

PERSONALITY STRUCTURE AND MOOD IN  
FEMALE COLLEGE STUDENTS

By

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The present investigation explored the relationship between mood and two properties of personality structure, differentiation and effectiveness of integration. Differentiation was operationalized in terms of Witkin's psychological differentiation construct and was assessed by an index computed from each subject's rod-and-frame test and embedded figures test scores. Effectiveness of personality integration was operationalized in terms of Erikson's identity achievement construct and was assessed by a modified form of Marcia's Ego Identity Incomplete Sentences Blank.

Personality patterns were formulated and assessed in terms of each subject's status on psychological differentiation and identity achievement. Then, employing Psychological Differentiation Theory as a framework, hypotheses were derived concerning the relationships among psychological differentiation, identity achievement, the personality patterns and mood.

Wessman and Ricks' Personal Feelings Scales were employed as the mood assessment instrument. Thirty-one female college students rated

their moods three times daily on each of the 16 Personal Feelings Scales for a minimum of 33 successive days. Measures of three general parameters of mood were constructed via factor analysis of mood rating records. These three parameters were affective complexity, mood level, and mood variability.

The affective complexity measure was derived from the results of P-technique factor analysis of each subject's individual mood rating record. The overall mood level and mood variability measures were constructed from a principal components analysis of mood rating records for all subjects. Factor scores reflecting overall mood level and overall mood variability were computed for each subject and used as dependent measures.

Three major findings were: (1) greater personality differentiation, as reflected by scores indicative of greater psychological differentiation, was associated with lesser affective complexity, (2) neither psychological differentiation, nor identity achievement, was associated with overall mood level, and (3) greater effectiveness of personality integration, as reflected by scores indicative of greater identity achievement, was associated with lesser overall mood variability.

The employment of the personality pattern approach disclosed two relationships that would not have been revealed with a univariate approach. These were: (1) effectiveness of personality integration appears to have differential implications for overall mood variability in greater and lesser differentiated persons, and (2) the characteristic psychosocial concerns of greater and lesser differentiated persons may

crystalize around different issues, depending upon effectiveness of integration.

Findings were discussed in terms of Witkin's Psychological Differentiation Theory and Erikson's Psychosocial Developmental Theory. It was concluded that the higher order personality constructs of differentiation and effectiveness of integration provide a useful framework for the conceptualization of mood/personality relationships.

## CHAPTER I

### INTRODUCTION

#### Theoretical Perspectives Toward Mood

The experience of mood is a fundamental characteristic of the human situation. The structure and function of mood can be conceptualized from several theoretical perspectives. Each perspective illuminates different facets of mood, resulting in a richer understanding of its significance for the person. A theoretical analysis of mood will be conducted from the phenomenological, trait, behavioral, and psychodynamic perspectives.

#### Phenomenological Perspective

The descriptive phenomenological approach to mood has provided a rich legacy in penetrating and insightful clinical descriptions of the vicissitudes of mood. In Fear and Trembling and The Concept of Dread, Kierkegaard (1954, 1957) developed a graphic, sensitive description of mood in some of its core manifestations--anxiety, boredom, and despair. Such descriptions of the subjective experiences of various moods have provided a deeper understanding of the human situation.

However, mood can also be viewed as a fundamental structure of human existence. From this categorical phenomenological perspective, mood is viewed as providing a frame of reference through which human existence can be understood. In this case, mood is viewed as a mode of pre-cognitive relatedness to a world of existential concerns. Thus, in

addition to its subjective psychological expression, mood performs a revelatory function. Mood discloses aspects of the concrete life-world as they appear in their existential immediacy. To illustrate this function of mood, anxiety can disclose man's freedom by bringing him to an immediate awareness of his future possibilities.

Heidegger (1962) further analyzes mood in terms of this revelatory or intentional function. For Heidegger, Dasein's "openness to the world" is co-constituted through the indissoluble unity of two fundamental structures: mood and understanding. Thus, from the categorical phenomenological perspective, mood can be viewed as a fundamental ontological structure. It precedes any cognitive determination of the character of the world. Mood discloses to man his concrete situation in the world.

#### Trait Perspective

Traits can be conceptualized as stable, organized, intra-individual dispositions which are relatively generalizable across time and situations. Some (Cattell, 1957, 1965) construe traits as the primary determinants of behavior. However, employing the trait formulation, it is necessary to consider the influence of psychological states, situational variables, and roles, in addition to traits, to predict human behavior. States, such as moods, are conceptualized as reversible and less temporally stable processes than traits. From the trait perspective, at least two types of moods can be construed. First, there may be purely fluctuant moods which are independent of fixed traits. This type of mood would not be related to the level of a particular trait. A second type of mood may be a state of a trait, that is, a trait which is in a temporary swing concurrent with changes in internal or external stimuli.

Regardless of their origins and nature, moods can significantly influence human behavior and are, therefore, necessarily incorporated into the trait formulation.

#### Behavioral Perspective

The behavioral perspective emphasizes mood as a hypothetical construct describing behavior. This conception of mood is similar to the notion of "predisposition." Mood is regarded as having an effect on the probability of occurrence of certain responses in certain situations. Conscious mood, as a response to the cues of the hypothetical mood state, is assumed to supply information to the organism about the current functioning of the organism. Thus, mood is presumed to be involved in the self-monitoring and self-regulation of behavior.

Mowlis and Nowlis (1956), leading proponents of the behavioral perspective toward mood, define mood as "an intervening variable or predispositional factor that is a source of information or discriminative stimuli to the organism about the current functioning characteristics of the organism" (p. 322). Nowlis and Nowlis view conscious mood as the perceptual/cognitive responses of the organism to this information.

Akin to the behavioral perspective is the view of Ryle (1950), the linguistic philosopher, who considers mood to be a short-term liability to act or react in certain general manners. Thus, to summarize the behavioral perspective, mood is regarded as a factor which influences the probability of making certain responses in certain situations at particular times.

#### Psychodynamic Perspective

The psychodynamic perspective considers mood within a complex system of personality structure, dynamics, and development. Jacobson

(1957), a representative of this perspective, emphasizes the pervasive nature of mood through all levels of individual functioning. Dynamically, mood can be viewed as a temporary fixation of a generalized libidinal discharge process. Once a mood is established, it affects all other psychological processes of the person. This generalized influence on all other processes distinguishes mood from other affective states. According to Jacobson (1957), non-mood emotional states develop from specific tensions and are related to specific objects. Thus, emotions can become moods only if they generalize and predominate the entire sphere of the ego.

A mood can originate from a significant experience "whose discharge pattern generalizes and lends its qualities to all other discharge patterns" (Jacobson, 1957, p. 78). For this to occur, the precipitating experience must be of considerable intensity and, therefore, cannot be immediately and sufficiently relieved by a focal discharge only. Such a general influence on all other psychological processes results in a qualitative change in the experience of self/world.

According to the psychodynamic formulation, moods appear to serve a useful economic function. Moods allow for a repetitive affective discharge on a large number and variety of objects. According to Jacobson (1957), "such a prolonged discharge in small quantities, combined with reality testing, can liberate psychic energy from fixated positions, permitting new investments" (p. 81). This gradual discharge process can protect the ego from intense, sudden affective discharge.

To summarize the psychodynamic perspective, moods influence all feelings, thoughts, and actions. Thus, mood, providing an indicant of the current ego state, reflects the current effectiveness of ego functioning.

## Relationships Between Mood and Other Psychological Processes

There is not considerable precision of definition differentiating mood from other psychological processes, such as character, trait, style, disposition, temperament, and emotion. This attests not solely to a lack of conceptual clarity, but also reflects the necessity of ultimately construing these psychological processes as interpenetrated, yet somewhat dissociable, processes of the person.

An initial distinction among these processes can be made on a stability dimension. Processes such as character, trait, style, disposition, and temperament are generally regarded as reflections of underlying, intra-individual personality structure, which is relatively stable across time and situations. Temperament differs from these other relatively stable processes in that it refers to relatively stable affective characteristics of the person.

In contrast to these more stable processes, mood and emotion are state processes which are reversible and less temporally stable. Although both mood and emotion refer to affective states, mood is generally characterized by a greater duration and lesser intensity than emotion. Further, mood is a generalized affective process which pervades the person's total experience of self/world, while emotion generally is directed toward a specific object. Thus, mood can be considered a generalized, reversible affective state of greater duration than emotion, but of less stability than temperament.

### Multidimensional Approach to Mood

A common core of characteristics can be distilled from the preceding approaches to mood. Mood can be conceptualized as an affective process of variable duration which significantly affects and reflects

the quality of life of the person. It is viewed as providing a cross section of the state of the ego, or, more generally, as providing an indicant of the current state of the person's overall psychological functioning.

Mood is not an isolated psychological state, but rather a process which is interpenetratedly woven through the configuration of structural, dynamic, and developmental processes of the person. Thus, to understand mood, it appears necessary to investigate it holistically, within the configuration of psychological processes of the person. However, as the following review will indicate, research concerning mood and personality structure has not generally been conducted from a holistic perspective. Indeed, all reported studies have employed univariate personality constructs as predictors of mood parameters. A multivariate approach employing a pattern of personality constructs as predictors would appear to more accurately reflect the complex personality configuration within which the vicissitudes of mood occur.

#### Review of Mood and Personality Research

Wessman and Ricks (1965) reported a seminal investigation of mood and personality within the context of a longitudinal personality assessment project at the Harvard University Psychological Clinic. Two separate six-week mood studies were reported, one employing 25 females, the other using 18 males.

The female study was conducted first (Wessman, Ricks, & Tyl, 1960), but was more fully analyzed and reported by Wessman and Ricks in 1965. The subjects in the female study were 25 Radcliffe undergraduates, all from the same dormitory, who volunteered to participate in the mood study. Of these 25 subjects, 21 responded for a minimum of 30 days

out of the 42. Fourteen of these subjects completed a minimum of 30 successive days of mood rating, as well as a battery of personality assessment instruments.

The subjects in the male study were 18 Harvard undergraduates who were being paid for participation in the Harvard Personality Assessment Project. An attempt was made to select male subjects who represented a wide range of scores on several unpublished personality assessment instruments. These instruments were regarded as measures of (1) alienation, (2) happiness-unhappiness, (3) oral dependency, and (4) anal-retentiveness. Forty-two successive days of daily mood ratings were obtained for each subject.

Mood ratings were obtained on the Wessman and Ricks Personal Feelings Scales (PFS). The PFS is a set of 16 ten point mood rating scales, each scale representing a rationally-derived bipolar mood dimension. For the females, an earlier form of the PFS, consisting of 11 scales, was employed. All subjects were instructed to report their moods once daily, during the evening, by recording the "highest," "lowest," and "average" mood level that they had experienced for each of the mood dimensions during that particular day.

For each subject, measures of mood level, mood variability, and affective complexity were obtained. Mood level scores were computed by obtaining the mean of the "average" ratings on the "Elation vs. Depression" Scale of the PFS for each subject. Mood variability was similarly measured by computing the standard deviation of the "average" ratings on the "Elation vs. Depression" Scale for each subject. Wessman and Ricks (1965) emphasized the "Elation vs. Depression" Scale, one of the 16 scales of the PFS, because it was considered to reflect the

central and, perhaps, most significant feature of mood (happiness-unhappiness). A measure of affective complexity was obtained by recording the number of rotated factors accounting for more than 10 percent common variance, which were extracted from each subject's 30-42 day record of daily mood reports via P-technique factor analysis.

For the males, measures of mood level, mood variability, and affective complexity were correlated with approximately 360 scores derived from personality assessment instruments. This information included scores derived from the Minnesota Multiphasic Personality Inventory, the 16PF, the Rorschach, life histories, diaries, and interviews. For the females, a much smaller personality assessment battery was employed, which included an actual self-ideal self Q-sort and the Rosenzweig Picture Frustration Test.

Major findings reported by Wessman and Ricks (1965) included:

(1) A relatively wide range of scores was obtained for both males and females on measures of mood level, mood variability, and affective complexity, supporting the notion that these variables represent individual difference dimensions.

(2) Mood level and mood variability were reported to be uncorrelated for both males and females. Affective complexity was significantly correlated with mood variability for males ( $r = -.57$ ,  $p < .01$ ), with greater affective complexity associated with lesser mood variability. However, affective complexity was not associated with mood variability in females.

(3) For both males and females, lower mood level was associated with a decrease in reported self-esteem, a greater reported actual self-ideal self discrepancy, and an increase in the expression of self-

derogatory attitudes. From this constellation of findings, which was reinforced by clinical assessment information derived from interviews, life histories, and diaries, Wessman and Ricks (1965) concluded that differences in mood level appeared to reflect a fundamental psychological dimension. This dimension, which could be variously construed as adjustment, ego strength, or psychological health, appeared to assess the adequacy of the person's current psychological functioning.

(4) For both males and females, the most general personality characteristic related to mood variability appeared to reflect the "emotional openness" of the more variable subjects, in contrast to the "emotional constriction" of the more stable subjects. This characteristic appeared to be pervasive through various levels of individual functioning, ranging from fantasy productions to style of interpersonal relations. The more stable males, generally described as not seeking involvement with their inner lives or with others, were characterized as relatively completed and closed personality systems (Wessman & Ricks, 1965). In contrast, the more variable males, described as more involved with their inner lives and with others, were characterized as more open, conflicted, evolving personality systems.

Frank (1967) in his dissertation, reported an investigation of the relationship between mood and the psychological differentiation construct (Witkin, Dyk, Fatereson, Goodenough, & Karp, 1962). It was hypothesized that greater psychological differentiation would be associated with greater affective complexity and with less mood variability. Subjects were 50 female Columbia University students. The majority of the sample were graduate student volunteers, with a mean age of 29.3. These subjects rated their moods nightly for a minimum of 30 successive days on the Wessman and Ricks PFS.

Level of psychological differentiation was assessed from an index derived from each subject's scores on the Embedded Figures Test and the Human Figure Drawings Test. Affective complexity was measured by the number of factors extracted via P-technique factor analysis from each subject's 30+ day record of daily mood reports. Frank (1967) initially employed the same criterion to assess affective complexity as had Wessman and Ricks (1965). However, this criterion, the number of rotated factors each accounting for more than 10 percent of the common variance, resulted in a restriction in the range of affective complexity scores. In this case, 96 percent of the sample obtained either two or three factors. As a result, the criterion was changed to the number of factors necessary to account for 90 percent of the common variance. This resulted in a more satisfactory range of affective complexity scores. Mood variability was assessed by computing the standard deviation of each subject's "average" daily ratings on the "Elation vs. Depression" Scale. It was reported that greater psychological differentiation was associated with greater affective complexity ( $r = -.24$ ,  $p < .05$ ). However, no relationship was obtained between psychological differentiation and mood variability.

Gorman and Wessman (1974) reported an investigation concerning the relationship between cognitive styles and mood. Subjects were 20 male and 47 female undergraduate students in the first author's abnormal psychology class at Nassau Community College. A battery of 21 cognitive style measures was administered to subjects who were also providing daily mood reports on 14 scales of the Wessman and Ricks PFS for a 28 successive day period.

Measures of mood level, mood variability, and affective complexity were obtained. Forty-two mean mood level scores were computed for each subject. This was accomplished by computing the mean for each subject's "average," "highest," and "lowest" rating for each of the 14 scales. Similarly, 42 mood variability scores were computed for each subject, one for each of the 14 Personal Feeling Scales. Affective complexity scores were computed via principal components P-technique factor analysis of each subject's four week record of daily mood reports. The following four indices of affective complexity were employed: (1) the percentage of total variance accounted for by the first factor, (2) the average intercorrelation among mood ratings, (3) the number of factors that accounted for 90 percent of the total variance, and (4) the number of factors that each accounted for more than 10 percent of the total variance.

Since few significant differences were obtained between males and females on either the cognitive stylistic or the mood variables, the data for the two groups were combined and analyzed together. The cognitive style scores were intercorrelated and factor analyzed via the principle axis method and rotated to Varimax criterion. Eight cognitive stylistic factors were reported. In two further analyses, the set of (1) mood level scores, and (2) mood variability and affective complexity scores were extended onto the original cognitive style factor matrix by using Dwyer's Factor Extension Technique (Dwyer, 1937). Thus, factor loadings of the mood variables on the cognitive style factors were obtained without distorting the original cognitive style factor matrix.

Two major findings relevant to the present investigation were:

(1) Factor VII, labeled "Field Articulation," was inversely associated with mood variability, with greater field articulation associated with less mood variability. The marker variables used to define Factor VII were the Hidden Figures Test and the Hidden Patterns Test. (2) Factor II, labeled "Sensation Seeking and Openness," was positively associated with mood level. This bipolar factor loaded positively on the Zuckerman and the Pearson Sensation Seeking Scales. Factor II loaded negatively on the Breskin Rigidity Test and the DPI Repression Scale. This set of marker variables for Factor II suggests an "open vs. closed to experience" personality dimension. Further, three out of four affective complexity measures indicating lower affective complexity were loaded moderately on Factor II. Thus, greater openness to experience appeared to be associated with less affective complexity, as well as with higher mood level.

Schaff (1975), in his dissertation, investigated the relationship between cognitive complexity and affective complexity, both as construed within the context of Kelly's Personal Construct Theory (Kelly, 1955), and mood. It was hypothesized that high affective complexity and cognitive complexity would be associated with low mood variability and with high mood level. Forty-six male and 29 female undergraduates completed the Wessman and Ricks PFS for a minimum of 21 successive days.

Cognitive complexity and affective complexity were measured by standard Rep Grid procedures (Bieri, 1955; Kelly, 1955). Affective complexity was conceptualized as the number of independent personal constructs relating to affective experience which a subject generated. Cognitive complexity was similarly conceptualized as the number of independent interpersonal constructs generated.

Forty-eight mood level scores were obtained for each subject by computing the means of the "high," "low," and "average" ratings for each of the 16 mood scales across 21 days. Mood variability scores were computed by obtaining the standard deviation of each of these 48 mood level scores.

To summarize Schaff's (1975) findings, it was reported that affective complexity was related to mood variability for males, but not for females. Cognitive complexity was differentially related to mood variability for males and for females. Both affective complexity and cognitive complexity were differentially related to mood level for males and for females. However, complexity, as conceptualized within Kelly's Personal Construct Theory (Kelly, 1955), and psychological differentiation, as developed in Witkin's Psychological Differentiation Theory (Witkin et al., 1962), appear to represent relatively independent theoretical formulations. Indeed, cognitive complexity has been reported to be unrelated to the psychological differentiation construct (Elliott, 1961). Although these two formulations appear to possess some formal similarities, they may not reflect clearly comparable dimensions. Thus, Schaff's (1975) findings may not be easily compared to those of Frank (1967) and Gorman and Wessman (1974), who employed measures of the psychological differentiation construct in assessing personality structure.

#### Summary of Research Review

A summary of the preceding research findings indicates three substantial, though somewhat confusing relationships between mood and personality structure. First, it appears that the psychological differentiation construct (Witkin et al., 1962) is related to mood. Frank (1967) reported this construct to be related to affective complexity,

but not to mood variability, in his older, female, primarily graduate student sample. Gorman and Wessman (1974), employing a male and female undergraduate sample, reported that field articulation, which provides an indicant of level of psychological differentiation, was associated with mood variability, but not with affective complexity. One could speculate that Frank's (1967) sample may have reflected a relatively narrow range of scores, which resulted in his findings concerning mood variability. However, besides employing diverse samples, different, and not interchangeable, measures of psychological differentiation were employed in these studies. Frank (1967), employing the Embedded Figures Test and the Human Figure Drawings Test, appears to have used more adequate assessors of psychological differentiation than Gorman and Wessman (1974). The Hidden Figures Test and Hidden Patterns Test employed by Gorman and Wessman (1974) may have a relatively indirect relationship to the psychological differentiation construct. Thus, although psychological differentiation does appear to possess a substantive relationship with mood, the exact nature of this relationship remains unclear.

The second major finding concerns an "open vs. closed to experience" personality dimension. Both Wessman and Ricks (1965) and Gorman and Wessman (1974) reported that an "open vs. closed to experience" dimension was strongly related to mood. Wessman and Ricks (1965) reported that this dimension was related to mood variability, with greater "openness" associated with greater mood variability. Gorman and Wessman (1974), however, reported that their Factor II, "Sensation Seeking and Openness," was strongly associated with mood level, with greater "openness" associated with a higher mood level, as well as with lower affective complexity.

Gorman and Wessman's (1974) finding appears to be somewhat contrary to one of Wessman and Ricks' (1965) most compelling findings, which was a clear relationship between mood level and general effectiveness of psychological functioning (or adjustment). One possible explanation for these apparently contradictory findings focuses upon the personality assessment instruments which were employed to define the "open vs. closed to experience" dimension. Wessman and Ricks (1965) were able to employ an extensive amount of assessment information obtained through a three year longitudinal personality assessment project. These investigators based their formulation of the "open vs. closed to experience" dimension primarily upon findings from standard clinical assessment instruments and interviews. Gorman and Wessman (1974) employed a battery of 21 paper-and-pencil tests of cognitive style. Their "Sensation Seeking and Openness" Factor was labeled largely on the basis of salient loadings of sensation seeking, rigidity, and repression scales. Thus, the "open vs. closed to experience" dimensions reported in these two studies may be referring to similarly labeled, but substantively different, personality dimensions.

To speculate, it is conceivable that the sensation-seeking, rigidity, and repression scales employed by Gorman and Wessman (1974) may be reflecting the effectiveness of psychological functioning (adjustment). However, due to the apparently discrepant findings, the relationship between the "open vs. closed to experience" dimension and mood remains unclear. Further, Wessman and Ricks' (1965) finding concerning the relationship between mood level and general effectiveness of psychological functioning, although strongly supported, must still remain tentative.

A third major finding derived from the research review concerns findings by Wessman and Ricks (1965) and Schaff (1975) which indicate that males and females may be characterized by some similarities and some differences in mood/personality relationships. Thus, it may be necessary to investigate these two groups separately.

#### Critique of Previous Research

The research review revealed a need for clearer theoretical bases for the conceptualization of relationships between mood and personality structure. Only Frank (1967) and Schaff (1975) employed clearly defined theoretical frameworks in their investigations, using, respectively, the Psychological Differentiation Theory (Witkin et al., 1962) and the Personal Construct Theory (Kelly, 1955).

Further, the main emphasis of the preceding studies involved univariate conceptions of personality structure. None of these reported investigations employed a multivariate approach in the conceptualization or assessment of personality structure. A multivariate approach, employing theoretically-derived patterns as predictors of mood, would provide a more holistic assessment of personality structure. Such an approach would provide greater fidelity to the actual complexity of personality than a univariate approach.

#### Plan of Present Investigation

The present investigation will employ a multivariate approach to personality structure. Two personality constructs, psychological differentiation (Witkin et al., 1962) and ego identity status (Erikson, 1956, 1963, 1968) will be combined to provide a multivariate assessment of personality structure. Then, predictions will be derived concerning the relationship between this multivariate personality structure and

mood. The theoretical rationale for combining these two constructs and for formulating predictions concerning mood is based upon the notions of differentiation and integration in Psychological Differentiation Theory (Witkin et al., 1962).

