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A Study of the Relationship between Subjective Mental Health and Psychological Maturity

Carol Fuchs Kaufman

Loyola University Chicago

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A STUDY OF THE RELATIONSHIP BETWEEN SUBJECTIVE
MENTAL HEALTH AND PSYCHOLOGICAL MATURITY

by

Carol Fuchs Kaufman

A Dissertation Submitted to the Faculty of the Graduate School
of Loyola University of Chicago in Partial Fulfillment
of the Requirements for the Degree of
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1989
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Dr. McAdams served me well as chairman, knowing when too be supportive and when to let me struggle on my own. I am inspired by his approach to the study of the human personality. He appears undaunted by the complexity of the topic, so he is able to retain what is unique in the individual while describing what is more general in the specie. Dr. Bryant, with his expertise on the topic of subjective mental health, was a true mentor. Dr. Rupert was most helpful for her contribution as a female researcher. She made me sensitive to certain issues as well as provided me with a role model for the development of my identity as a woman scientist.

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to be the subjects for this study. Their sincerity and selfless contribution of being and time were gifts I cherish.

Thank you to my family for never making me feel that becoming a psychologist made me less of a wife and mother. I am also grateful for a lesson both my parents taught me which has served me well. If you want something badly enough and you are willing to work very hard to achieve it, almost nothing is impossible.
VITA

The author, Carol Fuchs Kaufman, is the daughter of Eva (Feldman) Fuchs and the late Sam Fuchs. She was born December 12, 1937 in the Bronx, New York but she spent her childhood in Kinston, North Carolina.

She graduated from Miami Beach High School in 1955 and attended Brandeis University in Waltham, Massachusetts where she was on the Dean's List during her four semesters of attendance. She transferred to Barnard College, Columbia University, receiving the degree of Bachelor of Science in Sociology in January 1960.

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Publications include work done with Dr. Ian Brockington on a schedule for rating lifetime psychopathology which is scheduled for publication in iv
psychopathology which is scheduled for publication in the Archives of General Psychology. Also, a study conducted with a fellow student, Dr. Francine Rattenbury, on associative disturbance in serious psychopathology was published in the Journal of Consulting and Clinical Psychology in 1983.

In December, 1957, Ms. Kaufman married Mr. Gerald Samuel Kaufman. They are the parents of three sons, one daughter, one son-in-law, and one granddaughter.
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INTRODUCTION

Study of the human life cycle comes ultimately to address the issue of optimal development. Which behaviors are more desirable or preferred? In theories of personality development this optimal or preferred level is called psychological maturity. To cite but one example, Maslow (1954), described maturity in terms of the self-actualized person; that person, who after satisfying basic needs for safety, went on to actualize the potential for psychological growth which Maslow proposed existed in every person.

Maturity has been a subject of increasing investigation since psychology recognized the importance of looking at development across the life span. The subject is very complex. Saul and Pulver (1965) pointed out the problems of values in defining maturity. Does the definition refer to traits highly valued by the particular author or culture or does the definition refer to an inherent growth pattern? In this latter sense, maturity is seen as the end stage of a process of development and the issue becomes one of assessing how fully this process of development has unfolded. But is it possible for even this latter conception to be value free?
Saul and Pulver also stressed the importance of environmental issues. Developmental theory must consider the role of process or development in a place. Maturity becomes possible in the course of events played out when individuals interact with their internal and external environments.

Neugarten (1979) addressed the complexity of life span research when she stated that the psychological realities of adults cannot be understood by projecting forward the issues important in childhood. New ways of understanding psychological development must be used. Also, according to her research, stages of development must be viewed "fluidly" because of the diversity of human experience.

A review of the literature reveals both semantic and conceptual confusion relating to maturity. Since psychology cannot define normal human behavior with exactness, it has not been possible to define what is optimal functioning. As Saul and Pulver said,

In articles specifically dealing with maturity, it is rare that the author clearly defines which concept he is using or even gives sufficient information to determine whether his criteria are based on clinical observations or simple philosophizing (p. 236).

Despite these problems, we hold that maturity is desirable. Most people measure their own in terms of
their life situation and their feelings about themselves. The general question of "What is the course of optimal psychological development?" for the individual becomes "Do I have the ability to cope with the demands of my life and what tomorrow holds for me? Am I happy or satisfied with myself and/or my circumstances?" These subjective assessments of optimal development are generally referred to as assessments of subjective well-being.

Subjective well-being has also been the focus of much study. The major finding of recent research is that it is not a unitary trait. Beginning with Bradburn and Caplovitz's work (1965), it is now recognized that subjective well-being is composed of cognitive factors and positive and negative affects. But researchers differ on which cognitive factors and which affects.

A social psychological approach managed to avoid the problems inherent in the lack of an exact definition of subjective well-being by correlating various environmental or demographic indicators with elements of well-being. Larson (1978) did an extensive review of such factors as age, sex, education, income and marital status. His work yielded several
interesting findings. First, much of the variance found in assessing well-being cannot be explained by assessing the effects of these demographic variables. Additional explanations must be found. Of the demographic variables studied, physical health was the most consistent predictor of subjective well-being, followed by socioeconomic factors and social interactions. Also, it appeared that the effects of demographic variables were cumulative. For example, negative factors such as poor health or low income created a greater vulnerability to the impact of other negative factors.

Recent findings reported by Baruch and Barnett (1986) added further complications. They found that people responded differently to the effects of demographic variables depending on the strength of their sense of well-being. While certainly useful, it appears then, that such variables, often called social indicators, cannot be the only approach to our understanding of subjective well-being.

The Present Investigation

This research looked at factors, other than demographic or environmental ones, which could help
explain variations in subjective well-being. This study examined the possible effects of intrapsychic factors by relating maturity, as defined according to various theories of personality development, to subjective well-being. It was hypothesized that maturity and subjective well-being would be positively correlated with one another. Although the approaches are different, the subject matter of maturity and subjective well-being is essentially the same. Both approaches are assessing the individual's macrocapacity to live out one's life. Both maturity and subjective well-being may be considered different ways of measuring mental health.

Additional hypotheses looked at aspects of this global relationship to determine points of greater congruence between maturity and well-being.

For the theoretical perspective (maturity), four related, but separate theories of development were used. These were: the psychosexual theory of Freud; the psychosocial theory of Erikson; Ego Psychology, whose original proponent was Hartmann; and Object Relations Theory, which has several "authors", most notably Fairbairn, Jacobson, Mahler and Winnicott. All these theories suggest that higher levels of
development are more desirable. According to Freud, genital sexuality represented maturity, that balance between drive and defense which permits work, play, and mutual heterosexual relationships. For Erikson, the optimal stages of development were Generativity and Integrity. Hartmann and his followers emphasized an adapted ego as the basis of maturity. Proponents of Object Relations emphasized the distinction between self and others. Representations of self and other proceed, under ideal enough conditions, until both are experienced as integrated and individuated wholes. From this vantage point, the self is then able to experience empathy and enter into relationships with others in which interdependence and mutuality can be achieved.

For the subjective perspective (well-being), a measure developed by Bryant and Veroff (1984) to assess subjective mental health was used. This measure was based on the premise that subjective well-being is multidimensional. The data used to formulate and validate the items in their survey were based on detailed analyses of national survey data (Veroff, Douvan, & Kulka, 1981). Their model distinguishes six dimensions of subjective well-being: Unhappiness, Lack
of Gratification, Strain, Feelings of Vulnerability, Lack of Self Confidence, and Uncertainty. They substituted the term subjective mental health for subjective well-being. In reporting on this project, these terms will be used interchangeably and refer to the same construct.

The subjects were all women between the ages of 50 and 60. Originally, life span research focused on male subjects and then extended these findings to women as well (Levinson, 1978; Valliant, 1977). However, changes over the life span appear to be different for men and women (Carlson, 1971; Gilligan, 1982; Roebuck, 1983). Gutmann (1965), among others, found that men and women, facing the second half of life were in different places, often dealing with different issues. For example, women are considered to be older than men of the same age (Stearns, 1980). There are many indications that women generally adapt better to old age than men do and remain more active and involved with family, friends, and community (Chudacoff, 1980; Powers & Bultena, 1976). Therefore, in order to avoid possible confounds due to difference in gender, all the subjects were female.

The sixth decade of life was chosen because
research has identified it as a period of potential crisis and transition for most women (Campbell, 1983-84; Livson, 1978). During this century, the average life span of women has increased approximately 30 years. This has had an impact on all stages of the life cycle; it does not simply mean a longer old age. Women in their 50's, with 25-30 years remaining in their expected life span, feel different about being 50 and have different goals than earlier generations of women with much shorter expected life spans. They realize they have many options available to them which were not available to previous generations of women or even to themselves at earlier stages of their life cycle.

In addition to new opportunities, there are also many changes and shifts taking place. The roles of daughter, wife, and mother are altered by the deaths of parents, widowhood, divorce, the retirement of spouses, and the departure of children from home. Consciousness raising or economic necessity can lead to joining the work force, changing a career, or acquiring new knowledge. Physical signs of aging are unmistakable. It appears that there are intrapsychic changes as well. Gutmann (1964), echoing Jung, (1934), reported that
with age, women tended to be more assertive and less nurtur ing.

The strain of these and other changes may stimulate growth and new beginnings or be experienced as overwhelming and signal a general decline in functioning. This variability of response should be reflected in differences in women’s assessments of their well-being. This research asked whether these different assessments of subjective well-being were correlated with differences in maturity as defined by four psychological theories. Specifically: Would women who reached higher levels of development according to these psychological theories, be happier, more gratified and confident, and experience less strain, vulnerability and uncertainty?
REVIEW OF THE LITERATURE

In this chapter, a review will be presented of the most important theoretical and empirical research which has been done on the topic of subjective mental health. In addition, four theories of personality development will be presented as well as the rationale for assessing the relationship between factors of subjective mental health and levels of maturity as defined by these theories. The chapter will conclude with a statement of the three hypotheses to be tested in this study.

Subjective Mental Health

Psychology is interested in the mental health of human beings. It is committed to understanding, measuring, and promoting it. Initially, the focus was on examining the concept of mental health from a biomedical, disease entity, model. In such a model, mental health was considered to be the absence of disease. Jahoda (1958) is often credited with a change in this view. According to her, positive mental health is more than the absence of mental problems; it is a state of being to be achieved and promoted, although it
is difficult to define. Clausen (1968) noted that a person may be uncomfortable as a consequence of symptoms while still displaying accuracy and creativity in thinking, effectiveness in living and relationships, and many other strengths related to adjustment and happiness. Similarly, Brewster-Smith (1968) referred to mental health as a range of effectiveness and misery.

Both laypersons and psychologists alike tend to assume that one of the major concomitants of mental health is personal happiness. Indeed, much of the value of mental health lies in its apparent ability to create happiness for the individual. "Happiness is the final end of human activity" (Shin and Johnson 1978, p. 475). Yet while everyone is sure that happiness is desirable and a basic goal of human activity, no one yet seems to know exactly what it is. Consequently, psychology has made many systematic attempts to define, understand, and measure it.

McCall (1975) made a distinction between being happy and feeling happy, noting that feelings of pleasure and pain can occur in the context of both happy and unhappy lives. Others have studied environmental conditions which were thought to promote
or destroy happiness (Larson, 1978). Still others studied subjective characteristics associated with it (Campbell, 1976). Some research has focused on the similarities and differences between happiness, well-being, satisfaction, and morale (Horley, 1984). Horley's conclusion was that they were very similar but not identical concepts, although they are used interchangeably in the literature. Because of this semantic confusion it is necessary in this review to use subjective well-being and subjective mental health, interchangeably, as they are used in the literature. Both phrases refer to the same construct for the purposes of this research.

One assumption on which there is strong consensus is that individuals are the best judges of their own well-being (Bradburn, 1969; Campbell, 1981; Cherlin & Reeder, 1975; Kuhlen, 1959). Such judgment is a private decision rather than a social consensus, and the issue of imposing values about mental health on another's experience should be minimized, although it cannot be eliminated.

During the last 20-30 years, a large body of research has been developed based on this subjective approach. Such an approach ignores sources of
information such as professional psychologists, family members, friends, performances on projective tests, or behaviors thought to be valid indicators of happiness. The subjective approach is based on the assumption that human experience may be measured by asking people how they feel about their own. "The feeling of well-being or ill-being is a private experience, and we can only learn about it if the person is willing to tell us" (Campbell, 1981, p. 16). The study reported here used data collected according to this subjective assessment of well-being.

Using self-report measures raises the issue of social desirability. People may respond as they wish to feel and not as they actually do. McCrae and Costa (1985), however, reported that research has substantiated the validity of self-report measures. Responses were shown to correlate highly with independent ratings of well-being. They also reported on extensive work done on the MMPI which demonstrated that candid and accurate responses to items, rather than social desirability were the primary determinants of self reports.

Bradburn's work with Caplovitz (1965) was very influential on subsequent research, despite their
inability to precisely define their topic. They attempted to study a dimension which they stated could be referred to as happiness, mental health, subjective adjustment, or psychological well-being.

Bradburn (1969) settled on the term psychological well-being to describe this wide-ranging concept which defined people's feelings about their lives. He rejected the terms happiness and unhappiness because he discovered that unhappiness was not simply the absence or opposite of happiness. From people's responses to his questions he decided that positive affect (happiness) and negative affect (unhappiness) were uncorrelated. The two dimensions were seen to be related to quite different sets of variables. Positive affect was associated with higher levels of social contact and more exposure to new experiences. Negative affect was associated with various indices of anxiety, fears of a nervous breakdown, and physical symptoms of ill health. Educational level was significantly associated with positive affect only. (However, some indices of general happiness and life satisfaction were correlated with positive and negative affect to an equal extent but in opposite directions.)

This independence between positive and negative
affect led Bradburn to theorize that people's feelings of psychological well-being were composed of two distinct subjective feeling states: one's levels of positive and negative affect. One's overall sense of psychological well-being, in his model, was a function of the difference between these two states. He operationalized this view of psychological well-being by constructing the Affect Balance Scale.

Interest in variations in well-being among older people stimulated the development of other scales (Havighurst, 1951; Kutner, Fanshel, Togo, & Langer, 1956; Lawton, 1972; Neugarten, Havighurst, & Tobin, 1961; Spreitzer & Snyder, 1974). Interest in these scales was less on establishing a theoretical definition of well-being than on measuring successful adjustment to old age. Such successful adjustment represented some kind of triumph over adversity, and research focused on identifying those factors which facilitated maintenance of well-being in the face of such adversities as declining health, reduced resources, deaths of loved ones, etc.

These efforts at scale construction produced diverse forms of measuring well-being which were often influenced by the personal values and concepts of their
creators. Some emphasized affective components and others, cognitive ones. They measured affects, morale, attitudes, and satisfactions as examples of well-being. These different research strategies were pursued independently of one another and with relatively little input from one to the other.

Havighurst (1951) noted that a happiness subscale on the Chicago Adjustment Inventory correlated highly with the overall scale score and could be used as a short form of the inventory. It came before Bradburn's work and his concept was unidimensional. Yet, even as late as 1974, Spreitzer and Snyder asked, "Taking things all together how would you say things are these days?", not bothering to separate positive and negative affect. Cantril's self-anchoring scale (1965) emphasized a cognitive approach. He asked people to compare their perception of their present situation to a situation which they aspired to, expected, or felt they deserved. Palmore and Luikart (1972) introduced the idea of comparing one's own situation to the best and worst imaginable life. Neugarten, Havighurst, and Tobin (1961) looked at affects, personality traits, expectations, self-concept, and mood.
In addition to developing various measures of well-being, a voluminous body of research has accumulated correlating life situation variables and well-being. Generally these studies were cross-sectional and aimed at identifying the degree of association between each variable and some measure of well-being. The earliest attempts remained independent of one another and it was difficult to integrate the findings between studies. They correlated various discrete variables, using different conceptions of well-being with different populations (Kuhlen, 1948; Laxer, 1964; Wilson, 1965). Many other examples of such studies were reported in Larson's (1978) extensive summary of thirty years of research on subjective well-being in older adults. He presented evidence on health, socioeconomic factors, age, race, employment, marital status, availability of transportation, residence, activity, and social interaction. The strongest correlations to well-being appeared with better health, followed by higher socioeconomic status, and degree of social interaction. Confirming these results, Palmore (1979) reported that these same three factors predicted both longevity and satisfaction in his sample. However, Larson also noted that these
factors explained only a small proportion of the variance reported in measures of subjective well-being. Clearly, the relationship between these various demographic, behavioral, and psychological factors and subjective well-being was not yet fully understood.

Other research studied different factors. Gubrium (1971) and Cohler and Boxer (1983) noted a high concern for safety from crime as a factor in life satisfaction. Fengler and Jensen (1981) compared urban and nonurban subjects. Despite few objective differences, the nonurban felt subjectively that they were better off on most conditions. Liang (1982) studied the possible effects of gender in life satisfaction among the elderly. Contrary to the findings of many others (Campbell, 1981; Carlson, 1971; Gutmann; 1964), he found no systematic differences.

Because of strong indications of the effect of gender on subjective well-being, many researchers have focused their attention on women only. Various different factors have been elected for examination. The effects of employment (Fox, 1977; Holahan, 1981; Jaslow, 1976; Kaufman & Richardson, 1982; Zappart & Weinstein) has been a popular topic. Warr and Parry (1982) criticized the undifferentiated approach of
previous investigations in their study. In examining the association between employment status and psychological well-being in women, they uncovered several mediating variables: the quality of the nonoccupational environment, the qualities of relationships at work, socioeconomic status, and marital status.

The contribution of marital happiness to well-being for women has also been investigated (Burke & Weir, 1977; Glenn & Weaver, 1981; Harkins, 1978; Lee, 1978). Almost uniformly, the conclusion is made that marital happiness and unhappiness is a core issue for women and that women who are not married, as a group, do not rate as high on measures of well-being as married women (Campbell, 1981).

Harkins (1978) reported results on the effects of children leaving home. If the event is on schedule, that is, in keeping with the parent's and society's expected time frame, any negative impact on well-being is slight and transitory. Glenn (1975) reported that the quality of the marital relationship and the presence of depressive affect are also factors which contribute to the influence of the empty nest transition on women's sense of well being.
The important contribution to well-being of intimate and stable, social relationships has been well documented (Graney, 1975; Moriwaki, 1973; Roberto & Scott, 1984). Despite the strength and consistency of this finding, other researchers found that several factors can mediate the actual impact of such social support. Baruch and Barnett (1986) reported that gratifying relationships interacted differently with different aspects of well-being, contributing more to happiness than to self-esteem or optimism in the case of satisfying relationships with husbands. They also found that ethnic and racial dimensions contributed to the correlation between social relationships and well-being, as well as differences in types of relationships. Burke and Weir (1977) looked at the relationship between stress and marital support. They concluded that the husband-wife helping relationship was an important moderator between experienced stress and individual well-being. Beckman (1981) uncovered other moderators. The amount of social contact was significant only for childless women. However, for women with children, the quality of relationships with other family members and friends correlated more strongly with well-being than did the quality of
relationships with children. Rook (1984) examined the negative impact of social interaction. Problematic relationships contributed more to the loss of well-being than supportive relationships contributed to enhancing well-being. This finding held across intensity of problems, differences in backgrounds, and ratings on social competence.

