptable level of consistency. An exploratory factor analysis using the principal components method found a four factor structure (see Table 6). A common first factor was found that could be labeled college optimism. Three items (6, 7, & 8) concerned with liking the subject's college and making friends during college loaded on a second factor were noticed. This factor could possibly be labeled social college optimism. Two items (12 & 13) loaded highly on a third factor that dealt with traveling and financial concerns. Such a factor could be named that concerns the logistics of attending college. One item (11) loaded highly on the last factor. This item asked the subject to rate their need for special help. A final factor of needing assistance might be found here.

Previous findings on other measures of optimism (Chang et al., 1994; Marshall et al., 1992) have found that scales measuring optimism, the LOT and the Optimism and Pessimism Scale (Dember et al., 1989) could be measuring more than one factor. The factors found for the OCLS tend to support the

previous research in that a single optimism factor was not found. Another possible explanation for the structure found is that the items in the scale may have been written poorly. Given that the only reported procedure to determine the OCLS psychometric validity was an alpha reliability coefficient (Prola, 1984), it is possible that the items were not tested adequately.

<div align="center">Life Orientation Test</div>

Although not the primary focus of the investigation, the data related to the LOT provided useful information about this scale and how to interpret previous research that used this scale. The initial unrotated factor analysis of the LOT did not show a strong difference in the loading pattern of the positive and negative items. All the items did load on the first factor with values greater than .50. This would tend to support Scheier and Carver's (1985) contention that the LOT can be considered unidimensional. The other position promoted by researchers (Chang et al., 1994; Marshall et al., 1992), which considers the LOT to measure two separate factors, was given support when a varimax rotation was used. (See Table 6.) This finding, although not clarifying the issue, does lend more evidence to the need to explore the structure of LOT.

There have also been questions raised concerning the link between the LOT and measures of anxiety and neuroticism (Smith et al., 1989). As shown in Table 1, the LOT

correlated negatively with measures of anxiety, depression, and hopelessness at significant levels. Along with the results of the structural models (Figures 6, 7, & 8) as shown in Table 3, the LOT appears to load on a factor that is related to, yet easily distinguishable from, the factor on which the STAI, BHS, and SDS loaded. Thus, the Smith et al. (1989) assertion that the LOT has limited discriminant validity, was not supported by this study.

Additional Findings

The participating university uses both high school class rank and ACT score to make admission decisions. The correlational analyses in this study reflect a higher relation between high school class rank and college GPA than between ACT score and college GPA. For those students who score poorly on the ACT but rank highly in their class it is fortunate that the participating university uses both pieces of information. The university policy on admissions decisions, however, is based on the analysis of previous students' ACT scores and rank in relation to their graduation rates and not their GPA.

Additionally, the regression equation (see Table 8) that allowed all variables to be in the equation for the prediction of GPA showed that the academic data (Grade Prediction, ACT score, and Rank) were the most accurate variables to use. This regression equation also explained over half the variance in the GPA data. It appears that the

use of such data in admitting students and judging their academic potential has some justification.

Another outcome that was intriguing was that subjects' actual and predicted GPA correlated significantly. This may be a product of the participants' accurate grasp of their ability to achieve. It may also be a sign that they had completed enough of the semester to have an idea of how they could meet their instructors' requirements.

Limitations

There are some limitations evident in this study which the reader schould be aware of when considering the implications of the results. The first issue concerns the timing of the data collection. It would have been more advantageous to test the subjects before they began classes, thus following the procedure used by Prola (1984) in the development of the OCLS. Collecting data before, during, and after the semester could have also provided more complete information for a detailed analysis of the characteristics of the OCLS. A larger subject pool could possibly have aided the first set of structural equation models to produce good fit indices, while also making the results more generalizable to the population of college students. In addition to increased numbers of subjects, a better balance of age, gender, and cultural diversity would have benefited the study. There is a possibility that students entering a university versus a technical school or community college

have different outlooks on their academic futures. Using subjects from institutions like these may have highlighted the effects the type of college setting has on optimism.