#### Differentiation and Integration

In Psychological Differentiation Theory (Witkin et al., 1962), level of psychological differentiation is considered an assessable property of the person which provides a reflection of the structural complexity of the psychological system. This notion can be applied to the personality system as well. In this case, greater differentiation can be considered an indicant of a more heterogeneous, specialized, personality system. Conversely, less differentiation can be viewed as reflecting a relatively homogeneous, unspecialized personality system.

Specialization refers to the degree of separation among various psychological processes, such as perceptual, cognitive, and emotional processes. Further, specialization refers to specificity of functioning within a particular process. In a more differentiated system, more specific responses are apt to occur to stimuli, rather than diffuse responses to any of a variety of stimuli, as in a less differentiated system. Thus, affective processes, such as moods, would be more adequately channelized in a more differentiated system. Theoretically, in a less differentiated system, affective processes could more easily "spill over" and influence other processes. Generally, then, experience would be more articulated in a more differentiated system and more global in a less differentiated system. Greater articulation in the experience of self and world would be a concomitant of greater differentiation.

Integration refers to the form of relationships among the components or processes of a psychological system. Thus, integration refers to the quality of systemic organization. Effectiveness of integration refers to the degree of harmonious interaction among systemic components or processes. Further, effectiveness of integration also refers to the quality of interaction between the system and its environment. Generally, then, effectiveness of integration provides a reflection of the degree of organismic adaptation. From a psychological perspective, effectiveness of integration has been traditionally considered to be reflected by the effectiveness of psychological functioning. Thus, effectiveness of integration corresponds to such psychological formulations as adjustment, psychological health, and ego strength.

#### Relationship Between Differentiation and Integration

At any level of differentiation, various forms of integration are possible, both effective and ineffective. A high level of differentiation clearly does not imply effective integration. Since, theoretically, both differentiation and integration are significant, but relatively independent, determinants of psychological functioning, an assessment of both properties would provide a holistic assessment of the person. In the present investigation, the psychological differentiation construct (Witkin et al., 1962) will be employed as a reflection of differentiation, and the ego identity status construct (Erikson, 1956, 1963) will be employed as an indicant of effectiveness of integration. The rationale for these formulations follows.

#### The Psychological Differentiation Construct

The field dependence dimension emerged from research relating individual differences in performance on a set of perceptual tasks

(the rod-and-frame test, the embedded figures test, the body adjustment task) to performance on a variety of perceptual and cognitive measures. The common element in these perceptual tasks appears to involve the analytic requirement that the subject separate an object from an organized field in perception. Subjects who have difficulty separating an item from its context in these perceptual tasks are considered field dependent, while those who can overcome an embedding perceptual context are considered field independent.

Because these individual differences were consistently manifest in a variety of perceptual and cognitive tasks, the field dependence dimension was considered to provide an indicant of a personality style. A personality style is conceptualized as a relatively stable, characteristic mode of individual functioning which is pervasive through a wide range of psychological areas. This personality style was conceptualized as a continuum, extending from a relatively "primitive-global" level of functioning, reflected by field dependence, to a more "analytic-differentiated" level of functioning, reflected by field independence. Thus, it was labeled the global-articulated personality style. The field dependence dimension, then, can be considered a measure of the global-articulated personality style.

Further research related the global-articulated style to an even wider range of areas of individual functioning. To summarize these findings, the global-articulated style appears to consistently pervade individual's perceptual, intellectual, motivational, emotional, defensive, and social operations (Witkin et al., 1962; Witkin, Oltman, Fox, Erlichmann, Hamm, & Ringler, 1973). Employing this pattern of evidence, it was proposed that this style is an indicant of the even

more general psychological differentiation dimension. A relatively extensive nomological network supports the theoretical and empirical utility of the psychological differentiation construct (Witkin et al., 1973).

Thus, to summarize, the field dependence dimension is considered to provide a measure of the global-articulated personality style. This personality style can be viewed as a reflection of the psychological differentiation dimension. Theoretically, the psychological differentiation dimension can be considered to provide an assessment of level of differentiation through a wide range of psychological processes of the person, or, through the entire personality system.

#### The Ego Identity Status Construct

The ego identity status construct is a formulation which was developed in Erikson's Psychosocial Developmental Theory (Erikson, 1956, 1963, 1968). According to this theory, the individual, ideally, progresses successfully through a series of stages in the process of developing greater psychosocial maturity. Each of these stages is characterized by the emergence of a particular normative crisis. By crisis, Erikson refers to "a turning point," "a decisive encounter between the person and his environment" (1968, p. 96). The content area of each crisis crystalizes around the confluence of the psychosexual and psychosocial concerns characteristic of each stage.

Each crisis is a period of both heightened potential and increased vulnerability. The successful resolution of a crisis can result in the acquisition of positive ego qualities, or positive identity elements, which can contribute to the effective functioning of the person. Conversely, an unsuccessful resolution can result in the acquisition

of negative identity elements, which can contribute to ineffective functioning or maladjustment.

The ego is the process which is responsible for synthesizing the psychosexual and psychosocial concerns which emerge into salience during each crisis. Further, it is the task of the ego to integrate the identity elements which emerge at each stage with those identity elements already in existence. The ego can be conceived as "the organizational process by which the person maintains himself as a coherent personality with a sameness and continuity both in self and social experience" (Erikson, 1968, p. 73). The various ego processes, such as perceptual, cognitive, affective, motivational, social, and defensive processes, must be effectively integrated in order to successfully perform these syntheses.

Erikson (1956, 1963) has especially emphasized the crisis of ego identity formation, which typically emerges during late adolescence. Ego identity is a conscious sense of individual uniqueness, "an awareness of the fact that there is a self-sameness and continuity to the ego's synthesizing methods and that these methods are effective in safeguarding the sameness and continuity of one's meaning for others" (Erikson, 1959, p. 23). Thus, ego identity is not concerned with awareness of the mere fact of one's individuality, but emphasizes the awareness of the style or quality of one's individuality.

Theoretically, the particular manner that each person has experienced and resolved each of the earlier crises through his entire psychosocial history has contributed identity elements, both positive and negative. During the ego identity crisis, these identity elements re-emerge and must be synthesized into a coherent configuration or ego identity. The outcome of this identity crisis depends upon the ability of the ego to

synthesize this constellation of identity elements. This constellation of identity elements includes "significant identifications, libidinal needs, favored skills, constitutional givens, and available social roles" (Erikson, 1968, p. 163). Further, the choices and decisions which are made during this stage, vocational, occupational, and ideological choices, frequently result in commitments for life. Thus, the manner of resolution of the ego identity crisis can be viewed as reflecting the effectiveness of integration of the person's "lifeplan" or "style of life."

Theoretically, then, the assessment of ego identity status would provide an indication of the effectiveness of individual or ego functioning. Such an indication would not only provide a reflection of the current effectiveness of functioning, but would additionally provide a cross-section of the effectiveness of functioning through the person's entire psychosocial history. Thus, theoretically, ego identity status can be considered to provide an assessment of the effectiveness of integration of the person or personality system.

#### Assessment of Ego Identity Status

Erikson (1963) proposed four ego identity statuses, or modes of dealing with the ego identity crisis. These four statuses are: (1) identity achievement, in which the identity crisis has been experienced and successfully resolved via a personal commitment to a style of life, (2) foreclosure, in which crisis has not been experienced, but firm, often parentally determined commitments to a life style exist, (3) identity diffusion, in which crisis has not occurred and commitments have not been established, and (4) moratorium, in which there may be an active experiencing of the conflict and confusion associated with decision making concerning commitments to a style of life.

Marcia (1967) proposed an ordering of these ego identity statuses based upon the apparent proximity of each status to the identity achievement status. Marcia employed the rationale that:

A moratorium subject, by virtue of his active concerns with psychosocial issues, is probably closer to identity achievement than a foreclosure subject, who may be solidified in a position of close parental identification, which makes movement more difficult. Diffusion subjects lack even the appearance of identity achievement found in foreclosure. (1967, p. 120)

However, when the criterion of most effective current functioning is employed, the literature does not fully support the notion that these statuses represent discretely ordered intervals on a continuum. Generally, however, the identity achievement status is associated with the most effective performance on the test and behavioral criteria employed. These criteria included assessments of self-esteem (Marcia, 1967), problem solving ability (Marcia, 1964), moral judgment (Podd, 1969), conformity (Toder & Marcia, 1973), difficulty of college major (Marcia & Friedman, 1970), grade point average (Waterman & Waterman, 1972), and experienced self-determination (Waterman, Buebel, & Waterman, 1970). Thus, although there is not sufficient discriminant validity to order the four statuses as suggested by Marcia (1967), it appears that the identity achievement status is generally associated with the most effective functioning. The other statuses appear to be associated with less effective functioning than identity achievement.

Thus, it appears reasonable to construe a single dimension of ego identity, ranging from a greater approximation to identity achievement, characterized by more effective functioning, to a lesser approximation of identity achievement, characterized by less effective functioning. Indeed, several investigators have successfully employed this approach

in constructing measures of identity achievement and in predicting to various criteria reflecting effectiveness of functioning (Baker, 1971; Constantinople, 1969; Rasmussen, 1964; Simmons, 1973a, 1973b). This approach will be employed in the present investigation. Ego identity status will be assessed through a measure of the person's approximation to identity achievement. In summary, based upon the theoretical and empirical evidence reviewed concerning ego identity, the person's status on identity achievement will be employed as a measure of the effectiveness of functioning, from which the effectiveness of personality integration can be inferred.

#### Formulation of Personality Patterns

From the perspective of the present investigation, personality is viewed as the overall psychological organization of the person. Thus, personality is considered the fundamental configuration within which other psychological processes, including affective processes such as mood, are organized. Level of differentiation and effectiveness of integration are considered assessable properties of this personality configuration.

An individual's score on the field dependence dimension will be regarded as an indication of level of psychological differentiation, from which level of personality differentiation can be inferred. Similarly, an individual's identity achievement score will be regarded as a reflection of the effectiveness of psychological functioning, from which the effectiveness of personality integration can be inferred. Thus, level of differentiation and effectiveness of integration will be assessed for each person. Four personality patterns will be conceptualized, based upon the four possible intra-individual combinations of differentiation

and effectiveness of integration. These four patterns are: (1) high differentiation/effective integration, (2) low differentiation/effective integration, (3) low differentiation/less effective integration, and (4) high differentiation/less effective integration. These four patterns will be referred to, respectively, as Patterns 1, 2, 3, and 4.

#### Hypotheses Concerning Mood

Next, a theoretical rationale based upon the concepts of personality differentiation and integration will be employed as a framework to derive hypotheses concerning relationships among psychological differentiation, identity achievement, the four personality patterns, and mood. Relationships will be derived among these personality constructs and three mood parameters--affective complexity, mood level, and mood variability.

#### Affective Complexity

The process of experiencing and distinguishing among moods is referred to as affective complexity, with greater affective complexity associated with experiencing a wider variety and shading of moods. Theoretically, greater differentiation is associated with greater specialization and articulation in the affective domain. Thus, greater differentiation would be expected to be associated with greater articulation of all affective processes and, more specifically, with greater affective complexity.

One hypothesis, then, is that greater differentiation, as reflected by scores indicative of field independence, is associated with greater affective complexity. Further, the two patterns associated with greater differentiation (Patterns 1 and 4) are hypothesized to show greater affective complexity than the two less differentiated patterns (Patterns 2 and 3).

### Mood Level

Mood level has been considered to provide a reflection of the effectiveness of current individual functioning (Wessman & Ricks, 1965). A higher mood level is considered indicative of greater effectiveness of functioning than a lower mood level, except, perhaps, at the extreme. It will be recalled that, theoretically, effectiveness of functioning can be conceptualized to provide a reflection of the effectiveness of personality integration. Thus, a higher mood level can be viewed as a reflection of greater effectiveness of personality integration. Inasmuch as identity achievement is conceptualized as an indicant of effectiveness of personality integration, it is expected that level of identity achievement will be positively related to mood level.

It is hypothesized that higher identity achievement scores will be associated with a higher reported mood level. Further, the two personality patterns associated with more effective personality integration (Patterns 1 and 2) are hypothesized to report a higher mood level than the other two patterns.

### Mood Variability

Theoretically, mood variability can be considered a joint function of both level of differentiation and effectiveness of integration. A highly differentiated personality system, characterized by more specialized psychological processes, could channelize and respond relatively discretely to affective stimuli. However, a less differentiated personality system, with less articulated processes of control, could be more readily "flooded" by an affect or mood, resulting in relatively diffuse, systemwide reactions. More articulated processes of control are available in a more differentiated system, allowing greater specificity of affective response.

Generally, then, greater differentiation would be expected to be associated with less mood variability than lesser differentiation. One hypothesis is that greater differentiation, as indicated by more field independent scores, will be associated with less mood variability.

However, effectiveness of integration would be expected to moderate the relationship between differentiation and mood variability. It would be expected that, among the less differentiated persons, the less effectively integrated persons would be more variable in mood than the more effectively integrated persons. Conversely, among the more differentiated persons, the less effectively integrated would be expected to report less mood variability than the more effectively integrated. This formulation is based upon findings that ineffective functioning and defensive operations take different forms depending upon level of differentiation (Witkin, 1965).

Among less differentiated persons, ineffective functioning characteristically involves emotionally labile reactions, while typical defensive operations emphasize repression and denial. Ineffective functioning among more differentiated persons typically involves over-control and affective constriction. Characteristic defenses among the more differentiated include intellectualization, rationalization, and isolation.

Thus, it appears that less effectiveness of integration would affect mood variability differentially in greater and lesser differentiated persons. Based upon this rationale, Pattern 3 (low differentiation/less effective integration) is hypothesized to show the greatest mood variability, followed by Pattern 2 (low differentiation/more effective integration), Pattern 1 (high differentiation/more effective integration),

and with Pattern 4 (high differentiation/less effective integration) showing the least mood variability.

Thus, employing differentiation and effectiveness of integration together, relatively specific predictions can be made concerning mood variability. From the perspective of the present formulation, the "open vs. closed to experience" dimension reported by Wessman and Ricks (1965) to be strongly related to mood variability, may be alternatively conceptualized as a dimension reflecting affective reactivity to stimuli. From this perspective, the extremes of the "open vs. closed to experience" dimension may be viewed as a reflection of ineffectiveness of integration in, respectively, less differentiated and more differentiated personality systems.

## CHAPTER II

### METHOD

#### Subjects

Thirty-one female University of Florida undergraduate students comprised the final sample. Subjects were recruited from either the Introductory Psychology (PSY 201) Subject Pool or from the Experimenter's Winter, 1977 Psychology of Personal Growth (PSY 340) class. Subjects enrolled in PSY 201 received experimental credit for participation. Subjects from PSY 340 selected participation in the mood study from among several alternatives in fulfilling a term project requirement.

Twenty subjects from PSY 201 and 11 subjects from PSY 340 comprised the final sample. For the total 31 subject sample, the mean age was 19.94 (SD = 2.31). The distribution of subjects by class was: 10 freshmen, 7 sophomores, 10 juniors, and 4 seniors. For the PSY 201 subjects alone, mean age was 19.15 (SD = 1.84) and class distribution was 9 freshmen, 6 sophomores, 4 juniors, and 1 senior. For the PSY 340 subjects, the mean age was 21.36 (SD = 2.49) and class distribution was 1 freshman, 1 sophomore, 6 juniors, and 3 seniors.

#### General Procedure

Although there were only slight variations in procedure between the PSY 201 subjects and the PSY 340 subjects, the procedures for these two groups will be presented separately to enhance clarity.

### Procedure for PSY 201 Subjects

Approximately 50 students from the PSY 201 subject pool responded to a posted experimental announcement and attended a preliminary mood study meeting on 2/2/77. During this meeting, information concerning the three-part mood study was provided and subjects were recruited for participation in the full study (see "General Orientation to Mood Study," Appendix A). The experimenter attempted to generate a high level of interest and motivation in subjects by emphasizing the significance of the mood study and the importance of each subject's contribution to it.

During this preliminary meeting, which comprised Part I of the mood study, the two identity achievement measures were group administered, with administration of the Ego Identity Incomplete Sentences Blank preceding the administration of the Identity Achievement Status Scale. This order of administration minimized the possibility of item alternatives provided by the forced-choice Identity Achievement Status Scale from influencing subjects' responses to the Ego Identity Incomplete Sentences Blank items. Fifty subjects completed both identity achievement measures during the preliminary meeting.

Forty-two subjects who attended the preliminary meeting elected to participate in the full mood study. Each of these subjects was provided with a modified form of the Wessman and Ricks Personal Feelings Scales, a one week's supply of modified Daily Records of Personal Feelings, plus two "emergency" copies of Daily Records. The emergency copies were to be used if the subject was temporarily unable to obtain a new supply of Daily Records. Subjects were instructed in the mood rating procedure (see "Daily Record of Personal Feelings," Appendix B). To summarize the mood rating procedure, subjects were requested to rate

their moods three times daily--once during the morning (6AM to 12PM), once during the afternoon (12PM to 6PM), and once during the evening (6PM to 12AM). Mood rating was accomplished by selecting the item for each of the 16 Personal Feeling Scales which best described "How I feel now." The number of the item selected for each scale was recorded on the Daily Record of Personal Feelings. Following each evening rating, the subject was also requested to provide information concerning health, hours of sleep, academic pressure, menstrual and drug use information, as well as any additional information which she considered important in understanding her moods.

Mood rating was begun on 2/2/77 and was to be continued for a minimum of 33 successive days, resulting in a minimum of 100 ratings for each of the mood scales per subject. The experimenter placed very strong emphasis on the need for complete and accurate recording of moods. The experimenter collected completed Daily Records of Personal Feelings at the end of subjects' PSY 201 classes each Tuesday and Thursday. During these twice weekly meetings, the experimenter attempted to maintain a high level of motivation in subjects. This 33 successive day sequence of mood rating comprised Part II of the mood study.

Part III of the mood study consisted of each subject being individually tested on the rod-and-frame test and the embedded figures test. Testing was conducted by the experimenter in sessions of approximately 45 minutes duration, with test order randomized. Instructions for the rod-and-frame test and the embedded figures test are provided in Appendices C and D.

#### Procedure for Additional PSY 201 Subjects

Six additional PSY 201 subjects were added to the mood study on

2/3/77. These subjects contacted the experimenter on their own initiative, desiring to participate in the mood study. The procedures involved in the mood study were individually explained to these subjects and the identity achievement measures were also individually administered. Except for these variations, the procedure was the same as that employed for the previous PSY 201 subjects.

#### Procedure for PSY 340 Subjects

Except for minor variations, the same procedure was employed for PSY 340 subjects as with the PSY 201 subjects. Information concerning participation in the mood study was provided during the first week of class. The measures of identity achievement were administered during a class period. Completed Daily Records were collected and new Daily Records were distributed at the beginning or end of each class period, Monday through Thursday. Subjects in the PSY 340 sample conducted their mood rating from 1/26/77 to at least 3/8/77.

#### Subjects' Estimation of Accuracy in Following Instructions

Upon the termination of the mood study, each subject was requested to provide an estimate of the proportion of mood ratings that she had actually completed in compliance with instructions. That is, subjects were requested to estimate how frequently they had actually rated their moods three times daily--once in the morning, once in the afternoon, and once in the evening. Subjects were instructed to consider all retrospective ratings inaccurate, regardless of how confident they felt concerning these ratings. Further, if subjects exceeded the limits of the time intervals for morning, afternoon, or evening ratings by only minutes, they were to consider these ratings as inaccurate. The importance of honestly providing this information was strongly

emphasized. Subjects were assured that there were no penalties associated with reporting a "low" percentage. In fact, since accuracy of the data was considered crucial to the mood study, an honest report of a low percentage would be quite valuable. Subjects were provided the option of responding anonymously, an option which none of the subjects selected.

#### Completion of Mood Study

Upon termination of the 33+ day study, subjects were provided either experimental credit or course credit for a term project. Also, an explanation of the mood study was provided (see "Summary of Mood Project," Appendix E).

#### Data Recording and Verification

The experimenter filed and verified completed Daily Records for the PSY 201 subjects, while an assistant performed these duties for the PSY 340 sample. This procedure allowed the experimenter to maintain greater separation between the teacher role and the role of experimenter in which he was provided access to the intimate affective lives of his student/subjects. When missing data were discovered, the subject was individually contacted immediately and asked for an explanation. The subject was re-informed concerning the need for accurate and complete data and her cooperation was re-enlisted in attempting to attain this goal. In some cases, the subject was allowed to complete the missing ratings by retrospective rating. In the majority of cases, however, these entries were coded as missing data and later estimated. This recording and verification procedure resulted in a relatively small proportion of missing observations.

### Criterion for Inclusion in the Final Sample

A minimum self-report of 90 percent accuracy in following mood rating instructions was the criterion for inclusion of subjects in the final sample. The mean percentage for accuracy reported for the full 31 subject sample was 93.6 percent, with the PSY 201 subjects reporting 93.6 percent accuracy, while the PSY 340 subjects provided a 93.7 percent rating.

### Subject Attrition

Of the 48 subjects from PSY 201 who began the mood project, data from 20 were retained in the final analyses. Seventeen subjects were excluded because their self-report of accuracy in following instructions in mood rating was less than the 90 percent criterion for inclusion. Three subjects were excluded because they mistakenly terminated mood rating prior to the 33 day minimum. Eight subjects terminated participation in the mood study for personal reasons on their own initiative.

Eleven of the 24 PSY 340 subjects who began the mood study were retained in the final analyses. Two students terminated participation in the project and completed alternative term projects. Eleven of the PSY 340 subjects were excluded because their self-reports of accuracy of mood rating were less than the 90 percent criterion for inclusion.

### Number of Days of Mood Rating Employed

The PSY 201 subjects began their mood rating on 2/2/77 and continued until at least 3/8/77. The PSY 340 subjects completed mood ratings from 1/26/77 through at least 3/8/77. Thus, an equivalent time sample of mood ratings for each subject from 2/2/77 to 3/8/77 was available. The time sample extending from 2/3 to 3/8 was employed for analyses, allowing the first rating for nearly all of the PSY 201 subjects to be eliminated

as training period data. The equivalent time sample used included 99 observations per subject on each of the 16 mood rating scales.

#### Estimations of Missing Observations

Observations for each subject consisted of 48 mood ratings per day for 33 successive days. This resulted in 1,584 possible mood ratings per subject or 49,104 possible mood ratings for all 31 subjects. Of these 49,104 possible observations, only 309 or approximately 0.6 percent were missing. Of the 31 subjects, 21 subjects provided records with no missing observations, while 10 subjects reported some missing observations. The range of missing observations for these 10 subjects extended from 2 to 92, with a median of 16 missing observations, which was slightly over 1 percent.

Missing observations were estimated by recording the mean score for the missing variable for each subject. This is a conservative method for estimating missing observations as the mean score does not provide a contribution to the variance of the estimated variable.