Integrating just these findings about social relationships would not be an easy task and this is far from an exhaustive review of this variable. In addition, while one is examining the role of social relationships, countless other variables are contributing simultaneously to the strengthening and diminishing of well-being in the individual.

The most recent research reported gives recognition to the need to look at variables interacting with one another. Women's assessments of their well-being appears to be a constantly fluctuating equation, using weighted values based on the variables reported on thus far, as well as numerous other ones, undoubtedly overlooked.

The Contribution of Psychological Variables to Subjective Assessments of Well-Being

Another line of research has attempted to reduce
this complexity by focusing on variables thought to make a more fundamental contribution to subjective assessments of well-being. These variables are the intrapsychic dimensions of the personality. As early as 1934, George Hartmann studied personality traits associated with happiness. Neugarten, alone and with Havighurst and Tobin, made several significant contributions to understanding the relationship of personality and well-being (1962, 1964, 1968). They analyzed two theories thought to explain successful aging. One was the activity theory which suggested that successful aging is dependent on people maintaining a high level of activity. The other theory, the disengagement theory, postulated that people who reach a new equilibrium characterized by greater psychological distance, altered types of relationships, and decreased social interaction will age more successfully. They developed eight personality types which they believed mediated between satisfaction and the activity and disengagement theories.

The relationships between levels of activity and life satisfaction are influenced also by personality types, particularly by the extent to which the individual remains able to integrate emotional and rational elements of the personality (Havighurst, 1965, p. 23).
These findings were elaborated on in their further research. One advantage of their work is that they included women subjects where other studies focused exclusively on men (Levinson, 1987; Vaillant, 1977). One limitation however, was that most of their subjects were 70 years old or older.

Neugarten, Havighurst, and Tobin (1961) reported on a scale they developed to measure life satisfaction. They created the measure by coding the responses of subjects and integrating them with the components of previously constructed measures. They operationally defined the following components: zest vs. apathy, resolution and fortitude, congruence between desired and achieved goals, positive self concept, and mood tone. In studying the validity of their measure, they had to conclude that it was applicable only to persons over the age of 65.

Several other studies have also concluded that one cannot explain differences in levels of satisfaction, happiness, or well-being by external conditions alone. George (1978) looked at individual differences in levels of activity and psychological well-being. Personality variables were the best predictors of well-being. She strongly recommended
that psychology recognize the stable impact of such variables and give up the notion that affect is, by definition, transitory and merely situationally reactive. The stability of personality traits is a core issue if relationships between such traits and well-being are to be established. If these traits are not stable their influence cannot be reliably measured. A pattern of stability in personality traits has been found by numerous investigators (Costa and McCrae, 1978; Neugarten, 1972; Schaie and Parham, 1976). Atchley (1980) offered two possible explanations. People expect themselves to respond in ways that are consistent with their past histories. They feel secure in the predictability of their responses. Secondly, they build up around themselves familiar social networks that facilitate dealing with the social world in habitual ways. In other words, other people also feel secure with the predictability of their responses and so encourage it.

Costa and McCrae (1978) concluded that personality was not a monolithic structure but an organization of several domains, some of which showed stability while others showed change over time. Anxiety and extraversion were examples of affects which
showed strong consistency over the ten year span of time covered in their study. Field-dependence and openness to feelings were examples of personality dimensions which did change over the course of this ten year span. The task as they see it, becomes one of identifying stable characteristics, measuring them with reliable and valid measures, and correlating the results with measures of well-being.

Wan and Livieratos (1978) also found psychological variables were stronger predictors of well-being than demographic variables. Self-perceived health status, nervous breakdown symptoms and desire for psychological counseling were better predictors than race, marital status, education, income, occupation, retirement status, or a doctor's appraisal of health status.

A national survey by Andrews and Withey (1976) reported that such demographic variables as sex, race, age, income, education, and family life cycle stage accounted for relatively little variance in general happiness or well-being. They concluded that one must look at defenses, adaptations, and coping mechanisms for a fuller explanation. How one evaluates oneself appeared to be independent of economic and social
conditions. Such subjective evaluations included intentions and explanations which interacted with external criteria.

Mussen, Honzik, and Eichorn (1982) reported a study which associated Life Satisfaction Ratings at age 70 and cognitive, personality, interpersonal, and family characteristics in early adulthood. For men and women, certain traits of their own at 30 years of age correlated with satisfaction ratings at 70. The predictive characteristics for women reflected a buoyant, responsive attitude toward life; for men, the predictive characteristics were emotional and physical health. A husband's traits at 30 were unrelated to a wife's satisfaction at 70 but a wife's traits at 30 were more predictive of her husband's satisfaction than even his own! It appeared that women carry a large share of the responsibility for marital happiness. While not directly germane to the particular study being reported here, such a finding is certainly related to findings such as Campbell's (1981) that married men are happier than unmarried men and married women often feel a great deal of stress.

Campbell (1981) made important contributions to our understanding of subjective well-being. He felt it
was composed of feelings of happiness, misery, and strain and cognitive impressions of satisfaction and dissatisfaction. Well-being depended primarily on the satisfying of basic needs of having, relating and being. Objective indicators such as income and education were important only to the extent that they contributed to the satisfaction of these needs. In examining specific domains contributing to well-being, he found that satisfaction with one's self was the most important factor, especially when this was combined with a sense of being in control of one's personal life situation. He found that those who have a strong sense of self satisfaction also expressed high satisfaction with life. They were not inclined to express negative feelings of well-being, even when the material circumstances of their lives were not favorable. He concluded therefore, that their positive self-evaluation was more important to their feelings of well-being than their objective situation.

McCrae and Costa (1983) and Costa and McCrae (1981, 1984) have reported on the contribution of psychological variables to subjective well-being. They proposed that one set of traits influenced positive affect. They labeled these extroversion, and they
included such components as sociability and vigor. Another set of traits influenced negative affect. These they labeled neuroticism, and they included such components as anxiety, hostility, and psychosomatic complaints. They also found that personality differences antedated and predicted differences in happiness over a period of ten years, thus ruling out the alternative idea that temporary moods or states accounted for observed relations. They did, however, make a distinction between momentary happiness which is determined by the specific situation and a consistent level of happiness which they attributed to the persistent effects of personality traits.

Brickman, Coates, and Janoff-Bulman (1978) studied the effects of specific situations on momentary happiness levels when they compared lottery winners and accident victims. They did not find a large difference in levels of happiness between these two groups. They did, however, find much variation within each group. Costa and McCrae concluded that these individual differences within each group were due to the presence and absence of extroversion and neuroticism. Further work, which they did with Norris (1981), replicated these findings. Individuals higher in subjective well-
being were lower in neuroticism and higher in extraversion.

**Current Attempts to Develop a Comprehensive Model of Subjective Well-Being**

The previous section described the search for the most comprehensive explanation of variations in levels of subjective well-being. It centered on determining which aspects of the personality made the most fundamental contribution to people's assessments of their well-being. It was the conclusion of most research that different dimensions of the personality interacted differently with various aspects of subjective well-being (Costa and McCrae, 1987; George, 1978; Laxer, 1964; Neugarten, 1979).

Proceeding from the bi-dimensional approach advanced by Bradburn, many researchers are currently focused on developing models which would identify, with greater precision, the separate components underlying the construct of subjective well-being. In addition, the focus is no longer exclusively on successful aging. The rising interest in life-span development has created the interest and need for a model which would be relevant for different ages and genders.

Campbell (1976, 1981) and Andrews and Withey
(1976) proposed that well-being was a combination of cognitive and affective factors: satisfaction, and positive and negative affect. Veroff, Feld, and Gurin (1962) delineated these general factors more explicitly when they examined the responses of a representative cross-sample (2,460 non-hospitalized adults living in private households in the United States) for multiple criteria of distress. Factor analytic techniques were used to assess communalities in responses to various questions. Their hypothesis was "the emerging factor structure may be indicative of basic psychological factors underlying the determination of self-descriptions of adjustment..." (p. 193). Five factors were extracted for men and five for women. While very similar, they were not identical. The five factors for women were: felt psychological disturbance, unhappiness, social inadequacy, lack of identity, and feelings of nervous breakdown. For the general population, they concluded that one general evaluative factor was not as valid as several different factors taken together. As an example, they reported on women's responses based on different levels of education. Less educated women indicated they felt more psychological disturbance (factor 1) and
unhappiness (factor 2), but less social inadequacy (factor 3), than more educated women. The other factors were unrelated to differences in education. A more recent study of the relationship between levels of education and factors of subjective well-being (Bryant & Marquez, 1986) reported differences in the structure of self-evaluations according to levels of education only for men and not for women. While not supporting the specific findings regarding education, it did support the use of a multi-factor approach to the assessment of well-being.

This multi-factor approach was counter to Bradburn's Affect Balance Scale, which had produced a single measure of well-being. While some recent work has been conducted to create a single indicator of well-being (Andrews and Withey, 1976; Cantril, 1965; and Gurin, Veroff, and Feld, 1960), most effort has been expended toward the creation of multi-factor scales (Diener, Emmons, Larson, & Griffen, 1983; Dupuy, 1978; Kozma & Stones, 1980; and Neugarten, Havighurst, & Tobin, 1961). Cherlin and Reeder (1975) also advocated "multiple indicators of complex and global concepts such as psychological well-being" (p. 212). Veit and Ware, Jr. (1983) suggested a hierarchical
factor model composed of a general underlying psychological distress versus well-being factor (considered together as mental health), and five lower order factors: anxiety, depression, loss of behavioral emotional control (distress factors), emotional ties, and general positive affect (well-being factors). Statistical analysis indicated that consideration of the two higher order factors alone accounted for 50% of the variance and adding the additional five factors provided an 20% increase. The hierarchical model was also more reliable. These authors suggested that use should determine which factors are used. When a gross summary score is sufficient for the purpose at hand, they feel their model provided one. When more detailed information is required, it is available with the additional five lower order factors.

Bryant and Veroff (1984) created a model which integrated the diverse findings of other research on subjective well-being. In addition to affective components (positive and negative) and cognitive evaluations, generally referred to as satisfactions, they postulated a fourth component, personal competence in handling both positive and negative experience.
They sought evidence for these dimensions in a factorial analysis of women's and men's responses to a battery of well-being measures contained in a 1976 national survey. Six factors emerged from their statistical work. The first two factors (Unhappiness and Lack of Gratification) deal with the experience and evaluation of positive affect. The third and fourth (Strain and Feelings of Vulnerability) deal with the experience and evaluation of negative affect. The fifth factor (Lack of Self Confidence) deals with self confidence in dealing with positive and negative affect. The sixth factor (Uncertainty) appears to reflect one's coping orientation, either optimistic worrying or pessimistic resignation. While some differences between men and women existed in this last factor, the more general male model for the six factors appeared to apply for women as well.

Bryant and Veroff called their measure the Subjective Mental Health Scale. They reported on studies conducted to assess the divergent validity of these factors. (These are reported in detail in the Methods section.)

Bryant and Veroff extrapolated a theoretical model of subjective mental health from these six
factors. Their work supported a separation of positive
and negative experiences. Different factors rejected
positive experience than endorsed negative experiences.
These factors also included information on sources of
reinforcement and/or problems. They can come from
within the self or from the environment. In addition,
the different factors dealt with different time frames:
past, present, and future. Another aspect of
subjective mental health which emerged was spontaneous
vs. reflective appraisal of subjective mental health
depending on whether the focus was on affective or
cognitive factors.

Other research has investigated the relationship
of various factors to one another. Bradburn proposed
that his two factors were orthogonal, or independent,
of one another. Current research often does not
replicate this finding. The latest findings suggest
that factors are correlated with one another (Diener,
1984; Veit & Ware, 1983; Warr, Barter, & Brownbridge,
1983). Warr and his colleagues proposed that
independence was a function of Bradburn's format. When
they amended the response format to measuring the
proportion of time positive and negative affect was
experienced rather than measuring the number of
desirable and undesirable life events experienced, the independence Bradburn found was extinguished. The proportion of time format yielded an inverse relationship between positive and negative affect.

Diener (1984) studied the same question. First, positive and negative affect were not independent at particular moments in time; one tended to suppress the other. However, when one looked at a combination of factors (average levels of affect) over time, this dependence no longer existed. Average levels of affect refer to a combination of how frequently each emotion was felt in combination with how intensely it was usually felt. Evidently, the positive relationship in terms of intensity cancelled out the inverse relationship in terms of frequency, and a lack of relationship was the result.

Diener reported on several issues which are related to these issues of multiple dimensions. Regarding the issue of long-term affect versus momentary mood, it appeared that several reliability studies provided substantial consistency which indicated the measures were tapping traits which were stable over time. However, other studies reported variations in momentary mood, leading Diener to
conclude that both current mood and long term affect are reflected in measures of subjective well-being. The question arises as to the source of the consistency of responses. It could be due to stable personality factors or stable conditions in the environment or a combination of the two. According to Diener, it is not possible, given the current levels of measurement, to separate the influence of these two sources of consistency from one another.

Diener reported encouraging findings related to the validity of measures. Bias and distortion did not appear to be a serious problem. Correlations between social desirability scales and measures of well-being were usually around .20. In addition, strong evidence for construct validation has been reported. Scales correlated with many forms of non-self report measures. A group of five studies correlating reports of peers with self-report measures produced an average correlation of .39 and a group of seven studies correlating the reports of experts with self report measures produced a correlation of .52. Accordingly, Diener stated,

"One can be encouraged by the state of measurement of subjective well-being. Most measures correlate moderately with each other and have adequate temporal reliability and internal
consistency. In addition, well-being scales show interesting theoretical relationships with other variables" (1983, p. 551).

**Maturity**

Diener's last statement relates directly to the present study. The 'interesting relationship' to be examined here is the potential one between subjective well-being and maturity.

Frank (1950) offered a definition of maturity. He described it as a dynamic operation which has no specific end point but is continuously and progressively at work in human beings. Maturity is revealed in what we call growth and development, involution and aging. "Through maturation the organism-personality persists, but also changes so that we might conceive of maturation as a series of successive transformations through time" (p. 23).

According to Saul and Pulver (1965), as a developmental concept, maturity in its ideal form, is that state of personality reached at any particular stage of development when the inherent growth pattern has not been subject to environmental warping. Maslow (1954) and Olczak and Goldman (1975) studied maturity from such a vantage point when they studied self-actualization. Self-actualization refers to the
organism's drive to actualize its potentialities; it is
the person who is developing to the full stature of
which he or she is capable.

The specific nature of the state we call maturity
has been the object of much investigation. Theories of
personality development attempt to define the way in
which individuals achieve the highest level of
development, or maturity, of which they are capable.
Freud was one of the major theoreticians in the area of
personality theory and many current theories are based
on his insights into the unconscious, the importance of
eyearly experiences on later development, and the idea of
stages of development. While he emphasized the drives,
later work focused on other variables such as the
environment, the ego, and object relations as major
forces in determining the course and outcome of
development.

For the purposes of this research, maturity will
be defined according to the ideas proposed by four
separate but related theories: Psychosexual Theory
whose major proponent was Freud (1933/1965);
Psychosocial Theory, whose major proponent was Erikson
(1963, 1982); Ego Psychology, whose major proponent was
Hartmann (1939/1958), and Object Relations Theory,
whose major proponents were several people, among them Jacobson (1964), Winnicott (1965a, 1965b), and Mahler (1975).

**Psychosexual Theory:** Freud (1938/1949, 1926/1961) conceived of the personality as developing through a series of four separate psychosexual stages. At each stage, a different part of the body is the most sensitive to excitation and therefore the most capable of providing libidinal satisfaction for the drives. These different body parts gave the stages their names: the oral, the anal, the phallic and the genital. (The latency period is not a stage in the same sense as the others; it is a time span during which the drives are less intense and therefore less development is thought to occur.) The way in which a compromise is reached at each stage between the pressure of the id to gratify the drives and the ability of the environment to provide such gratification determines basic personality structure and traits which last throughout the person's life. Unhealthy compromises between id gratifications and environmental demands affect later development in negative ways; development is distorted from its optimal path. Freud referred to arrested points of development as fixations and returns to earlier levels.
of development as regressions. According to Freud, maturity is reached when one arrives at the genital stage. This allows for successful heterosexual relationships and the ability to work and play. Freud did not concern himself with development beyond the genital stage.

**Psychosocial Theory:** Erikson built his theory on psychoanalytic ideas. However, his contributions were sufficient to merit the development of a new theoretical position (1950, 1982). What makes his work unique is his interest in the formation of identity throughout the life cycle and his extension of psychoanalytic principles into social psychology.

According to Erikson, throughout life, personality develops as a result of the interplay of three factors: 1) the irreversible inner laws of development which he called epigenesis; 2) cultural factors as crucial influences on the rate and course of development (in distinction to Freud's emphasis on inner drives and instincts); and 3) the uniqueness of each individual's responses to internal and external stimuli.

He divided the developmental process into eight stages (1950), each stage having a developmental task.
Each stage focuses on two possible attitudes, one associated with healthy, and one with, unhealthy development. The work of the ego is expressed in the balance of the two contrasting attitudes which are relevant to each period. This balance, or ratio, is conceived of as a crisis which must be resolved in some manner for the development of the personality to proceed. The outcome of future stages is dependent on the resolution of crises from previous stages. Maturity is assessed according to the optimal resolution of the crises of each stage. The eight stages are listed in Table 1.

Ego Psychology: Erikson's expanded role for the ego as a source of identity was further expanded by the theory of Ego Psychology (Hartmann, 1939/1946; Hartmann, Kris, & Lowenstein, 1946). The ego is responsible for the adaptation of the individual to the environment. Toward this end, primary and autonomous ego functions exist from birth, developing out of a conflict-free sphere. Some of these functions include intelligence, perception, memory, and creativity.

Ego psychologists focus on the development and structure of the ego. Studying the structure of the ego enlarges the scope of its performances. By
Table 1

**Psychosocial Stages of Development**

<table>
<thead>
<tr>
<th>Stage</th>
<th>Chronological Period</th>
<th>Favorable Resolution Attitude</th>
<th>Unfavorable Resolution Attitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Early Infancy</td>
<td>Trust</td>
<td>Mistrust</td>
</tr>
<tr>
<td>2</td>
<td>Late Infancy</td>
<td>Autonomy</td>
<td>Shame &amp; Doubt</td>
</tr>
<tr>
<td>3</td>
<td>Early Childhood</td>
<td>Initiative</td>
<td>Guilt</td>
</tr>
<tr>
<td>4</td>
<td>Middle Childhood</td>
<td>Industry</td>
<td>Inferiority</td>
</tr>
<tr>
<td>5</td>
<td>Adolescence</td>
<td>Identity</td>
<td>Identity Confusion</td>
</tr>
<tr>
<td>6</td>
<td>Early Adulthood</td>
<td>Intimacy</td>
<td>Isolation</td>
</tr>
<tr>
<td>7</td>
<td>Middle Adulthood</td>
<td>Generativity</td>
<td>Stagnation</td>
</tr>
<tr>
<td>8</td>
<td>Late Adulthood</td>
<td>Ego Integrity</td>
<td>Despair</td>
</tr>
</tbody>
</table>

From Erikson (1950)
emphasizing a conflict-free sphere of ego functioning, the work of cognitive theorists such as Piaget (1954) can be integrated with psychodynamic theory. Learning is no longer merely a by-product of the resolution of conflict. Piaget viewed conscious judgment and reasoning as depending primarily on the developing capacity of the individual to organize his experience. He believed that the cognitive striving of the individual propels one to establish increasingly sophisticated cognitive methods of interacting with the environment. Hartmann described the best environment for this to flourish as "an average, expectable environment" where reliable and consistent responses from the environment allow the individual to concentrate psychic energies on developing the ego to its most sophisticated or mature levels.