Implications for Further Research

Areas for continued research include more in depth studies using factor analysis and structural equation modeling. The factor structure of both the LOT and OCLS require more investigation to develop an understanding of the nature of the measures. Possibly the use of more EQS models (Bentler, 1995) could help to show the factors of the LOT and OCLS more clearly and if they relate in a significant manner. Additional structural equations trying to determine the LOT's and OCLS' relation with GPA are potentially fruitful areas for further study.

REFERENCES

Andrews, F. M., & Withey, S. B. (1976). Social indicators of well being: American's perceptions of life quality. New York: Plenum Press.

Aspinwall, L. G., & Taylor, S. E. (1992). Modeling cognitive adaptation: A longitudinal investigation of the impact of individual differences and coping on college adjustment and performance. Journal of Personality and Social Psychology, 63, 989-1003.

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. Psychological Review, 84, 191-215.

Beck, A. T., & Steer, R. A. (1988). Beck Hopelessness Scale manual. San Antonio, TX: The Psychological Corporation.

Beck, A. T., Steer, R. S., Kovacs, M., & Garrison, B. (1985). Hopelessness and eventual suicide: A 10-year prospective study of patients hospitalized with suicidal ideation. American Journal of Psychiatry, 142, 559-563.

Beck, A. T., Weissman, A., Lester, D., & Trexler, L. (1974). The measurement of pessimism: The Hopelessness Scale. Journal of Consulting and Clinical Psychology, 42, 861-865.

Bendig, A. W. (1956). The development of a short form of the Manifest Anxiety Scale. Journal of Consulting and Clinical Psychology, 20, 384.

Bentler, P. M. (1989). EQS Structural Equations program [Computer software]. Los Angeles: BMDP Statistical Software.

Bentler, P. M. (1995). EQS for Windows (Version 5.1) [Computer software]. Encino, CA: Multivariate Software.

Burger, J. M., & Cooper, H. M. (1979). The desirability of control. Motivation and Emotion, 3, 381-393.

Campbell, A., Converse, P. E., & Rodgers, W. L. (1976). The quality of American life: Perceptions, evaluations, and satisfactions. Beverly Hills, CA: Sage.

Carver, C. S., & Gaines, J. G. (1987). Optimism, pessimism, and postpartum depression. Cognitive Therapy and Research, 11, 449-462.

Carver, C. S., Pozo, C., Harris, S. D., Noriega, V., Scheier, M. F., Robinson, D. S., Ketcham, A. S., Moffat, F. L., Jr., & Clark, K. C. (1993). How coping mediates the effect of optimism on distress: A study of women with early stage breast cancer. Journal of Personality and Social Psychology, 65, 375-390.

Carver, C. S., & Scheier, M. F. (1981). Attention and self-regulation: A control-theory approach to human behavior. New York: Springer-Verlag.

Chang, E. C., D'Zurilla, T. J., & Maydeu-Olivares, A. (1994). Assessing the dimensionality of optimism and pessimism using a multimeasure approach. Cognitive Therapy and Research, 18, 143-160.

Cohen, S., & Hoberman, H. M. (1983). Positive events and social supports as buffers of life change stress. Journal of Applied Social Psychology, 13, 99-125.

Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. Journal of Health and Social Behavior, 24, 385-396.

Costa, P. T., Jr., & McCrae, R. R. (1989). NEO Five-Factor Inventory; Form S. Odessa, FL: Psychological Assessment Resources.

Cozzarelli, C. (1993). Personality and self-efficacy as predictors of coping with abortion. Journal of Personality and Social Psychology, 65, 1224-1236.

Dember, W. N., Martin, S., Hummer, M. K., Howe, S., & Melton, R. (1989). The measurement of optimism and pessimism. Current Psychology: Research and Reviews, 8, 102-119.

Derogatis, L. R. (1975). Affect Balance Scale. Baltimore, MD: Clinical Psychometrics Research.

(1980). Descriptive Tests of Language Skills: Reading Comprehension. Princeton, NJ: Educational Testing Service.

Dunkel-Schetter, C., Feinstein, L., & Call, J. (1988). The UCLA Social Support Inventory. Unpublished Instrument.