#### Instrumentation

##### Instruments for Assessment of Psychological Differentiation

Rod-and-frame test (RFT). A Marietta 18-10 RFT apparatus was employed. It consisted of a 43" square frame, mounted on a black shield, which enclosed a 41" rod. The angular orientation of both the rod and the frame could be manipulated either singularly or together through sets of controls mounted behind the shield. A separate set of hand controls was provided for the subject to adjust the position of the rod. Both the rod and the frame were covered with luminous paint which was activated after exposure to a light source. The RFT was administered in a totally dark room with the subject seated eight feet in front of

the RFT apparatus. Instructions for the administration of the RFT are provided in Appendix C.

The standard eight trials on Series III (subject seated erect and frame tilted  $28^{\circ}$  to the right or left) were administered. Witkin et al. (1962) have reported that Series III alone can be substituted for the index computed from Series I, II, and III together without any loss of validity. The sum of the absolute number of degrees deviation from true vertical for the eight trials was used as the subject's score. Generally, a score of less than  $18^{\circ}$  deviation is considered an indicant of greater psychological differentiation, while a score of greater than  $40^{\circ}$  is considered associated with less differentiation.

Considerable evidence supports the validity of the RFT as a measure of the psychological differentiation construct (Witkin et al., 1962; Witkin et al., 1973). Concerning the reliability of the RFT, odd-even reliabilities of .89 or greater have been reported by Witkin et al. (1954) and by Gardner, Jackson, and Messick (1960). Test-retest reliabilities of .84 or greater have been reported for males and females and for time intervals extending through three years (Adevai & McGough, 1968; Bauman, 1951).

Embedded figures test (EFT). The EFT, like the RFT, is an original member of Witkin's (1954) perceptual battery used in the assessment of psychological differentiation. In the EFT, the subject is required to locate a simple geometric figure which is embedded within a more complex figure. Instructions for the EFT are provided in Appendix D. The subject's score for each simple figure is the amount of time necessary for him to locate the simple figure, with a three minute time limit. The full EFT consists of a successive presentation of 12 embedded

figures. The subject's total score is the time necessary to locate all 12 of the embedded figures. A shorter time is considered an indicant of greater psychological differentiation.

The EFT has been employed extensively as a measure of psychological differentiation and considerable evidence supporting its validity has been accumulated (Witkin et al., 1962; Witkin et al., 1973). Reported odd-even reliabilities include  $r = .88$  (Loeff, 1961),  $r = .90$  (Linton, 1952), and  $r = .92$  (Longnecker, 1956). Test-retest reliabilities have been reported to range from .92 after a one week interval (Dana & Goocher, 1959) to .89 after a three year interval (Bauman, 1951).

#### Instruments for Assessment of Identity Achievement

Ego identity incomplete sentences blank (EI-ISB). A modified 28 item form of Marcia's (1964) original 23 item EI-ISB was employed as a measure of level of identity achievement (see Appendix F). The original EI-ISB consisted of 23 items, which were selected according to their fidelity to five theoretical criteria proposed by Erikson as seminal to the assessment of ego identity. Briefly, these five criteria are (1) occurrence of a crisis, (2) occurrence of and degree of commitment, (3) continuity of self-definition over time, (4) degree of real self-ideal self-discrepancy, and (5) commitment to an occupation and ideology. The original EI-ISB appears to possess greater construct validity than any other ego identity measure, with the exception of interview techniques (Marcia, 1964, 1967).

Deldin (1976) modified the original EI-ISB by including five additional items concerning sexual behaviors. This modification was suggested by Schenkel and Marcia (1972), who reported that ego identity in females may be more precisely predicted by including information

concerning sexual behaviors. Further, this modification is consistent with Erikson's contention that a female's potential for reproduction, with its biological and social implications, must be considered in assessing ego identity. Thus, a sixth criterion, concerning crisis and commitment in the sexual sphere, was added to the EI-ISB.

Subjects' responses to each of the 28 items were scored 3, 2, or 1, according to the six theoretical criteria and examples provided in the EI-ISB Scoring Manual (see Appendix G). The EI-ISB Manual is based upon the six theoretical criteria for assessing ego identity and upon response examples taken from studies by Marcia (1964), Deldin (1976), and the present investigator. A subject's score may range from 28 to 84, with a higher score considered indicative of a higher level of identity achievement. Deldin (1976) reported the test-retest reliability of the 28 item EI-ISB to be .77 for a two-week interval.

Training of raters and inter-rater reliability for EI-ISB. Three female undergraduate raters were trained in scoring responses to the EI-ISB. It was decided to employ only females as raters because it was thought that they may be more sensitive to the nuances of ego identity in women and, therefore, may be more accurate than males in assessing ego identity in the female sample. Initially, the training of raters emphasized Erikson's notion of ego identity, and instructions and examples provided in the EI-ISB Scoring Manual. EI-ISB protocols obtained from subjects who were not included in the final sample were used in training the three raters.

The experimenter and three raters met three times for discussion of rating criteria and for the rating of practice protocols. Ratings for practice protocols were reviewed item-by-item. Discrepantly scored

items were discussed, clarified, and a final score was re-assigned. In several cases, the EI-ISB Scoring Manual was amended by listing additional examples.

A single practice protocol was scored by all three raters prior to the fourth and fifth rating sessions. The mean intercorrelations among raters for the protocol scored for Session 4 was .65 and the mean intercorrelation for the Session 5 protocol was .92. Thus, consistent scoring of EI-ISB items among the three raters appeared to be developing. During Sessions 4 and 5, these two practice protocols were reviewed and rating discrepancies were discussed and resolved.

At the end of Session 5, 15 practice protocols were divided into three sets of 5 each and one set was provided for each rater to score at home. During the next two sessions, raters exchanged their scored protocols for a new set until each rater had completed scoring of all 15 protocols. During Sessions 6 and 7, reviews of practice protocols were conducted in an attempt to minimize criterion drift.

After each of the three raters had completed scoring the 15 EI-ISB protocols, Spearman-Brown reliability coefficients were computed (Winer, 1971, p. 286). The results of this procedure indicated that the reliability of the mean rating of the three raters, of two of the three raters, and of one rater alone, in estimating each subject's true total score was, respectively, .93, .90, and .81. Thus, if 2 of 3 raters scored each of the EI-ISB protocols, the reliability of their mean rating in estimating each subject's true total score was .90. The reliability coefficient of .90 for two of the three raters was considered acceptable. For each rater to have scored all 49 EI-ISB protocols would have been both uneconomical and tedious.

The final set of 49 EI-ISB protocols was divided into three sets and each rater scored two of the three sets of protocols. It is noted that all 49 subjects with accuracy  $> 75$  percent were included in EI-ISB scoring. Thus, two of the three raters scored each subject's protocol. For the total set of 1,563 EI-ISB items, there was a total of 3,126 individual ratings. Among these ratings there were only 310, or approximately 10 percent, disagreements. For the 31 subjects who comprised the final sample for the total set of 868 items, there was a total of 1,736 individual ratings. Of these there were only 168, or approximately 10 percent, disagreements.

Rather than estimating each subject's identity achievement score by obtaining the mean score of two raters, the experimenter individually re-scored each of the 310 discrepantly scored items. This procedure was based upon the rationale that the experimenter could perform expert judgments when rating the identity achievement construct. Further, in his decision making the experimenter could employ information already provided by two raters on each discrepant item in formulating his judgment. This procedure was thought to provide even more accurate identity achievement scores than the purely statistical procedure of relying on the mean score of the two raters for discrepantly scored items.

Identity achievement status (IAS) scale. The IAS Scale, developed by Simmons (1970), is a 24 item objectively scorable self-report instrument designed to assess identity achievement status (see Appendix H). Items on the IAS Scale were derived from Marcia's (1964) EI-ISB. The IAS Scale provides a single score indicating level of identity achievement, rather than the nature of the identity resolution. The IAS Scale has been reported to reliably predict crisis and commitment

ratings derived from Marcia's Interview Technique for the assessment of ego identity (Simmons, 1970). Further, predicted correlations have been reported between IAS Scale scores and various measures of effectiveness of individual functioning, including the Edwards Personal Preference Survey, the Personal Orientation Inventory, and self-ratings of adjustment (Simmons, 1973b). Thus, information concerning scale construction and validity suggest that it is a satisfactory objective measure of identity achievement for the undergraduate population. Simmons (1973a) reported test-retest reliability of .73 over a one-week interval. However, as noted by Simmons (1973b), the IAS is not considered an interchangeable substitute for more thorough methods for the assessment of ego identity.

#### Instrument for Assessment of Mood

Wessman and Ricks' personal feelings scales (PFS). The PFS appear to be the most widely used instrument for obtaining successive daily self-reports of mood level. The PFS consist of 16 rationally-derived 10-point mood rating scales. Each scale was designed to assess mood level on one of 16 bipolar mood dimensions. The Daily Record of Personal Feelings is the response sheet for the PFS. Instructions on the Daily Record request the subject to record retrospectively, "before retiring every night," his daily "highest," "lowest," and "average" mood level for each of the 16 mood dimensions.

Three modifications of the PFS and Daily Record were made in the present study (respectively, Appendices I and B). The first modification involved requesting subjects to rate "how I feel now" on each of the 16 mood scales for three time intervals daily--morning, afternoon, and evening. Time intervals were employed, rather than randomly assigning

specific rating times to subjects, in an attempt to make the mood rating task less demanding and to insure cooperation.

One reason for this modification in mood rating procedure focuses upon the distinction between "typical" mood ratings and "actual" mood ratings. According to Nowlis (1965), typical mood ratings, in which the subject is requested to rate his "typical" or "average" mood, may be more subject to the fallibilities of memory, defensive operations, and social desirability response sets than "actual" mood ratings. In actual ratings, the subject reports "how I feel now," at the moment of experience.

A second reason for this modification is based upon the review of earlier studies in which P-technique factor analysis was employed on a correlation matrix derived from each subject's Daily Record of Personal Feelings. Each correlation matrix was constructed by obtaining each subject's "highest," "lowest," and "average" ratings for each of the 16 mood scales and then intercorrelating them. This results in a 48 x 48 correlation matrix. The mood ratings from which the correlations were computed were based upon 42, 30, and 28 successive days of observation, respectively, for Wessman and Ricks (1965), Frank (1967), and Gorman and Wessman (1974). Generally, it is not considered permissible to employ common factor analysis upon a matrix in which the correlations among variables are based upon less than 90-100 observations. Fewer observations could result in unreliable correlations among variables, yielding unreliable factors. Such a factor solution may not accurately reflect the subject's mood structure. Further, correlations based upon a relatively small number of observations cannot be assumed to accurately estimate the population parameters. Thus, it

would not be possible to reliably generalize from the sample to a population of interest. From this perspective, the P-technique factor analytic findings of the earlier studies may be seriously limited.

In the present investigation, each subject will report her actual moods on each of the 16 PFS three times daily for 33 successive days. Thus, the 16 x 16 correlation matrix which will be computed for each subject will be based upon 99 observations for each of the 16 PFS. The P-technique factors extracted from these matrices should be more reliable and generalizability to a population of interest should be more permissible, than for earlier studies.

The second modification of the PFS, which was also employed by Frank (1967) and by Gorman and Wessman (1974), involved changing the numbering of the 10 response categories for each of the 16 scales from 1-10 to 0-9 to facilitate data coding and processing.

#### Measures of Dependent Variables

Dependent variable measures of affective complexity, mood level, and mood variability were constructed. P-technique factor analysis was employed in constructing a measure of affective complexity, while principal components analysis was used in constructing measures of mood level and mood variability. Principal components analysis was employed, rather than common factor analysis, for constructing mood level and mood variability measures because scores on the PFS were based on data from only 31 subjects. The specific procedures employed in the construction of these measures are provided below.

#### Affective Complexity

The measure of affective complexity selected was the percentage of total variance accounted for by the first unrotated factor extracted via

P-technique factor analysis from the correlation matrix based on each subject's 33 day (99 observations) record of mood ratings. Initially, five P-technique derived measures of affective complexity which had been previously employed (Wessman & Ricks, 1965; Frank, 1967; Gorman & Wessman, 1974) were obtained. Table 1 provides the intercorrelation matrix for these five measures. The five measures were: (1) the percentage of total variance extracted by the first unrotated factor via P-technique factor analysis from each subject's mood rating record (PCTVAR), (2) the absolute magnitude of the eigenvalue corresponding to the first unrotated factor (EIGEN), (3) the number of unrotated factors each accounting for an eigenvalue of magnitude greater than 1.0 (NBRGT1), (4) the number of unrotated factors necessary to account for 90 percent total variance of the correlation matrix based on each subject's mood rating record (NBRGT90), and (5) the number of unrotated factors necessary to account for 95 percent total variance of each subject's mood rating correlation matrix (NBRGT95).

Five measures of affective complexity were initially obtained because little consensus has yet been reached concerning which are the more appropriate measures. The rationale for employing PCTVAR and EIGEN is that, in principle factor analysis, the first factor accounts for the greatest proportion of variance of any factor. Thus, if the first factor accounts for a relatively large proportion of variance, then a considerable portion of the subject's mood ratings are highly intercorrelated in a relatively global fashion. The proportion of variance accounted for by a factor is reflected by the magnitude of its corresponding eigenvalue. The rationale for employing NBRGT1, NBRGT90, and NBRGT95 as measures of affective complexity is that

a smaller number of factors would describe a more compact correlation matrix, therefore reflecting less affective complexity.

TABLE 1  
INTERCORRELATIONS AMONG FIVE MEASURES  
OF AFFECTIVE COMPLEXITY

	EIGEN	NBRGT1	NBRGT90	NBRGT95
PCTVAR	.97	-.80	-.86	-.80
EIGEN		-.72	-.84	-.78
NBRGT1			.71	.63
NBRGT90				.92

All correlations are significant at  $p < .001$ .

As indicated in Table 1, the five affective complexity measures were highly intercorrelated in directions consistent with their theoretical rationales. This was expected, as these measures are mathematically related. An inspection of Table 1 revealed that PCTVAR recorded the greatest magnitude intercorrelations with the other four measures. Further, as indicated in Table 2, PCTVAR did not show the restriction in range of NBRGT1, NBRGT90, and NBRGT95. Also, since PCTVAR could be more readily understood by the general reader than EIGEN, PCTVAR was selected as the affective complexity measure in the present investigation.

TABLE 2  
DESCRIPTIVE STATISTICS FOR FIVE MEASURES  
OF AFFECTIVE COMPLEXITY

VARIABLE	MEAN	STANDARD DEVIATION	RANGE
PCTVAR	70.17	11.22	52.40
EIGEN	9.04	2.11	10.20
NBRGT1	2.19	0.79	3.00
NBRGT90	3.58	0.92	3.00
NBRGT95	4.65	0.88	3.00

To summarize the procedure for constructing the affective complexity measure, each subject recorded 99 observations on each of the 16 PFS. Scores on these scales were intercorrelated over occasions and factored for each subject. Factoring was conducted by the principle factor method with iterative estimates of communality. Five initial affective complexity measures were obtained. After an inspection of intercorrelations and descriptive statistics for these measures, PCTVAR was selected as the statistically most satisfactory measure of affective complexity.

#### Mood Level

Principal components analysis was employed in the construction of a measure of mood level. This procedure was used in order to reduce the information provided by the 16 PFS to a smaller number of independent dimensions through the elimination of statistically redundant information. Generally, a relatively small number of principal components can account for the majority of the information provided by a larger number of variables.

It was decided to employ principal components analysis to provide greater conceptual clarity and computational convenience than previous approaches taken to the operationalization of mood level using the PFS. For example, Wessman and Ricks (1965) operationalized mood level as a subject's mean score on PFS Scale 16 (Elation vs. Depression) alone. This conceptualization of mood level, while intuitively appealing, did not take advantage of the information provided by the other 15 PFS. Other investigators (Gorman & Wessman, 1974; Schaff, 1975) have conceptualized mood level in terms of each of the 16 PFS, as if these scales each reflected an independent affective dimension. This approach

to the operationalization of mood level neglected the dependencies or redundant information among the 16 PFS. Further, the use of 16 separate mood level scores as dependent variables raises the problem of incremental Type I error.

Based upon earlier findings concerning the normative factorial composition of the PFS (Wessman & Ricks, 1965), it was hypothesized that one dominant principal component would be obtained. It was expected that this component would be highly positively loaded by each of the 16 PFS. This component was expected to reflect "overall mood level." If this finding was obtained, a subject's factor score on this component would be conceptualized to provide an indicant of her overall mood level, also referred to as general level of happiness or "hedonic level" (Wessman & Ricks, 1965).

For each subject, 16 mean mood level scores were computed by obtaining the average rating for each of the 16 PFS across 99 occasions of measurement. The 16 mean PFS scores were intercorrelated across the 31 subjects using the Pearson product-moment statistic. The resultant 16 x 16 correlation matrix was factored by principal components analysis.

The findings of the analysis were consistent with predictions. Since the 16 PFS were highly intercorrelated, the first principal component, labeled Mood Level Principal Component One (MLPC1), with an eigenvalue of 12.36, accounted for 77 percent of the total variance of the correlation matrix. All other components yielded eigenvalues less than 1.0 and, therefore, were not included in subsequent analyses. Mood Level Principal Component One totally dominated the findings. The factor pattern matrix for MLPC1 is provided in Table 3, which lists the loadings of each of the 16 PFS on MLPC1.

TABLE 3  
FACTOR PATTERN MATRIX FOR MLPC1

PFS SCALE	LOADING	PFS SCALE	LOADING
SCALE 1	.93	SCALE 9	.83
SCALE 2	.94	SCALE 10	.90
SCALE 3	.89	SCALE 11	.90
SCALE 4	.91	SCALE 12	.87
SCALE 5	.93	SCALE 13	.88
SCALE 6	.89	SCALE 14	.93
SCALE 7	.90	SCALE 15	.92
SCALE 8	.50	SCALE 16	.94

Lambda ( $\lambda$ ) = 12.36

As indicated in Table 3, each of the 16 PFS means, with the exception of Scale 8 (Love and Sex), recorded large magnitude positive loadings, greater than .80, on MLPC1. This provides a clear substantive interpretation of MLPC1 as reflecting overall mood level. Ten of the 16 PFS mean scores loaded .90 or greater on this component. Scale 2 (Receptivity Towards World) and Scale 16 (Elation vs. Depression), both with loadings of .94, loaded most strongly on MLPC1. This provides further support towards interpreting this component as overall mood level.

Each subject's factor score was computed on MLPC1. These factor scores were employed as the dependent variable scores for overall mood level.

#### Mood Variability

Principal components analysis was employed in the construction of two mood variability measures from PFS scores. The standard deviation of each of the 16 PFS for each subject across 99 occasions was computed.

The standard deviations for the 16 PFS were intercorrelated across the 31 subjects using the Pearson product-moment statistic. The resultant 16 x 16 correlation matrix was factored by principal components analysis.

As with mood level, it was hypothesized that one major component for mood variability would be obtained, on which all 16 PFS standard deviations would have high positive loadings. This component was expected to provide a reflection of the dimensionality of the mood variability in this sample. Factor scores would then be computed for this component and employed as the mood variability dependent measure. A greater magnitude factor score would be associated with greater overall mood variability, while a smaller factor score would reflect lesser variability.

The principal components analysis yielded two components with eigenvalues greater than 1.0, which, together, accounted for 72.1 percent of the total variance of the correlation matrix of PFS standard deviations. The first mood variability principal component (MVPC1), with an eigenvalue of 9.84, accounted for 61.5 percent of the total variance. The factor pattern matrix for MVPC1, as indicated in Table 4, shows that each of the 16 PFS standard deviations recorded moderately-high to high positive loadings on MVPC1, with the exception of Scale 8 (Love and Sex) and Scale 9 (Present Work), which recorded moderate loadings. This is clearly consistent with the interpretation that MVPC1 reflects a general dimension of overall mood variability. A factor score was computed for each subject for MVPC1 and employed as the dependent variable measure of overall mood variability.

TABLE 4  
FACTOR PATTERN MATRIX FOR MVPC1

PFS SCALE	LOADING	PFS SCALE	LOADING
SCALE 1	.82	SCALE 9	.42
SCALE 2	.88	SCALE 10	.66
SCALE 3	.78	SCALE 11	.88
SCALE 4	.71	SCALE 12	.83
SCALE 5	.90	SCALE 13	.86
SCALE 6	.85	SCALE 14	.78
SCALE 7	.85	SCALE 15	.78
SCALE 8	.50	SCALE 16	.87

Lambda ( $\lambda$ ) = 9.84

Mood Variability Principal Component Two (MVPC2), with an eigenvalue of 1.69, accounted for 10.6 percent of the total variance of the correlation matrix of PFS standard deviations. The marker variables for bipolar MVPC2 were Scale 8 (Love and Sex), with a loading of -0.60, and Scale 9 (Present Work), with a loading of 0.73. Scale 4 (Personal Freedom vs. External Constraint) recorded a moderate negative loading of -0.34 on MVPC2. Scales which recorded moderate positive loadings on this component were Scale 10 (Thought Processes), Scale 14 (Self-Confidence vs. Feelings of Inadequacy), and Scale 15 (Energy vs. Fatigue), with loadings of, respectively, 0.49, 0.36, and 0.34. The factor pattern matrix for MVPC2 is listed in Table 5.

To speculate, MVPC2 appears to reflect a bipolar mood dimension upon which less variability in reported satisfaction concerning intimacy and impulse expression appears associated with greater variability in reported satisfaction concerning academic work performance. When the

direction of the scale loadings is reflected, greater reported variability in satisfaction concerning intimacy and impulse expression appears associated with lesser variability in satisfaction concerning academic work performance. Although the magnitude of the salient loadings on MVPC2 appear large enough to support substantive interpretation, the speculative nature of this interpretation must be emphasized.

TABLE 5  
FACTOR PATTERN MATRIX FOR MVPC2

<u>PFS SCALE</u>	<u>LOADING</u>	<u>PFS SCALE</u>	<u>LOADING</u>
SCALE 1	-.18	SCALE 9	.73
SCALE 2	.01	SCALE 10	.49
SCALE 3	.05	SCALE 11	-.15
SCALE 4	-.34	SCALE 12	-.19
SCALE 5	-.17	SCALE 13	-.13
SCALE 6	-.01	SCALE 14	.36
SCALE 7	-.14	SCALE 15	.34
SCALE 8	-.60	SCALE 16	.18

$$\text{Lambda } (\lambda) = 1.69$$

Relatively large magnitude positive factor scores on MVPC2 would appear to indicate that the subject is reporting greater mood variability in areas concerning academic work, concurrent with lesser mood variability in areas concerning intimacy and impulse expression. Relatively large magnitude negative factor scores would appear to show that the subject is reporting greater mood variability in areas concerning intimacy and impulse expression, concurrent with lesser variability associated with academic work concerns. Intermediate magnitude factor scores would appear to indicate relatively similar magnitudes of mood variability

in both intimacy and impulse expression, as well as academic work areas.