Object Relations Theory: The use of the term, "object", comes from Freud's definition of objects as persons or things in one's environment which are psychologically significant. According to Freud, objects gratified or frustrated needs. More recently, Object Relation theorists have proposed a theory which defines the role of objects in the development of the personality. The importance of objects was expanded
from their original use as gratifyers or frustrators of needs.

Object representations are mental images of important human beings which are taken in through the process of internalization and form the basis of the structure of the sense of self or the self representation (Horner, 1979). According to Jacobson (1964), these self representations are the unconscious, preconscious, and conscious endopsychic representation of the bodily and mental self.

This theory focuses on the importance of the earliest child-parent relationship in the development of object relations. Melanie Klein (1959) was one of the first to recognize the importance of this period. Children are born without a sense of self. The self grows out of the infant's merger at birth with the primary caretaker and the consequent abandonment of that merger for an acceptance of reality; that is, the acknowledgment of the separateness of self and other.

The stages of development proceed from a total merger between self and other at birth through a series of stages with ever-increasing differentiation of self from other. The ultimate level of object relations is an autonomous, integrated, and stable
unity which is experienced as the self. This self can participate in empathetic relationships with other human beings who are experienced as being separate and independent of the self (Mahler, Pine & Bergman, 1975).

Mahler and her co-workers studied this evolving process of self from other. The process actually includes two distinct but complementary developments: separation and individuation. Separation consists of the child's emergence from a symbiotic fusion with the mother. Separation from the symbiosis allows individuation to take place. In other words, as the reality of the separateness between the self and the other is acknowledged, the self is free to establish the particular identity which is appropriate for that person.

This sense of identity is the end product of the process of separation from the original merger with the maternal or familial matrix. The process of separation is negotiated through a series of progressively greater separations. These are made possible by the process of individuation which is simultaneously taking place. The child can tolerate these separations because the sense of identity is
developing at a commensurate pace. This sense of identity gives the young child the confidence to "let go". Mahler, Pine, and Bergman refer to this separation-individuation process as the "first crucial prerequisite for the development and maintenance of a sense of identity" (p. 11). The term "psychological birth" which is the focus of their work refers to the onset of this sense of identity.

Winnicott's work (1965 a,b) interfaces with these ideas. He stressed the importance of the process of identification, which occurs through interactions between child and caretaker during the earliest stages of experience. His concept of "good enough mothering", is central to Object Relations theory. Such caretakers foster independence but are also available to fulfill dependency needs as well. They respond to the child's needs rather than their own needs projected onto the child. The reliability of these experiences contributes to the feeling of reliability in the experiencing of a cohesive and ongoing sense of self and other.

While the process of separation-individuation begins at birth, "like any intrapsychic process, this one reverberates throughout the life cycle" (Mahler,
Idealistically, self and object representations become increasingly autonomous and integrated with subsequent life experience and psychological well-being. A developmental course of object relations based upon transactions between the self and the human environment has been proposed (Kernberg, 1976; Sternschein, 1973). The relationship between the development of the ego and the progression of object relation representations is one of constant and mutual interaction (Jacobson, 1964). As ego functions mature, one's development proceeds and as development proceeds, ego functions mature.

Self and object representations are modifiable throughout the life cycle. At each level of development new kinds of interactions with the object world are experienced and internalized, creating more autonomous self and object representations. This is the ideal. When stress is experienced, the literature on object relations suggests that regressions occur in the way self and objects are perceived and related to. According to Sandler and Sandler (1978), earlier forms of object relations exist alongside later ones. The self is not a totally unitary concept, so that more and less differentiated aspects within the same self
Significance of This Study

Maturity, like well-being, is a concept with strong positive valence for the layperson and the professional psychologist. Yet, while both are highly prized, one cannot assume that to achieve one is to necessarily achieve the other as well. The benefits of maturity might not guarantee well-being, and the achievement of well-being might not be the expression of maturity.

Alkin and Galwin (1978) studied this question and concluded that more mature people were happier as well. Their definition of well-being was extremely undifferentiated. "This trait involves being good-natured, good humored, and comfortable with one's self" (p. 312). They used the term happiness interchangeably with well-being and indeed, their definition stressed the positive affective component of well-being. They used two measures of maturity. The first one was developed by Allport to distinguish between intrinsically and extrinsically motivated religious orientations. The second measure was based on Maslow's hierarchy of needs and was more directly
related to a general theory of maturation. Both measures of maturity correlated positively with their measure of happiness. They also concluded that happiness is qualitatively different for individuals of different levels of maturity.

McCrae and Costa, Jr. (1983) failed to replicate these findings. Using the Loevinger Sentence Completion test as a measure of maturity and three different measures of well-being in a sample of 240 males they were unable to establish a relationship between maturity and well-being. However, the measure of maturity they used has demonstrated a strong association with intelligence. Wilson (1967) among others has concluded that intelligence is not related to happiness, which is a major component of well-being. Perhaps their lack of significant results was a function of the particular measure of maturity they used. This measure was developed to assess certain capacities of the ego and has not been demonstrated to perform as a measure of maturity. In addition, these researchers used the Bradburn Affect Balance Scale. Serious problems have been uncovered regarding this scale. It ignores any cognitive component of well-being, any contribution from the self-concept, and it
assumes the independence of positive and negative affect. They also used a scale to measure hopelessness which was developed to measure hopelessness or pessimism in clinical, not general, populations. Their third measure of well-being was a measure developed to measure personal security as the "subjective evaluation of success, satisfaction, and confidence in a number of areas of life". While they reported on validity studies regarding the measure as a measure of security, they did not report on the validity of this measure as a measure of maturity.

The difference between Alker and Galwin's findings and McCrae and Costa's cannot be resolved without further research because neither study was based on measures which can be presumed to accurately operationalize the constructs of maturity or subjective well-being.

The current research examines the relationship between subjective well-being and maturity using measures which are based on theoretical models and have been validated as measures of these specific constructs.

**Hypotheses**

Subjective well-being and maturity are thought to
represent two different perspectives of psychological development. The hypotheses of this study examine the relationship between these two perspectives.

The first hypothesis is a basic one, addressing itself to the general relationship between subjective assessments of well-being and levels of developmental maturity.

1. Hypothesis:

   Subjective assessments of well-being are positively correlated with concepts of maturity according to each of the four theories which have been presented. This hypothesis is being applied separately to each theory of maturity and a positive relationship is expected for each correlation.

   Theories of development associate maturity, or higher levels of development, with increased abilities of the personality to meet the demands of the internal and external environments. The greater capacity to meet these demands should mean that the individual lives with less frustration and more security. This should translate into higher levels of subjective well-being.

   This hypothesis was tested by correlating Bryant and Veroff's measure of Subjective Mental Health (SMH)
with scales developed to measure Psychosexual Theory, psychosocial Theory, Ego Psychological Theory, and Object Relations Theory. The relationship between each of the six factors of the SMH Scale and each of the measures of maturity was explored separately to determine if the relationship between subjective mental health and theories of maturity differs according to these different factors or these different theories.

2. Hypothesis:

Two aspects of subjective adjustment, Unhappiness and Lack of Self-Confidence, will show the strongest relationship with maturity of object relations as compared to the other theories of psychological maturity.

The Unhappiness factor is an index of the individual’s capacity to experience positive affect. The Lack of Self-Confidence factor focuses on the notion of the self as a separate domain. It involves depression, low self-esteem, feelings of anomie, the perception of problems and outcomes as uncontrollable and lack of self acceptance. These two factors on the SMH scale are highly correlated with one another, suggesting that feelings of low self-confidence are
directly linked to the rejection of positive affective experience and feelings of high self-confidence are directly linked to the experience of positive affective experience.¹

This idea is supported by the concept of the self as explicated by Object Relations Theory. In addition to a sense of identity, the sense of self also includes an affective component, the capacity to experience self-esteem and self-confidence. The sense of identity is created when the individual possesses the confidence and esteem necessary to separate and develop.

Maturity of object relations suggests that the self, as it separates and individuates, possesses the capacity to enter into intimate and mutually gratifying relationships with others. When the boundaries of the self are securely established, the experiencing of others is not experienced as threatening but as gratifying and enriching (Horner, 1979).

Likewise, several researchers have proposed an important link between gratifying interpersonal relationships and subjective well-being (Costa, Jr. & McCrae, 1980; Wessman & Ricks, 1966; Wilson, 1966). Therefore, this capacity to relate to others should

¹Bryant and Veroff (1984) reported a correlation of .68, p<.001. In the current study, the correlation was .48, p<.01.
enhance the relationship between identity and the experience of positive affect both from the vantage point of object relations theory and the vantage point of subjective mental health.

3. Hypothesis:

Psychosocial maturity, according to Eriksonian theory, will show a relationship with Lack of Gratification, over and above its relationship to the other aspects of subjective mental health.

Eriksonian theory emphasizes the importance of social and cultural factors in the development of personality. Women in their fifties, the age of the subjects in this study, should be heavily engaged in the tasks of the Generativity Stage. Generativity issues involve making the world better for the next generation. There is an active concern with conditions beyond self. The focus is on other people and the contributions one can make to their lives. The older subjects should also have begun dealing with the issues of the next and last state, Ego Integrity. One is motivated to assess the meaning of one's life as it has occurred for her. The integrated woman feels fulfillment from her life, her work, and her accomplishments.

According to Bryant and Veroff (1984), assessing the gratification received from relevant role
relationships and how well they fulfill personal values is an ongoing aspect of subjective well-being. This is indexed in the Lack of Gratification factor. Because the measure for Eriksonian theory and the Lack of Gratification factor were tapping the same issues, it is hypothesized that they will demonstrate a strong correlation with one another.
METHOD

In this chapter the nature of the sample, the materials employed, and the experimental procedure will be described.

Subjects

The sample of subjects for this study consisted of forty females. They were solicited by an advertisement in a community newspaper. To be accepted they had to be of the Jewish faith, between the ages of 50-60, and unknown to the investigator. The first forty volunteers who met these requirements were used for this study.

Measures Describing Subject Characteristics

A demographic questionnaire was administered to the subjects. (A copy appears in Appendix A.) It included such information as religious observance, education, marital status, spouse's education and employment, children, parents, occupation, income, voluntary activities, and physical health. These variables were chosen because previous research had indicated their possible influence on well-being and maturity (Larson, 1978). Despite the homogeneity of
religion and age, there was a diversity of life conditions within the group. Specific details are found in Table 2.

Another measure assessed levels of stress as a possible confounding influence on the relationship between subjective well-being and maturity. Campbell (1984) reported that the years from 50-60 years of age were, for women, a stressful decade because of the many life changes and losses experienced during this time period. As one objective indicator, this decade marked the highest rate of suicide for women. Therefore, an instrument to measure levels of stress was included in this study. The PERI Life Events scale developed by Dohrenwend, Krasnoff, Askenasy and Dohrenwend (1978) was used because it was created by assessing actual stressful life events in an urban population which did not differ markedly from the population from which this sample of women was selected. The scale is composed of 102 items ranging from acquiring a pet (least stressful item) to the death of a child (most stressful item). In the original scale, the subject was asked if these events happened to her during the previous year. In this study, in addition to this question, the subject was asked to go through the scale a second time and
Table 2

demographic Characteristics of the Sample

<table>
<thead>
<tr>
<th>Highest Education Level Achieved</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>high school graduate</td>
<td>4</td>
</tr>
<tr>
<td>some College Work</td>
<td>15</td>
</tr>
<tr>
<td>college graduate</td>
<td>13</td>
</tr>
<tr>
<td>some graduate work</td>
<td>8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Marital Status</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>married</td>
<td>25</td>
</tr>
<tr>
<td>widowed</td>
<td>4</td>
</tr>
<tr>
<td>divorced or separated</td>
<td>10</td>
</tr>
<tr>
<td>never married</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Motherhood</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>yes</td>
<td>37</td>
</tr>
<tr>
<td>no</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Favorite Period of Childrearing</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>birth-6 yrs</td>
<td>20</td>
</tr>
<tr>
<td>6-12 yrs</td>
<td>8</td>
</tr>
<tr>
<td>12-18 yrs</td>
<td>3</td>
</tr>
<tr>
<td>above 18</td>
<td>3</td>
</tr>
<tr>
<td>failed to respond</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Occupation</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>full time</td>
<td>30</td>
</tr>
<tr>
<td>part time</td>
<td>2</td>
</tr>
<tr>
<td>does not work</td>
<td>8</td>
</tr>
</tbody>
</table>

(table continues)
## Type of Employment

<table>
<thead>
<tr>
<th>Type</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>own business</td>
<td>6</td>
</tr>
<tr>
<td>teacher</td>
<td>6</td>
</tr>
<tr>
<td>retail sales</td>
<td>4</td>
</tr>
<tr>
<td>real estate agent</td>
<td>3</td>
</tr>
<tr>
<td>secretary</td>
<td>3</td>
</tr>
<tr>
<td>social worker</td>
<td>3</td>
</tr>
<tr>
<td>nurse</td>
<td>2</td>
</tr>
<tr>
<td>travel agent</td>
<td>2</td>
</tr>
<tr>
<td>artist</td>
<td>1</td>
</tr>
<tr>
<td>caterer</td>
<td>1</td>
</tr>
<tr>
<td>lawyer</td>
<td>1</td>
</tr>
</tbody>
</table>

## Income Level (combined with spouse’s)

<table>
<thead>
<tr>
<th>Income Level</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>over $80,000</td>
<td>8</td>
</tr>
<tr>
<td>$60,000-$80,000</td>
<td>10</td>
</tr>
<tr>
<td>$40,000-$60,000</td>
<td>10</td>
</tr>
<tr>
<td>$25,000-$35,000</td>
<td>11</td>
</tr>
<tr>
<td>below $25,000</td>
<td>1</td>
</tr>
</tbody>
</table>

## Voluntary Activities

<table>
<thead>
<tr>
<th>Activity</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>extensive (&gt;10 hrs per week)</td>
<td>13</td>
</tr>
<tr>
<td>moderate (4-10 hrs per week)</td>
<td>7</td>
</tr>
<tr>
<td>minimal (&lt;4 hrs per week)</td>
<td>12</td>
</tr>
<tr>
<td>none</td>
<td>8</td>
</tr>
</tbody>
</table>

## Assessment of Physical Health

<table>
<thead>
<tr>
<th>Health Level</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>excellent</td>
<td>21</td>
</tr>
<tr>
<td>good</td>
<td>14</td>
</tr>
<tr>
<td>fair</td>
<td>4</td>
</tr>
<tr>
<td>poor</td>
<td>1</td>
</tr>
</tbody>
</table>

## Assessment of Current Happiness

<table>
<thead>
<tr>
<th>Happiness</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>happy</td>
<td>13</td>
</tr>
<tr>
<td>neutral</td>
<td>19</td>
</tr>
<tr>
<td>unhappy</td>
<td>8</td>
</tr>
</tbody>
</table>
note which of the 102 items happened to a member of her immediate family. The logic behind this alteration was that events which cause stress for women during this period often involve loved ones, e.g. children leaving home, getting married, husbands changing jobs, suffering major illnesses or retiring. The 102 items were rated from 1 to 102 according to the amount of stress they are presumed to produce. The lower the score, the less stress the event is considered to generate. Events which tied for position when the scale was created were given a score halfway between the two rankings. (E.g. failed school and changed jobs for a worse one are both scored 31.5 as they occupy the ranks for 31st and 32nd places). Each event which was noted by the subject to have occurred was scored according to its rating and then these ratings were summed. Each subject received a selfstress score for the events which concerned her personally, an otherstress score for the events which happened to members of her immediate family, and a totalstress score for these two scores combined. These three scores were correlated with all the measures for subjective mental health and maturity to assess their
influence on these variables. Table 3 lists the major categories of the PERI and a representative event from that group, together with the rating for the event.

Materials

Measure of Subjective Mental Health

To assess self evaluation of one's own mental health, the Bryant and Veroff measure, The Subjective Mental Health Scale (1984), was used. This measure grew out of their factor analysis of indexes of well-being and distress assessed in a 1976 national survey of adults (Veroff, Douvan, & Kulka, 1981). Six dominant factors emerged for men and women. The six factors underlying their model of Subjective Mental health are listed in Table 4.

The questionnaire consisted of 38 indexes of well-being and distress. The score for each index, or question, contributed to one of the six factors. The questions were answered by circling the response which most closely described the subject’s personal perception of herself, or by writing a few short phrases which were scored for degree of distress according to the coding scheme provided by Bryant. The responses were coded so that a lower score indicated
Table 3

A Sample of the Groups, Events, and Scoring on the PERI Life Events Scale

<table>
<thead>
<tr>
<th>Event Description</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. SCHOOL: started school or a training program after not going to school for a long time</td>
<td>(42.5)</td>
</tr>
<tr>
<td>2. WORK: changed jobs for a worse one, changed jobs for a better one</td>
<td>(72.5)</td>
</tr>
<tr>
<td>3. LOVE AND MARRIAGE: divorce, relations with spouse changed for better</td>
<td>(97.0)</td>
</tr>
<tr>
<td>4. HAVING CHILDREN: started menopause</td>
<td>(52.5)</td>
</tr>
<tr>
<td>5. FAMILY: member other than spouse or child dies</td>
<td>(77.0)</td>
</tr>
<tr>
<td>6. RESIDENCE: remodeled a home</td>
<td>(36.5)</td>
</tr>
<tr>
<td>7. CRIME AND LEGAL MATTERS: assaulted</td>
<td>(50.0)</td>
</tr>
<tr>
<td>8. FINANCES: took out a mortgage</td>
<td>(25.0)</td>
</tr>
<tr>
<td>9. SOCIAL ACTIVITIES: pet died</td>
<td>(2.0)</td>
</tr>
<tr>
<td>10. MISCELLANEOUS: took trip other than vacation</td>
<td>(9.5)</td>
</tr>
<tr>
<td>11. HEALTH: physical illness</td>
<td>(99.0)</td>
</tr>
</tbody>
</table>

(Source: Dohrenwend, Krasnoff, Askenasy, and Dohrenwend, 1978)
Table 4

**Six Factors of the Subjective Mental Health Scale**

1. **Factor 1: Unhappiness**: global affective dimension measuring capacity to reject positive affect. Items assess general happiness, past happiness, and future morale.

   Sample item: Taking things all together, how would you say things are these days—would you say you’re very happy, pretty happy or not too happy these days? (circle one)

   a. very happy   b. pretty happy   c. not too happy

2. **Factor 2: Lack of Gratification**: also measures the rejection of positive experience but this is a more cognitive appraisal. Measures satisfaction and fulfillment from relevant role relationships. Answers to these items specify sources of gratification and a cognitive appraisal of the degree of gratification derived from each source.