Dunkel-Schetter, C., & Lobel, M. (1990). Stress among students. In H. Pruett & V. Brown (Eds.), <u>Crisis prevention and intervention: New directions for student services series</u> (pp. 17-34). San Francisco: Jossey-Bass.

Eysenck, H. J. (1962). <u>The Maudsley Personality Inventory.</u> San Diego, CA: Educational & Industrial Testing Service.

Fibel, B., & Hale, W. D. (1978). The Generalized Expectancy for Success Scale- A new measure. <u>Journal of Consulting and Clinical Psychology, 46,</u> 924-931.

Folkman, S., & Lazarus, R. S. (1980). An analysis of coping in a middle-aged community sample. <u>Journal of Health and Social Behavior, 21,</u> 219-239.

Jöreskog, K. G., & Sörbom, D. (1978). <u>LISREL: Analysis of linear structural relationships by the method of maximum likelihood.</u> Chicago: National Educational Resources.

Marshall, G. N., & Lang, E. L. (1990). Optimism, self-mastery, and symptoms of depression in women professionals. <u>Journal of Personality and Social Psychology, 59,</u> 132-139.

Marshall, G. N., Wortman, C. B., Kusulas, J. W., Hervig, L. K., & Vickers, Jr., R. R. (1992). Distinguishing optimism from pessimism: Relations to fundamental dimensions of mood and personality. <u>Journal of Personality and Social Psychology, 62,</u> 1067-1074.

Prola, M. (1984). A scale to measure optimism about college life. <u>Psychological Reports. 54,</u> 555-557.

Prola, M., & Stern, D. (1984). Optimism about college life and academic performance in college. <u>Psychological Reports, 55,</u> 347-350.

Robbins, A. S., Spence, J. T., & Clark, H. (1991). Psychological determinants of health and performance: The tangled web of desirable and undesirable characteristics. <u>Journal of Personality and Social Psychology, 61,</u> 755-765.

Rosenberg, M. (1965). <u>Society and the adolescent self-image.</u> Princeton, NJ: Princeton University Press.

Rotter, J. B. (1966). Generalized expectancies for internal vs. external control of reinforcement. Psychological Monographs, 80 (Whole No. 609).

Scheier, M. F., & Carver, C. S. (1985). Optimism, coping, and health: Assessment and implications of generalized outcome expectancies. Health Psychology, 4, 219-247.

Scheier, M. F., & Carver, C. S. (1992). Effects of optimism on psychological and physical well-being: Theoretical overview and empirical update. Cognitive Therapy and Research, 16, 201-228.

Scheier, M. F., Carver, C. S., & Bridges M. W. (1994). Distinguishing optimism from neuroticism (and trait anxiety, self-mastery, and self-esteem): A reevaluation of the life orientation test. Journal of Personality and Social Psychology, 67, 1063-1078.

Scheier, M. F., Matthews, K. A., Owens, J. F., Magovern, G. J., Sr., Lefebvre, R. C., Abbott, R. A., & Carver, C. S. (1989). Dispositional optimism and recovery from coronary artery bypass surgery: The beneficial effects on physical and psychological well-being. Journal of Personality and Social Psychology, 57, 1024-1040.

Scheier, M. F., Weintraub, J. K., & Carver, C. S. (1986). Coping with stress: Divergent strategies of optimists and pessimists. Journal of Personality and Social Psychology, 51, 1257-1264.

Seligman, M. E. P. (1975). Helplessness: On depression, development, and death. San Francisco: Freeman.

Seligman, M. E. P. (1990). Learned optimism: How to change your mind and your life. New York: Simon & Schuster.

Smith, T. W., Pope, M. K., Rhodewalt, F., & Poulton, J. L. (1989). Optimism, neuroticism, coping, and symptom reports: An alternative interpretation of the life orientation test. Journal of Personality and Social Psychology, 56, 640-648.

Spielberger, C. D., Gorsuch, R. L., & Lushene, R. E. (1970). Manual for the State-Trait Anxiety Inventory. Palo Alto, CA: Consulting Psychologists Press.

Spielberger, C. D., Gorsuch, R. L., Lushene, R., Vagg, P. R., & Jacobs, G. A. (1983). State-Trait Anxiety Inventory for adults: Form Y. Palo Alto, CA: Mind Garden.