To speculate, from an Eriksonian perspective, a subject's factor score on MVPC2 may reflect a particular content area which has emerged into salience during the period of identity formation. From this perspective, greater mood variability associated with a particular psychosocial content area may indicate that the person is actively engaged in conflict or growth in that area. Further, the content area which becomes the focus of conflict or growth may, perhaps, be related to the subject's level of psychological differentiation. Both greater and lesser differentiation are reported to be associated with particular "assets" and "liabilities" for individual functioning. Greater differentiation, associated with well-developed cognitive analytic abilities, appears to be a definite asset in academic and work performance. Thus, more differentiated persons would be expected to report less mood variability in the academic work area, as they possess a set of abilities conducive to effective functioning in that area. However, in the interpersonal domain, more differentiated persons have been reported to be "task oriented, rather than person oriented," "individualistic," "distant," and to prefer solitary activities (Witkin & Goodenough, 1976). This set of interpersonal attributes makes it reasonable to speculate that effective functioning may be more difficult for the more differentiated person when dealing with interpersonal concerns, such as intimacy issues, than when dealing with academic work issues. Thus, greater differentiation would be hypothesized to be associated with greater mood variability concerning intimacy issues than concerning academic work issues.

Conversely, lesser differentiation, although associated with lesser cognitive analytic abilities, is associated with a constellation of characteristics which appear to be conducive to the establishment and maintenance of intimacy. Lesser differentiated persons have been reported to be "social," to enjoy interpersonal activities, and to be person-oriented (Arbuthnot, 1968; Baer, 1964; Oltman, Goodenough, Witkin, Freedman, & Friedman, 1975). Thus, for a lesser differentiated person, effective functioning may be more difficult when dealing with academic work performance issues, than when dealing with interpersonal intimacy issues. Therefore, lesser differentiation would be hypothesized to be associated with greater reported mood variability concerning academic work issues than with intimacy issues.

A factor score was computed for each subject for MVPC2 and employed as the dependent measure of differential mood variability in the academic work and intimacy domains.

#### Construction of Indices

Table 6 provides the descriptive statistics for all selection instruments in the 31 subject sample. The means and standard deviations for the instruments selected as measures of psychological differentiation

TABLE 6

#### MEANS AND STANDARD DEVIATIONS FOR SELECTION INSTRUMENTS

<u>INSTRUMENT</u>	<u>MEAN</u>	<u>STANDARD DEVIATION</u>
RFT	32.23	24.78
EFT	622.16	405.15
IAS	13.32	2.63
<u>EI-ISB</u>	<u>55.65</u>	<u>4.10</u>

N = 31

and identity achievement were comparable to those reported in previous studies (Witkin et al., 1962; DeJdin, 1976). None of the distributions of scores for these instruments demonstrated skewness or kurtosis to the extent to warrant transformation.

As indicated in Table 7, which provides the intercorrelations among the selection measures, none of the correlations of the RFT and EFT, conceptualized as measures of psychological differentiation, with the IAS and EI-ISB, conceptualized as measures of identity achievement, exceeded 0.11. The relatively small magnitude of these correlations provides support for the notion that psychological differentiation and identity achievement, as assessed by these instruments, are independent constructs.

TABLE 7  
INTERCORRELATION MATRIX FOR  
SELECTION INSTRUMENTS

	EFT	IAS	EI-ISB
RFT	.60*	.02	.01
EFT		.11	.09
IAS			.11

\* $p < .001$ , one-tailed test

As indicated in Table 7, the RFT and EFT correlated 0.60, reflecting approximately 36 percent shared variance. The magnitude and direction of this correlation coefficient, which is consistent with previous reported findings (Witkin et al., 1962), supports the use of these two measures together, as an index, to assess psychological differentiation.

However, the two instruments selected to assess identity achievement, the IAS and the EI-ISB, correlated only 0.11. The magnitude of this

correlation coefficient indicated that the IAS and the EI-ISB share approximately 1 percent variance. Further, an inspection of the plot of IAS and EI-ISB scores did not provide evidence of a non-linear relationship between scores on these two instruments. This 1 percent shared variance appears particularly small considering that the IAS and the EI-ISB were developed from the same pool of original items-- Marcia's (1964) EI-ISB, as measures of the same construct. Thus, it was not reasonable to contend that these two instruments may be assessing different facets of identity achievement. It clearly is not defensible to combine scores on these two instruments in computing an identity achievement index.

An inspection of the descriptive statistics and distributional characteristics of scores for the IAS and for the EI-ISB did not provide evidence that either of the measures was statistically suspect. Indeed, the obtained means and standard deviations for the IAS and the EI-ISB, provided in Table 6, both appear comparable to norms reported in previous investigations. For the IAS, Simmons (1970) reported a mean of 12.39 and a standard deviation of 3.18. For the EI-ISB, Deldin (1976) reported means and standard deviations of, respectively, 55.8 and 4.90.

However, since the EI-ISB appears to possess greater construct validity than the IAS as a measure of identity achievement (Marcia, 1966; Breuer, 1974; Deldin, 1976), it was selected as the measure of identity achievement in the present investigation. Indeed, Simmons (1973b) recommends that the IAS not be used as a substitute for more thorough assessments of ego identity unless a short, quick inventory is judged appropriate.

### Formation of Groups

Each subject's score on the psychological differentiation (PD) index was obtained by computing the mean of her standard scores on the RFT and on the EFT. Identity achievement (IA) was assessed by each subject's score on the EI-ISB. The correlation between scores on the PD index and scores on the IA measure was .05.

Initially, four groups (Groups 1-4) were constructed by median splits in such a manner as to correspond with Patterns 1-4. Groups were formed based upon median splits performed on the distribution of scores for the PD index and the distribution of scores for the IA measure. Each subject was assigned to one of four groups based upon her score on each of the two measures, relative to the median score for the two measures.

Next, the five subjects whose PD and IA scores appeared to most distinctly represent each of Patterns 1-4 were selected for membership in each of four extreme groups. Thus, to form Extreme Group 1, which corresponded to Pattern 1, the five subjects reporting the lowest PD scores (indicative of the highest level of differentiation), concurrent with the highest IA score (indicative of the greatest effectiveness of integration) were selected. The other three groups were similarly formed. All tests of hypotheses concerning group differences were conducted with these four extreme groups of five subjects each. Since the final sample consisted of only 31 subjects, this extreme group strategy was considered necessary to more clearly demonstrate effects attributable to the four patterns.

Descriptive statistics for all variables for the four groups formed by median splits, as well as for the four extreme groups of five subjects

each, are provided in Tables 8 and 9, respectively. Throughout the remainder of the investigation, the four extreme groups will be referred to as Groups 1-4 unless otherwise noted.

### Statistical Hypotheses

A set of statistical hypotheses are listed for each of the four dependent variables--affective complexity, overall mood level, overall mood variability, and mood variability concerning academic work vs. intimacy issues.

#### Affective Complexity

(1) It is hypothesized that smaller PD scores (indicative of greater PD) will be associated with smaller affective complexity scores (indicative of greater affective complexity). (2) It is hypothesized that the two theoretically more differentiated groups (Groups 1 and 4) will report smaller affective complexity scores than the two less differentiated groups (Groups 2 and 3).

#### Overall Mood Level

(1) It is hypothesized that higher IA scores (indicative of greater effectiveness of personality integration) will be associated with higher scores on MLPC1 (indicative of a higher overall mood level). (2) It is hypothesized that the two theoretically more effectively integrated groups (Groups 1 and 2) will report a higher MLPC1 score than the two less effectively integrated groups (Groups 3 and 4).

#### Overall Mood Variability

(1) It is hypothesized that smaller PD scores (indicative of greater PD) will be associated with smaller scores on MVPC1 (indicative of less overall mood variability). (2) It is hypothesized that the two theoretically more differentiated groups (Groups 1 and 4) will report

TABLE 8

DESCRIPTIVE STATISTICS ON ALL VARIABLES FOR GROUPS 1-4 FORMED BY MEDIAN SPLITS AND FOR THE 31 SUBJECT SAMPLE

VARIABLE	GROUP 1	GROUP 2	GROUP 3	GROUP 4	TOTAL SAMPLE (N = 31)	
					MEAN	STANDARD DEVIATION
n	8	8	7	8		
Accuracy	0.94	0.92	0.94	0.95	.94	.04
Age	20.13	19.38	20.43	19.88	19.94	2.31
RFT	19.75	50.50	46.00	14.75	32.23	24.78
EFT	332.50	987.63	823.29	370.38	622.16	405.15
PD	-0.611	0.818	0.524	-0.665	0.0	0.895
EI-ISB (IA)	58.88	59.38	52.00	51.88	55.65	4.10
PCTVAR	72.25	67.48	66.07	74.35	70.17	11.22
MLPCT	-0.334	0.094	0.375	-0.089	0.0	1.00
MVPC1	-0.511	-0.498	0.155	0.873	0.0	1.00
MVPC2	-0.410	0.428	0.064	0.075	0.0	1.00

Note: Scores for PD, MLPCT, MVPC1, and MVPC2 are in standard score form.

TABLE 9

DESCRIPTIVE STATISTICS FOR GROUPS 1-4 FORMED BY EXTREME  
GROUP SELECTION PROCEDURES

VARIABLE	GROUP 1		GROUP 2		GROUP 3		GROUP 4		TOTAL SAMPLE (N = 31)	
	5	0.93	5	0.92	5	0.94	5	0.96	MEAN	STANDARD DEVIATION
n	5		5		5		5			
Accuracy	0.93		0.92		0.94		0.96		0.94	.04
Age	21.00		19.80		20.60		19.00		19.94	2.31
RFT	17.40		58.40		58.20		15.80		32.23	24.78
EFT	339.60		1200.60		757.60		392.60		622.16	405.15
PD	-0.650		1.24		0.689		-0.617		0.0	0.895
EI-1SB (IA)	59.20		60.00		51.80		50.80		55.65	4.10
PCTVAR	72.98		64.32		63.12		77.24		70.17	11.22
MLPCI	-0.178		-0.025		0.558		-0.288		0.0	1.0
MVPCI	-0.399		-0.310		0.259		0.961		0.0	1.0
MVPC2	0.411		0.508		-0.341		-0.691		0.0	1.0

Note: Scores for PD, MLPCI, MVPCI, and MVPC2 are in standard score form.

smaller MVPC1 scores than the two less differentiated groups (Groups 2 and 3). (3) It is hypothesized that Group 3 (lower differentiation/less effectively integrated) will report the highest MVPC1 scores, followed by Group 2 (lower differentiation/more effectively integrated), Group 1 (higher differentiation/more effectively integrated), and with Group 4 (higher differentiation/less effectively integrated) reporting the smallest MVPC1 scores.

#### Mood Variability Concerning Academic Work vs. Intimacy Issues

(1) It is hypothesized that smaller PD scores (indicative of greater PD) will be associated with smaller scores on MVPC2 (indicative of greater mood variability concerning intimacy issues than academic work issues).

(2) It is hypothesized that the two theoretically more differentiated groups (Groups 1 and 4) will report a smaller MVPC2 score than the two less differentiated groups (Groups 2 and 3).

## CHAPTER III

### RESULTS

#### General Strategy for Results

In the results section, the relationships among the dependent variables will be presented first. Then, tests of hypotheses will be presented for each of the four dependent variables separately. For each of the four dependent variables, three levels of hypothesis testing were employed. These were:

(1) The hypotheses concerning PD, IA, and the dependent variable were tested via a multiple regression analysis performed on the entire 31 subject sample. The multiple regression analysis employed a stepwise forward selection procedure for the inclusion of predictor variables. The order of entry of predictor variables into the regression equation was determined by the maximization of variance criterion. Thus, the predictor variable which accounted for the greatest proportion of the criterion variable variance was entered into the regression equation first.

(2) The hypotheses concerning differences in group means were tested via a fixed effects 2 x 2 factorial analysis of variance (ANOVA). The 20 subjects in Groups 1-4 were classified according to two factors, PD (greater differentiation/lesser differentiation) and IA (greater effectiveness of integration/lesser effectiveness of integration). Thus, the main effect due to PD tested the significance of the mean difference between the two combined theoretically more differentiated groups (Groups

1 and 4) vs. the two less differentiated groups (Groups 2 and 3). The main effect due to IA tested the significance of the mean difference between the two combined theoretically more effectively integrated groups (Groups 1 and 2) vs. the two less effectively integrated groups (Groups 3 and 4). The PD x IA interaction tested whether the effect of the levels of one factor depends upon their combination with the levels of the other factor.

(3) More refined analysis of differences among means for Groups 1-4 were conducted by inspection of group means.

All hypotheses were tested at a pre-set alpha level of .05.

#### Relationships Among Dependent Variables

Table 10 provides the intercorrelation matrix among the dependent variables. The correlation coefficient between MVPC1 and PCTVAR was statistically significant ( $r = .48, p < .003$ ). The correlation between MLPC1 and MVPC1 ( $r = .25, p < .09$ ) indicated a trend which did not achieve significance.

TABLE 10

#### INTERCORRELATION MATRIX FOR DEPENDENT MEASURES

	MVPC1	MVPC2	PCTVAR
MLPC1	.25*	.04	.06
MVPC1		-.01	.48**
MVPC2			-.13

\*  $p < .09$ , one-tailed test

\*\*  $p < .003$ , one-tailed test

### Affective Complexity

It was hypothesized that smaller PD scores would be associated with smaller affective complexity scores. This hypothesis was not supported.

To test this hypothesis, a multiple regression analysis using stepwise forward inclusion of predictor variables was performed. Affective complexity scores were employed as the criterion variable, while predictor variables were PD and IA scores.

A summary of the relationships among affective complexity, PD, and IA scores is provided in Table 11. Psychological differentiation, with a multiple R of .41, accounted for 17 percent of the affective complexity score variance, and was entered into the regression equation first. The effect due to PD was statistically significant ( $F_{1,29} = 5.84$ ,  $p < .05$ ). The unique contribution of PD, obtained when IA was entered into the regression first, remained at 17 percent of the affective complexity score variance. However, the direction of the simple r between PD and affective complexity scores ( $r = -.41$ ) indicated that smaller PD scores were significantly associated with greater affective complexity scores.

TABLE 11

SUMMARY TABLE FOR MULTIPLE REGRESSION OF  
AFFECTIVE COMPLEXITY OF PD AND IA

VARIABLE	CUMULATIVE MULTIPLE R	CUMULATIVE R <sup>2</sup>	SIMPLE r	UNIQUE R <sup>2</sup>	F FOR UNIQUE R <sup>2</sup>
PD	0.41	.17	-0.41	.17	5.84*
IA	0.42	.17	0.08	< .01	< 1.00

\*  $p < .05$

It was hypothesized that the two theoretically more differentiated groups (Groups 1 and 4) would report smaller affective complexity scores than the two less differentiated groups (Groups 2 and 3). This hypothesis was not supported.

To test this hypothesis, a 2 x 2 factorial ANOVA was performed with affective complexity scores as the dependent variable and with PD and IA as factors. Prior to conducting the ANOVA, the Bartlett-Box test of homogeneity of variance among groups was conducted. The obtained  $F$  ( $F_{3, \infty} = 1.01$ ) was not significant, therefore pooled variance estimates were employed in the ANOVA. As indicated in Table 12, which provides the summary table for the ANOVA on affective complexity scores, only the main effect due to PD was significant ( $F_{1, 16} = 5.08, p < .05$ ). Thus, the mean affective complexity score for the two theoretically more differentiated groups differed significantly from the mean score for the two less differentiated groups. However, as indicated in Table 13, the direction of this difference was opposite from that predicted.

TABLE 12

SUMMARY TABLE OF ANALYSIS OF VARIANCE  
FOR AFFECTIVE COMPLEXITY SCORES

SOURCE	SUM OF SQUARES	Df	MEAN SQUARES	F	p
PD	648.65	1	648.65	5.08	<.05
IA	11.71	1	11.71	<1.00	ns
PDxIA	37.26	1	37.26	<1.00	ns
WITHIN	2042.38	16	127.65		
TOTAL		19			

The mean affective complexity scores for each of Groups 1-4, as well as for the two combined groups, are provided in Table 13.

TABLE 13  
 MEAN AFFECTIVE COMPLEXITY SCORES FOR GROUPS 1-4,  
 COMBINED GROUPS 1 AND 4, AND  
 COMBINED GROUPS 2 AND 3

GROUP	AFFECTIVE COMPLEXITY SCORE	n
GROUP 1	78.98%	5
GROUP 2	64.32%	5
GROUP 3	63.12%	5
GROUP 4	77.24%	5
GROUPS 1 AND 4	75.11%	10
GROUPS 2 AND 3	63.72%	10

An inspection of the group means in Table 13 reveals that the effect due to PD was consistently obtained in each of Groups 1-4. Group 1 recorded the largest affective complexity score, while Group 3 recorded the smallest score.

#### Overall Mood Level

It was hypothesized that higher IA scores would be associated with higher MLPC1 scores. This hypothesis was not supported.

To test this hypothesis, a multiple regression analysis using step-wise forward inclusion of predictor variables was performed. The criterion variable was MLPC1, while PD and IA were employed as predictor variables.

As indicated in Table 14, neither IA, nor PD, nor IA and PD together, accounted for even 1 percent of the variance of MLPC1 scores.

TABLE 14

SUMMARY TABLE FOR MULTIPLE REGRESSION  
OF MLPC1 ON PD AND IA

VARIABLE	CUMULATIVE MULTIPLE R	CUMULATIVE R <sup>2</sup>	SIMPLE r	UNIQUE R <sup>2</sup>	F FOR UNIQUE R <sup>2</sup>
PD	0.05	<.01	0.05	<.01	<1.00
IA	0.07	<.01	-0.04	<.01	<1.00

It was hypothesized that the two theoretically more effectively integrated groups (Groups 1 and 2) would report a higher MLPC1 score than the two less effectively integrated groups (Groups 3 and 4). This hypothesis was not supported.

To test this hypothesis, a 2 x 2 factorial ANOVA was performed with MLPC1 scores as the dependent variable and with PD and IA as the factors. Prior to conducting the ANOVA, the Bartlett-Box test for homogeneity of variances indicated no significant differences among groups ( $F_{3,00} = 1.38$ , ns). Thus, pooled variance estimates were employed in the ANOVA. As indicated in Table 15, neither main effects, nor interaction, was significant.

TABLE 15

SUMMARY TABLE OF ANALYSIS OF VARIANCE  
FOR MLPC1 SCORES

SOURCE	SUM OF SQUARES	Df	MEAN SQUARES	F	P
PD	1.25	1	1.25	<1.00	ns
IA	0.28	1	0.28	<1.00	ns
PDxIA	0.60	1	0.60	<1.00	ns
WITHIN	23.22	16	1.45		
TOTAL		19			

The mean MLPC1 scores, in standard score form, for Groups 1-4, as well as for the two combined groups, are provided in Table 16. As

indicated in Table 16, the MLPC1 group means cluster relatively close together, with a range of 0.8458 standard deviation units. Thus, none of the mean MLPC1 score differences among the four groups were significant.

TABLE 16  
MEAN MLPC1 SCORES FOR GROUPS 1-4, COMBINED  
GROUPS 1 AND 2, AND COMBINED  
GROUPS 3 AND 4

GROUP	MLPC1 SCORE	n
GROUP 1	-0.1776	5
GROUP 2	-0.0245	5
GROUP 3	0.5575	5
GROUP 4	-0.2883	5
GROUPS 1 AND 2	-0.1011	10
GROUPS 3 AND 4	0.1346	10

Because the finding that IA and PD scores together did not account for even 1 percent of the MLPC1 score variance was unexpected, further analyses were conducted. Inspection of a scatterplot for MLPC1 scores did not appear to indicate a restriction in range, nor was evidence of serious skewness or kurtosis revealed. Inspection of scatterplots among IA, PD, and MLPC1 scores did not appear to indicate a curvilinear component. A curvilinear multiple regression of MLPC1 on IA and PD revealed a negligible curvilinear component accounting for <1 percent of the MLPC1 score variance. Further, the residual scores obtained from the regression of MLPC1 on IA and PD were plotted and inspected. No strong evidence of heteroskedasticity was obtained.

#### Overall Mood Variability

It was hypothesized that smaller PD scores would be associated with smaller MVPC1 scores. This hypothesis was not supported.

To test this hypothesis, a multiple regression analysis employing stepwise forward inclusion of predictor variables was performed. The criterion variable was MVPC1, while the predictor variables were PD and IA.

Identity achievement, with a multiple R of .47, was entered into the regression equation first. As indicated in Table 17, IA, with a simple r of -.47, accounted for 22 percent of the MVPC1 score variance. The unique contribution of IA to MVPC1, obtained when PD was entered into the regression equation first, was 21 percent. The magnitude of this unique contribution was significant ( $F_{1,29} = 8.01, p < .05$ ). Thus, higher IA scores were significantly associated with smaller MVPC1 scores.

TABLE 17

SUMMARY TABLE FOR MULTIPLE REGRESSION  
OF MVPC1 ON PD AND IA

VARIABLE	CUMULATIVE MULTIPLE R	CUMULATIVE R <sup>2</sup>	SIMPLE r	UNIQUE R <sup>2</sup>	F FOR UNIQUE R <sup>2</sup>
IA	0.47	.22	-0.47	.21	8.01*
PD	0.51	.26	-0.22	.04	1.60

\*  $p < .05$

Psychological differentiation, with a simple r of -0.22, accounted for approximately 4 percent of the MVPC1 score variance. The effect due to PD was not significant ( $F_{1,29} = 1.60, ns$ ). Further, it was noted in Table 17 that the cumulative R<sup>2</sup> and the unique R<sup>2</sup> values for IA and for PD are almost identical. Thus, IA and PD are each accounting for independent variance components of MVPC1 scores.

It was hypothesized that the two theoretically more differentiated groups (Groups 1 and 4) would report smaller MVPC1 scores than the two

less differentiated groups (Groups 2 and 3). This hypothesis was not supported.

To test this hypothesis, a 2 x 2 factorial ANOVA was performed with MVPC1 scores as the dependent variable and with PD and IA as factors. Prior to conducting the ANOVA, the Bartlett-Box test of homogeneity of variances indicated no significant differences among groups ( $F_{3,00} = 1.00$ , ns), allowing the use of pooled variance estimates in the ANOVA. As indicated in Table 18, only the main effect due to IA was significant ( $F_{1,16} = 4.50$ ,  $p < .05$ ). Thus, the mean MVPC1 score of the two theoretically more effectively integrated groups differed significantly from the mean score of the two less effectively integrated groups.

TABLE 18  
SUMMARY TABLE OF ANALYSIS OF VARIANCE  
FOR MVPC1 SCORES

SOURCE	SUM OF SQUARES	Df	MEAN SQUARES	F	P
PD	0.47	1	0.47	< 1.00	ns
IA	4.65	1	4.65	4.50	< .05
PDxIA	0.78	1	0.78	< 1.00	ns
WITHIN	16.56	16	1.04		
TOTAL		19			

Table 19 provides a listing of mean MVPC1 scores for Groups 1-4, for the two combined groups reflecting greater and lesser differentiation, and for the two combined groups reflecting greater and lesser effectiveness of integration. From an inspection of Table 19, it is apparent that the two more effectively integrated groups reported a significantly smaller MVPC1 score than the two less effectively integrated groups.