   Sample item: Some things in our lives are very satisfying to one person, while another may not find them satisfying at all. How much satisfaction have you gotten from the things that you do in your leisure time?

   a. great satisfaction   b. some satisfaction
   c. little satisfaction   d. no satisfaction

*(table continues)*
3. **Factor 3: Strain**: evaluates negative affective states including psychophysical symptoms. More specifically, these items assess physical symptoms of ill health, psychological symptoms of anxiety and immobilization, and behavioral symptoms of drinking and drug abuse.

   Sample item: When you feel worried, tense or nervous, do you ever drink alcoholic beverages to help you handle things?

   a. many times  
   b. sometimes  
   c. hardly ever  
   d. never

4. **Factor 4: Feelings of Vulnerability**: affective and cognitive response to general negative experience. These items measure the degree to which one feels overwhelmed, susceptible to bad events, and prone to breaking down.

   Sample item: Over their lives, most people have something bad happen to them or to someone they love. By "something bad" we mean things like getting sick, losing a job, or being in trouble with the police. Or, like when someone dies, leaves, or disappoints you. Or maybe just something important you wanted to happen didn’t happen. Compared with most other people you know, have things like this happened to you a lot, some, not much, or hardly ever.

   a. a lot  
   b. some  
   c. not much  
   d. hardly ever

(table continues)
5. **Factor 5: Lack of Self-Confidence**: specific cognitive evaluation of ability to handle positive and negative experience. These items tap issues of esteem, depression, the ability to control life events, feelings of anomie, and lack of self-acceptance.

Sample item: Many people, when they think about having children, would like them to be different from themselves in some ways. If you had a son or a daughter, how would you like him or her to be different from you?

Score depends on whether respondent wants child to be different (scored as "2") or not (scored as "1").

6. **Factor 6: Uncertainty**: dimension of well being and distress which appears to assess one's degree of uncertainty about the future. This uncertainty is measured by frequency of worrying, dissatisfaction, immobilization, anxiety and self-doubt.

Sample item: Do you worry about things a lot or not very much?

a. always  b. a lot of time  c. sometimes
d. not much  e. never

(Source: Bryant and Veroff, 1984)
less distress. The scores for each factor were then summed for a final score for that factor. Scoring was done by the investigator and an assistant. Each scorer worked independently following the coding scheme provided by Bryant. Any disagreements were conferred to consensus. Alpha coefficients were calculated to determine the internal consistency of each factor (Cronbach, 1951). Also, intercorrelations were calculated among the six factors to assess the degree of relationship among them.

Bryant and Veroff (1984) performed multiple regression analyses to demonstrate the divergent validity of the six dimensions in their model by differentially relating age, sex, and education level, as well as certain behavioral measures, to the various factors. These interpretations were based on regression analyses in which each variable was considered, controlling for all others. The three behavioral measures were marital harmony, talking over worries, and church attendance. No two factors of subjective mental health showed the same pattern of correlations with these character or behavioral variables. For example, older people were generally
more unhappy and showed more strain, but they were less uncertain and suffered less from feelings of vulnerability.

Bryant and Veroff wrote, "...the emerging factors may not account for all the critical dimensions of subjective mental health" (1984, p. 1128). This caveat notwithstanding, there are several features of their measure which made it appropriate for use in this study. First, it incorporated the findings of previous research in this area; second, it had been normed for women; and third, their factors measured affective, cognitive, physical, and behavioral elements of subjective mental health. In spite of their desire to clarify the construct of subjective assessments of mental health, they did not attempt to reduce the complexity of the construct by eliminating any of these basic dimensions of human personality functioning.

Measures of Developmental Maturity

Freudian Theory: Measure of Individual Adaptation

Using the imaginative stories which subjects composed while looking at five pictures, one at a time, Stewart (1982) developed a scoring system for measuring the course of emotional adaption to life changes. The
pictures which were used in this study were from a set which was developed through the use of the thematic apperception method for research purposes (Atkinson, 1958).

Stewart's system divided this adaptation into four stages corresponding to Freud's Oral, Anal, Phallic and Genital stages. She labeled her four stages Receptive, Autonomous, Assertive and Integrated. For each stage she examined the individual's attitude toward authority, relations with others, feelings, and orientation to action. Individuals at each stage approach these four issues in different ways which can be coded according to the themes and preoccupations displayed in their stories.

Five pictures were used in this study. They were of a man and a woman sitting on a bench overlooking a body of water, a male and a female trapeze artist suspended in mid-air, two women in a laboratory, a man and a woman walking with some horses in a field, and a male ship captain talking to another man. Each picture was presented individually. As the subject created her story orally, the investigator wrote it down. On the average, each story was approximately one third of a
typed page in length. The stories were scored by a graduate student trained according to the manual provided by Stewart. The training consisted of scoring stories provided in the manual and then comparing those scores with scores provided in the manual for those same stories. When the graduate student obtained interrater reliability scores of 94% with the criterion provided in the manual he was considered qualified to score the stories in this study.

Table 5 shows the content categories associated with each stage of Stewart's system. Since there are four stages and four content categories, there are sixteen possible scores. Each story was scored for the presence or absence of each of these sixteen categories. If a particular category was scored, it received a score of +1, otherwise it was scored 0. None of the sixteen categories is mutually exclusive of any other category.

Within each content area, a story can be scored as reflecting a Receptive (Oral), Autonomous (Anal), Assertive (Phallic), and/or Integrated (Genital) stage of adaptation. In addition, a single story can be scored for more than one stage within a single content
<table>
<thead>
<tr>
<th>Stage</th>
<th>Attitude Toward Authority</th>
<th>Relations With Others</th>
<th>Feelings</th>
<th>Orientation to Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral Stage</td>
<td>authority is benevolent</td>
<td></td>
<td>immediate gratification</td>
<td>passivity</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>loss, despair, confusion</td>
<td></td>
</tr>
<tr>
<td>Anal Stage</td>
<td>authority is critical,</td>
<td></td>
<td>lack of gratification</td>
<td>clearing of disorder</td>
</tr>
<tr>
<td></td>
<td>reprimanding</td>
<td></td>
<td>anxiety about competence</td>
<td></td>
</tr>
<tr>
<td>Phallic Stage</td>
<td>opposition to authority</td>
<td></td>
<td>flight and exploitation</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>hostility and anger</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>failure, in context of confident attempt</td>
<td></td>
</tr>
<tr>
<td>Genital Stage</td>
<td>authority is limiting</td>
<td></td>
<td>mutuality, sharing</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ambivalence</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>work commitment and involvement</td>
<td></td>
</tr>
</tbody>
</table>

(Source: Stewart, 1982)
area (e.g., Assertive and Integrated categories in Relation to Authority). Generally, in a particular story, few, if any categories were scorable.

Each story received a score of 0 to 4 for each of the four stages of adaptation to the environment. The total scores for each category were called the "raw" scores. "Weighted" scores for each category were derived by assigning a score of 1 to each Receptive (Oral) score, 2 to each Autonomous (Anal) score, 3 to each Assertive (Phallic) score, and 4 to each Integrated (Genital) score. Raw and weighted scores were compiled for each of the four content areas of each stage and for each stage. Also, a weighted average score was obtained by dividing the total weighted score for all weighted scores by the total number of scored images. A modal stage score was assigned to the stage which had the highest number of responses across stories.

Stewart et. al. (1982) reported on efforts to validate her theory. Results of a blind cross-validation study indicated that the overall scores for each stance, or stage, differentiated among four behavioral criterion groups (p < .001). Individuals who
ate frequently and regularly and who smoked were considered to have oral preoccupations. Individuals whose behavior was highly ritualized and focused around issues of orderliness and cleanliness were considered to have anal concerns. Those with high levels of activity with the opposite sex were considered to have phallic concerns. Individuals with a significant, committed sexual relationship that seemed to include time and energy for intimate communication and work were considered to have achieved genital concerns.

Reliability was measured in several ways. Stewart trained scorers to achieve interrater reliabilities above 90%. Internal consistency was examined by calculating Cronbach’s alpha for each of the four stage scores. Stewart reported coefficients of .69 for receptivity, .80 for autonomy, .78 for assertion, and .53 for integration. However, this sample had been selected for extreme stage preoccupation so these scores for consistency were probably higher than could be expected in the general population. Test-retest reliability after one week produced coefficients ranging from .29 to .54. All these coefficients were significant at least at the .05
In order to test the hypotheses relating subjective mental health to developmental maturity according to Freudian theory, each of the six components of the Subjective Mental Health Scale was correlated with the raw and weighted scores for each of the four stages of Stewart’s model, for the average weighted score (obtained by dividing the total weighted score by the number of scorable responses), and the modal score (the most frequently occurring stage score). Scores were corrected for differences in length of stories between subjects by partial correlations.

**Eriksonian Theory: Measure of Psychosocial Development**

Hawley’s (1984) Eriksonian Measure of Psychosocial Development (MPD) is an objective personality inventory based on Erikson’s theoretical framework. The test is composed of 112 phrases which the subject is asked to rate on a 5 point Likert-type scale according to how well the subject feels the item describes herself. The 112 items are composed of 14 items for each of Erikson’s 8 stages. Seven items or phrases describe the healthy attitude for that stage,
This particular measure was chosen for this study because it appeared to be more valid, comprehensive, and objective than other instruments which have attempted to codify Erikson's theory of psychosocial development. The phrases are closely matched to the construct for the particular stage they are designed to tap. The measure covers all eight stages and was constructed to eliminate such linguistic problems as:
1. double-barreled items: e.g. I am interested in learning and like to study.
2. extreme statements: e.g. No one understands me.
3. age or experience related items: e.g. I enjoy being a parent.
4. ambiguous concepts: e.g. vital situations
5. sexist language: e.g. the integrity of good men.
6. difficult language: e.g. imperturbable optimist.
(All these examples were reported by Hawley to exist in earlier attempts to build a measure based on Erikson's theory.)

In addition, Hawley published reliability and validity research. She conducted four major studies. Study 1 investigated the stability of the MPD. Test-
retest reliability coefficients for the sixteen scales ranged from .67 to .89. Study 2 examined the internal consistency of the scales. Cronbach’s alpha coefficients ranging from .65 to .84 indicated a high degree of item homogeneity for each scale. Study 3 revealed that of the classifications of 112 MPD items, 94 or 83.9% were agreed upon by five expert judges, providing strong evidence of content validity. Study 4 examined construct validity using the multitrait-multimethod matrix design with the MPD, the Inventory of Psychosocial Development (Constantinople, 1969), and the Self-Description Questionnaire (Boyd, 1966). Convergent validity is then established by showing that the correlations between the same traits measured by different methods is high, while discriminant validity is then demonstrated when the different traits are not highly correlated even when they are measured by the same method. The traits were the 16 scales representing the eight stages of Erikson’s theory and the methods were the different measures Hawley used to make comparisons to her MPD. Strong support for the convergent validity of the MPD and for the discriminant validity of the positive scales (healthy attitudes) was
found. Moderate support for the discriminate validity of the negative scales (unhealthy attitudes) was also demonstrated.

In the scoring system, each item received equal weight. Three different types of scores were collected:

**Scale scores** were derived by summing scores for the seven items for each of the sixteen scales. With five possible responses (0-4), the potential score range for a given scale score consisting of seven items was 0-28.

**Stage or Degree of Resolution Scores** were derived by subtracting the two scores associated with each stage from each other (e.g., Trust minus Mistrust for Stage 1). The potential score range for each of the eight stage scores was 0-28 (+ or -). These eight stage scores were totalled for a Total Degree of Resolution Score. The potential score for this score was 0-224.

**Pole Scores** were obtained by summing across the eight positive scales for Total Positive Pole Score and by summing across the eight negative scales for a Total Negative Pole Score. Total pole scores can range from 0-224.

Following Erikson’s theory of psychosocial
development, high scores for the positive scales and low for the negative are desirable. Degree of Resolution scores reflect the degree of resolution of conflict associated with a particular stage; the higher the score in the positive direction, the greater the degree of conflict resolution between the stage attributes.

In order to test the hypotheses relating subjective assessments of mental health to developmental maturity according to Erikson's theory, each of the six factors of the Subjective Mental Health Scale was correlated with scores for the positive and negative attitudes for Erikson's eight stages of psychosocial development and with the eight scores for degree of stage resolution, with the positive and negative pole scores and with the total degree of resolution scores. In addition, Cronbach alpha coefficients were calculated to determine the item homogeneity for each of the 16 scales.

Table 6 lists two sample items from each of the eight stages of Erikson's theory. One example taps the healthy attitude for that stage, and one the unhealthy attitude.
Table 6

Examples from the Sixteen Scales of the MPD

Stage 1+ Trust
   Good things are worth waiting for
Stage 2+ Autonomy
   I make my own decisions
Stage 3+ Initiative
   I like to get things moving
Stage 4+ Industry
   I am eager to learn how to develop my skills
Stage 5+ Identity
   I found my place in the world
Stage 6+ Intimacy
   I am warm and understanding
Stage 7+ Generativity
   I am involved in service to others
Stage 8+ Ego Integrity
   I would not change my life
   if I had it to live over

Stage 1- Distrust
   Good things never last
Stage 2- Shame and Doubt
   I am easily embarrassed
Stage 3- Guilt
   I am inhibited and restrained
Stage 4- Inferiority
   I can’t do anything well
Stage 5- Identity Confusion
   I am a mystery, even to myself
Stage 6- Isolation
   I keep my feelings to myself
Stage 7- Stagnation
   I am bored
Stage 8- Despair
   I am full of regret

(Source: Hawley, 1984)
Theory of Ego Psychology: Measures of Ego Strength

The concept of the ego has undergone many modifications during the course of the development of theories of psychological maturity. Along with the refinements and reworking of the concept has come a parallel effort in the research arena to develop a measure which adequately characterizes the concept of the ego. Because of the complexity of the concept and the lack of a definitive and precise system of measurement, two different assessments of ego strength were used in this study. One was based on responses to 68 items from the MMPI and the other was based on responses to the Rorschach.

The measure based on the MMPI was the Ego Strength Scale developed by Barron (1953). The scale consists of 68 items from the Minnesota Multiphasic Personality Inventory, selected from the total pool of 550 items on the basis of significant correlations with rated improvement in 33 psychoneurotic patients. It appeared that the aspects of ego functioning which led to improvement for these patients were the same qualities of ego functioning considered to contribute to generally effective functioning in all people. Barron
stated that the Ego Strength Scale (the Es scale) measures the "various aspects of effective personal functioning which are usually subsumed under the term 'ego strength'." (Barron, 1953, p. 327) More specifically, he suggested that ego-strength was reflected in the 68 true-false statements of the Es scale according to the following categories.

1. physical functioning and physiological stability
2. psychasthenia and seclusiveness
3. attitude toward religion
4. moral posture
5. sense of reality
6. personal adequacy, ability to cope
7. phobias, infantile anxieties
8. miscellaneous

Establishing adequate levels of reliability was not a problem for Barron nor for researchers who followed him. He (1953) reported levels ranging from 0.72 for a three-month test-retest coefficient to 0.76 for an odd-even reliability coefficient. Likewise, Gocka (1965) reported an internal consistency value of 0.78 for the scale.

Evaluating the scales's validity has proven much
more elusive. Substantiating and clarifying this construct has produced a large body of research with results which are often difficult to interpret or integrate. Even Barron himself had trouble replicating his findings (Barron & Leary, 1955). There was no significance in the difference scores for the groups of patients in treatment in comparison to that found in the control group before and after the three-month testing period. Likewise, other researchers also failed to replicate Barron's original use of the Es Scale as a predictor of response to therapy. (Getter & Sundland; 1962, Tamkin, 1957; Tamkin and Klett, 1957). However, Graham (1977), after reviewing subsequent studies, concluded that the Es did predict response to therapy when the patients were neurotics working in individual, psychoanalytically oriented psychotherapy. Dahlstrom's work (1975) focused on defensiveness. He suggested that high Es scores for persons who had psychological difficulties but could not admit them did not predict favorable treatment outcome. However high Es scores for people who did admit their difficulties were able to predict a favorable outcome.

It appeared, therefore, that Barron's hypothesis
held up for certain types of therapy and with certain types of patients. In addition, other investigators using the Es scale discovered a direct relationship between scores on the test and degree of psychopathology. In several studies, the scale distinguished between psychiatric patients and nonpatients (Gottesman, 1959; Speigel, 1969; Taft, 1957). Also it distinguished between psychotic and neurotic patients in the work of Tamkin (1957) and Rosen (1963) among others. These results suggest the scale is valid as a measure of general psychological adjustment.

Other research uncovered a number of interesting relationships between higher scores on the scale and characteristics usually associated with higher levels of ego functioning. Hunter and Goodstein (1967) found that subjects with high and low Es scores differed in their methods of handling stress. Those with high scores used a greater number of coping responses, were rated by judges as less defensive, and used fewer rationalization responses than subjects with low Es scores. Barron (1969) related Es to creativity and originality. Harmon (1980) found that the scale
related to an underlying belief in self-adequacy, along with tolerant, balanced attitudes.

These findings, taken together, suggested that the scale tapped the presence of certain attributes thought to comprise the ubiquitous concept of ego strength. Other studies came to a different, but related conclusion, suggesting the scale measured the absence of ego weakness or pathology (Crumpton, Cantor, & Batiste, 1960; Finney, 1961; King & Schiller, 1960).

In addition to the inconsistency and lack of definitive conclusions in these studies, using the Es scale with confidence is further limited by the fact that often, attempts to replicate these findings failed. In addition, some researchers found that the scale was influenced by social desirability (Edwards & Heathers, 1962).

One may wonder why the scale continues to be used as a measure of ego strength. There are several reasons. First of all, taken as a single body of work, the many studies which have established a relationship between the scale and various attributes of ego functioning provide compelling evidence that some relationship exists and that further research should
clarify it. Secondly, the MMPI is a widely used, normed measure which allows for work from different studies to be compared. Thirdly, the Es scale is easy to administer and score. And lastly, nothing has come along which is better!

The studies cited thus far, attempted to understand the scale by establishing a relationship between the scale and various external and independent variables. Stein and Chu (1967) took a different approach. Building on Barron’s original idea of groupings of items which tap different aspects of ego strength, Stein and Chu analyzed the internal structure of the test. Their cluster analysis produced five clusters. According to their findings, three of the clusters tapped three aspects of a general sense of well-being. These are emotional well-being or freedom from disabling anxiety and depression, cognitive well-being or freedom from disabling primary-process thinking, and physical well-being or freedom from physical complaints. Using these cluster scores, the authors were able to demonstrate empirical validity by distinguishing between groups of normals and psychiatric patients. (They were unable to distinguish
between neurotic and psychotic patients but they stated that they thought this was a function of differences in response set.)

The last two clusters, religious nonbelief and nonparticipation and seeking heterosexual stimulation and escape from boredom, were inconclusively related to the concept of ego strength. They did not distinguish between subgroups as the first three clusters did. In addition, they were orthogonal to one another and to the three clusters of emotional, cognitive, and physical well-being. Only the scores for the first three clusters of well-being were used in this study along with the subject's over-all Es score. Their high alpha levels, .86, .70, and .79 respectively, their strong face validity as components of ego strength, and their demonstrated ability to distinguish between normals and psychiatric patients suggested their utility. In addition, with the elimination of the two factors on religion and sexuality which did not prove to be as strongly related to ego strength, the argument for the use of these three factors is strengthened. It is altogether possible that the validity of the Es scale resides in these factors more strongly than in
the scale as a whole. The specific items which comprise these three scales can be found in Table 7.