SPSS for Windows (Version 6.1) [Computer software]. (1995). Chicago: SPSS.

Taylor, J. A. (1953). A personality scale of manifest anxiety. Journal of Abnormal and Social Psychology, 48, 285-290.

Tellegen, A. (1982). Brief Manual for the Differential Personality Questionnaire. Unpublished manuscript, University of Minnesota, Minneapolis.

Watson, D., & Clark, L. A. (1984). Negative affectivity: The disposition to experience aversive emotional states. Psychological Bulletin, 96, 465-490.

Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS Scales. Journal of Personality and Social Psychology, 54, 1063-1070

Zung, W. K. (1965). A self-rating depression scale. Archives of General Psychiatry, 12, 65-70.

APPENDIX A

INFORMED CONSENT FORM

INFORMED CONSENT

This research experience involves taking some commonly used psychological inventories and releasing some information about your academic record from the Registrar's office. You are asked to complete the following packet and allow the release of your first semester grade point average, ACT score, high school grade point average and high school class rank from the Registrar's office. The goal of this research is to investigate any relation that may exist between the inventories and academic performance. The scores on the inventories and the information from the Registrar <u>will remain confidential</u> and <u>no identifying information</u> will be presented in the written results of this research. In addition to learning about research by being a subject, you may also be eligible to receive credit for your participation.

Your participation is <u>voluntary</u> and you can withdraw <u>at any time</u> without losing any benefits or credit entitled to you. Also, a refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled.

You may contact the office of the Human Subjects Coordinator, UNI, (319) 273-2748, for answers to questions about the research and rights of research subjects, or Patrick J. Barlow or Dr. Beverly Kopper at the Dept. of Psychology 273-2303.

****

I am fully aware of the nature and extent of my participation in this project as stated above and the possible risks arising from it. I hereby agree to participate in this project. I acknowledge that I have received a copy of this consent statement.

_____/_____/____-____/___-___-____

Signature of Participant Date Student ID Social Security #

_____

Print Your Name

_____   _____

Signature of Investigator   Signature of Advisor

Introduction to Psychology Professor:
___Crowe___Walsh___Gasser___Gilpin___Ribich

APPENDIX B

DEMOGRAPHIC QUESTIONNAIRE

<u>General Directions:</u>

On the pages that follow are several different inventories that measure different aspects about yourself. You are asked to answer the questions about yourself honestly and using a pen or pencil to mark the appropriate place on the paper. <u>EACH INVENTORY IS DIFFERENT!</u> Therefore, <u>there are separate directions on each page</u>. Please read the directions and answer each question in the way you are asked to do. Thank you for your cooperation.

<div align="center">Personal Data</div>

Name: _____ Student number:_____
          (please print)   (as found on your ID Card)

Social Security #: _____-_____-_____

Age: ____years Sex: ____(M/F)   Ethnicity: ___
                                  1. African American

Did either of your parents/guardians   2. Hispanic
attend college?   YES   NO   3. White
                                  4. Asian American

Are you the first member of your   5. Native American
immediate family to attend college? 6. Other_____
             YES   NO   (please specify)

APPENDIX C

LIFE ORIENTATION TEST

DIRECTIONS:
Please indicate how much you agree with the following
statements as describing yourself. Please CIRCLE the number
that represents your feelings on this scale:

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
0	1	2	3	4

1. In uncertain times, I usually expect the best.

0	1	2	3	4

2. It's easy for me to relax.

0	1	2	3	4

3. If something can go wrong for me, it will.

0	1	2	3	4

4. I always look on the bright side of things.

0	1	2	3	4

5. I'm always optimistic about my future.

0	1	2	3	4

6. I enjoy my friends a lot.

0	1	2	3	4

7. It's important for me to keep busy.

0	1	2	3	4

8. I hardly ever expect things to go my way.

0	1	2	3	4

9. Things never work out the way I want them to.

0	1	2	3	4

10. I don't get upset too easily.

0	1	2	3	4

11. I'm a believer in the idea that "every cloud has
a silver lining."

0	1	2	3	4

12. I rarely count on good things happening to me.

0	1	2	3	4

APPENDIX D

GRADE PREDICTION QUESTIONNAIRE

Directions:

Please try to <u>estimate</u> or <u>predict</u> the following information as accurrately as you can, by circling the appropriate range.