It was hypothesized that Group 3 would report the highest MVPC1 score, followed by Group 2, Group 1, and Group 4 with the smallest MVPC1 score. This hypothesis was not supported. An inspection of the means for Groups 1-4, listed in Table 19, reveals that Group 4 reported the highest MVPC1 score, followed by Group 3, then Group 2, and with Group 1 reporting the smallest score.

TABLE 19  
MEAN MVPC1 SCORES FOR GROUPS 1-4 AND  
ALL COMBINED GROUPS

GROUP	MVPC1 SCORE	n
GROUP 1	-0.3993	5
GROUP 2	-0.3104	5
GROUP 3	0.2586	5
GROUP 4	0.9611	5
GROUPS 1 AND 4	0.2809	10
GROUPS 2 AND 3	-0.0259	10
GROUPS 1 AND 2	-0.3549	10
GROUPS 3 AND 4	0.6099	10

An inspection of the MVPC1 means for Groups 1-4 indicated that the effect due to IA is relatively consistent for all four groups, although the effect is more consistent for the theoretically more effectively integrated groups (Groups 1 and 2), than for the less effectively integrated groups (Groups 3 and 4). Group 1 reported the smallest MVPC1 score, while Group 4 recorded the greatest score.

Mood Variability Concerning Academic Work vs. Intimacy Issues

It was hypothesized that smaller PD scores would be associated with smaller scores on MVPC2. This hypothesis was supported.

To test this hypothesis, a multiple regression analysis employing stepwise inclusion of predictor variables was performed. Predictor variables were PD and IA, while MVPC2 was the criterion variable.

As indicated in Table 20, PD, with a multiple R of .33, was entered into the regression equation first. PD scores accounted for 11 percent of the variance of MVPC2 scores. This effect approached, but did not achieve significance at the .05 level ( $F_{.10,1,29} = 2.89 < F_{\text{obtained}, 1,29} = 3.46 < F_{.05,1,29} = 4.17$ ). However, the simple  $r$  between PD and MVPC2 was significant ( $r = .33, p < .05$ , one-tailed test). Thus, smaller PD scores were significantly associated with smaller MVPC2 scores. As indicated by the magnitude of the simple  $r$  ( $r = .05$ ) and the unique  $R^2$  ( $R^2 = .01$ ), IA was not related to MVPC2 scores. Even when entered into the regression equation first, IA accounted for less than 1 percent of the MVPC2 score variance.

TABLE 20

SUMMARY TABLE FOR MULTIPLE REGRESSION  
OF MVPC2 ON PD AND IA

VARIABLE	CUMULATIVE MULTIPLE R	CUMULATIVE $R^2$	SIMPLE $r$	UNIQUE $R^2$	F FOR UNIQUE $R^2$
PD	0.33	.11	0.33	.11	3.46*
IA	0.33	.11	0.05	< .01	< 1.00

\*  $p < .10$

It was hypothesized that the two theoretically more differentiated groups (Groups 1 and 4) would report a smaller MVPC2 score than the two

less differentiated groups (Groups 2 and 3). This hypothesis received mixed support.

To test this hypothesis, a 2 x 2 factorial ANOVA was performed with MVPC2 scores as the dependent variable and with PD and IA as factors. Prior to conducting the ANOVA, the Bartlett-Box test of homogeneity of variances was conducted and a non-significant F statistic was obtained ( $F_{3, \infty} = 2.24$ , ns), allowing the use of pooled variance estimates in the ANOVA. As indicated in Table 21, neither main effects nor interaction was significant for the ANOVA performed on MVPC2 scores.

TABLE 21  
SUMMARY TABLE OF ANALYSIS OF VARIANCE  
FOR MVPC2 SCORES

SOURCE	SUM OF SQUARES	Df	MEAN SQUARES	F	P
PD	1.80	1	1.80	1.57	ns
IA	0.01	1	0.01	< 1.00	ns
PDxIA	1.13	1	1.13	< 1.00	ns
WITHIN	18.29	16	1.14		
TOTAL		19			

It is noted that, although the Bartlett-Box F statistic was not significant at the .05 level, it was significant at the .08 level. Thus, there is considerable variability among the MVPC2 scores within each of the four groups.

A listing of mean MVPC2 scores, in standard score form, for Groups 1-4, and for the two combined groups, is provided in Table 22. An inspection of the mean MVPC2 scores for Groups 1-4, as well as for the two combined groups, reveals that the direction of all group mean scores is consistent with predictions. Thus, although the magnitude and

direction of all group means are consistent with predictions, the magnitude of the Bartlett-Box F statistic indicates that there is considerable variability within each of the groups. Therefore, the ANOVA did not indicate a significant main effect due to PD.

TABLE 22

MEAN MVPC2 SCORES FOR GROUPS 1-4, COMBINED  
GROUPS 1 AND 4, AND COMBINED  
GROUPS 2 AND 3

GROUP	MVPC2 SCORE	n
GROUP 1	-0.4190	5
GROUP 2	0.6549	5
GROUP 3	0.2153	5
GROUP 4	0.0901	5
GROUPS 1 AND 4	-0.1645	10
GROUPS 2 AND 3	0.4351	10

## CHAPTER IV

### DISCUSSION

The use of the PD and IA constructs, respectively, as indicants of personality differentiation and the effectiveness of personality integration, appeared to provide a productive approach to the investigation of mood/personality relationships. A number of substantial relationships among PD, IA, and mood variables were obtained. The use of PD and IA together, in the formation of personality patterns, also showed some promise and clearly warrants further investigation.

The findings of the present investigation will be discussed separately for each of the four mood variables--affective complexity, overall mood level, overall mood variability, and mood variability in the intimacy vs. academic work domains. Then a summary of findings and their implications will be presented. First, however, the relationships obtained among the four mood variables will be discussed.

#### Relationships Among Mood Variables

Among the four mood variables, only the correlation between affective complexity and MVPC1 was statistically significant. A trend was obtained between MLPC1 and MVPC1.

#### Relationship between Affective Complexity and MVPC1

Smaller affective complexity scores were found to be significantly associated with smaller overall mood variability scores ( $r = 0.48$ ,  $p < .003$ ). Thus, greater affective complexity was significantly associated

with less overall mood variability. This finding provided support for a trend reported by Wessman and Ricks (1965) for their female sample, in which greater affective complexity was associated with lesser mood variability ( $r = 0.26$ , ns). The finding that greater affective complexity is associated with lesser mood variability is consistent with expectations derived from Psychological Differentiation Theory. From this perspective, affective complexity, which provides a reflection of the degree to which a person's moods covary together, could be construed as an indicant of level of differentiation in the affective domain. Theoretically, then, greater affective complexity would be associated with greater specialization of affective functioning. Thus, a more affectively complex person, with more articulated systems of affective control, could respond relatively discretely to affective stimuli, showing less overall mood variability. A less affectively complex person would, perhaps, respond more globally to affective stimuli, showing greater overall mood variability.

#### Relationship between MLPC1 and MVPC1

A non-significant trend ( $r = 0.25$ ,  $p < .09$ ) was obtained between MLPC1 scores and MVPC1 scores. This trend indicated that higher overall mood level is related to greater overall mood variability. This finding must, however, be interpreted quite guardedly, due to the relatively small sample size, as well as the moderate magnitude of the correlation coefficient.

However, to speculate, perhaps mood variability, rather than singularly indicative of intra-psychic conflict, may indicate that one is more fully "open to experience," and is, therefore, more able to appreciate the richness of the world.

### Relationships Among Other Mood Variables

No other relationships among the mood variables even approached significance, providing support for the notion that these variables may represent statistically and, perhaps, experientially, independent dimensions of affective experience.

### Findings Concerning Affective Complexity

Psychological differentiation was significantly associated with affective complexity, accounting for 17 percent of the affective complexity score variance. However, the direction of the relationship was clearly in the opposite direction from that predicted. Thus, greater PD appears to be associated with lesser affective complexity. This finding was corroborated by the significant F statistic, indicating that the two theoretically less differentiated groups recorded scores reflecting greater affective complexity than the two more differentiated groups. Further, this finding appeared relatively stable for each of Groups 1-4.

The finding that greater PD is associated with lesser affective complexity is not consistent with either expectations derived from Psychological Differentiation Theory, or with findings reported in previous investigations. It will be recalled that Frank (1967) reported that greater PD was associated with greater affective complexity, in his older female sample, although the magnitude of this relationship was not large ( $r = -0.24, p < .05$ ). Gorman and Wessman (1974) reported no relationship between their measures of PD and affective complexity for either females or males.

Before discussing the theoretical implications of the present findings, several methodological problems concerning the two earlier

investigations (Frank, 1967; Gorman and Wessman, 1974) will be discussed. Based upon this discussion, it will be contended that the present investigation provided a more adequate assessment of the relationship between PD and affective complexity than the previous studies and, therefore, that the present findings may, perhaps, demonstrate greater validity.

#### Methodological Problems of Previous Investigations

Both Frank (1967) and Gorman and Wessman (1974) employed the standard form of the PFS. In this standard form, the subject is instructed to record her moods once daily--recording her personal "highest," "average," and "lowest" ratings for each of the 16 PFS. Next, the "highest," "average," and "lowest" ratings for each of the 16 PFS were inter-correlated for each subject, resulting in a 48 x 48 correlation matrix which was factored via P-technique. However, for Frank (1967) and Gorman and Wessman (1974), the correlation matrix which was factored was based on, respectively, 30 and 20 observations for each variable. This is a relatively small number of observations from which to obtain a reliable correlation matrix for factoring. In fact, the number of variables for these matrices exceeded the number of observations.

In the present investigation, each subject reported her actual moods on each of the 16 PFS three times daily for 33+ successive days. Thus, the 16 x 16 correlation matrix which was factored was based on 99 observations for each variable. This procedure was thought to provide a more reliable correlation matrix for factoring than those obtained in previous studies. Thus, subject's scores on the affective complexity measure may be more reliable in the present investigation.

As indicated earlier, different investigators did not always employ the same measure of affective complexity. This, however, may not be a serious problem, as these measures appear to be formally and mathematically related. Indeed, in the present investigation, a relatively high set of intercorrelations was obtained among all five initial measures of affective complexity. A more serious problem concerns the restriction in range that previous studies have reported for their affective complexity measures.

Frank (1967) reported a restriction in range employing a measure based on the number of factors each accounting for greater than 10 percent total variance. Ninety-six percent of his sample obtained affective complexity scores of either two or three on this measure. Frank's (1967) other affective complexity measure, the number of factors necessary to account for 90 percent total variance, fared better. The mean for this measure was 14.4, with a standard deviation of 3.0.

Gorman and Wessman (1974) employed four measures of affective complexity, which were reviewed earlier. They reported that a restriction in range was obtained for scores for each of these measures. Gorman and Wessman (1974) reported descriptive statistics for two of these measures which supported their contention. The means and standard deviations of these two measures were: (1) the number of factors each accounting for at least 10 percent total variance, mean = 1.89, standard deviation = 0.7, and (2) the number of factors necessary to account for 90 percent total variance, mean = 12.5, standard deviation = 1.5. In the present investigation, the measure of affective complexity, PCTVAR, did not appear to show such a restriction in range.

Although one measure of affective complexity employed by Frank (1967) did not show a restriction of range, the validity of this measure as an operationalization of affective complexity may be suspect. This measure, the number of factors (principal components) necessary to account for 90 percent of the total variance, was derived from a principal components analysis of each subject's correlation matrix. These correlation matrices were based on 30 observations per variable. Thus, the reliability of the initial correlation matrices may not have been satisfactory. Further, principal components analysis may include considerable error variance in the composition of factors, particularly as the number of extracted factors increases. Generally, only the first few principal components are retained and interpreted. To speculate, since a mean of 14 components was obtained for each subject from a matrix of 48 highly related variables, a considerable number of these components may be primarily composed of error variance, with no systematic relationship to the complexity of the person's affective processes.

Another methodological problem concerns the instruments used to assess PD in previous studies. The Hidden Figures Test and Hidden Patterns Test employed by Gorman and Wessman (1974) may be relatively indirectly related to PD. Frank's (1967) Human Figure Drawings Test and EFT appear to provide a more reliable assessment of PD. In the present investigation the RFT and EFT were employed and were thought to provide a more adequate assessment of PD than either of the batteries employed previously.

To summarize, three methodological problems in previous studies of PD and affective complexity, which the present investigation attempted to remedy, were discussed. These were: (1) the possible unreliability

of the correlation matrices from which affective complexity scores were derived, (2) the restriction in range of affective complexity scores, and (3) the employment of less satisfactory instruments to assess PD. Further, the magnitude of the relationship obtained between PD and affective complexity in the present investigation (17 percent shared variance) is considerably greater than that obtained previously (5.7 percent shared variance) by Frank (1967). To summarize this pattern of evidence, it appears reasonable to contend that previous investigations may not have adequately assessed the relationship between PD and affective complexity. Further, there appears to be considerable support for the internal validity of the present investigation.

#### Affective Complexity and PD: A Reformulation

The finding that greater PD is associated with lesser affective complexity appears contradictory to expectations derived from Psychological Differentiation Theory. Psychological Differentiation Theory has provided an impressive organizational and explanatory scheme for integrating an extensive body of research concerning field dependence and the global-articulated personality style. According to this theory, level of differentiation, as assessed in the perceptual/cognitive domain, accurately reflects the general level of differentiation throughout the psychological processes of the person. Thus, field independent scores on the RFT and EFT, indicative of greater perceptual/cognitive differentiation, should also be associated with greater affective complexity, or differentiation in the affective domain.

However, this formulation of Psychological Differentiation Theory has been primarily based on studies employing college student samples in academic settings, in which highly developed cognitive-analytic skills,

such as those associated with field independence, are quite generally adaptive. Thus, over-generalizations could, conceivably have occurred, from the implications of perceptual/cognitive differentiation in a specific environment which strongly rewards these skills, to the general functioning of persons through wider age ranges and in environments with different adaptive requirements. Such generalizability of differentiation throughout various psychological domains may, indeed, be valid, but it certainly has not been adequately tested--particularly on non-student samples, in non-academic environments. Further, even within the college student sample, the majority of studies of PD have appeared to employ performance on perceptual/cognitive tasks as the criterion variable. Very few studies have investigated the implications of PD in interpersonal domains, for example. Thus, to summarize, it is conceivable that the notion of the generalizability of PD through various psychological domains has not been adequately tested.

Indeed, recent research has indicated that field dependent and field independent persons may be more accurately construed as each possessing their own particular adaptive skills, or--to speculate--as each having their own domains of greater and lesser differentiation. Thus, field dependent persons, who have been reported to possess a constellation of characteristics which facilitate effective interpersonal functioning (Witkin & Goodenough, 1976), may be more differentiated regarding psychological domains related to interpersonal functioning than field independent persons, who do not possess these interpersonal skills. Conversely, field independent persons appear to be more differentiated in perceptual/cognitive functioning than field dependent persons. To speculate further, it could be hypothesized that field

dependence may be associated with a set of characteristics which facilitates interpersonal intimacy and, therefore, affective disclosures with others. Such behaviors could, conceivably, result in greater affective complexity.

To summarize, it appears that the notion that the level of perceptual/cognitive differentiation accurately reflects the level of differentiation through the totality of psychological processes of the person has not been adequately tested. It is conceivable that over-generalizations from studies concerning perceptual/cognitive functioning of college student subjects in academic settings may have resulted in a premature extension of the generalizability of perceptual/cognitive differentiation. Few studies of the generalizability of perceptual/cognitive differentiation through different psychological domains in different samples, and in environments with differing adaptive requirements have been conducted. Further, recent evidence indicates that field dependent and field independent persons might, perhaps, be construed as differentially differentiated, rather than more or less differentiated.

Thus, the finding that less differentiated females, according to RFT and EFT performance, report greater affective complexity may, indeed, indicate that these persons do possess greater affective complexity than females indicating field independent performance. To speculate, the Psychological Differentiation Theory itself, with its notion of generalizability of perceptual/cognitive differentiation through various domains of psychological functioning, may be undifferentiated.

### Findings Concerning Overall Mood Level

It was found that neither IA scores, nor PD scores, nor IA and PD scores together, accounted for even 1 percent of the MLPC1 score variance. Thus, IA and PD appear to be unrelated to overall mood level. The hypothesis that IA would be related to overall mood level was clearly not supported.

It is conceivable that selective subject attrition could account for these findings. Subjects who were currently experiencing adjustment difficulties would certainly be more likely to terminate participation in the mood study. Also, subjects who were experiencing adjustment difficulties may, perhaps, have been less likely to report their moods as systematically as others, thus increasing the probability that they would be excluded from the final sample. Indeed, to complete three mood ratings daily for a period of 33 successive days at a 90 percent plus level of accuracy in following instructions, could be considered a reflection of a relatively high level of personal organization, dedication, and flexibility. Thus, the demands of the mood rating task may have systematically excluded the less effectively functioning persons from inclusion in the final sample.

This speculation is supported by evidence reported by Frank (1967), who interviewed all nine of his mood study dropouts. Of these nine, six reported that acute emotional distress, exacerbated by the self-reflective nature of the mood rating task, caused their termination in the study. Further, it will be recalled that Wessman and Ricks (1965), who reported a strong relationship between mood level and a battery of measures related to adjustment, employed a male sample which was systematically selected to provide a wide range of talent on several

assessment instruments related to adjustment. Indeed, one of these selection instruments was a measure of the subject's general level of "happiness-unhappiness."

In order to examine the tenability of this "selective attrition hypothesis," the MLPC1 scores and EI-ISB scores obtained in the present investigation were examined. First, a comparison of the MLPC1 scores for the 31 subjects in the final sample with the MLPC1 scores for the 18 subjects who were excluded from the final sample because their mood rating accuracy was too "low" (between 75 percent and 89 percent) was conducted. Based upon the combined 49 subject sample, the sample means, in standard score form, for the 31 subject group and the 18 subject group were, respectively, -0.0075 and 0.0129. These two sample means are nearly identical. If the selective attrition hypothesis was valid, it would be expected that the mean MLPC1 score for the 18 subject group would be smaller than that of the 31 subject group. Thus, the selective attrition hypothesis was not supported by an inspection of MLPC1 scores. Systematic attrition did not appear to have occurred in relation to overall mood level.

To further test the selective attrition hypothesis, a comparison of EI-ISB scores was conducted for the 31 subjects in the final sample, the 18 excluded subjects, and 15 subjects who had either not selected participation in the mood study or who had terminated participation. The EI-ISB sample means for these three groups were, respectively, 55.65, 54.18, and 54.78. These three group means are nearly identical. Thus, it appears that subjects were not systematically selected in relation to level of IA.

The selective attrition hypothesis was not supported by an inspection of MLPC1 and EI-ISB scores obtained in the present investigation. It could, perhaps, be argued that the MLPC1 data for the 18 subject sample may be unreliable, since up to 25 percent of the observations for some subjects were missing. Further, it could be argued that the 49 subjects that the selective attrition hypothesis was tested on represented only 68 percent of the original 72 subjects who began the mood project. Thus, the selective attrition hypothesis may not have been adequately tested for MLPC1. However, no effects due to selective attrition were obtained with EI-ISB scores as well. To summarize, there is little support for the selective attrition hypothesis in the present sample.

An alternative explanation for the finding of no relationship between IA and overall mood level is, simply, that IA and effectiveness of functioning as reflected by adjustment are independent constructs, dissimilarly related to overall mood level. This explanation will be further developed in the next section, when the findings concerning overall mood variability will be discussed.

#### Findings Concerning Overall Mood Variability

Contrary to predictions, PD was not significantly related to MVPC1 scores. However, IA scores accounted for a significant proportion (21 percent) of the MVPC1 score variance. Higher IA scores, theoretically reflecting greater effectiveness of personality integration, were significantly associated with less overall mood variability. This finding was corroborated by a significant F statistic, indicating that the two theoretically more effectively integrated groups recorded scores indicative of smaller overall mood variability than the two less

effectively integrated groups. This finding appeared to be relatively stable for each of Groups 1-4.

#### Theoretical Rationale for Findings

The finding of this strong relationship between IA and overall mood variability, although not formally hypothesized, is readily interpretable from an Eriksonian perspective. Theoretically, as proposed earlier, IA level can be conceptualized as providing a reflection of the effectiveness of integration of identity elements into an organized configuration. Ego identity formation, then, involves a synthesis of identity elements concerning vocational occupational, ideological, and other psychosocial issues, into a "style of life." Thus, ego identity formation may result in a relatively permanent commitment to a particular style of life. Concurrent with the commitment to a particular style of life, is the rejection of several alternative life styles. Theoretically, for the identity achiever, who has selected and synthesized a particular life style, the psychosocial issues concerning rejected life styles may no longer be personally relevant and, therefore, may not be affectively salient. A lesser level of IA may indicate that the person has not yet integrated identity elements into a style of life or ego identity. Thus, several alternative life styles, each with its own constellation of psychosocial issues, may still be personally relevant and affectively salient.

The higher IA person, perhaps reflecting a more stable, completed personality system, may not be as affectively reactive to as wide a range of psychosocial stimuli as the lower IA person. The lower IA person, perhaps reflecting a more open, evolving personality system,

would be expected to be associated with less overall mood variability than lesser IA.

This conceptualization of IA, as providing a reflection of the effectiveness of integration of identity elements into a life-plan, provides a possible explanation for the present findings concerning IA and overall mood variability. Further, the present findings, as well as this theoretical rationale, provide support for Wessman and Ricks' (1965) finding that an "open vs. closed to experience" dimension was related to mood variability. It will be recalled that Wessman and Ricks (1965) characterized their less variable subjects as closed, completed personality systems, while their more variable subjects were described as open, evolving personality systems. Although Gorman and Wessman (1974) reported that their "open vs. closed to experience" factor was related to mood level, and not to mood variability, as noted earlier, several of the marker variables for this factor may be construed as measures of adjustment. Further, mood level has been traditionally conceptualized as providing a reflection of adjustment. It is conceivable, then, that Gorman and Wessman's (1974) "open vs. closed to experience" factor may provide a measure of adjustment. Thus, to summarize, it appears reasonable that IA, conceptualized as an indicant of the effectiveness of integration of identity elements into a life-style, may underlie the "open vs. closed to experience" dimension which has been reported to be related to mood variability.

#### Effectiveness of Integration as a Higher Order Construct

However, this formulation of IA raises a theoretical problem. If IA is, indeed, a valid indicant of the effectiveness of personality integration, why was IA not related to overall mood level as predicted?

There is considerable evidence that supports the notion that mood level provides a reflection of effectiveness of functioning or adjustment (Wessman & Ricks, 1965). Further, effectiveness of functioning or adjustment can be conceptualized as a reflection of effectiveness of personality integration.