In order to test the hypotheses of this study, relating subjective assessments of mental health with the theories of maturity according to ego psychology, the scores for the six factors of the SMH Scale were correlated with the scores from the Es Scale and with the three clusters of well being as defined by Stein and Chu. In addition, alpha coefficients were computed to determine the internal consistency of the Es Scale and the three clusters of well being.

Use of the Rorschach Test to Measure Ego Strength

The second measure used to assess ego strength in this study was developed by Last and Weiss (1976). It is based on responses to the Rorschach test and grew out of a tradition begun by Klopfer and his associates (1951).

The Rorschach Inkblot Test consists of ten cards, each with a picture of an inkblot on it. The subject is asked to report what the blot looks like to her, and subsequently to explain what it was about the blot that suggested her percepts. It has always been an integral assumption in the use of the Rorschach that the images
Table 7
Three Clusters of General Well-being

Cluster I: Emotional well-being or freedom from disabling anxiety and depression:

1. I sometimes feel that I am about to go to pieces. (F)
2. I brood a great deal. (F)
3. I do many things I regret afterwards (I regret things more or more often than others seem to). (F)
4. I feel tired a good deal of the time. (F)
5. I frequently find myself worrying about something. (F)
6. I find it hard to keep my mind on a task or a job. (F)
7. My plans have frequently seemed so full of difficulties that I have to give them up. (F)
8. I feel unable to tell anyone all about myself. (F)
9. Sometimes some important thought will run through my mind and bother me for days. (F)

Cluster II: Cognitive well-being or freedom from disabling primary-process thinking:

1. I have strange and peculiar thoughts. (F)
2. I have often been frightened in the middle of the night. (F)
3. I dream frequently about things that are best kept to myself. (F)
4. I have had very peculiar and strange experiences. (F)
5. My way of doing things is apt to be misunderstood by others (F)

(table continues)
Cluster III: Physical well-being or freedom from physical complaints:

1. I am in just as good physical health as most of my friends. (T)
2. During the past few years I have been well most of the time. (T)
3. I feel weak all over much of the time. (F)
4. My sleep is fitful and disturbed. (F)
5. Parts of my body often have feelings like burning, tingling, crawling, or like "going to sleep". (F)

Note: Letter in parentheses denotes answer which is consonent with ego strength. F and T stand for true and false.

(Source: Stein and Chu, 1967)
evoked provide information about unconscious forces operating within the individual.

Klopfer and his associates (1951, 1954) designed the Rorschach Prognostic Rating Scale (RPRS) on the basis of responses to the Rorschach cards. The final score was the sum of six separate weighted scores derived from the subject's use of human movement, animal movement, inanimate movement, shading, color, and form. They considered the RPRS to measure aspects of ego strength such as reality testing, emotional integration, self realization, and mastery of reality situations. Like the Es Scale, their scale was validated by empirically relating it to improvement in psychotherapy. The results of the research using improvement in psychotherapy as the criterion against which to compare RPRS scores were equivocal. Many studies demonstrated that they covaried with improvement in therapy while many others reported that there was no relationship (Frank, 1967). In addition, a major drawback to using this scale is that it is complex, technically difficult and therefore, very time-consuming to compute.

Barron's Es scale has the advantage of ease of
administration and scoring but the disadvantage of a narrow view of ego strength as only the absence of psychopathology. Last and Weiss were attracted to the Rorschach because of its broader view of ego strength: "...these component variables...reflect central aspects of the ability for adaption and coping" (1976, p. 59). Their work suggested to them that all aspects of the RPRS were not equally useful and that the elimination of the less useful aspects would create a measure of ego strength which was more comprehensive than the Es Scale and easier to use than the RPRS. Also, their measure would be applicable to non-clinical as well as clinical populations.

Last and Weiss used four scores from the Rorschach Test for their measure of Ego Strength. They made their selections based on the following assumptions:

1. The concept of ego strength implies the availability and investment of quantities of energy.
2. The concept of ego strength implies adequate control of energies by the ego.
3. Ego strength at any point in time is a function of the quantity of controlled psychic energies
available.

4. Controlled energy at the disposal of mental processes derives from libidinal, aggressive, and neutral sources.

5. Rorschach indicators representing these sources of energy in the perceptual process can be identified.

The following Rorschach variables were assumed to represent these indicators:

- Number of controlled color responses (FC+, CF+)
- Number of human movement responses (M+)
- Number of animal movement responses (FM+)
- Number of controlled space responses (S+)

The sum of Rorschach responses of these four types was assumed to represent the total of controlled energy (Sum E) available to the Ego from different sources. It is, therefore, hypothesized to be a valid estimate of ego strength.

The scoring system for Last and Weiss's measure is very simple. The protocols are scored according to any standard system (Last, personal communication, 1987). For this study, the Exner system was used. In this system, the variables of interest (CF+, FC+, M+,
FM+, S+) are summed for the entire protocol. Sum E is created by adding together these summed scores. The higher the figure, the stronger the ego.

Last and Weiss did not report any data on the reliability of their measure. They did conduct a test of construct validity. Sum E was correlated with W++ responses. The W++ score is an integrative whole response and was assumed by Hemmendinger (1960) to represent the synthetic function of the ego and consequently to serve as an estimate of ego strength independent of Sum E. To achieve a W++ score, an unbroken blot (Cards 1, 4, 5, 6, and 9) has to be broken up and reorganized into a new and complex unit. The resulting correlation was .78.

The Rorschach Inkblot Test was administered according to the standard set of instructions. The investigator wrote down the subject's percept as she created it. Scoring of the Rorschach protocols was done by the principal investigator and a graduate student. Overall interrater reliability was 94%. Reliabilities for the individual categories ranged from 87% to 98%. Differences were conferred to consensus and in the rare instances of unresolvable disagreement,
the scoring of the principal investigator was used because of her greater experience with the Rorschach.

Because these are summation scores, and therefore should vary simply as a function of the total number of responses given to the total Rorschach protocol, provisions were made to account for the differences in response productivity. According to the system suggested by Blatt and Berman (1984) and Kalter and Marsden (1970), partial correlations were computed between the Rorschach variables in the Last and Weiss measure and the differences in response productivity. These correlations, which remove the variance accounted for by differences in response productivity were then used throughout the study in the testing of hypotheses, wherever scores were based on responses to the Rorschach Test. To test the hypothesis of this study, the GEE score was correlated with the six factors of the SMH Scale.

Theory of Object Relations: Measures of Object Representations and Mutuality of Autonomy:

An important assumption in the use of the Rorschach to assess one's level of object relations is
that the images evoked provide basic information about the nature of an individual's perception of herself and her relationships to others. Mayman (1967) was one of the first to clarify the theoretical link between object relations theory and the Rorschach response. He pointed out that the unstructured stimuli of the Rorschach call up a person's inner representations of the self and object in the form of human, animal and inanimate object responses, revealing many aspects of one's object relationships. He found the content of the human response correlated with independent assessments of interpersonal relations, severity of psychiatric symptoms, and motivation for change. Blatt and Lerner (1983) reported a wide range of studies which provided strong support for the notion that an individual's internal conception and experience of others tends to be reflected in the Rorschach imagery evoked.

Other studies have further supported the use of animal and inanimate object responses, as well as human responses, as self and object representations. Goldfarb (1945), Mayman (1967), and Urist (1973) all support the idea that fantasied animals can be
considered metamorphic references to the human environment throughout life.

For the purposes of the present investigation, two scales based on responses to the Rorschach were used to assess the developmental level of a person's object relations. One was developed by Blatt and his associates (1976; 1983) and the other by Urist (1977). These systems assess the structure of the concept of the object and the mutuality perceived in relationships. Both are measures of the developmental level of an individual's object world which, as Urist postulated, can be defined for each individual along a developmental continuum, ranging from primary narcissism to empathic object-relatedness (1973).

Blatt and his colleagues focused on the structural dimensions of object representations. According to their theory, progress in the development of representations is the result of increased levels of internalization and the product of each major developmental phase. Object representations and the cognitive schemata to express them become increasingly differentiated, integrated, and accurate with increasing maturity during the course of personality
development. Blatt and his colleagues developed procedures for the assessment of object representations and studied the relationships of object representation to normal development as well as to levels and types of pathology, especially in schizophrenia and depression.

Blatt’s method involves scoring all human and quasi-human responses on the Rorschach protocol with respect to these qualitative properties. More specifically, they were assessed as to their degree of differentiation (whether the response is human or quasi-human, whole or detail), articulation (degree of elaboration of the response) and integration (the way the concept of the object is integrated into a context of action and interaction with other subjects). In reliability tests, interrater scores for all categories were consistently reported to be over 90%.

According to Blatt’s scale, a more mature level of object relations is evidenced in whole, well-articulated human responses. A less mature level is seen in less articulated, part-object responses. Degree of differentiation of human figures was scored according to the nature of the response, ranging from developmentally lower partial details to quasi-human
and human figures. Each human percept was assigned to its appropriate differentiation category and then the individual scores were summed for the entire protocol. They were then divided by the number of human responses to reach a degree of differentiation score for each subject. The number of perceptual characteristics (e.g., size, posture, clothing) and functional properties (e.g., age, sex, role, specific identity) specified for each human response were summed to reach an articulation score for each percept. These scores were then summed for the entire protocol and divided by the number of human responses to reach a degree of articulation score. Integration is defined as the way the concept of the object was integrated by the subject into a context of action and interaction with other objects. Higher scores represented increased integration, and interactions which were more reflective, motivated and purposeful. Integration of the response was scored in three ways:

a) the degree of internality of the motivation of the action (unmotivated, reactive, and intentional)

b) the degree of integration of the object and its action, (fused, incongruent, nonspecific, and
c) the integration of the interaction with another object (malevolent-benevolent and active-passive, active-reactive, and active-active).

Like the other scores, for each subject's protocol, the scores for integration were summed and then divided by the number of human responses for a degree of integration score. The three scores, degree of differentiation, articulation, and integration were then summed for the entire protocol. However, scores were computed separately for responses scored "plus" (common or integrated) and "minus" (uncommon or poor) according to Exner's system. These two scores were also summed for a total score. These three scores were labeled plus object relations score, minus object relations score, and total object relations score. For the current study, the protocols were scored by a graduate student who was very experienced in Blatt's system. Several times previously she had demonstrated high levels of reliability when her scores were compared to a criterion. Table 8 summarizes the Concept of the Object Scale of Blatt and his co-workers. To test the hypotheses of this study, these
Table 8

**Developmental Analysis of the Concept of the Object Scale**

A. **Accuracy of the response:** Responses are classified as perceptually accurate or inaccurate according to whether they conform to the configuration of the stimulus properties of the card.

B. **Differentiation:**

1. Quasi-human details: Part of a quasi-human figure is specified.
2. Human details: Part of a human figure is specified as human.
3. Quasi-human responses: Figures that are whole but less than human or not definitely specified as human.
4. Human responses: The figure must be whole and clearly human.

C. **Articulation:**

1. Perceptual characteristics
   a. Size or physical structure
   b. Clothing or hair style
   c. Position

2. Functional Characteristics
   a. Sex
   b. Age
   c. Role
   d. Specific identity

3. Degree of Articulation - number of characteristics listed

*(table continues)*
D. **Motivation of Action:**

1. Unmotivated
2. Reactive
3. Intentional

E. **Object-Action Integration:**

1. Fusion of object and action
2. Incongruent integration of object and action
3. Nonspecific integration of object and action
4. Congruent integration of object and action

F. **Content of Action:**

1. Malevolent
2. Benevolent

G. **Nature of Interaction:**

1. Active/Passive
2. Active/Reactive
3. Active/Active

(Source: Blatt and Lerner, 1983)
three scores were correlated with the six factors of
the SMH Scale.

Urist (1973, 1977) devised a Mutuality of
Autonomy Scale (MAS) to measure the developmental
progression in human psychological development toward
separation-individuation with an emphasis placed on the
experience of autonomy of the self and the other. The
scale is based on responses to the Rorschach. Urist
assumed that the portrayal of relationships between
both animate and inanimate figures on the Rorschach
should reflect the individual's experience and
definition of human relationships (1977). The intent
of his scale is to identify to what degree the
emotional involvement of the self and the other
maintains the integrity of both. At the lower, less
mature, end of the scale, which can be likened to a
less mature level of psychological development, the
relationship of self and other is experienced through
imagery of malevolent, overpowering control, or through
the experience of others as an extension of the self.
At a higher level, where there is increasingly
autonomous functioning and regulation, one experiences
mutual interaction, wherein the integrity of both
parties is maintained, and relationships contribute to a common goal. According to Urist’s system, all percepts wherein human, animal, and inanimate figures are engaged in interaction (as described by the scale points) are scored. Table 9 describes Urist’s types of interaction. The number next to each description is also the score given whenever that type of interaction is present.

Urist’s attempts to validate his scale were simultaneously validating the use of the Rorschach to measure self-object representations and the structurally based consistency of people’s levels of object relations (1977). For a group of hospitalized psychiatric patients, he found significant correlations between the MAS, staff evaluations of mutuality of autonomy, and ratings based on autobiographies written by the patients. Interater reliabilities were calculated in terms of percent agreement within pairs of raters. The percent within one scale point for ratings based on the Rorschach was 86%, for those based on the staff ratings, 83%, and for those based on the autobiographies, 79%. These levels were impressively high given the subjective nature of the ratings.
Table 9

Mutuality of Autonomy Within Portrayed Relationships in Rorschach Imagery

1. Figures are engaged in some relationship or activity where they are together and involved with each other in such a way that conveys a reciprocal acknowledgment of their respective individuality.

2. Figures are engaged together in some relationship of parallel activity. There is no stated emphasis or highlighting of mutuality.

3. Figures are seen as leaning on each other, or one figure is seen as leaning or hanging on another.

4. One figure is seen as the reflection, or imprint, of another.

5. The nature of the relationship between figures is characterized by a theme of malevolent control of one figure by another.

6. Not only is there a severe imbalance in the mutuality of relations between figures, but here the imbalance is cast in decidedly destructive terms.

7. Relationships here are characterized by an overpowering, enveloping force. Figures are seen as swallowed up, devoured, or generally overwhelmed by forces completely beyond their control.

(Source: Urist, 1977)
The protocols in this study were scored by the principle investigator and a graduate student. Interrater reliability was 78%. Differences were conferred to consensus. Two scores were compiled: the average score (AMA), and the modal score (TPMA). To compare subjective assessments of mental health with levels of object representations according to Urist’s system, these two scores were correlated with the six factors of the SMH Scale.

**Procedure**

The forty female subjects were selected from a group of volunteers who responded to an ad in a community newspaper. The subjects were each given an identifying code number which was the only identification used on their test responses. They were told that 4-7 hours of their time would be required to participate in a study about woman’s perceptions of their mental health. The time would be divided between certain measures which they would fill out privately and others which they would complete in a face-to-face meeting. They were also informed that this study was being conducted as a requirement for a Ph.D. in
Clinical Psychology. Appointments were made at mutually agreeable times. Subjects were given the choice of meeting in their home or place of work or in the investigator's home. They were asked to pick the time and site when and where they would feel most relaxed and would be assured of privacy and no outside interruptions. Twenty-three women chose to be tested in their homes, five in their place of work and twelve in the investigator's home. Seven to ten days before her appointment, each subject received a packet containing the measures which she could answer on her own. These included a consent form, the demographic questionnaire, the PERI Life Events Scale, the MPD, and the Barron's Es Scale. They completed these before the face-to-face meeting. At that time, the TAT pictures and the Rorschach Inkblot Test were administered. The meeting also provided an opportunity for the subjects to ask any questions about the study and talk about feelings and ideas which the study had aroused in them. The investigator promised to send a report on the findings when the study was completed.
RESULTS

This study examined the relationship between women's subjective assessments of their mental health and levels of maturity attributed to them according to various theories of personality development. In this chapter the analyses done to examine the specific hypotheses of the study will be presented. Some additional analyses of the data relevant to the questions posed will also be included. The statistical methods used will be cited as the results are presented.

Preparation of Data for Hypothesis Testing

Demographic Variables

A great deal of research has indicated that demographic variables influence subjective assessments of well-being (Baruch & Barnett, 1986; Carlson, 1971; Edwards & Klemmack, 1973, Jobes, 1986, Kushman & Lane, 1980; Zappert & Weinstein, 1985). It was necessary therefore, to determine whether the demographic variables in this study contributed a confounding influence on the results obtained when the hypotheses were tested. A problem would occur if the same
A demographic variable was demonstrated to simultaneously affect a variable of subjective mental health and a variable of maturity.

Demographic variables were dichotomized in order to perform $t$ tests with subjective mental health scores and maturity as the dependent variables. The variables were divided as follows:

1. Education: high school graduates vs college graduates
2. Marital Status: married vs single, divorced, and widowed
3. Motherhood: yes vs no
4. Occupation: full time vs part-time or none
5. Income: more than $40,000 vs less than
6. Assessment of physical health: excellent and good vs fair and poor
7. Assessment of current happiness: happy vs unhappy
8. Favorite childrearing period: birth to six years vs older than six years
9. Factor most responsible in determining current life situation: self vs environment

Significant differences were noted for educational level, working full time (more than 35 hours per week), marital status, motherhood, voluntary
activities and level of income. Unless otherwise noted, significance occurred at the p<.05 level.

Of the six factors for SMH, Lack of Gratification and Feelings of Vulnerability were the most susceptible to the influence of demographic variables. Women who worked full time, engaged in extensive voluntary activities, or had an income of over $40,000.00 per year reported more gratification than women who did not work full time, engaged in few or no voluntary activities, or had an income of less than $40,000.00 per year. Feelings of Vulnerability were affected by educational level, marital status, and income. High school graduates reported weaker feelings of vulnerability than college graduates. Married women and women with income over $40,000.00 reported weaker feelings of vulnerability than women who were never married, or who were separated, divorced, or widowed, or had an income of less than $40,000.00 per year. The influence of marriage on Feelings of Vulnerability was particularly strong (p<.001).

Evidence of the influence of demographic variables on the measures for developmental maturity was apparent on the Measure for Personality Development (Eriksonian measure), the Es Scale (Barron scale for
ego strength) and the GEE scale (measure of ego strength based on the Rorschach). Women who worked full time resolved the crises of Erikson's eight stages in a more favorable direction when the eight stages were summed for a total degree of resolution score. College graduates demonstrated more ego strength according to the Es Scale and the GEE Scale than non-graduates.

Only two demographic variables presented problems as possible confounds in the analyses of the relationship between factors of subjective mental health and levels of maturity. Women who worked full time experienced stronger feelings of gratification and also attained more mature levels of functioning according to Eriksonian theory. The variance due to working full time was partialed out from the correlations between the Lack of Gratification factor on the Subjective Mental Health Scale and the scores on the Measure of Personality Development (measure based on Erikson's theory). The resulting correlations were in all cases, but one, still significant at the same level as before. The only exception was for Stage 4, positive attitude. The correlation between Lack of Gratification and Industry, originally was
When the influence of working full time was removed, the resulting correlation was

\[ r = (38).51, \ p < .01. \]

Level of education influenced Feelings of Vulnerability and the two measures of ego strength. However, since Feelings of Vulnerability was not significantly associated with the total Es Scale or the GEE, no further analyses were computed.