1. Your current Grade Point Average (GPA) on a 4-point scale.

less than 2.00   2.0-3.0   3.0-3.5   3.5-4.0

2. Your final Grade Point Average (GPA) for the Fall semester.

less than 2.00   2.0-3.0   3.0-3.5   3.5-4.0

3. Your current grade for this psychology course.

   Below C   C   B   A

4. Your final grade for this psychology course.

   Below C   C   B   A

APPENDIX E

SELF-RATING DEPRESSION SCALE

Directions:

     Below are twenty statements. Please rate each using the following scale:

        1 = Little of the time
        2 = Some of the time
        3 = Good part of the time
        4 = Most or all of the time

Please record your rating in the space to the left of each item.

_____ 1. I feel down-hearted, blue, and sad.

_____ 2. Morning is when I feel the best.

_____ 3. I have crying spells or feel like it.

_____ 4. I have trouble sleeping through the night

_____ 5. I eat as much as I used to.

_____ 6. I enjoy looking at, talking to, and being with attractive women/men.

_____ 7. I notice that I am losing weight.

_____ 8. I have trouble with constipation.

_____ 9. My heart beats faster than usual.

_____10. I get tired for no reason.

_____11. My mind is as clear as it used to be.

_____12. I find it easy to make decisions.

_____13. I am restless and can't keep still.

_____14. I feel hopeful about the future.

_____15. I am more irritable than usual.

_____16. I find it easy to make decsisions.

_____17. I feel that I am useful and needed.

_____18. My life is pretty full.

_____19. I feel that others would be better off if I were dead.

_____20. I still enjoy the things I used to do.

APPENDIX F

OPTIMISM ABOUT COLLEGE LIFE SCALE

DIRECTIONS:
Listed below are some things that might happen to you while in college. Indicate what you think are the chances that they might happen to you, using the following scale:

an <u>Excellent</u> chance: CIRCLE <u>4</u>   a <u>Fair</u> chance: CIRCLE <u>2</u>

a <u>Good</u> chance : CIRCLE <u>3</u>   a <u>Poor</u> chance : CIRCLE <u>1</u>

	Excellent	Good	Fair	Poor
1. I will graduate with a degree in five years or less.	4	3	2	1
2. I will get satisfactory grades.	4	3	2	1
3. When necessary, I'll have chosen a career.	4	3	2	1
4. I will be able to study well enough.	4	3	2	1
5. I will work out a nice schedule of classes.	4	3	2	1
6. I will make just the right amount of friends.	4	3	2	1
7. I will like this college.	4	3	2	1
8. I will like the other students.	4	3	2	1
9. I will be satisfied with the professors.	4	3	2	1
10. I will graduate with academic honors.	4	3	2	1
11. I will not need any special help.	4	3	2	1
12. Traveling will not be a great problem.	4	3	2	1
13. I will be able to handle any financial problems that come along.	4	3	2	1
14. When I graduate, I will find a job in my chosen field.	4	3	2	1
15. I did not think I would be nervous on the first day of classes.*	4	3	2	1

<u>Note</u>. * this item was rewritten as data collection occurred after the first day of class. Original statement read, "I will not be nervous on the first day of classes."

APPENDIX G

BECK HOPELESSNESS SCALE

** <u>PLEASE NOTE</u>. The Beck Hopelessness Scale is an instrument copyrighted by The Psychological Corporation. The scale cannot be reproduced here due to this copyright. Its use in this thesis was approved by the Psychological Corporation only after the investigator purchased the instrument at reduced cost and agreed not to reproduce it in this thesis. Additionally, a copy of this thesis has been requested by The Psychological Corporation as part of the purchase agreement. Those interested in viewing a copy of the items are encouraged to read Beck, Weissman, Lester, and Trexler (1974) as found in the reference section or contact The Psychological Corporation, 555 Academic Court, San Antonio, Texas, 78204-2498.