Effectiveness of personality integration, however, is a higher order construct which can be employed to describe a formal relationship among a set of elements in any system. Effectiveness of integration, then, may be viewed as a formal construction, which derives much of its substantive meaning and implications from the domain or process to which it is applied. Thus, effectiveness of integration can be conceptualized and operationalized from multiple perspectives. The relationships between effectiveness of integration and criterion variables, then, may vary according to the domain or process engaged.

In the present investigation, effectiveness of integration was conceptualized and operationalized as reflected by level of IA. In retrospect, the implications of this operationalization may be different from an operationalization of personality integration in terms of adjustment. Identity achievement and adjustment may be related, but still relatively independent constructs. Theoretically, IA concerns a normative stage in ontogenetic development. Adjustment emphasizes a more temporally (and structurally) stable characteristic of individual functioning.

Indeed, according to Erikson (1968), the identity crisis and adjustment refer to different, though certainly interrelated, processes. The identity crisis refers to a normative period of growth, heightened potential, and heightened conflict. Maladjustment refers to a relatively

stable, self-perpetuating process of ineffective functioning. In maladjustment, there is not a surplus of energy available for growth, but rather, a paucity of energy, due to the investment of energy in defensive processes. Thus, although the processes of identity formation and general effectiveness of functioning (adjustment) are certainly related, these two processes are clearly not functionally equivalent. Thus, theoretically, the nomological network between IA and adjustment should provide evidence for both convergent and discriminant validity. One direction for future research might be to more clearly demarcate the convergent and discriminant relationships that IA and adjustment possess with criterion variables, and, thus, with one another. To summarize, this discussion of the relationship between effectiveness of integration, IA, and adjustment must be considered speculative, pending the outcome of further research.

#### Differential Implications of IA for Mood Variability

Another implication of the present findings is that there may be a differential effect of IA for greater and lesser differentiated persons. Inspection of mean MVPC1 scores for Groups 1-4 indicated that Group 1 (high differentiation/more effective integration) showed the smallest overall mood variability, while Group 4 (high differentiation/less effective integration) showed the greatest variability. The less differentiated groups, Groups 2 and 3, showed intermediate levels of mood variability. To speculate, this may indicate that the process of identity formation may be a more turbulent time for the more highly differentiated female than for her less differentiated counterpart. Perhaps, to speculate further, the less highly developed interpersonal skills associated with greater differentiation, concomitant with highly

developed cognitive-analytic abilities, may result in female identity formation being even more difficult. This appears a reasonable speculation considering traditional interpersonal and occupational expectations for females in our society.

This finding of differential effects of IA on greater and lesser differentiated females must be regarded as tentative due to the small sample size of the present investigation. However, if substantiated by further research, this finding may have implications for counseling and psychotherapy of college students.

#### Mood Variability Concerning Intimacy vs. Academic Work Issues

It was found that PD scores accounted for a significant proportion of the variance of MVPC2 scores (11 percent). Further, as predicted, greater PD was associated with MVPC2 scores indicative of greater mood variability concerning intimacy issues than concerning academic work issues. Conversely, lesser PD was associated with MVPC2 scores indicative of greater mood variability concerning academic work issues than intimacy issues.

The perspective taken toward mood variability concerning a psychosocial issue was that greater variability may characterize an issue as personally relevant and affectively salient. Thus, greater mood variability may indicate that a particular psychosocial issue is the focus of conflict or growth. From this perspective, the present finding provided support for the notion that, during identity formation, salient psychosocial concerns may crystalize around different issues for greater and lesser differentiated persons (as identified by perceptual/cognitive differentiation). Further, this finding provided indirect support for the notion that field dependent (FD) and field independent (FI) persons may, indeed, be characterized by differential abilities.

Field independence may be associated with greater cognitive-analytic abilities, which are an asset to successful academic performance. However, FI may also be associated with a set of characteristics which may make the development and maintenance of interpersonal intimacy more difficult. This notion is supported by the greater mood variability shown by FI persons concerning intimacy issues vs. academic work issues.

Conversely, FD may be associated with interpersonal skills which may be an asset to the development and maintenance of intimacy. However, FD is typically not associated with highly developed cognitive-analytic abilities. This notion was supported by the greater mood variability shown by FD persons concerning academic work issues vs. intimacy issues. Thus, not only do the salient psychosocial concerns of FD and FI persons appear to crystalize around different issues, but these concerns appear to crystalize around issues which the FD and FI person is, theoretically, less well-equipped to deal with.

Further, it was noted that the two theoretically more effectively integrated groups, Group 1 and Group 2, showed the greatest mood variability concerning, respectively, intimacy issues, and academic work issues. It will be recalled that these two groups showed the least overall mood variability on MVPCI. To speculate, it may be that more effectively integrated subjects, having dealt with the majority of their psychosocial concerns during identity formation, may now focus their abilities on the most difficult personal growth issues, given the skills that they are equipped with. These personal growth issues would be intimacy issues for the FI person and academic work issues for the FD person. For the less effectively integrated persons, in Group 3 and

Group 4, perhaps the entire gamut of psychosocial issues are still relevant and affectively salient, as indicated by their greater overall mood variability on MVPC1. Therefore, these subjects may not be prepared to concentrate upon a single psychosocial issue.

Again, due to the small sample size, as well as the moderate proportion of variance accounted for (11 percent), the present findings and interpretations must be viewed as tentative. However, the notion that during identity formation salient psychosocial concerns may be different for FD and FI persons provides a fertile source of hypotheses for further research. Such findings may, indeed, have relevance in the differential counseling of FD and FI college students, or perhaps, even more widely.

#### Summary

The findings of the present investigation clearly supported the notion of conceptualizing mood as a process which is interpenetratedly woven through the personality processes of the person. Although findings were not always consistent with hypotheses, the higher order personality constructs of differentiation and effectiveness of integration, as reflected, respectively, by PD and IA, provided a useful framework for the investigation of mood/personality relationships.

Psychological differentiation and identity achievement were each independently related to separate dimensions of mood. Psychological differentiation was found to show a strong inverse relationship to affective complexity, while IA showed a strong inverse relationship to overall mood variability. Neither PD, nor IA, was associated with overall mood level. The finding that greater PD was related to lesser affective complexity may be an extremely significant finding if

substantiated by future research. It could, perhaps, indicate a need for the revision of PD theory. The finding that greater IA was related to lesser overall mood variability not only supported earlier findings, but also provided a theoretical rationale for the interpretation of earlier research indicating that an "open vs. closed to experience" dimension was related to mood variability. The finding of no relationship between PD, IA, and overall mood level, indicated a need for future research concerning the convergent and discriminant relationships between IA and adjustment.

Although the use of personality patterns did not enhance prediction to any of the hypotheses, the employment of these patterns resulted in several substantial findings which would not have been obtained with a univariate approach. First, it appears that IA level may have differential implications for FD and FI females. Field independent females appear to experience greater turbulence during identity formation than their FD counterparts. Also, the psychosocial concerns characteristic of FD and FI women appear to crystalize around different issues. These findings suggest an entire area of new research possibilities concerning the relationship between personality characteristics and the process of identity formation. Findings in this area could clearly be relevant for psychotherapy in the young-adult population.

From a methodological perspective, the use of P-technique factor analysis to articulate the affective structure of the person yielded very promising results. This technique offers a great number of possibilities, including the comparison of affective structures of persons characterized as different personality types.

### Limitations of the Present Investigation

The generalizability of the findings of the present investigation is, of course, limited to the female college student population. Even within this sample, generalizations must be guarded due to the relatively high subject attrition rate. A related problem concerns the relatively "small" sample size, particularly in Groups 1-4. Any interpretations and generalizations concerning findings for these groups of five subjects each must be made very carefully.

Unfortunately, a high attrition rate and concomitant small sample size must be expected in studies, such as the present investigation, in which considerable effort and dedication are required from subjects. Still, it is only through such studies that an understanding of the temporal characteristics of psychological processes can be accomplished.

However, in conclusion, the investigation of mood/personality relationships appears to provide a fertile source of hypotheses for future research. The employment of multivariate methods for the assessment of personality and for the exploration of affective dimensions appears to have considerable promise. Only through such methods can the in vivo complexity of psychological functioning be approached.

## APPENDICES

APPENDIX A  
GENERAL ORIENTATION TO MOOD STUDY

## APPENDIX A

### General Orientation to Mood Study

First, let me thank you for considering participation in this mood study. Now for the details of the study. There are three parts.

PART I - Can be completed today. It consists of filling out two questionnaires. You will obtain one hour of credit today, regardless of whether you decide to participate in the entire mood study. If you do decide to participate in the mood study, sign up on the mood study sign-up sheet.

PART II - If you decide to participate in the mood study, you must sign up for PART II. PART II involves completing two perceptual tasks. You will make an appointment on the PART II sign-up sheet and go to Room 234 in the Psychology Building on the time and date you sign up for. PART II is short and requires about one-half hour. You will receive one-half hour of credit for PART II. If you cannot find a suitable time on the PART II sign-up sheet, I will arrange an individual time for you.

PART III - will involve daily ratings of your moods. I will provide you with a Mood Rating Scale (the Personal Feelings Scale) and a one-week supply of mood rating sheets (plus two "emergency copies"). Instructions for rating moods are provided on the mood rating sheets.

Review of Mood Rating Procedure - Briefly, the Personal Feelings Scale is an attempt to give you a systematic way to tell me about your feelings. They will not always fit your feelings exactly, but I want you to pick the statement in each scale that best reflects your feelings. Please be sure to complete all 16 Scales, as well as the additional information during the evening mood rating. Each day you will rate your moods three times--once in the morning--once in the afternoon--and once in the evening. You can rate your moods at your convenience, any time and place. All you must remember is to put the time and date of your rating on each rating sheet.

Your Time Commitment - The mood rating procedure is brief, and after a few days of familiarity with the scale, it will take about ten minutes per day. So, this project is not as time-consuming as it may appear.

Date and Social Security Number - Each time you receive a one-week's supply of mood rating sheets, please place your social security number on each sheet. Also, please date 7 of the sheets successively. This will help in our bookkeeping.

Experimental Credit - For each complete week of mood ratings, I will provide one hour of experimental credit. For this experiment to be successful, I will need about 33 successive days of complete mood ratings from each person. This is between 4-5 weeks of ratings. For completing the full project, you can obtain at least 6 and one-half hours of credit. If anyone desires, they can continue mood ratings for extra credit.

Since I cannot use your ratings unless there are 30+ complete days of successive mood ratings, if you begin the project you will be expected to complete at least 30 days of rating. You will not receive credit for mood ratings unless you have completed 30 days of rating. Hopefully, everyone will obtain full credit, but I must add this debit because the mood ratings cannot be used unless 30 days are completed by each person.

If you miss a mood rating, Don't panic. I realize that occasionally it will be impossible for you to complete your mood ratings. When this happens, please make a note that this has happened and fill out the mood rating as you believe you felt earlier. It is very important that this happen as seldom as possible, hopefully not more than three or four times. You will not be penalized for this. I am most concerned that your ratings are accurate.

Your Role in this Project - I also realize that this study puts considerable responsibility on you for following directions conscientiously. The success of my study totally depends on you. This experiment will rest more on a joint effort between experimenter and subject than most other psychology experiments. I believe that only in this way can we obtain accurate, meaningful information about mood. In effect, I am asking you to share a portion of your personal life with me. I promise you total anonymity concerning your disclosures. I believe that this method of learning about mood will provide a much clearer picture than what we have learned before.

Upon completing this mood project, you will receive an explanation of the study.

Turning in and picking up mood rating sheets - I will go to your PSYCHOLOGY 201 classrooms immediately following your classes on Tuesdays and Thursdays. There, I will collect completed mood rating sheets and distribute new mood rating sheets.

In case of any communications or problems, I am in my office (Room 234 Psychology Building) every day from 8th-9th period. Also, feel free to contact me at home (373-7770), after 11PM is the best time.

Thank you for your participation.

Jerome J. Tobacyk

APPENDIX B

DAILY RECORD OF PERSONAL FEELINGS

APPENDIX B

Subject Number \_\_\_\_\_

Date \_\_\_\_\_

DAILY RECORD OF PERSONAL FEELINGS

Please record "how I feel NOW" on each of the 16 mood scales. Please do this three times daily. Do your mood rating once during the morning (on pg. 1), once during the afternoon (on pg. 2), and once during the evening (on pg. 3). You may choose whatever times are convenient to rate your moods as long as you do the rating once during the morning (6AM-12 Noon), once during the afternoon (12 Noon-6PM), and once during the evening (6PM-12 Midnight). Please remember to record "how I feel NOW" and do not look at (or be influenced by) your previous mood ratings.

MORNING Mood Ratings

- |   |  |
|---|--|
| I. Fullness vs. Emptiness<br>Morning _____                  | IX. Present Work<br>Morning _____                              |
| II. Receptivity Towards World<br>Morning _____              | X. Thought Processes<br>Morning _____                          |
| III. Social Respect vs.<br>Social Contempt<br>Morning _____ | XI. Tranquility vs. Anxiety<br>Morning _____                   |
| IV. Personal Freedom vs.<br>Constraint<br>Morning _____     | XII. Impulse Expression vs.<br>Self-Restraint<br>Morning _____ |
| V. Harmony vs. Anger<br>Morning _____                       | XIII. Personal Moral<br>Judgment<br>Morning _____              |
| VI. Own Sociability vs.<br>Withdrawal<br>Morning _____      | XIV. Confidence vs. Feelings<br>of Inadequacy<br>Morning _____ |
| VII. Companionship vs.<br>Being Isolated<br>Morning _____   | XV. Energy vs. Fatigue<br>Morning _____                        |
| VIII. Love and Sex<br>Morning _____                         | XVI. Elation vs. Depression<br>Morning _____                   |

Subject Number \_\_\_\_\_

Date \_\_\_\_\_

AFTERNOON Mood Ratings

- |   |  |
|---|--|
| I. Fullness vs. Emptiness<br>Afternoon _____                  | IX. Present Work<br>Afternoon _____                              |
| II. Receptivity Towards World<br>Afternoon _____              | X. Thought Processes<br>Afternoon _____                          |
| III. Social Respect vs.<br>Social Contempt<br>Afternoon _____ | XI. Tranquility vs. Anxiety<br>Afternoon _____                   |
| IV. Personal Freedom vs.<br>Constraint<br>Afternoon _____     | XII. Impulse Expression vs.<br>Self-Restraint<br>Afternoon _____ |
| V. Harmony vs. Anger<br>Afternoon _____                       | XIII. Personal Moral Judgment<br>Afternoon _____                 |
| VI. Own Sociability vs.<br>Withdrawal<br>Afternoon _____      | XIV. Confidence vs. Feelings<br>of Inadequacy<br>Afternoon _____ |
| VII. Companionship vs.<br>Being Isolated<br>Afternoon _____   | XV. Energy vs. Fatigue<br>Afternoon _____                        |
| VIII. Love and Sex<br>Afternoon _____                         | XVI. Elation vs. Depression<br>Afternoon _____                   |

Subject Number \_\_\_\_\_

Date \_\_\_\_\_

EVENING Mood Ratings

- |   |  |
|---|--|
| I. Fullness vs. Emptiness<br>Evening _____                  | IX. Present Work<br>Evening _____                              |
| II. Receptivity Towards World<br>Evening _____              | X. Thought Processes<br>Evening _____                          |
| III. Social Respect vs.<br>Social Contempt<br>Evening _____ | XI. Tranquility vs. Anxiety<br>Evening _____                   |
| IV. Personal Freedom vs. Constraint<br>Evening _____        | XII. Impulse Expression vs.<br>Self-Restraint<br>Evening _____ |
| V. Harmony vs. Anger<br>Evening _____                       | XIII. Personal Moral Judgment<br>Evening _____                 |
| VI. Own Sociability vs. Withdrawal<br>Evening _____         | XIV. Confidence vs. Feelings<br>of Inadequacy<br>Evening _____ |
| VII. Companionship vs. Being Isolated<br>Evening _____      | XV. Energy vs. Fatigue<br>Evening _____                        |
| VIII. Love and Sex<br>Evening _____                         | XVI. Elation vs. Depression<br>Evening _____                   |

During your EVENING ratings, please complete items XVII - XXI.

- |                                   |   |
|-----------------------------------|---|
| XVII. Physical Health (check one) | XVIII. Hours of sleep last night?<br>_____ hours. |
| ___ 6. Excellent                  |   |
| ___ 5. Good                       |   |
| ___ 4. Fair                       |   |
| ___ 3. Rather Poor                | XIX. Pressure of immediate academic<br>work       |
| ___ 2. Sick                       | ___ 6. None                                       |
| ___ 1. Very Sick                  | ___ 5. Rather Light                               |
|                                   | ___ 4. Moderate                                   |
|                                   | ___ 3. Fairly Heavy                               |
|                                   | ___ 2. Very Heavy                                 |
|                                   | ___ 1. Extremely Heavy                            |

- XX. Please specify the nature and quantity of the following consumed during the last 24 hrs.: Medicines and other drugs (Will be kept confidential)

Alcohol

- XXI. Detailed comments are very valuable to us. Any observations on how you felt and why you felt that way will be appreciated. Please feel free to use the back of this page for Questions XX and XXI, or any other comments.

APPENDIX C  
INSTRUCTIONS FOR RFT

## APPENDIX C

### Instructions for RFT

S is instructed to close her eyes and is led into the testing room. S keeps her eyes closed while E seats her and reads instructions. E reads the following instructions:

"Please do not open your eyes until I tell you to do so. Do not open your eyes until I say 'Open your eyes'. In this task, I am going to show you a luminous rod which is completely enclosed by a luminous rectangular frame. I will move both the rod and the frame to different positions. Then, I will tell you to open your eyes!"

"Your task will be to set the luminous rod to true vertical--i.e., straight up and down, regardless of the initial position of both the rod and the frame. To do this, I will give you a set of hand controls. When you push the control lever forward, the rod will move clockwise; when you push the control lever backwards, the rod will move counterclockwise. Your task is to use the hand controls to set the rod to true vertical--i.e., straight up and down. When you are satisfied that the rod is adjusted to true vertical, tell me. Then close your eyes again (E must remember after each trial to inform S to close her eyes. E will inform S to open her eyes at the beginning of each trial.) Any questions?"

"OK, keep your eyes closed." Now E sets the RFT for the first trial.

APPENDIX D  
INSTRUCTIONS FOR EFT

## APPENDIX D

### Instructions for EFT

I am going to show you a series of colored designs. Each time I show you one, I want you to describe it in any way you wish. I will then show you a Simple Form contained in that larger design. You will then be given the larger design again, and your job will be to locate the Simple Form in it. Let us go through a practice trial to show you how it is done.

(The E shows the Practice Complex Figure (P-X) to S for 15 seconds. He then covers it by placing the Practice Simple Form (P) over it.) After 10 seconds he says:

"I will now show you the colored design again and you are to find the Simple Form in it. As soon as you have found the Simple Form, let me know, and start tracing the Simple Form with this stylus. When you are tracing, do not let the stylus touch the surface of the card."

(The E now exposes the Complex Figure again by removing the Simple Form and turning it over. The E now starts timing from zero. As soon as the Subject says he sees the Simple Form, E notes the time; if the S traces the Form correctly, this time is recorded on the data sheet as the solution time for the Practice item.)

After the Practice Item, E says:

"This is how we will proceed on all trials. In every case the Simple Form will be present in the larger design. It will always be in the upright position, so don't turn the card around. There may be several of the Simple Forms in the same design, but you are to find and trace only one. Work as quickly as you possibly can, since I will be

timing you, but be sure that the form you find is exactly the same as the original Simple Form in shape, size, and proportions. As soon as you have found the form, tell me at once and then start to trace it. If you ever forget what the Simple Form looks like, you may ask to see it again, and you may do so as often as you like. Are there any questions?"

APPENDIX E  
SUMMARY OF MOOD PROJECT

## APPENDIX E

### Summary of Mood Project

First, let me thank you for participating in this investigation. Without your help and your responsible rating of your moods for over thirty days, this project could not have been successful. This project, we think, will provide a very unique picture of the moods of college students through the academic year. Now for a description of the study.

Mood is conceptualized as "a generalized, reversible, affective state of greater duration than an 'emotion,' but of less stability than 'temperament'." Actually, you, and your experience, will, perhaps, provide a more meaningful definition of mood for you than my conceptual definition. You can simply view mood as what you were rating on the Personal Feeling Scales.

My interest in mood concerns how it is organized within the personality configuration of the individual. Another way of saying this is that I am interested in the relationship between affective and personality processes within the person.

I have assessed mood in relation to two personality dimensions. One personality dimension is a personality style which can be identified as field dependence-field independence (FD-FI). This dimension is measured by performance on the rod-and-frame test and embedded figures test (remember?). A person's performance on these two perceptual tasks is considered to provide a measure of FD-FI, which is considered to provide an index of a personality style. A personality style is characterized by a person's behaving similarly in a variety of areas of psychological functioning (perceptual, motivational, emotional, defensive, social areas) and similarly through a variety of situations. A personality style does not have clear "better-or-worse" implications. It is best viewed as a way in which persons differ. Thus, although a FI person may possess relatively well developed analytic abilities (not necessarily intelligence, however), the FD person may possess relatively better interpersonal (social) skills than the FI person. Thus, there are "good" and "bad" characteristics associated with each "end" of the personality style. No style is intrinsically better. Now, returning to mood, since the FI person appears to possess greater control over emotions, feelings, and thought processes than the FD person--it is expected that the FI persons may report more stable moods than the FD persons. The FD persons may be more open to their moods and, therefore, report greater mood variability.

The second personality variable that I am concerned with is Erik Erikson's notion of Ego Identity Achievement. According to Erikson, each person, ideally, progresses through a series of stages towards psychological maturity (becoming a fully functioning, independent adult). Each stage is characterized by a particular "crisis" or task which must be resolved before development toward maturity can continue. Erikson has particularly emphasized the stage of Ego Identity Achievement, which generally occurs at the end of adolescence (in college age persons). Thus, this stage is especially representative of the concerns of college age persons--emphasizing the development of a personal sense of self (independent of parents and peer

definitions), choice of vocation or life work, and choice of life style. Remember, Ego Identity Achievement represents the outcome of a stage, which, ideally, everyone achieves. However, some people achieve a sense of Ego Identity earlier than others. Thus, it is expected that, within a sample of college students, some students are closer to Identity Achievement than others at a particular time. Still, over the next few years, ideally, everyone will achieve Ego Identity. It is expected that persons who have already achieved this sense of Ego Identity (know who they are and where they are going) will report a more positive (generally higher) mood level than those who are still working through the conflict and uncertainty of identity formation. A person's status on Ego Identity Achievement was assessed by his/her scores on the two paper-and-pencil measures. These were the Ego Identity Incomplete Sentences Blank and the Identity Achievement Scale (remember?).