**Stress**

The effect of stress on the responses to the SMH Scale and the measures of psychological maturity was assessed according to the PERI Life Events Scale (Dohrenwend, Krasnoff, Askenasy & Dohrenwend, 1978). As a group, stress did not appear to significantly affect women's assessment of their mental health or their levels of maturity according to the various theories. All scores for stress occurred within a range of 21-1338.50. (The higher the score, the greater the level of stress experienced.) The range of scores for total stress was 21-1338.5, for self stress, 21-1230 and for other stress, 0-816.5. The range of scores for total stress was distributed across the pool of subjects with a skew towards the lower end of the range. When the total stress score was divided into the self stress and other stress scores, the skew was more
pronounced. For selfstress, 35 of the 40 subjects fell below the midpoint of the range. For otherstress, 31 women were below the midpoint.

The only significant correlation between the various scores for stress and the six factors of subjective mental health was between Lack of Gratification and otherstress. Women with higher scores for otherstress experienced less gratification, \( r(38) = .35, p < .05 \).

The only significant correlations between the various scores for stress and the theories of maturity were between selfstress and total stress and the modal score for Stewart's Measure of Individual Adaptation (MIA) and the S+ score on the Rorschach Inkblot Test. On the MIA, the higher the modal score, the more selfstress and total stress were experienced, \( r(38) = -.31 \) and \( -.42, p < .05 \). Women who were more mature according to the MIA experienced more stress than women who were less mature. The correlations between the "S+" score and self and total stress were \( r(38) = -.31 \) and \( -.36 (p < .05) \) respectively. Last and Weiss (1976) suggested that this Rorschach score represents a healthy competitive or self-assertive quality in the ego. Therefore, this correlation
suggested that competitive and/or assertive women experienced more stress than less competitive women. Nothing further was done to remove the effects of stress from the variables used to test the hypotheses because these results were considered too minimal to affect any of the results. One hundred and seventeen correlations were computed to determine the role of stress in this study. Since only five correlations were significant, these results were attributed to chance associations.

Reliabilities

Reliabilities were assessed in one of two ways. For tests using the TAT and The Rorschach Inkblot Test, interrater reliabilities were computed during the scoring process. These scores were reported in the Methods section.

The SMH Scale, The MPD, and the Es Scale represent composite scores. Reliabilities for these scales were established by computing alpha coefficients for the various composite indexes of these scales (Cronbach, 1951).

On the SMH Scale there was considerable variation in the alpha levels. Uncertainty was the lowest at .49. This was not totally unexpected as the scale is
considered to partially represent a residual factor (Bryant & Veroff, 1984). The alpha coefficient for the Unhappiness factor was also lower than the others at .54. This was unexpected as Bryant reported that this factor usually has the highest coefficient of any of the factors (personal communication, 1987). The remaining coefficients were .67 (Lack of Gratification), .72 (Strain), .66 (Feelings of Vulnerability), and .87 (Lack of Self Confidence).

The MPD (Eriksonian measure) produced very satisfactory alpha levels. Except for .47 Stage 4, negative attitude (Inferiority), all the other coefficients ranged between .68 and .97. The coefficients for the three summary scores were .89 for the positive pole, .97 for the negative pole, and .94 for the total degree of resolution score.

Barron reported reliability scores of .76 and .72 (Barron, 1953, 1955) for the Es Scale. In this study the alpha level was .55. This score was computed from an analysis of the entire Es Scale. However, for the subjects in this study, their scores for several individual items on the scale correlated negatively with their overall Es Scale score. When these negatively correlated items were removed, the alpha
level rose to .76. Hypotheses were tested using both the full Es Scale score (Total 1) and the adapted score with the unreliable items removed (Total 2). These two scores were highly correlated with one another (.94). Therefore, for this particular sample, removing the unreliable items did not substantially change what the scale was measuring while it did increase the reliability of the scale considerably.

Several of the negatively correlated items were deleted because of changes in cultural expectations for women since the Es Scale was originally created in 1953. For example, "I do not like to see women smoke" was one of the items deleted. A complete list of the deleted items appears in Appendix B.

Correlations Related to the Validity of Measures

The thrust of this study was to examine the relationship between subjective assessments of mental health and theoretical concepts of psychological maturity. Several different instruments were utilized to measure these constructs. They were either projective tests or structured questionnaires. Knowledge of the relationships between these different theories and the various instruments used, as well as the relationships between the different techniques
employed, should enhance the interpretation of the findings based on direct testing of the hypotheses.

In this study, all correlations are reported in the positive direction when desirable scores on one measure are correlated positively with desirable scores on the second measure. When desirable scores on one measure are correlated negatively with desirable scores on the second measure the correlations are reported as negative correlations.

For one score, AMOR, on the Concept of the Object Scale, it was necessary to make a judgment as to what was a desirable score. This score was derived from responses to Rorschach Inkblots which received minus scores. Minus scores are derived from original or unusual responses as well as poor or inaccurate ones. Because these subjects were drawn from a normal population, it was assumed that their "minus" scores were more likely because of original responses rather than inaccurate ones. Therefore, their minus responses were considered desirable and were scored in the same direction as their "positive" scores.

Pearson product moment correlations were calculated for the six factors of the Subjective Mental Health Scale. They appear in Table 10. The most
Table 10

Correlations among the Factors of the SMH Scale

<table>
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<tr>
<th></th>
<th>Unh</th>
<th>LofG</th>
<th>Strn</th>
<th>FofV</th>
<th>LSC</th>
<th>Unc</th>
</tr>
</thead>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of Grat.</td>
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<td>1.00</td>
<td></td>
<td></td>
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<tr>
<td>Strain</td>
<td>.01</td>
<td>.05</td>
<td>1.00</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Feel. of Vuln.</td>
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<td>.38*</td>
<td>.05</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of Slf Cnf</td>
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<td>.69***</td>
<td>.30*</td>
<td>.47**</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Uncertainty</td>
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<td>.23</td>
<td>.03</td>
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</tbody>
</table>

*p<.05; **p<.01; ***p<.001
striking result was that Lack of Self Confidence was significantly correlated with all the other factors.

Correlations were also computed when multiple measures were used for the same theory of maturity. Ego theory had two measures, the Es Scale developed by Baron and the GEE Scale based on responses to the Rorschach and developed by Last and Weiss. The results of the correlations for these two measures of ego strength appear in Table 11. The three cluster scores were developed by Stein and Chu from their factor analysis of the full Es Scale. The GEE Scale did not correlate significantly with any of the scores on the Es Scale. Evidently, these two measures are assessing different aspects of ego strength.

Three measures in the study were based on responses to the Rorschach Inkblot Test. These measures were correlated with one another and the results appear in Table 12. Two of the measures assessed object relations. These were Blatt’s Concept of the Object and Urist’s Mutuality of Autonomy Scales. The Blatt variables presented here are APOR (average positive object relations), AMOR (average minus object relations) and ATOR (average total
Table 11

Correlations between the Es Scale and the GEE Scale

<table>
<thead>
<tr>
<th></th>
<th>Total1</th>
<th>Total2</th>
<th>Clstr1</th>
<th>Clstr2</th>
<th>Clstr3</th>
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<tr>
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<td>.65***</td>
<td>.47**</td>
<td>1.00</td>
</tr>
<tr>
<td>Cluster 3</td>
<td></td>
<td>.25</td>
<td>.36*</td>
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<tr>
<td>GEE Scale</td>
<td>-.02</td>
<td>.04</td>
<td>.10</td>
<td>.15</td>
<td>.01</td>
</tr>
</tbody>
</table>

*p<.05; **p<.01; ***p<.001

Total 1: full Es Scale
Total 2: Es Scale with unreliable items deleted
Cluster 1: emotional well-being
Cluster 2: cognitive well-being
Cluster 3: physical well-being
### Table 12

**Correlations Among Measures Based on the Rorschach**

<table>
<thead>
<tr>
<th></th>
<th>APOR</th>
<th>AMOR</th>
<th>ATOR</th>
<th>AMA</th>
<th>TPMA</th>
</tr>
</thead>
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<td>AMA</td>
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<td>.26</td>
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</tr>
<tr>
<td>TPMA</td>
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<td>-.12</td>
<td>.11</td>
<td>.69***</td>
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<tr>
<td>GEE</td>
<td>.19</td>
<td>.45**</td>
<td>.38*</td>
<td>.05</td>
<td>.05</td>
</tr>
</tbody>
</table>

*P < .05; **P < .01; ***P < .001
object relations). The Urist variables are AMA (average mutuality of autonomy) and TPMA (most typical mutuality autonomy score). The remaining measure was the GEE Scale which measured global ego efficiency according to Last and Weiss. The most interesting correlations appeared between measures. GEE was significantly related to AMOR and ATOR. Ego strength, according to the GEE Scale, was more closely aligned to unusual responses on the Rorschach than typical or integrated ones. Although ATOR appeared to be more strongly related to APOR rather than AMOR, the effect of the relationship between AMOR and GEE is still reflected in the ATOR by GEE correlation.

Two of the measures used in this study were structured personality questionnaires. These were the Measure of Personality Development (MPD) based on Erikson's theories of psychological maturity and the Es Scale of ego strength developed by Barron. When these two measures were correlated with each other some of the variables were found to be highly related. The total degree of resolution score on the MPD is the most comprehensive score of the scores from that measure. It includes information on the positive and negative attitudes for all the stages of development as well as
the relationship of these attitudes to one another. This score was significantly related to every variable on the Es Scale except for the Cluster 3 score. The scores for stage 7 were significantly correlated with the total scores and the Cluster 1 score on the Es scale. The results appear in Table 13.

Four measures were projective tests. One was the MIA based on Freudian theory and created from data collected from TAT stories. The other three measures were based on the Rorschach (see Table 12). Table 14 lists the correlations between the MIA variables and the three variables based on Rorschach responses. The scores for integrated responses on the TAT (RINT and WINT) were correlated with the score for integrated responses on the Rorschach, APOR. The scores for autonomous responses on the TAT (RAUT and WAUT) were correlated with the scores reflecting unusual responses on the Rorschach, AMOR and ATOR. The summary scores on the TAT measure (TTLR and TTLW) were correlated with the average score on the Rorschach measure which measured mutuality of autonomy. In addition, the most typical score correlated with the scores for the integrated stage on the MIA.

Very few of the variables from the structured
Table 13

**Correlations between the MPD and the Es Scale**

<table>
<thead>
<tr>
<th></th>
<th>Total1</th>
<th>Total2</th>
<th>Clstr1</th>
<th>Clstr2</th>
<th>Clstr3</th>
</tr>
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<tbody>
<tr>
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<td>.68***</td>
<td>.32*</td>
<td>.25</td>
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<td>.66***</td>
<td>.19</td>
<td>.08</td>
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<td>Stage 7N</td>
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<td>.58***</td>
<td>.33*</td>
<td>.34*</td>
</tr>
<tr>
<td>Stage 7 Dof R</td>
<td>.41**</td>
<td>.52***</td>
<td>.69***</td>
<td>.28</td>
<td>.23</td>
</tr>
</tbody>
</table>

*=p<.05; **p<.01; ***p<.001
Table 1:
Correlations Between the MIA Variables and the Three Variables Based on the Rorschach

<table>
<thead>
<tr>
<th></th>
<th>RINT</th>
<th>RASS</th>
<th>TAUT</th>
<th>RRCP</th>
<th>TTLR</th>
<th>WINT</th>
<th>WASS</th>
<th>WAUT</th>
<th>WRCP</th>
<th>TTLW</th>
<th>MNST</th>
<th>MDST</th>
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<td>.17</td>
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<td>.37*</td>
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<td>.03</td>
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<td>.35*</td>
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<td>-.19</td>
<td>-.03</td>
<td>.14</td>
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<td>.26</td>
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<td>.32*</td>
<td>.11</td>
<td>-.02</td>
<td>.27</td>
<td>-.24</td>
<td>.33*</td>
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<td>.06</td>
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<td>.30*</td>
<td>.25</td>
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<td>.32*</td>
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<td>-.17</td>
</tr>
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<td>.17</td>
<td>.33*</td>
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<td>.19</td>
<td>.17</td>
<td>.33*</td>
<td>.06</td>
<td>.26</td>
<td></td>
</tr>
</tbody>
</table>

Note: Significance levels are noted only for correlations between MIA & Rorschach variables

*P<.05;   **P<.01
personality questionnaires correlated with any of the variables from the projective tests. Of the variables from the Es Scale, Cluster 2, cognitive well-being, correlated significantly with the average positive and average total (APOR and ATOR) object relations scores from the Concept of the Object Scale ($r(38) = .37$ and $.39$ respectively, $p < .05$).

Of the variables from the Measure of Personality Development Scale, TTLP (total score for the eight positive stages summed across stages) and TTLDofR (total score for the eight stage degree of resolution scores summed across sages) correlated with one variable from the Measure of Individual Adaptation (MIA) and one from the Global Ego Efficiency (GEE) Scale. The MIA variable was the mean stage score and the correlations were $r(38) = .41$ and $.34$ respectively, $p < .05$. The GEE variable was $S$ and the correlations were $r(38) = .39$ and $.33$ respectively, $p < .05$. ("S" also was significantly correlated with Stage 7P and Stage 7DofR on the MPD ($r(38) = .31$ and $.32$, $p < .05$).)

**Hypothesis Testing**

**Hypothesis I**

The first hypothesis addressed the general relationship between women's subjective assessments of
their mental health and assessments of their levels of maturity as suggested by four theories of psychological development. Specifically, it was hypothesized that subjective assessments of mental health would be positively related to concepts of maturity according to each of the four theories presented. The relationship between subjective mental health and maturity was tested separately for each theory by computing the Pearson Product Moment correlation between the six factors of the SHH Scale and the scores for the measures based on each of the four theories.

Freudian Theory

Of the 72 correlations computed to test the relationship between Freudian theory and subjective assessments of mental health, only two correlations between the SMH Scale and Stewart's Measure of Individual Adaptation were significant. The raw and weighted scores for the Integrated stage (the most mature stage corresponding to Freud's genital stage) correlated significantly with the score for the Uncertainty factor, \( r(38) = .33, p < .05 \). Subjects who were more mature according to Freudian theory exhibited less uncertainty and more optimism about the future as reflected by less frequency of worry and anxiety and
less self doubt and general dissatisfaction.

**Eriksonian Theory**

All of the factors of the SMH Scale, except for strain, were significantly correlated with the three summary scores on the MPD. These results are listed in Table 15. The factors of the SMH scale were also significantly correlated with many of the individual stage scores on the MPD. The effects of working full time were partialled out of the scores used.

The most consistent and most powerful correlations were between Lack of Gratification and Lack of Self-Confidence and all the total scores on the MPD. Women who possess more self-confidence and find more gratification in their lives also experienced more of the positive attitudes and less of the negative attitudes for all of the stages of the Eriksonian model of personality development. They also exhibited more favorable ratios of these negative and positive attitudes than women who were less self-confident and less gratified with their lives. Except for stage 2, positive attitude (Autonomy), these findings held whether the stages were examined individually or the scores were summed across the eight stages.
Table 15

Correlations between Summary Scores on the MPD and the SMH Scale

<table>
<thead>
<tr>
<th></th>
<th>Positive Pole Score</th>
<th>Negative Pole Score</th>
<th>Total Degree of Resolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unhappiness</td>
<td>.32*</td>
<td>.42**</td>
<td>.33*</td>
</tr>
<tr>
<td>Lack of Gratification</td>
<td>.71***</td>
<td>.59***</td>
<td>.73***</td>
</tr>
<tr>
<td>Strain</td>
<td>.23</td>
<td>.26</td>
<td>.25</td>
</tr>
<tr>
<td>Feelings of Vulnerability</td>
<td>.33*</td>
<td>.35*</td>
<td>.41**</td>
</tr>
<tr>
<td>Lack of Self-Confidence</td>
<td>.63***</td>
<td>.66***</td>
<td>.72***</td>
</tr>
<tr>
<td>Uncertainty</td>
<td>.30*</td>
<td>.30*</td>
<td>.30*</td>
</tr>
</tbody>
</table>

*p<.05; **p<.01; ***p<.001
Unhappiness, Feelings of Vulnerability, and Uncertainty were significantly related to the three summary scores of the MPD. Women who experienced more happiness and felt less vulnerable and uncertain also experienced more of the positive attitudes and less of the negative attitudes of Erikson's stages. They also resolved the crises of each stage in a more favorable direction than their less happy and more vulnerable and uncertain counterparts.

However, when the scores for these three factors of subjective assessments of mental health were correlated with the individual stage scores, an uneven pattern of significance emerged. In general, there was a stronger relationship evident in the latter stages than the earlier stages, particularly for the negative attitudes. As an example, according to Erikson's theory, the subjects of this study were dealing primarily with the issues of Stage 7, Generativity versus Stagnation. For this stage, Unhappiness, Lack of Gratification, and Lack of Self-Confidence were significantly associated with stronger feelings of the positive attitude, Generativity. However, for the negative attitude, stagnation, there were significant correlations with all of the six factors of the SMH
Scale, except for Uncertainty. Degree of resolution scores were positively correlated with Lack of Gratification, Feelings of Vulnerability, and Lack of Self-Confidence.

Although Strain did not appear to have a consistently strong relationship with Erikson's theory in general, it did show a strong correlation to stage 3, Initiative versus Guilt. It was significantly correlated with the positive and negative attitudes for that stage and the degree of resolution score. Women who experienced more guilt and more initiative also experienced more strain. Strain was also correlated with distrust and stagnation. These are the negative attitudes for Stage 1 and Stage 7.

**Ego Psychology**

The six factors of subjective assessments of mental health were correlated with the Es Scale and the GEE Scale to examine their relationships with ego strength. The two scales will be discussed separately. Several significant correlations appeared in comparing the SMH Scale and the Es Scale. These results appear in Table 16.

Lack of Self-Confidence showed significant correlations with all the scores on the Es Scale.
Table 16

Correlations between the Es Scale and the SMH Scale

<table>
<thead>
<tr>
<th></th>
<th>Total1</th>
<th>Total2</th>
<th>Cluster1</th>
<th>Cluster2</th>
<th>Cluster3</th>
</tr>
</thead>
<tbody>
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<td>.49***</td>
<td>.14</td>
<td>.02</td>
</tr>
<tr>
<td>Lack of Gratification</td>
<td>.45**</td>
<td>.49***</td>
<td>.66***</td>
<td>.18</td>
<td>.22</td>
</tr>
<tr>
<td>Strain</td>
<td>.30*</td>
<td>.37*</td>
<td>.30*</td>
<td>.22</td>
<td>.24</td>
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<tr>
<td>Feelings of Vulnerability</td>
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<td>.25</td>
<td>.30*</td>
<td>.16</td>
<td>.25</td>
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<td>Lack of Self-Confidence</td>
<td>.52***</td>
<td>.61***</td>
<td>.78***</td>
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<td>.31*</td>
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<td>Uncertainty</td>
<td>.26</td>
<td>.35*</td>
<td>.38*</td>
<td>.17</td>
<td>.23</td>
</tr>
</tbody>
</table>

*p<.05; **p<.01; ***p<.001

Total 1: Total Es Scale

Total 2: Es Scale with negative correlations removed

Cluster 1: emotional well-being

Cluster 2: cognitive well-being

Cluster 3: physical well-being
Feelings of Self-Confidence was an important component of ego strength as measured by the Es Scale. To a slightly lesser degree, Lack of Gratification was also an important aspect. This factor was also significantly associated with all the scores on the Es Scale except for clusters 2 and 3. Strain was significantly correlated with Total 1, Total 2, and Cluster 1. Uncertainty was correlated with Total 2 and Cluster 1. Unhappiness and Feelings of Vulnerability were correlated only with Cluster 1.