APPENDIX H

COLLEGE ADJUSTMENT QUESTIONNAIRE

<u>Directions:</u>

Please rate yourself on the following items by circling the appropriate numbers.

---

1. Compared to the average freshman, how happy do you think you are?

1	2	3	4	5
much less happy	less happy	equally happy	more happy	much more happy

2. Compared to the average freshman living in the dorms, how happy do you think you are?

1	2	3	4	5
much less happy	less happy	equally happy	more happy	much more happy

3. Compared to the average freshman, how well-adjusted are you to college life?

1	2	3	4	5
much less adjusted	less adjusted	equally adjusted	more adjusted	much more adjusted

4. How well do you think you have adjusted to college <u>academically</u>?

1	2	3	4	5
Very Badly	Badly	OK	Well	Very well

5. How well do you think you have adjusted to college <u>socially</u>?

1	2	3	4	5
Very Badly	Badly	OK	Well	Very well

6. <u>Overall</u>, How well do you think you have adjusted to college?

1	2	3	4	5
Very Badly	Badly	OK	Well	Very well

7. How much do you feel like you belong at the university?

1	2	3	4	5
Not at all	Sometimes	Neutral	Most of the time	All the time

8. How satisfied are you with the university?

1	2	3	4	5
Not at all	Somewhat	Neutral	Satisfied	Very satisfied

APPENDIX I

GENERALIZED EXPECTANCY FOR SUCCESS SCALE

DIRECTIONS:

This is a questionnaire to find out how people believe they will do in certain situations. Each item consists of a 5-point scale and a belief statement regarding one's expectations about events. Please indicate the degree to which you believe the statement would apply to you personally by CIRCLING THE APPROPRIATE NUMBER [1 = highly improbable, 5 = highly probable.] Give the answer that you truly believe best applies to you and not what you would like to be true or think others would like to hear. Answer the items carefully, but do not spend too much time on any one item. Be sure to find an answer for every item, even if the statement describes a situation you presently do not expect to encounter. Answer as if you were going to be in each situation. Also try to respond to each item independently when making a choice; do not be influenced by your previous choices.

In the future I expect that I will:

1. find that people don't seem to understand what I'm trying to say.   1   2   3   4   5

2. be discouraged about my ability to gain the respect of others.   1   2   3   4   5

3. be a good parent.   1   2   3   4   5

4. be unable to accomplish my goals.   1   2   3   4   5

5. have a successful marital relationship.   1   2   3   4   5

6. deal poorly with emergency situations.   1   2   3   4   5

7. find my efforts to change situations I don't like are ineffective.   1   2   3   4   5

8. not be very good at learning new skills.   1   2   3   4   5

9. carry through my responsibilities successfully.   1   2   3   4   5

10. discover that the good in life outweighs the bad.   1   2   3   4   5

11. handle unexpected problems successfully.   1   2   3   4   5

12. get the promotions I deserve.   1   2   3   4   5

13. succeed in the projects I undertake.   1   2   3   4   5

14. not make any significant contributions to society.   1   2   3   4   5

15. discover that my life is not getting much better.   1   2   3   4   5

16. be listened to when I speak.   1   2   3   4   5

17.	discover that my plans don't work out too well.	1	2	3	4	5
18.	find that no matter how hard I try, things just don't turn out the way I would like.	1	2	3	4	5
19.	handle myself well in whatever situation I'm in.	1	2	3	4	5
20.	be able to solve my own problems.	1	2	3	4	5
21.	succeed at most things I try.	1	2	3	4	5
22.	be successful in my endeavors in the long run.	1	2	3	4	5
23.	be very successful working out my personal life.	1	2	3	4	5
24.	experience many failures in my life.	1	2	3	4	5
25.	make a good impression on people I meet for the first time.	1	2	3	4	5
26.	attain the career goals I have set for myself.	1	2	3	4	5
27.	have difficulty dealing with my superiors.	1	2	3	4	5
28.	have problems working with others.	1	2	3	4	5
29.	be a good judge of what it takes to get ahead.	1	2	3	4	5
30.	achieve recognition in my profession.	1	2	3	4	5

APPENDIX J

STATE-TRAIT ANXIETY INVENTORY*

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