Another perspective in this investigation is concerned with the pattern formed by the combination of the two personality dimensions within the person. For example, it is believed that persons with a FI personality style may differ greatly in mood, depending on whether they are "high" or "low" on Ego Identity Achievement. The same is expected in the case of FD persons. We have formulated various notions and predictions concerning the relationship between mood and these personality patterns. Unfortunately, to discuss this adequately would take several pages. I will discuss it personally with those of you who desire. Let it suffice to say that this use of personality patterns emphasizes the unique personality configuration of the individual. This is something that most traditional studies do not investigate.

Another emphasis of the mood study concerns Affective Complexity-- that is, how many different moods and shadings of moods does a person experience. To find the answer to this question, each person's 33 day set of mood ratings will be factor analyzed. Factor analysis is a technique which will (hopefully) break each person's set of mood ratings into the number of mood dimensions that he/she is actually using. For example, one person may show only one large mood factor (perhaps "happy-unhappy"). For this person all of her moods, like the tide in the sea, rise and fall together. Another person may show a larger number of mood dimensions, thus, perhaps viewing the world in greater affective richness and shadings.

These are some of the ways that the mood study may be analyzed. There are many others. Rather than trying to generate more ways to view the mood study, let me close by thanking you for participating and assuring you that your assistance was the biggest asset in doing this project.

Thank you, also best wishes in the future.

APPENDIX F  
INCOMPLETE SENTENCES BLANK

APPENDIX F

INCOMPLETE SENTENCES BLANK

Name \_\_\_\_\_ Age \_\_\_\_\_ Class \_\_\_\_\_  
Marital Status \_\_\_\_\_ Date \_\_\_\_\_ Phone number \_\_\_\_\_

Complete these sentences to express your real feelings.

Please do every one. Be sure to make a complete sentence.

1. For me success would be \_\_\_\_\_  
\_\_\_\_\_
2. The difference between me as I am and as I'd like to be \_\_\_\_\_  
\_\_\_\_\_
3. When I consider my goals in the light of my family's goals \_\_\_\_\_  
\_\_\_\_\_
4. I'm at my best when \_\_\_\_\_  
\_\_\_\_\_
5. To change my mind about my feelings toward pre-marital intercourse \_\_\_\_\_  
\_\_\_\_\_
6. Sticking to one occupational choice \_\_\_\_\_  
\_\_\_\_\_
7. When I let myself go I \_\_\_\_\_  
\_\_\_\_\_
8. I chose to come to this college after \_\_\_\_\_  
\_\_\_\_\_
9. If someone were to ask me who I am, I would say \_\_\_\_\_  
\_\_\_\_\_
10. I am really convinced that \_\_\_\_\_  
\_\_\_\_\_

11. Whether I sleep with someone depends on \_\_\_\_\_  
\_\_\_\_\_
12. When I was a child, I \_\_\_\_\_,  
now I \_\_\_\_\_
13. I know that I can always depend on \_\_\_\_\_  
\_\_\_\_\_
14. (Choose only one) I am \_\_\_\_\_  
I am not \_\_\_\_\_
15. It seems as though I always \_\_\_\_\_  
\_\_\_\_\_
16. I wish I could make up my mind about \_\_\_\_\_  
\_\_\_\_\_
17. What happens to me depends on \_\_\_\_\_  
\_\_\_\_\_
18. When I consider my sexual standards and behavior in the light of my  
family's \_\_\_\_\_
19. As compared with four years ago, I \_\_\_\_\_  
\_\_\_\_\_
20. I belong to \_\_\_\_\_  
\_\_\_\_\_
21. To change my mind about feelings toward religion \_\_\_\_\_  
\_\_\_\_\_
22. If one commits oneself \_\_\_\_\_  
\_\_\_\_\_
23. My place in society \_\_\_\_\_  
\_\_\_\_\_
24. As compared to my views on sex in high school, I \_\_\_\_\_  
\_\_\_\_\_

25. If I had my choice \_\_\_\_\_  
\_\_\_\_\_
26. Ten years from now I \_\_\_\_\_  
\_\_\_\_\_
27. It makes me feel good when \_\_\_\_\_  
\_\_\_\_\_
28. Sticking to my standards on pre-marital intercourse \_\_\_\_\_  
\_\_\_\_\_

APPENDIX G  
EGO IDENTITY  
INCOMPLETE SENTENCE BLANK  
SCORING MANUAL

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SCORING MANUAL

In general:

1. Any answer indicating a commitment to one of the three major areas<sup>1</sup> is, a priori, higher than a 1.
2. Any blatantly pathological or self-derogatory statements and those containing mutually exclusive clauses are scored 1.
3. All blanks are scored 1.
4. Trivia and inappropriate humor are given a 1--except where noted in the specific question criteria.
5. When the individual sees himself as having overcome, or capable of overcoming barriers to achievement of personal goals, generally scored 3.

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<sup>1</sup>occupation, religion, politics

1. For me, success would be \_\_\_\_\_

3--In line with occupational choice.

E.g.--"realizing my ambition to be a practicing veterinarian."  
 "to obtain a degree in optometry, have a profitable practice, and a home, and a family."  
 "the achievement of a large amount of competence in my main career, namely, engineering."  
 "being a brilliant and recognized authority in my academic field."

2--Any goal involving action on the part of the individual--an emphasis on attaining--i.e., doing or getting as opposed to having or being given to.

E.g.--"fulfilling my state in life in the career I am following."  
 "in what I do, not in how much money I earn." (philo.)  
 "attainment of the Ph.D. degree and its associated prestige and status." (specific)  
 "knowing, loving, and serving God daily more and more with my wife, family, and friends."  
 "a good job with a family and enough money to support them."

1--General security and happiness--the idea that success would be "nice," but no specification of what its components might be. Or mutually exclusive clauses.

E.g.--"would be in the form of pleasure."  
 "desirous."  
 "to be superior and to be accepted by others."  
 (for most of us, mutually exclusive)  
 "an inner feeling of self-satisfaction."

2. The difference between me as I am and as I'd like to be
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3--Any indication that the difference is generally small. The answer can be somewhat trivialized (see first example) if it is meaningful in terms of the subject.

E.g.--"three quarters of college."  
 "is small."  
 "is very likely to be dissolved in time."

2--Mention of a specific trait.

E.g.--"I have potential, but lack a certain amount of drive."  
 "is that i'd like to have more strength of character  
 and security in what I am." (close to a 1)  
 "I'm not aggressive enough and don't try as hard  
 as I should in all I do."  
 "I have yet to attain success in engineering."

1--A very great discrepancy between real and ideal self.

E.g.--"is physical and personal shortcomings."  
 "I'd like to be a better person in the eyes of God."  
 "is great."

EGO IDENTITY

3. When I consider my goals in the light of my family's goals

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3--Either directly opposite to family goals with evidence of some commitment, or a difference from family's goals with commitment. Not enough to say simply: "They're different." Ideally, a 3 here would reflect a continuity--family goals transformed by the individual into his own style.

E.g.--"they do not tend to approve of my goals and thinking."  
 "they are of a higher nature than my family's."  
 "I realize that the ultimate goal is similar, although the pathway is different."  
 "I feel that they're missing a lot."

2--Some goals the same, some different, but very little evidence of firm commitment. Or indeterminate statements, such that one cannot assess whether or not a difference exists.

E.g.--"I find them somewhat the same."  
 "not much difference, but a little."  
 "I wonder if I'm aiming too high."  
 "there is no comparison." (indeterminate)  
 "I am happy and so are they." (indeterminate)  
 "I know that I have their support." (indeterminate)

1--Direct harmony, exactly the same, primarily the same.

E.g.--"they are basically the same."  
 "we end up agreeing on my family's goals."  
 "they are consistent."  
 "very similar."

EGO IDENTITY

4. I'm at my best when \_\_\_\_\_

3--Self-initiated action (i.e., doing something) or competition, or little dependence on environment, or activity in line of occupational choice.

E.g.--"I'm on my own and have sole responsibility to get a given job done."  
 "I'm doing work I enjoy."  
 "I'm talking about music." (career)  
 "I'm competing with others in the classroom or under conditions conducive to pressure."

2--When the environment shifts to suit the individual, or when there is absolutely no pressure at all.

E.g.--"my mind is clear of all worries, even trivial ones."  
 "I'm happy."  
 "I'm with my family and being alone."  
 "under a small amount of tension."  
 "I'm in familiar surroundings." (dependent on environment)

1--Either seldom "at his best" or completely dependent on external factors.

E.g.--"I've had something to drink."  
 "other people are helping me."  
 "someone tells me what should be done."

COMMITMENT

5. To change my mind about my feelings toward intercourse before marriage \_\_\_\_\_

3--Extremely difficult or impossible. A statement of firm commitment.

E.g.--"would be like running into a brick wall."  
 "not necessary."  
 "does not apply to me--I know and stick by my own feeling on this subject."  
 "I'd have to be born again and brought up differently."  
 "would take a lot because it helps two people to understand one another."

2--Might not be probable, but retains a feeling of possibility. A statement concerning the individual's own process of examining these feelings, e.g., guilt, desire, etc.

E.g.--"would require a change in me as a person."  
 "took a need to satisfy my sexual desires and an understanding of where the guilt was coming from."  
 "would have to be my decision and not someone pressuring me."  
 "is for someone to show me where danger is."

1--Would not be too difficult. Indication of changing feelings without evidence of either the process of introspection or firm commitment, described as externally determined. Does not answer question.

E.g.--"wouldn't make much difference either way."  
 "they have changed in the past years."  
 "I see nothing wrong with it." (DNAQ)

COMMITMENT

## 6. Sticking to one occupational choice \_\_\_\_\_

3--Practically unequivocal endorsement.

E.g.--"is not difficult for me--it is law."  
 "until I have determined whether or not I will  
 enjoy it is very important."  
 "is what I plan to do--teaching."  
 "suits me fine."

2--Conditional endorsement; or generally low commitment to the whole principle, or concern with difficulty of following through on it.

E.g.--"is all right if you're a success in it."  
 "is difficult to do since it demands a great deal of  
 assuredness as to one's capability of making  
 a choice."  
 "is sometimes difficult."

1--Generally negative feelings toward the idea, or very little endorsement accompanied by a tone of pessimism as to feasibility, or statement of a desire to remain uncommitted. In a 2, one may be convinced that it's a fairly good idea but can't achieve it; in a 1, one isn't so sure it's even a good idea.

E.g.--"has too much hindrance on one's personality."  
 "does not enchant me, but it will probably be necessary."  
 "is something I have not yet been able to do."  
 "can be a bad idea if the choice is poor."  
 "is all I've been brought up to think about."

EGO IDENTITY

7. When I let myself go I \_\_\_\_\_

3--Non-disastrous self-abandonment. Luxuriating in physical release.

E.g.--"have a good time and do not worry about others' thoughts and standards."  
 "enjoy almost anything that has laughter and some physical activity involved."  
 "enjoy myself more."  
 "am most apt to do well."

2--Cautiousness, or don't quite know what will happen, or have to be careful. Defensive or trivial.

E.g.--"never know exactly what I will say or do."  
 "laugh and have a good respectable time."  
 "act very silly."  
 "might be surprised since I don't remember letting myself go."  
 "don't change much from my regular self."  
 "that is, withdraw and analyze any problem or situation, I am usually able to return to it and solve it satisfactorily."

1--Go all to pieces, or dangerous, or self-destructive, or better not to.

E.g.--"think I talk too much about myself and my personal interests."  
 "sometimes say things I later regret."  
 "tend to become too loud when sober and too melodramatic when drunk."  
 "say or act in a way that is not of benefit to me or to anyone associated with me."

CRISIS

8. I chose to come to this college after \_\_\_\_\_

3--Some thought or consideration on the part of the subject went into planning. Going to a college because it offers the best training in his occupation.

E.g.--"considering others in view of what they had to offer me."

"deciding on my career."

"I found it was the best in numerical analysis."

"comparison of what costs were at OSU and other schools, taking into account my financial means."

"experiencing very little indecision."

2--An answer indicating only a chronological sequence, not an active decision. Or, some indication that there was little choice, although not entirely precluding choice. Or, more convenience.

E.g.--"deciding to take summer work and have my credits transferred to Dartmouth."

"moving to this city."

"my junior year."

"I found it was the only agriculture college in the state."

"deciding that I wasn't ready to settle into a job."

1--There was little or no choice--choice practically precluded; or subject had to, or was made to; he took little part in decision.

E.g.--"not too much consideration."

"I was rejected from other schools."

"my parents talked me into it."

"applying only to this school because I was apathetic."

9. If someone were to ask me who I am, I would say
3. (a) any answer indicating both a process of "working through" a period of uncertainty and a firm commitment.  
(b) any strong, clearly-expressed commitment to an ideology, occupation, or vocation.  
(c) ideally, the answer will emphasize both continuity-of-self and a firm occupational/vocational commitment.
  2. (a) any answer indicating a present period of "working through" a crisis, but with a positive outcome clearly implied or expected.  
(b) any answer indicating a positive ego quality.  
(c) any answer indicating continuity-of-self alone (e.g., an individual, my own person, a unique person).
  1. (a) any answer clearly reflecting confusion and uncertainty without any positive outcome expected (e.g., I wish I knew, right now I'm not really sure).  
(b) trivia or humor (e.g., me, I, myself).  
(c) any answer indicating a negative ego quality or dislike of self  
(d) S's own name (not enough information).  
(e) a student (not enough information).  
(f) overly-general or abstract (e.g., the sum total of my thoughts, actions, and feelings; one with the universe).

COMMITMENT

10. I am really convinced that \_\_\_\_\_

3--A positive statement relating to commitment in one of the three major areas--or relating directly to the concept of ego identity; or Protestant ethic type statements.

E.g.--"music is the finest career for me."  
 "success at anything is achieved mainly through hard work."  
 "my goal in life is to be with God forever."  
 "if a person tries, he can be a success on his own terms."

2--Introspective, philosophical, "searching for truth," generally positive statements but not so directly related to the three main areas or to ego identity. Statement characterizing self, but not necessarily showing ego strength--perhaps just self-esteem.

E.g.--"sex is the primary motivation in my life and a number of others' lives."  
 "most things turn out best in the end."  
 "I must work harder and develop better study habits if I am to have success in the graduate study of my choice." (more introspective than just a bald statement of the "hard work" ethic)  
 "I will someday have most of what I want." (emphasis on "having" rather than "getting")  
 "I am a far better person since coming to college."  
 "people are unaware of others' feelings."

1--Humor, trivia, or statements concerning purely external factors which signify little investment on the part of the subject.

E.g.--"Americans are growing fat, lazy, and too complacent, although Compoz seems to be needed for a few."  
 "a college education has done many good things for me."  
 "two plus two equals four."

EGO IDENTITY

11. Whether I sleep with someone depends on \_\_\_\_\_

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3--Self, and self is not seen as inadequate; expression of adherence to definite personal standards.

E.g.--"whether I love this person and am involved in a total relationship, not just sexual."

"how horny I am."

"whether I'm married to them."

"how I feel about them."

"how much I care for the person and how much he cares for me, because I wouldn't sleep with anyone unless I loved him."

2--Others and self; also if self is seen as inadequate; indication of process of formulating personal standards.

E.g.--"the person and I."

"circumstances--like his or her attractiveness, my degree of hornyness, the time of day, the location, how I feel about myself, how I feel about them."

"how comfortable they make me feel with them--how comfortable I allow myself to feel with someone."

"if I love them and need them, and if they love and need me."

1--External factors; the other person.

E.g.--"whether or not they let me."

"who they are and what they can do."

"who the person is and how he feels towards me."

"the situation and how it presents itself to me."

EGO IDENTITY

12. When I was a child, I \_\_\_\_\_; whereas, now I \_\_\_\_\_

3--Strong change in overall personality; or a reformulation in adult terms of childhood antecedents; or change in one of the three major areas.

E.g.--"was a babe in arms"--"am a father and a teacher with many babes in arms."

"very timid"--"reserved and respond when necessary."  
(adult form of childhood antecedent)

"took religion more or less seriously"--"find belief in God truly necessary."

2--Change in most any specific trait, e.g., in personality or body image.

E.g.--"fatter than I am now"--"not as fat."

"was lonely"--"I am not."

"not as aware of reality"--"I am."

1--Trivial or stereotyped. Also, no change, or negative change.

E.g.--"played in the sandbox"--"no longer do."

"thought about everything"--"like to do the same."  
(no change)

"thought as a child"--"am a man and I think as a man."  
(stereotyped)

"little and insecure"--"big and insecure."  
(negative change)

"spent money too freely"--"know better, but still tend to do the same thing." (no change)

"was pretty optimistic"--"now I feel more of a pessimist, with less self-confidence."

EGO IDENTITY

13. I know that I can always depend on \_\_\_\_\_

3--Self

E.g.--"my own self, then maybe my aunt, then possibly  
my mother."

"my mind and diligence to surmount any barrier."

"my reflexes to get me out of a hard situation."

2--Others, if I do my part.

E.g.--"myself and my parents."

"nothing except books. They will always 'respond'  
if you demand it of them." (questionable)

"the good will of others, if I treat them right."

1--Others solely, or no one, or trivia.

E.g.--"on my Army commission for security in the future."

"God, when I am down or troubled."

"Columbus weather to change."

"my parents."

COMMITMENT

14. (choose one) a. I am \_\_\_\_\_  
 b. I am not \_\_\_\_\_

3--Choice of a. (excluding trivia) A positive statement indicating ego strength in the form of a self-characterization, or a statement of commitment to one of the three major areas.

E.g.--"the right type of person to go into my chosen vocation."  
 "determined to be a successful veterinarian."  
 "happy to be a fireman in Ashville."

2--Choice of either a. or b. If a., a much more limited self-description, perhaps related to imminent direct action or to future activity outside of the three main areas; or mention of a singular personal trait or hobby; or any searching, introspective, philosophical answer, or any generalized positive ego quality. If b., must be a fairly positive statement about self in order to get a 2.

E.g.--"anxious to get married."  
 "going to raise my children in a Christian home."  
 "inclined to think carefully before acting."  
 "an amateur radio operator."  
 "a realistic perfectionist."  
 b. "hard to get along with."  
 a. "enjoying life very much."

1--Choice of b. unless quite positive as noted in 2; or trivia or pathological answers.

E.g.--"entirely pleased with what I have made of my life up until the present."  
 "sure I will be able to finish school."  
 "as grateful as I should be."  
 a. "6-9" tall."  
 b. "living a waiting existence."  
 a. "pretty insecure at times."  
 a. "a person."

EGO IDENTITY

15. It seems I've always \_\_\_\_\_

3--Statement reflecting self-initiative or commitment in one of three main areas.

E.g.--"done everything on my own with little advice from anyone."

"wanted to be a teacher."

"been able to make friends."

"been given a chance and it's up to me to do something with it."

"been happy with my religion."

2--Introspective, yet not negative self-evaluation; also, vague commitment.

E.g.--"been a perfectionist."

"wanted to go to college."

"had a desire to travel."

1--Negative self-evaluation or trivia, or responses indicating a conflict.

E.g.--"tended to make life difficult for myself--been my own worst enemy."

"been inhibited from reacting to certain things."

"wanted to be liked and respected, yet wanted to be a leader." (some conflict)

"run out of time for things to be done."

COMMITMENT

16. I wish I could make up my mind about \_\_\_\_\_

3--Specific goal-directed issues--unless trivial.

E.g.--"being a full-time fireman or making use of my  
education in industry."  
"what to do about the girl I'm dating."  
"my college choice for law school."  
"sticking through the hard requirements of my  
career choice or picking an easier one."

2--More broad philosophical questions, weltanschauung and  
weltschmerz, introspective.

E.g.--"sex."  
"what is really important in life to me."  
"my true vocation."  
"the mentality of the average person and what he is  
like."  
"my religious life."

1--Either nothing to very many things; or trivia.

E.g.--"buying a new car."  
"where I want to go on my vacation."  
"nothing, really."  
"when I want to move into my own apartment."  
"everything, because I have trouble making  
decisions about everything."

EGO IDENTITY

17. What happens to me depends on \_\_\_\_\_

3--Self, and self is not seen as inadequate.

E.g.--"how well I adjust to the world."  
 "what I do with situations as they confront me."  
 "my ability to make correct decisions."  
 "my school work and my ability to learn outside  
 of school."  
 "how I feel at the moment."  
 "opportunities I can come up with for myself."

2--Others and self; also, if self is seen as inadequate.

E.g.--"my desires, God's plan, and surmountable obstacles."  
 "on me, and to some extent, society."  
 "my maturity, as yet, not developed extensively."  
 "my actions and the cooperation or lack of cooperation  
 of my associates."  
 "my grades in college and whether or not I'm accepted  
 at vet school."  
 "my reaction to others and my surroundings."

1--External factors.

E.g.--"time."  
 "fate."  
 "my days in college."  
 "what God wants to happen."

EGO IDENTITY

18. When I consider my sexual standards and behavior in the light of my family's \_\_\_\_\_

3--Either directly opposite to family standards with evidence of some commitment, or a difference from family's standards with commitment. Not enough to say simply: "They're different." Ideally, a three would reflect a continuity with family standards transformed by the individual into his own style.

E.g.--"I am more liberal."  
 "it is good for me not them."  
 "differ in polar like ways. I am more open and free.  
 In other ways I am more rigid and conservative."  
 "they are much freer."

2--Some same, some different but very little evidence of firm commitment, or indeterminate statements such that one can't assess whether or not a difference exists.

E.g.--"mine are more liberal than mother's, but probably the same as my father's and brother's."  
 "they are different."  
 "I wonder what they think about it."

1--Exactly the same, direct harmony.

E.g.--"I'd say we're equal."  
 "I think we must think alike because my parents had six kids."  
 "I really want to caution myself in how to act with sexual behavior in the path of my family."  
 "they both seem about the same."

CRISIS

19. As compared with four years ago, I \_\_\_\_\_

3--Change in occupational plans or future goals.

E.g.--"am much more mature and dedicated to my goals."  
 "have improved in my knowledge of earthly  
 and spiritual goals."  
 "I've consolidated my goals and made them seem  
 a little more realistic."

2--Change in an area of personality or non-specified change,  
 or general maturity increased.

E.g.--"feel more sure of self, more able to make  
 correct decisions."  
 "am wiser, more settled, more mature and understanding,  
 can think more objectively."  
 "more realistic, and, I think, more intelligent."

1--Not much different now than then. Also attempts at humor  
 and trivia.

E.g.--"am the most evil of evil."  
 "haven't changed much."  
 "have put on some weight."  
 "find that my moral standards have not changed."

EOG IDENTITY

20. I belong to \_\_\_\_\_

3--Specific group mentioned, or strong group feeling.

E.g.--"a Protestant church."  
 "the numerical computation lab."  
 "my fiancee, my parents, the Caucasian race, and  
 the Presbyterian Church."  
 "the Ashville fire department, the Ashville Community  
 Club, and the Kiwanis--and I am proud of all these."

2--Non-specific mention of group, or endorsement of group  
 affiliation.