The internal consistency as measured by the higher alpha coefficients for Total 2 over Total 1 did not substantially affect the results. The only difference was that the correlation with Uncertainty was significant only for Total 2. When the focus on the Es Scale was on just those items which were associated with emotional well-being (Cluster 1), there was a very strong relationship between the Es Scale and all the factors of the SMH Scale.

The GEE scale and the SMH Scale were not significantly correlated with one another. What is being tapped by the Es Scale appeared to have a strong relationship to subjective assessments of mental health or well-being, while what is being tapped by the GEE
did not.

**Object Relations Theory**

Scores for object relations were derived from the Concept of the Object Scale and the Mutuality of Autonomy Scale (MAS). Both of these scales are based on Rorschach Inkblot Test responses. With one exception, these scales did not correlate significantly with the six factors of the SMH Scale. Of the 12 correlations between the MAS and SMH Scales, one score, TPMA (the most typical score), was significantly correlated with Feelings of Vulnerability, \( r(38) = -.33, \) \( p < .05 \). Women who felt more vulnerable, exhibited stronger feelings of mutuality.

**Findings Pertaining to All Four Theories of Maturity**

Scatterplots were examined in an attempt to determine whether non-linear relationships existed between the factors of subjective assessments of mental health and the four theories of maturity. Each of the six factors of mental health was paired with a summary variable from one of the measures assessing developmental maturity. No non-linear relationships were found.

In examining the findings for Hypothesis I, two
results appear particularly salient. Firstly, there were very few significant correlations between any of the measures based on the projective tests (the Thematic Apperception Test and the Rorschach Inkblot Test) and the Subjective Mental Health Scale. Also, the same two factors from the SMH Scale, Lack of Self-Confidence and Lack of Gratification, showed the strongest relationship with both of the two remaining measures, the MPD and the Es Scale.

**Hypothesis II**

This hypothesis looked at certain aspects of the general relationship suggested in the first hypothesis. Specifically, it proposed that Unhappiness and Lack of Self-Confidence would relate more strongly to maturity as assessed by Object Relations Theory rather than maturity as assessed by the other three theories of maturity.

Because there is some conceptual overlap among the four theories of developmental maturity, measures which are based on these theories will be correlated with one another to some extent. This lack of independence between the four theoretical positions on maturity must be considered in this hypothesis. The
relationship between Object Relations Theory and the two factors of subjective mental health cannot be determined without taking into account that object relations theory is also related to the other theories of maturity. Cohen and Cohen (1983, p. 56) offer a formula for a t test which assesses the significance of the differences in correlations between variables which are not independent of one another. The resulting formula yields a t for n-3 degrees of freedom.

The null hypothesis was not rejected. Object Relations Theory was not related to Unhappiness nor Lack of Self-Confidence any more strongly than the other theories of maturity were. The variables used to test this hypothesis were the scores for Unhappiness and Lack of Self-Confidence, all the variables measuring object relations, summary scores from the other theories of maturity, and individual scores based on the various theories of maturity which had demonstrated a relationship with Unhappiness and Lack of Self-Confidence in Hypothesis I. For Freudian theory, the variables were the total weighted score, the mean score, and the modal score. For the Eriksonian theory, it was the total degree of resolution score (TTLDR) from the MPD. Finally, for
Ego theory, it was the Total 1 score, the Cluster 1 score from the Es Scale and the GEE score.

Contrary to Hypothesis II, these two factors of subjective mental health were more strongly related to some of the other theories of maturity. Unhappiness was found to be more strongly correlated to the Cluster I score from the Es Scale than to the positive object relations score ($t(37)=2.57, p<.05$) and to the total object relations score ($t(37)=2.13, p<.05$) based on Blatt's Concept of the Object Scale.

Lack of Self-Confidence was related more significantly to the TTLDR score on the MPD and the scores on the Es Scale. For a complete listing of these results please refer to Table 17.

Hypothesis III:

This hypothesis was also related to a specific aspect of the more general relationship between subjective mental health and psychological maturity examined in Hypothesis I. This hypothesis stated that Lack of Gratification would be the factor of subjective mental health which was most strongly associated with Erikson's model of personality development. For this hypothesis to be accepted, the correlations between
Table 17

Reports of t Tests Measuring the Greater Significance Between Lack of Self-Confidence and the MPD and Es Scales Over the Significance Between Lack of Self-Confidence and the Object Relations Variables

Eriksonian Measure

<table>
<thead>
<tr>
<th>LSC of TTLDofR</th>
<th>( t ) (37)</th>
<th>( t ) (37)</th>
<th>( t ) (37)</th>
<th>( t ) (37)</th>
<th>( t ) (37)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(LSC x APOR)</td>
<td>6.78 ***</td>
<td>4.26 ***</td>
<td>5.71 ***</td>
<td>3.96 ***</td>
<td>3.90 ***</td>
</tr>
<tr>
<td>(LSC x AMOR)</td>
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<tr>
<td>(LSC x ATOR)</td>
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<tr>
<td>(LSC x AMA)</td>
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<tr>
<td>(LSC x TPMA)</td>
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</tbody>
</table>

Ego Strength Measures (Es Scale)

<table>
<thead>
<tr>
<th>LSC x TOTAL 1</th>
<th>( t ) (37)</th>
<th>( t ) (37)</th>
<th>( t ) (37)</th>
<th>( t ) (37)</th>
<th>( t ) (37)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(LSC x APOR)</td>
<td>3.03 **</td>
<td>2.81 **</td>
<td>2.22 **</td>
<td>2.02 *</td>
<td>2.14 *</td>
</tr>
<tr>
<td>(LSC x AMOR)</td>
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<table>
<thead>
<tr>
<th>LSC x CLUSTER 1</th>
<th>( t ) (37)</th>
<th>( t ) (37)</th>
<th>( t ) (37)</th>
<th>( t ) (37)</th>
<th>( t ) (37)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(LSC x APOR)</td>
<td>8.23 ***</td>
<td>1.11 ***</td>
<td>5.96 ***</td>
<td>4.33 ***</td>
<td>4.30 ***</td>
</tr>
<tr>
<td>(LSC x AMOR)</td>
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<td>(LSC x ATOR)</td>
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<td>(LSC x TPMA)</td>
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\( *=p<.05; \quad **=p<.01; \quad ***=p<.001 \)
Lack of Gratification and the scores on the MPD would have to be significantly greater than the correlations between the other five factors and the scores on the MPD.

The first test of significance was the Sign Test (Brownley, 1965). Table 14 shows that of the correlations between the factors of subjective mental health and the MPD, the correlations involving Lack of Gratification were stronger than the correlations involving the other factors, except for the correlation between Lack of Self-Confidence and the negative pole score. Fourteen of the 15 possible correlations were in the desired direction. The likelihood of this happening by chance is .000488 or about 5 times in 10,000 opportunities.

The next step was to determine whether each of these differences, while in the desired direction, were significantly different. To determine this, the formula given by Cohen and Cohen was applied to the correlations between the six factors of the SMH Scale and the scores on the MPD. This formula was necessary in this situation because the factors of subjective mental health are not independent of one another. The null hypothesis could be rejected in regard to only one
factor. The correlation between Lack of Gratification and Total Degree of Resolution (TTLDofR) on the MPD was significantly stronger than the correlation between Strain and TTLDR, $t(37)=2.16, p<.05$. Also, the correlation between Stage 7N and Lack of Gratification was significantly stronger than the correlation between Stage 7N and Strain, $t(37)=2.19, p<.05$. 
DISCUSSION

This study was designed to investigate the relationship in women between subjective assessments of their mental health and their levels of maturity as determined by four theories of personality development. This relationship was determined by correlating factors of subjective mental health with measures based on each of the four theories of maturity.

The participants were 40 women between the ages of 50 and 60. They responded to an ad in a newspaper published by a Jewish charity organization and sent to contributors who give more than twenty-five dollars per year. This method of selection produced a sample, homogeneous in several respects.

One can conclude that these Jewish women had some discretionary funds beyond the basic necessities of life, and were concerned about and involved with other Jewish people. Despite the lack of devotion to Jewish ritual they reported in the demographic questionnaire, they all supported this major Jewish cause.

The ad asked women between the ages of 50-60 to devote approximately 4-7 hours of their time to help.
someone carry out research for a dissertation on women's perceptions of their mental health. When asked why they volunteered, they spoke of being motivated to involve themselves in helping others, they were curious about themselves, willing to risk exposure and interested in making a contribution. In addition, because they were the first 40 eligible women, we can assume that they were women who were able to follow through and put thought and desire into action.

In other words, these subjects were high functioning, of the middle and upper socio-economic classes, and involved in causes beyond their immediate concerns. These characteristics should be kept in mind as the differences in their assessments of their mental health are analyzed.

The study examined three hypotheses. The varying support found for these hypotheses underlines the complexity of the relationship under investigation. The measure used to define subjective mental health consists of six individual factors. These factors are not pure measures of a unified construct. They include cognitive and affective components, positive and negative features, references to past, present, and
future, and factors relating to self and environment. Although we attempt to delineate these components, it must be assumed that in reality, they all interact with one another in very complex ways. In support of this interaction, Bryant (1987) found that positive and negative self-evaluations are separate domains of cognitive and affective experience. In his study, control over positive events and control over negative events were correlated, whereas control over positive feelings and control over negative feelings were independent.

Complexity is also evident in the theories of personality development used to define maturity. The fact that it was deemed necessary to use more than one theory of maturity points to the fact that psychology cannot define maturity with precision and clarity. In addition, the study of maturity is the study of development in a broad sense, across the life span. Like subjective mental health, it is composed of several complex elements.

A third element introduced additional complexity and confusion. Some of the measures used were structured tests and the rest were projective tests.
McClelland (1980) indicated that these two different types of measures generally do not correlate strongly with one another even when they purport to be tapping the same construct. The measure used for assessing levels of subjective mental health was a structured test, the type McClelland referred to as a respondent measure. Such measures allow great control on the part of the experimenter in regard to topic, instructions, and types and ranges of response. Because of this control, the subject is very restricted in responding.

Two of the measures of maturity were also structured tests but the others were projective tests. McClelland termed projective tests operant measures because the subject is encouraged to generate responses spontaneously. Therefore, in a Skinnerian sense it is not possible to identify the exact stimulus that elicited any specific response. Subjects are thought to be projecting their wishes into fantasy. McClelland's conclusion was that respondent and operant responses should provide independent estimates of different aspects of personality, even when it is thought that they are estimating the same quality. This idea will be further elaborated on during the
discussion of the hypotheses tested in this study.

**Hypothesis I**

The first hypothesis of the study predicted that subjective assessments of mental health would correlate positively with independent assessments of developmental maturity. Women who evaluated themselves as mentally healthier according to the six factors of mental health (from the SMH Scale) would also be rated as more mature according to each of the four theories of personality development. The data provided will be discussed separately for each of the four theories of developmental maturity presented.

**Freudian Theory:**

When the six factors of the Subjective Mental Health (SMH) Scale were correlated with the four stages of the Measure of Individual Adaptation (MIA) Scale only the correlations between the Integrated stage and the factor of Uncertainty were significant. This finding cannot be considered as support adequate to confirm a link between subjective mental health and a Freudian theory of maturity.

Issues of measure and method might account for
this lack of significance. Stewart, Sokol, Healy, and Chester (1986) concluded that the MIA charts a process of adaptation and not a course of development. In their study, some second graders scored as high as adults. If the MIA is measuring a recursive process as they now suggest, then it is not sensitive to a **sequential** process such as maturity. They believe that people adapt to change throughout the life cycle according to these stages which mirror Freudian theory but that more study is necessary to understand individual differences. Because this measure is used cross-sectionally, one has no way of knowing if a person’s response is habitual or momentary. If it is habitual, one can begin to think in terms of levels of maturity, but as the measure was used in this study, this is not now possible.

McClelland’s argument is also pertinent here. The lack of significant correlation between projective tests, such as the Thematic Apperception Test (and the Rorschach) and structured tests such as the SMH Scale (and the MPD and Es Scales) does not indicate the uselessness of projective tests. He believes that these different types of measures address theoretically
distinct aspects of personality, all of which are necessary to fully understanding real life behavior.

McClelland distinguishes between stable and variable aspects of personality functioning. Structured tests, with the goal of being reliable as well as valid, focus on traits which are stable. "Trait test questions ask about the past or how you generally feel. That insures high internal consistency and high test-retest reliability but it also insures insensitivity" (1980, p. 34). Projective tests encourage original and spontaneous responses which by their very nature have reliabilities which are unknown. McClelland further suggests that the types of response which are given to projective tests are more sensitive to the varieties of response which we actually give in real life situations. So the lack of significance between the SMH Scale and the MIA Scale could be due to the fact that the SMH Scale is measuring a stable aspect of subjective mental health and the MIA, an unstable aspect of maturity.

A significant correlation was produced between the two scores for the Integrated Stage of the MIA and the factor of Uncertainty (from the SMH Scale). When
only two of 72 correlations were significant, one must raise the possibility that these correlations were chance associations. While this may be true, the results also allow for interesting speculation. Stewart and her associates (1986) described the Integrated Stage as the most mature, where it is acknowledged that people, the self and others, have limited power because they are constrained in their actions by the demands of reality. Complex feelings (such as ambivalence) toward specific objects and people are experienced. The world is accepted and dealt with in a complex fashion.

The factor of Uncertainty is difficult to understand at first glance because it appears to include contradictory elements. It assesses admitted shortcomings in the self, dissatisfaction with one's use of time, anxiety, frequency of worrying, immobilization, general dissatisfaction, and yet high morale toward the future. Seemingly, this category represents a grab bag of characteristics. Yet, the correlation with the Integrated Stage offers an interesting explanation for this combination of features. Uncertainty and Lack of Self-Confidence were
correlated. Admitted shortcomings and personal dissatisfactions may be based, not on insecurities in the self, but on a rational acceptance of limitations in one's self and others. The worry, immobilization and anxiety which are admitted to are not necessarily related to low self-esteem, feeling overwhelmed, or the expectation that bad things are going to happen. Perhaps, reaching the Integrated Stage allows one to experience such evidences of strain as a concomitant of an active and realistic life. This idea is strengthened by the fact that people high in Uncertainty do not require outlets such as drugs and alcohol or necessarily experience symptoms of ill health.

If this interpretation is correct, then it follows that one would experience hope for the future. Current dissatisfaction and strain, when it is not saddled with a lack of self-confidence, can be a powerful stimulant for growth and positive change.

**Eriksonian Theory:**

The factors of subjective mental health showed strong positive correlations with all of the summary scores and most of the individual stage scores on the
Measure of Personality development (MPD). Maturity, as measured by the MPD, is closely associated with subjective mental health.

Lack of Gratification and Lack of Self-Confidence were the factors of subjective mental health which were most powerfully and consistently associated with Erikson's stages. These factors are broad categories which include affective and cognitive components as well as negative and positive elements. They deal with values and assumptions about the self and one's relationship to the world. Although Erikson's stages are discussed in terms of positive and negative attitudes, in fact these stages are complex combinations of components similar to these two factors of subjective mental health.

Erikson described the attitudes of each stage as, "at the same time, ways of experiencing accessible to introspection, ways of behaving, observable to others, and unconscious inner states..." (1963, p. 251). Ways of experiencing include positive and negative affect. Ways of behaving involve cognitive elements. To describe behavior as observable to others assumes a relationship between the self and the world. He
further complicates these stages by positing a level of being which is unconscious.

The unconscious is not specifically addressed in the assessment of subjective mental health. However, it is unlikely that it is a major aspect of this concept. With the type of measure used, which asked people to express their reactions to specific questions the assumption is that they are consciously aware of how unhappy, vulnerable, etc. they are. However, this difference in considering or ignoring unconscious elements did not weaken the association between subjective mental health and maturity.

This relationship between the factors of Lack of Gratification and Lack of Self-Confidence and Erikson's stages, which was so strongly evident in the summary scores, was also demonstrated in the scores for Stage 7, which is the stage at which the subjects of this study are expected to be. It deals with generativity and stagnation. He described the stage as "primarily the concern in establishing and guiding the next generation" (1963, p. 267). This involves "procreativity, productivity, and creativity" (1982, p. 67).
Hawley's description (1984) of this stage described issues of general satisfaction and dissatisfaction and value fulfillment (Lack of Gratification) when she described the generative life as being "deeply interested and involved in establishing and guiding the next generation and with concerns of an altruistic and creative quality" (1984, p. 249). This involves an assumption that one can bring this to be, that one has control over problems and outcomes, which are issues of Lack of Self-Confidence.

Stagnation is the result of a lack of involvement with others and results from self-absorption and self-indulgence. According to Hawley, (p. 250), "Such a person is likely bored, vegetating or merely existing." Such a person would likely have few sources of gratification and experience low self-esteem. Erikson felt that stagnation, as well as the other negative attitudes, were the result of regressions to earlier stages or the result of the lack of resolution of a crisis from a previous stage. Regression and lack of resolution are associated with lower levels of gratification and self-esteem.
The finding of this study that more mature women assess their mental health more positively supports Erikson's theories. Just his vocabulary was different. He used words like fidelity, caring, and wisdom because he approached maturity from a social view. Development for him was the epigenetic unfolding of the individual in his relationships with others, hence, his description of integrity. "...by integrity we cannot mean only a rare quality of personal character but above all a shared proclivity for understanding or for 'hearing' those who do understand, the integrative ways of human life" (1982, p. 64). The value of maturity lies in the opportunities it presents for the fullest development of potentialities in one's ego qualities and also in the social order.

Subjective assessments of mental health assume relationships with others but are much more focused on the individual and what he is feeling in the here and now. Therefore, when we analyze the findings of this study, we can say that successful resolution of Eriksonian stages not only enhances the potential for development of the individual as a member of society, but also throughout the life cycle is associated with
feelings and attitudes about the self, particularly of gratification and self-confidence.

Correlations were established for the other factors of subjective mental health as well, although the findings were not as powerful. Unhappiness, Feelings of Vulnerability, and Uncertainty were not necessarily present in the lives of more mature women when their life cycles are analyzed as a whole.

However, when the stages were examined individually, it appeared that there was a stronger relationship between these factors of the SMH Scale and the negative attitudes of each stage than the positive ones. These three factors have a higher affective component than Lack of Gratification and Lack of Self-Confidence. Perhaps that is also true for Erikson's negative attitudes.

He refers to the positive and negative attitudes for each stage as syntonic and dystonic qualities of the ego. Syntonic qualities of the ego promote growth, development, and integration. Such occurrences are complex because they are also predicated on the successful functioning of many attributes, such as affects, cognitive abilities and interrelationships
with others.