E.g.--"to my family and then society."  
 "nothing, but will join an organization of my own  
 volition."  
 "the conformist society, although I'd much rather  
 be a sensible individualist."  
 "a fine group of people."  
 "as many organizations as I can, without doing too  
 much work."

1--No one (alienation), one person, or trivia.

E.g.--"Carole."  
 "no one crowd or click (sic) but have friends of  
 many different backgrounds."  
 "few organizations."  
 "God."  
 "no one but those to whom I want to belong to."  
 "a mutual admiration society."  
 "me."

COMMITMENT

21. To change my mind about my feelings toward religion\_\_\_\_\_

3--Extremely difficult or impossible.

E.g.--"would require a terrific amount of convincing  
by some authority."  
"would be difficult."  
"is impossible."  
"would take a major influence."  
"would require intensive study in religion."

2--Might not be probable, but retains a feeling of possibility.

E.g.--"would be somewhat difficult unless a convincing  
argument is presented."  
"I would have to find a better one."  
"is not hard to do, but I keep going back to  
the religion I started with."

1--Would not be too difficult.

E.g.--"seems a logical thing to do if my inner belief  
changes."  
"I would have to know something about religious  
beliefs."  
"is something I'd be likely to do."  
"by reading articles."

COMMITMENT

22. If one commits oneself \_\_\_\_\_

3--Personal endorsement of the principle, a feeling that one must fulfill commitment.

E.g.--"he should finish the task."

"he should follow that path until he finds barriers, at which time he should challenge the barriers or pursue another course."

"he should follow through."

2--There still remain some loopholes, or dubious endorsement of the principle, or cautiousness.

E.g.--"one must know oneself."

"and firmly believes he is right (using the knowledge he has), I think he should force on. Of course, when circumstances change, he should change."

"he should have made certain beforehand he was correct."

"he should never be so proud that he won't change his expressed opinion if proven wrong."

1--Disasterous, or a better idea not to.

E.g.--"then he isn't free to change his mind when he wants to."

"then he's stuck with his choice."

"then he's liable to miss a lot of opportunities."

"it's usually because they have a strong belief."

(DAQ)

EGO IDENTITY

23. My place in society \_\_\_\_\_

3--An answer reflecting some knowledge of individual's position or role and some active commitment to it.  
Cog-wheeling. Contribution.

E.g.--"is in the lower middle class and I hope to raise my status through a college education."  
"is in the technical fields such as math, physics, etc."  
"is to help others."  
"is to get a good education and to use it to further my knowledge of my field."  
"to develop my capabilities without worrying about sex discrimination."

2--In definite opposition to society or indeterminate or no particular contribution mentioned. Also, any assertion that the individual can make it what he wants to.

E.g.--"is presently mobile."  
"is in the upper middle class."  
"wavers between that of a critic and that of an acceptor."  
"where I make it."  
"is not very large, but it's still important."  
"is above the masses. I am more intelligent and have more potential."

1--Pre-determined, individual plays no part, or doesn't really belong anywhere. Lack of social conscience.

E.g.--"is not what it should be."  
"has not been revealed yet."  
"probably much smaller than I like to think."  
"is to better my own position and what I contribute to society is incidental."  
"is questionable."

CRISIS

24. As compared to my views on sex in high school, I \_\_\_\_\_

3--Marked change or well specified change in sexual behavior or feelings.

E.g.--"have changed quite a bit, I was pretty puritanical."

"am more at ease and understand it."

"have become less aggressive, enjoy the moments I do have with those I feel for."

"have changed drastically."

"more aware of what is involved and more tolerant of what is acceptable."

2--Non-specific change in sexuality such as "more conservative" or "more liberal"; generally more mature sexually.

E.g.--"I know better than I did."

"I am probably more conservative."

"am able to be more free in expressing my view."

1--Not much different now than then. Does not answer the question.

E.g.--"have relatively kept the same morals; if anything they are stricter."

"I haven't changed much except that I now accept my bisexual feelings."

"really think that it is each person's own opinion."  
(DNAQ)

"I have not changed."

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COMMITMENT

25. If I had my choice \_\_\_\_\_

3--Occupation or career-oriented positive statement; also realistically positive statement about self, or making reasonable changes in world.

E.g.--"I would rather have my DVM than a Ph.D. in anything."  
"I would do things as I have."

2--Career or self-oriented but unrealistic or with regrets over past. Or philosophical statements.

E.g.--"I might have entered medicine."  
"I would not change anything I have done so far in life or plan to do in the future." (unreal)  
"I would always choose what is good and right."  
"I would finish college as soon as possible."  
"I would like to stay in school for more than four years."

1--A disavowal of having any choice. Or trivial statements.

E.g.--"I have no choice, my events are determined."  
"I'd buy a new Buick."  
"I would vote for Romney instead of Goldwater."  
"I would live in a warm climate such as S. California or Hawaii."  
"I would be playing golf now."  
"I would remain unmarried." (anti-commitment)  
"I would travel."

COMMITMENT

26. Ten years from now, I \_\_\_\_\_

3--Fairly well established occupational plans--mention of occupation--realistic.

E.g.--"hope to be established in a community practicing veterinary medicine."  
 "expect to be a successful engineer."  
 "will be teaching school."

2--Ideals of what "the good life" would be without specifying occupational role. More fantasy-oriented.

E.g.--"would like to hold an executive position in a large corporation."  
 "hope to have settled in the community, have a good job, have a family, and be able to enjoy the riches of life."  
 "hope to be doing my share in the world where I have been blessed to live."  
 "hope I will be capable of settling down with one woman."  
 "should be married."  
 "should be a wife and mother."

1--Pessimistic, trivial, or doesn't know.

E.g.--"shall still be unhappy."  
 "will be 34."  
 "don't know where I will be or what I will be doing."

EGO IDENTITY

27. It makes me feel good when \_\_\_\_\_

3--Self-initiated action. Self is the center of gravity in evaluation.

E.g.--"I know I'm learning."

"I look back on the progress I have made in life."

"I do something that someone else has failed or something that helps me attain what I want."

"I am praised for things I consider worthy or praise."

2--Not directly self-involved, or when the environment works out the right way, or vague accomplishment, or when others do things for themselves.

E.g.--"I think of Dr. \_\_\_\_\_ and hope someday I, too, will be a success as he is."

"I think of all the nice things that can happen in a lifetime."

"I please other people and myself."

"people put out extra effort to accomplish what they strive for."

"I am with friends, talking and laughing."

1--Other-centered, others are central to evaluation of self.

E.g.--"the female of the species tells me I have sex appeal."

"I know that people think favorably of me."

"I can be with my fiancée and know that she loves me."

COMMITMENT

28. Sticking to my standards on intercourse before marriage\_\_\_\_\_

3--Practically unequivocal endorsement of adhering to standards or strong assertion of standards.

E.g.--"is part of the way I live my life."  
 "is a very sure thing that I don't intend to change."  
 "I am really against it." (SAS)  
 "is not difficult for me."

2--Conditional endorsement; or generally low commitment to the whole principle, or concern with difficulty of following through on it. Statement of standards with commitment indeterminate.

E.g.--"there must be feeling (love, friendship) before there can be good sex--but it's not taboo."  
 "would entail having someone to stick to them with me."  
 "it's O.K., but when you get married and have kids that's the time to be concerned."  
 "I will not marry--intercourse with someone I care for (love?)."  
 "I think it is right for some people."  
 "it's O.K. when you feel very deeply for the person."

1--Generally negative feeling toward the idea, or very little endorsement accompanied by a tone of pessimism as to feasibility, or statement of a desire to remain uncommitted. In a 2, one may be convinced it is a fairly good idea but can't achieve it; in a 1, one isn't so sure it's even a good idea.

E.g.--"may or may not be the same over any period of time."  
 "I feel love is with everyone until one finds the everyone."

APPENDIX H

PERSONAL PREFERENCES FOR COMPLETING SENTENCES

## APPENDIX H

## PERSONAL PREFERENCES FOR COMPLETING SENTENCES

NAME \_\_\_\_\_

Below you will find a number of incomplete sentences followed by two possible completions. Select the completion which best fits the answer you would give, were you trying to express your true feelings. Mark your answer by putting an X through the letter of the completion you prefer.

1. When I let myself go I
  - A. sometimes say things I later regret.
  - B. have a good time and do not worry about others' thoughts and standards.
2. If one commits oneself
  - A. he should follow through.
  - B. he should have made certain beforehand he was correct.
3. For me, success would be
  - A. the achievement of a large amount of competence in my main career.
  - B. a good job with a family and enough money to support them.
4. Sticking to one occupational choice
  - A. does not enchant me, but will probably be necessary.
  - B. is sometimes difficult.
5. It makes me feel good when
  - A. I look back on the progress I have made in life.
  - B. I can be with my friends and know they approve of me.
6. To change my mind about my feelings toward religion
  - A. I would have to know something about religious beliefs.
  - B. would require a terrific amount of convincing by some authority.
7. I'm at my best when
  - A. I'm on my own and have sole responsibility to get a given job done.
  - B. my mind is clear of all worries, even trivial ones.
8. When I let myself go I
  - A. don't change much from my regular self.
  - B. think I talk too much about myself.
9. I am
  - A. not as grateful as I should be.
  - B. not hard to get along with.
10. Getting involved in political activity
  - A. is as futile as necessary.
  - B. doesn't appeal to me.
11. When I consider my goals in the light of my family's goals
  - A. they are basically the same.
  - B. I feel that they are missing a lot.
12. If one commits oneself
  - A. one must know oneself.
  - B. then he's liable to miss a lot of opportunities.
13. For me, success would be
  - A. in what I do, not in how much money I earn.
  - B. to be accepted by others.
14. If I had my choice
  - A. I would live in a warm climate such as Southern California or Hawaii.
  - B. I would do things as I have.
15. It seems I've always
  - A. wanted to go to college.
  - B. held back from reacting to certain things.

16. Sticking to one occupational choice
  - A. does not enchant me, but it will probably be necessary.
  - B. suits me fine.
17. It makes me feel good when
  - A. I can be with my friends and how they approve of me.
  - B. I think of all the good things that can happen in a lifetime.
18. When I let myself go I
  - A. have a good time and do not worry about others' thoughts and standards.
  - B. never know exactly what I will say or do.
19. To change my mind about my feelings toward religion
  - A. is not hard to do, but I keep going back to the religion I started with.
  - B. would require a terrific amount of convincing by some authority.
20. The difference between me as I am and as I'd like to be
  - A. is very likely to be dissolved in time.
  - B. is that I have potential, but lack a certain amount of drive.
21. I know that I can always depend on
  - A. the good will of others, if I treat them right.
  - B. my mind and diligence to surmount my barrier.
22. If one commits oneself
  - A. one must know oneself.
  - B. he should finish the task.
23. For me, success would be
  - A. being a recognized authority in my chosen field.
  - B. to be accepted by others.
24. When I let myself go I
  - A. never know exactly what I will say or do.
  - B. am most apt to do well.

APPENDIX I  
PERSONAL FEELING SCALES

## APPENDIX I

### Wessman and Ricks Personal Feelings Scales

#### PERSONAL FEELING SCALES

- I. Fullness vs. Emptiness of Life (how emotionally satisfying, abundant or empty, your life felt today)
  9. Consummate fulfillment and abundance.
  8. Replete with life's abundant goodness.
  7. Filled with warm feelings of contentment and satisfaction.
  6. My life is ample and satisfying.
  5. Life seems fairly adequate and relatively satisfying.
  4. Some slight sense of lack, vague and mildly troubling.
  3. My life seems deficient, dissatisfying.
  2. Life is pretty empty and barren.
  1. Desolate, drained dry, impoverished.
  0. Gnawing sense of emptiness, hollowness, void.
  
- II. Receptivity towards and Stimulation by the World (how interested and responsive you felt to what was going on around you)
  9. Passionately absorbed in the world's excitement.  
My sensations and feelings incredibly intensified.
  8. Tremendously stimulated. Enormously receptive.
  7. Senses lively. Great interest and delight in everything around me.
  6. Open and responsive to my world and its happenings.
  5. Moderately interested and fairly responsive.
  4. Slightly disinterested and unresponsive.
  3. Bored. Life pretty monotonous and uninteresting.
  2. Dull and apathetic. Almost no interest or desire for anything.
  1. Mired down in apathy. My only desire to shut out the world.
  0. Life is too much trouble. Sick of everything, want only oblivion.
  
- III. Social Respect vs. Social Contempt (how you felt other people regarded you, or felt about you today)
  9. Excite the admiration and awe of everyone who matters.
  8. Stand extremely high in the estimation of people whose opinions count with me.
  7. People I admire recognize and respect my good points.
  6. Confident that some people think well of me.
  5. Feel I am appreciated and respected to some degree.
  4. Some people don't seem to see much value in me.
  3. I am looked upon as being of small or of no account.
  2. People have no respect for me at all.
  1. I am scorned, slighted, pushed aside.
  0. Everyone despises me and holds me in contempt.

- IV. Personal Freedom vs. External Constraint (how much you felt you were free or not free to do as you wanted)
9. Absolutely free to consider and try any new and adventure-some prospect.
  8. Independent and free to do as I like.
  7. Ample scope to go my own way.
  6. Free, within broad limits, to act much as I want to.
  5. Can do a good deal on my own initiative and in my own fashion. No particularly restrictive limitations.
  4. Somewhat constrained and hampered. Not free to do things my own way.
  3. Checked and hindered by too many demands and constraints.
  2. Hemmed in, cooped up. Forced to do things I don't want to do.
  1. Trapped, oppressed.
  0. Overwhelmed, smothered. Can't draw a free breath.
- V. Harmony vs. Ander (How well you got along with, or how angry you felt towards other people)
9. Boundless good will and complete harmony.
  8. Enormous good will and great harmony.
  7. Considerable good will.
  6. Get along well and rather smoothly.
  5. Get along pretty well, more or less good feeling.
  4. A little bit annoyed, somewhat "put out." Minor irritations.
  3. Annoyed, irritated, provoked.
  2. Very angry. Ill will.
  1. Enraged. See things with anger and hostility.
  0. Violent hate and fury. Desire to attack, destroy.
- VI. Own Socialability vs. Withdrawal (how socially outgoing or withdrawn you felt today)
9. Immensely sociable and outgoing.
  8. Highly outgoing, congenial and friendly.
  7. Very sociable and involved in things.
  6. Companionable. Ready to mix with others.
  5. Fairly sociable. More or less accessible.
  4. Not particularly outgoing. Feel a little bit unsociable.
  3. Retiring would like to avoid people.
  2. Feel detached and withdrawn. A great distance between myself and others.
  1. Self-contained and solitary.
  0. Completely withdrawn. Want no human contact.
- VII. Companionship vs. Being Isolated (the extent to which you felt emotionally accepted by or isolated from other people)
9. Complete participation in warm, intimate friendship.
  8. Enjoy the warmth of close companionship.
  7. Thoroughly and genuinely liked.
  6. Feel accepted and liked.

5. More or less accepted.
4. Feel a little bit left out.
3. Feel somewhat neglected and lonely.
2. Very lonely. No one seems to care much about me.
1. Tremendously lonely. Friendless and forlorn.
0. Completely isolated and forsaken. Abandoned. Ache with loneliness.

VIII. Love and Sex (the extent to which you felt loving and tender, or sexually frustrated and unloving)

9. Feel the rapture of full, joyous, and complete love.
8. Tremendous gratification, delight, love, and trust.
7. Warm sharing of intimacy and affection.
6. Pleasant companionship and some affection. Sharing interests and good times.
5. Fairly satisfying experiences or expectations. Some mutual interest and understanding.
4. Not much feeling of mutual understanding. Some lack of interest. Slightly frustrated.
3. Little feeling of relationship. Considerable indifference. Moderately frustrated.
2. Feel unable to maintain good relationships. Unloved. Much frustration.
1. Hurt, bewildered, incapable of loving or being loved. Vast amount of frustration.
0. Hopeless, cold, unloved and unloving.

IX. Present Work (how satisfied or dissatisfied you were with your work)

9. Tremendous, intense delight in my work. Proud of my purpose, skill, and accomplishment.
8. Great pleasure and enjoyment in my work. Much fulfillment through work.
7. Considerable satisfaction with my work. Eager to continue.
6. Satisfied with my work. Encouraged to go on with it.
5. More or less satisfied with my work. Keep plugging along.
4. Somewhat dissatisfied with my work. Not much enjoyment doing it.
3. Dissatisfied with my work. Can't see much good in it. Moderately frustrated.
2. Greatly dissatisfied with my work. Not doing a good job. Markedly frustrated.
1. Tremendously dissatisfied and frustrated in my work. Befuddled. Disorganized.
0. Completely dissatisfied and frustrated in my work. Hopeless, useless chaos.

X. Thought Processes (how readily your ideas came and how valuable they seemed)

9. I am a surging torrent of spectacular insights.
8. Brilliant penetrating ideas emerging spontaneously and with great rapidity.

7. Ideas coming quickly and effortlessly.
6. Clever and keen.
5. Quite alert. Thoughts fairly quick and clear.
4. Not particularly alert. My ideas trivial and commonplace.
3. My mind feels ponderous and dull. My thoughts are slow and monotonous.
2. My thoughts all seem weary, stale, flat, and unprofitable.
1. My mind is stagnant. Almost nothing freshens it.
0. My mind is cold, dead. Nothing moves.

XI. Tranquility vs. Anxiety (how calm or troubled you felt)

9. Perfect and complete tranquility. Unshakably secure.
8. Exceptional calm, wonderfully secure and carefree.
7. Great sense of well-being. Essentially secure, and very much at ease.
6. Pretty generally secure and free from care.
5. Nothing particularly troubling me. More or less at ease.
4. Somewhat concerned with minor worries or problems. Slightly ill at ease, a bit troubled.
3. Experiencing some worry, fear, trouble, or uncertainty. Nervous, jittery, on edge.
2. Considerable insecurity. Very troubled by significant worries, fears, uncertainties.
1. Tremendous anxiety and concern. Harassed by major worries and fears.
0. Completely beside myself with dread, worry, fear. Overwhelmingly distraught and apprehensive. Obsessed or terrified by insoluble problems and fears.

XII. Impulse Expression vs. Self-Restraint (how expressive and impulsive or internally restrained or controlled, you felt)

9. Wild and complete abandon. No impulse denied.
8. Exhilarating sense of release. Say whatever I feel and do just as I want.
7. Quick to act on every immediate desire.
6. Allowing my impulses and desires a pretty free rein.
5. Moderate acceptance and expression of my own needs and desires.
4. Keep a check on most whims and impulses.
3. On the straight and narrow path. Keeping myself within strong bounds.
2. Obeying rigorous standards. Strict with myself.
1. Refuse to permit slightest self-indulgence or impulsive action.
0. Complete renunciation of all desires. Needs and impulses totally conquered.

XIII. Personal Moral Judgment (how self-approving, or how guilty, you felt)

9. Have a transcendent feeling of moral perfection and virtue.
8. I have a sense of extraordinary worth and goodness.
7. In high favor with myself. Well up to my own best standards.

6. Consider myself pretty close to my own best self.
5. By and large, measuring up to most of my moral standards.
4. Somewhat short of what I ought to be.
3. I have a sense of having done wrong.
2. Feel that I have failed morally.
1. Heavy laden with my own moral worthlessness.
0. In anguish. Tormented by guilt and self-loathing.

XIV. Self-Confidence vs. Feelings of Inadequacy (how self-assured and adequate, or helpless and inadequate, you felt)

9. Nothing is impossible to me. Can do anything I want.
8. Feel remarkable self-assurance. Sure of my superior powers.
7. Highly confident of my capabilities.
6. Feel my abilities sufficient and my prospects good.
5. Feel fairly adequate.
4. Feel my performance and capabilities somewhat limited.
3. Feel rather inadequate.
2. Distressed by my weakness and lack of ability.
1. Wretched and miserable. Sick of my own incompetence.
0. Crushing sense of weakness and futility. I can do nothing.

XV. Energy vs. Fatigue (how energetic, or tired and weary, you felt)

9. Limitless zeal. Surging with energy. Vitality spilling over.
8. Exuberant vitality, tremendous energy, great zest for activity.
7. Great energy and drive.
6. Very fresh, considerable energy.
5. Fairly fresh. Adequate energy.
4. Slightly tired, indolent. Somewhat lacking in energy.
3. RATHER tired. Lethargic. Not much energy.
2. Great fatigue. Sluggish.
1. Tremendously weary. Nearly worn out and practically at a standstill. Almost no resources.
0. Utterly exhausted. Entirely worn out. Completely incapable of even the slightest effort.

XVI. Elation vs. Depression (how elated or depressed, happy or unhappy, you felt today)

9. Complete elation. Rapturous joy and soaring ecstasy.
8. Very elated and in very high spirits. Tremendous delight and buoyancy.
7. Elated and in high spirits.
6. Feeling very good and cheerful.
5. Feeling pretty good, "O.K."
4. Feeling a little bit low. Just so-so.
3. Spirits low and somewhat "blue."
2. Depressed and feeling very low. Definitely "blue."
1. Tremendously depressed. Feeling terrible, miserable, "just awful."
0. Utter depression and gloom. Completely down. All is black and leaden.

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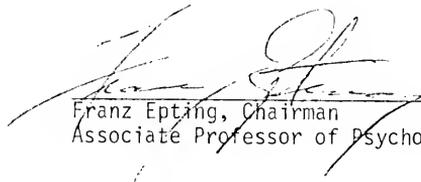
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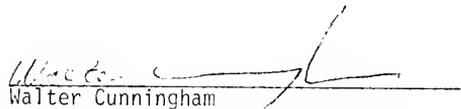
#### BIOGRAPHICAL SKETCH

Jerome John Tobacyk was born in Auburn, New York on December 2, 1948. He graduated from Auburn Central High School in June, 1966 and received the A.A. degree from Auburn Community College in June, 1968. In June, 1970, he received the B.A. degree from SUNY at Oswego in Oswego, New York. He began graduate study in personality psychology at the University of Florida in the Fall, 1972, receiving the M.A. in Spring, 1975. During the 1973-74 academic year he studied at the Adam Mickiewicz University in Poznan, Poland. After receiving the Ph.D. he plans a career of teaching and research in psychology.

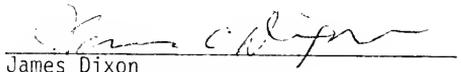
I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

  
\_\_\_\_\_  
Franz Epting, Chairman  
Associate Professor of Psychology

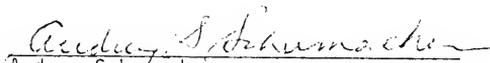
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\_\_\_\_\_  
Walter Cunningham  
Assistant Professor of Psychology

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

  
\_\_\_\_\_  
James Dixon  
Professor of Psychology

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

  
\_\_\_\_\_  
Audrey Schumacher  
Professor of Psychology

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

*William Ware*

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William Ware  
Associate Professor of Foundations  
of Education

This dissertation was submitted to the Department of Psychology in the College of Arts and Sciences and to the Graduate Council, and was accepted as partial fulfillment of the requirements for the degree of Doctor of Philosophy.

December, 1977

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