But dystonic functioning is different. It is
dystonic because the parts of the personality are not
in harmonious balance: the ego is not in proper control
of the energy of the affects. It is the difference
between healthy and neurotic behavior. Neurotic
behavior is much more dominated by affect than healthy
behavior. So for the factors of subjective mental
health which are predominantly affective, the
association to maturity is stronger (although inverse)
for negative attitudes, which are also predominantly
affective.

The relationship between Strain and the
Eriksonian stages of maturity was not consistent for
all the factors of subjective mental health. The only
significant correlation between a positive attitude and
Strain was for Initiative (stage 3). For these women,
the expression of initiative carried a price tag.
Women who demonstrated more initiative also experienced
more strain. This is a very important finding. It
supports many of the ideas espoused by the Women's
Movement. In addition, not only was Initiative
correlated with Strain, it was also highly correlated
with Guilt ($r(38) = .61, p < .01$). Women who exercise initiative, also experience strong feelings of strain and guilt.

Strain was also correlated with three negative attitudes: Mistrust (Stage 1), Guilt (Stage 3), and Stagnation (Stage 7). These three attitudes were all significantly related to one another at the .01 level and to Strain at the .05 level. It appears therefore that strain is experienced simultaneously in several domains: in an inability to feel secure in the world and within one’s self, in an ambivalence toward exercising self-expression, and in an inability to focus on making the world better for future generations. Because these ideas are based on correlations, we cannot speak of causality. However it does seem reasonable to suggest that stagnation can be, at least partially, the result of feelings of mistrust, guilt, and discomfort with initiative, which are issues predominant at earlier stages. One cannot care for others and future generations when one is experiencing the world as a precarious place without a sense of security about one’s own niche.

**Ego Psychology:**

The strong relationships between Lack of Self-
Confidence and Lack of Gratification and psychological maturity found in the comparison with Eriksonian theories of development was also demonstrated in a comparison of these two factors from the Mental Health Scale and Barron's Ego Strength Scale (the Es Scale). These correlations were significant at or near the .01 level. Strain was also correlated with both versions of the total scale, but at the .05 level. Unhappiness, Feelings of Vulnerability, and Uncertainty did not demonstrate relationships with the Es Scale, except for Uncertainty and the edited version (unreliable items removed) of the Es Scale.

Bryant and Veroff (1984) identified Lack of Self-Confidence and Lack of Gratification as those factors which focus on an evaluation of the self as an aspect of subjective mental health. The issue of self-confidence addresses the question of one's ability to deal with the world and to gain pleasure from it. Gratification assesses one's successes in this relationship between self and world. Likewise, Barron described his test as an "estimate of adaptability and personal resourcefulness...the various aspects of
effective personal functioning which are usually subsumed under the term 'ego strength'." (1953, p. 327).

While investigators do use the Es Scale as a means of assessing basic personality organization, the question has been raised whether the scale is a measure of the presence of ego strength or the absence of ego pathology (Crumpton, Cantor, & Batiste, 1960; Frank, 1967; Stein and Chu, 1967). Psychology no longer assumes that mental health is the mere absence of evidence of illness but is the presence of capacities for adaptive, integrative and constructive behavior. Yet, Frank reported that the strongest validation of the scale occurred in distinguishing pathological groups from one another or in correlations with measures of psychopathology, like the Taylor Manifest Anxiety Scale. This focus on the absence of psychopathology might explain the stronger relationship between Strain and the Es Scale than Strain and the MPD Scale. It is reasonable to assume that strain would be present more when one is assessing the absence of illness than when one is assessing the presence of healthy development.
Stein and Chu’s terminology reflects this lack of definitive understanding of what the Es Scale is actually measuring. Their work focused on three clusters of items from the total scale which they labeled: Emotional Well-Being or freedom from disabling anxiety and depression; Cognitive Well-Being or freedom from disabling primary process thinking; Physical Well-Being or freedom from physical complaints.

The nine items representing Emotional Well-Being were strongly correlated with all the factors of subjective mental health. (Unhappiness, Lack of Gratification, and Lack of Self-Confidence at the .01 level, the others at the .05 level). According to Barron, eight of the nine items referred to (1) psychasthenia and seclusiveness and (2) personal adequacy. Since all of the factors of subjective mental health were closely aligned to this cluster, perhaps these two components underlie all subjective assessments of mental health. Women who are not anxious, depressed, or seclusive, and who feel adequate to cope with their circumstances rated themselves as mentally healthy. It is reasonable that they reported
feeling happier, more gratified, less strain and vulnerability, more self confident and less uncertain.

It is interesting to note that of these two categories, psychoasthenia and seclusiveness, and personal adequacy, the former addresses the absence of psychopathology and the latter the presence of mental health. Perhaps the Es Scale addresses both aspects and not one or the other, as researchers have attempted to demonstrate. Since a cluster of items which included both of these qualities was correlated with all of the factors of subjective mental health, one may reasonably conclude that subjective mental health involves both the absence of psychopathology and the presence of mental health.

The second measure of ego strength, the GEE Scale, did not fare as well. It was not significantly correlated with any of the factors of subjective mental health, the Es Scale, or any of the cluster scores based on the Es Scale. This is not an unexpected finding. Corotto and Curnutt (1962), Frank (1967), and Last and Weiss (1976) all reported similar results when different measures of ego strength were compared.

These researchers concluded that the complexity of
ego functioning is only partially captured by different formats, with the lack of correlation demonstrating that different measures are addressing different ego functions. Evidently, Barron’s focus, particularly the nine items of the cluster measuring emotional well-being, tap the aspects of ego functioning which are associated with subjective assessments of well-being and the Rorschach items which comprise the GEE Scale are addressing aspects of personality functioning which do not associate with these subjective assessments of well-being. These ideas are directly related to the two measures of ego strength used in this study. Both the SMH Scale and the Es Scale are structured tests. According to McClelland’s reasoning, they both capture stable traits. Both the SMH Scale and the Es Scale ask people to report how they usually feel or how they typically handle situations.

Reuman, Alwin, and Veroff (1984) also studied the issue of extraneous factors which may statistically diminish relationships which are valid in reality. They pointed out that low levels of reliability can mask true validity. They concluded that the presence of random measurement error biases estimates of
relationships among constructs. This is a problem particularly in those situations where the random error is substantial, or different for the various indicators of different constructs. Projective tests are more prone to such random error, so in this study, where correlations were made between scores from projective tests and scores from structured tests, the lack of significance might be due to differences in the amount of random error present.

Yet, according to Frank (1967) and Last and Weiss (1976), the Rorschach test is better equipped to measure the presence of psychological health evident in ego strength. The study of ego strength should address the capacity of the individual to gratify needs and express one's self in satisfying and constructive ways. Applying these ideas to the current lack of significance between the GEE and the factors of the SMH Scale, one must conclude that further investigation is necessary. Perhaps, ego strength and subjective assessments of mental health are indeed quite related, but must be measured in a different way. There is intuitive appeal in the idea that an ego which is functioning well as an integrator of the personality
and allows for its full expression would more likely exist in a person who rates herself as happy, gratified, and confident, and with only tolerable amounts of strain, vulnerability, and uncertainty. To test this, the GEE should be correlated with a measure of subjective mental health which employs projective techniques, and not the structured test used in this study.

Object Relations Theory:

Two scales, the Concept of the Object (CotO) and the Mutuality of Autonomy (MAS), were correlated with the factors of the SMH Scale. Both scales are based on Rorschach responses. None of the correlations between the CotO Scale and the factors of the SMH Scale were significant and only one correlation between the MAS and the SMH Scale was significant.

Some of the comments made about the GEE Scale apply here as well. Both the GEE and the CotO scales are based on Rorschach responses. Most of the scores on both of these scales were significantly correlated with one another. Interestingly, the GEE score was not correlated with scores from the CotO scale which were based only on responses rated positive, but correlated
with scores based on responses rated minus. This association between the GEE and minus responses, was so strong that it still existed when the positive and minus responses were combined for a total Concept of the Object score.

Earlier, it was decided that these minus responses, coming from a normal population, were creative and original rather than violations of the integrity of the inkblot. This finding lends credence to McClelland's thesis. He claims that projective tests tap unique aspects of behavior. Here we see that when unique examples of behavior which are thought to reveal aspects of ego strength are compared with unique examples of behavior which are thought to reveal maturity of object relations, they demonstrated significant correlations. They do not support the major hypothesis of this study because they are both indicators of maturity, but they do reveal that unique examples of behavior can be captured, studied, and compared.

Correlations between scores on the two measures used to measure maturity of object relations, the Concept of the Object Scale and the MAS scale, were not
significant even though they were both based on responses to the Rorschach and they were both used to measure maturity of object relations. The Concept of the Object Scale addresses itself to the structure of object representations, how accurate, differentiated, and integrated they are. The MAS Scale, in contrast, is more concerned with the content of representations, what they are doing. Evidently, the structure of object representations is quite distinct from the content of object representations. Mayman (1967) and his associates also focused on the themes stressed in the content of responses as indicators of levels of object relations. Further study of object relations could compare the MAS with measures which focus on the content of responses.

The Mutuality of Autonomy Scale produced one significant correlation when it was compared to the six factors on the SMH Scale, although it was not in the predicted direction. Women who experienced stronger feelings of vulnerability also experienced stronger feelings of mutuality. This is another interesting finding. Vulnerability, as measured by the SMH Scale, is not thought to be a contributor to subjective mental
health. Lower scores are considered more desirable. However, in this instance, higher scores were correlated with a score representing maturity of object relations.

According to Urist, people who rate higher on his scale are able to engage in relationships which convey the reciprocal acknowledgment of the individuality of the individual and the other persons. The basis for the capacity to relate to others in this fashion is the capacity to experience human relatedness while at the same time experiencing a sense of self which is independent of the other. Evidently, a capacity for feeling overwhelmed at times is part of experiencing intimate and realistic relationships with others. One must be able to tolerate ambiguity and disappointment along with cooperation and satisfaction. Excessive amounts of vulnerability would, begin to work against mutuality but in this population of normal women, higher levels of vulnerability were associated with higher levels of mutuality of autonomy.

**Hypothesis II**

The second hypothesis of the study predicted that two of the six factors of subjective mental health,
Unhappiness and Lack of Self-Confidence, would relate more strongly to maturity as assessed by Object Relations Theory than maturity as assessed by the other three theories of maturity. This hypothesis was not substantiated by the findings of this study. The lack of significance, in part, is attributable to the same methodological issues raised in the discussion of the first hypothesis. Results from structured tests are difficult to compare with results from projective tests. In fact, these two factors of subjective mental health were most strongly correlated with scores from the two structured tests used to measure maturity. The correlation between Unhappiness and the Cluster 1 score from the Es Scale was significantly more powerful than the correlations between Unhappiness and the scores from the measures based on Object Relations Theory. Also, the correlations between Lack of Self-Confidence and the total degree of resolution score from the MPD and the Es Scale were significantly more powerful than the correlations between Lack of Self-Confidence and the scores from the measures based on Object Relations Theory.

The lack of support for the relationship between
Unhappiness and Object Relations could also be a function of the nature of the factor of Unhappiness. For this particular group of women, unhappiness was not a unitary concept in their assessments of their mental health. Contrary to the findings of other studies in which the SMH Scale was used, the alpha level for Unhappiness was considerably lower than it was for the other factors (except for Uncertainty).

One can speculate why it was not possible to obtain reliable measures of happiness for these women. Women of this age were caught between two contradictory cultural messages. The 1950's told them to marry and have children. The 1960's and 1970's told them to leave home and join the work force or otherwise engage in means of self-expression. What would or should make them happy became confused and therefore more difficult to assess.

There are several other reasons why happiness is not the most salient dimension of subjective well-being for these women. They are likely engaged in Erikson's stage of Generativity which is more connected to gratification. They are Jewish women for whom personal happiness has not been stressed by their culture or
religion. And lastly, they lived through the Depression and the Second World War during their formative years. Such events left a lasting impression, one which does not foster the pursuit of personal happiness as a basic goal of life.

The lack of homogeneity for this factor, together with the difficulties encountered in comparing structured and projective tests rendered this hypothesis untestable, as it was constructed. Both of these difficulties were overcome in the correlation between Unhappiness and the Cluster 1 score. The Cluster 1 variable is a concentrated version of the total Es Scale. It has been demonstrated to be a powerful measure of emotional well-being and it had a high alpha level. These features overcame the variability in the Unhappiness factor so that a relationship between happiness and emotional well-being was established. The lack of significance with the total Es Scale suggests that happiness may not be the most powerful factor in comparing subjective mental health and ego strength but further study is required to establish this.

Likewise, a link between self-confidence and
object relations theory over and above the links between self-confidence and the other theories of maturity was not demonstrated in this study. Testing of this hypothesis suffered from the difficulties encountered in measuring object relations by responses to a projective test. Confidence and security are such major components of the processes of separation and individuation in Object Relations Theory that the lack of significance in the first hypothesis must be attributable to methodological issues.

However, the lack of significance in testing this second hypothesis might also be due to an alternative explanation. Perhaps confidence, which showed such a strong association to Eriksonian and Ego Strength Theories, is a major component of every theory of maturity so that it cannot be demonstrated that it is significantly greater in Object Relations Theory.

The significant relationships between confidence and Eriksonian and Ego Strength Theories were addressed in the discussion of the first hypothesis. The results from the testing of this second hypothesis underscore those results. Not only is the link between confidence and these theories significant but it is significantly
stronger than the links between confidence and the other theories of maturity. However, because of the methodological problems encountered between structured and projective tests, to justify this conclusion, further testing is indicated.

**Hypothesis III**

This hypothesis examined the relationship between the various factors of subjective mental health and the stages of Erikson's psychosocial theory. It was predicted that Lack of Gratification would be the factor most strongly related to this theory. This in fact was the case for 14 or the 15 possible correlations. (In the one exception, Lack of Self-Confidence was more highly correlated with the summary score for the negative stages (negative pole score) but both correlations were significant at the .001 level.)

It is interesting to speculate on the relationship of gratification and well-being for this group of women. Rossi (1980) and Felton (1987) discuss the issue of cohort specificity. Perhaps age and cultural expectations interacted in this particular group to bring about this strong association. These women were not members of the "Me Generation". Their lives were,
for the most part, centered around their families and not one of them voiced regret or resentment for that choice. Only now that their family responsibilities have diminished do they talk about making other choices which center more on themselves and/or the world at large. These are women who became subjects because they volunteered to help another woman. They find gratification in contributing of themselves to others. Jewish culture stresses familial and social responsibility and it appears that these women have absorbed those values. The greater their success in creating a gratifying life for themselves by responding to the needs of others, the stronger they assessed their well-being.

It has been established that the factors of subjective mental health are correlated with one another. There is intuitive merit in this dependency. It is reasonable that gratification carries with it happiness, confidence, and tolerable levels of vulnerability and certainty. However, this dependency affected the strength of the relationship between gratification and Eriksonian theory. While gratification showed the strongest association of all
the factors, this association was not significantly stronger, except for the relationship between strain and well-being.

Thus the hypothesis was confirmed for this one factor. Lack of Gratification demonstrated a significantly stronger association to Eriksonian theory than strain did. Strain, as a factor, exhibited some interesting features. It was not significantly correlated with any other factor of subjective mental health except Lack of Self-Confidence, and that was at the lowest point acceptable for the .05 level. As it is constructed in the SMH Scale, strain is a catalogue of behaviors associated with strain (alcohol and drug abuse, ill health) and a measure of affect associated with strain (anxiety and immobilization).

Because of its positive relationship with confidence, it could be an indicator of a general coping capacity. It has been demonstrated that stress is associated with positive and negative events. Change of any kind creates stress (Dohrenwend, Krasnoff, Askenasy, & Dohrenwend, 1978). This could apply to this factor of strain as well. It has been documented that during the fifties there are many
changes taking place in women’s lives (Block, Davidson, & Grambs, 1981; Campbell, 1988). Perhaps strain, for these high functioning women, is the result of "success" and "failure", the result of the many involvements in their lives as well as the result of unattained goals and frustrations. That could account for the weak relationship between strain and the other factors of subjective well-being. Women can feel strain from all the positive and negative change that is going on in their lives but the intensity of the strain tells you little about how happy, gratified, vulnerable, or certain they are.

Conclusions

The findings of this study support the prediction of a positive relationship between subjective mental health and maturity. However, the relationship between the two constructs is very complex. One cannot hope to understand this relationship without introducing several variables which are simultaneously influencing one another.

Campbell (1976, 1981) and Andrews and Withey (1976), among others, delineated the structure of subjective mental health when they discussed positive
and negative affects and cognitive elements. Bryant and his associates (1984, 1986, 1987) further added the dimension of personal adequacy and established the six-factor model which was used in this study. The complex differences among the ways the six factors interacted with the maturity variables corroborates the validity of a multi-factorial model. However, the complexity of subjective well-being goes beyond these issues of structure.

To explain individual differences in levels of well-being one must look at the factors which contribute to well-being. It has been firmly established that objective criteria, at best, will account for only a small portion of the variation in levels of well-being. This study supports the contribution of personality variables by relating well-being to maturity. But the issue is more complex than the delineation of objective and personality variables.

Individual differences in levels of well-being are created by complex variables which interrelate and simultaneously contribute to one another and to a women's sense of well-being. Psychologists have attempted to describe these complex variables for women
by challenging the male model of development which heretofore has been applied uncritically to women as well. Some of their ideas have yet to be put to rigorous investigation but they are often compelling and they offer interesting explanations for some of the particular findings of this study.

Stewart (1980) stated that objective or demographic variables define broad limits on behavior, and personality characteristics define the choice of particular behaviors within these broad limits. Peck (1986) introduced a third variable, the interpretation of these external and internal resources. Interpreting self and situation are acts of cognition. It appears that while cognition is an internal characteristic, it seems to stand apart from both intelligence and personality although it is certainly related to both.

Several others have also stressed the importance of cognitive resources. McNeil, Stones, and Kozma (1986) studied a 'cognitive style' which promoted happiness. Gilligan (1979, 1982) focused on how women's interpretations can be influenced by theories of personality development based on a male model. In particular, Gilligan focused on a reappraisal of the
role of relationships and attachment in adult women’s lives. She believes that separation and autonomy have been stressed to the detriment of these needs for relationship and attachment. Women tend to label themselves as deficient because they seem to fail to meet the standards of autonomy upon which male models are based.

Felton (1987) studied why cohorts vary. Historically conditioned concerns contribute to how people evaluate themselves. Happiness becomes dependent on the values and beliefs which are generated from these evaluations. The subjects of this study were children during the Depression. According to Felton's analysis, this experience tended to de-emphasize materialistic values for them. After the Second World War, they became the producers of the "baby boom" and most of them enjoyed more financial success and security than their parents had. The combination of these historical factors led them to focus their financial success on their children and not themselves. Happiness came from such things as providing for their children's education. Ratings of happiness became linked to features of their marriages
and their children's lives. The important point that Felton made is that while happiness is linked to specific sources of happiness, there is a link between objective circumstances and the subjective experiencing of those circumstances. The mediating link is what these objective circumstances mean to the individual, and Felton said that this meaning, or interpretation, in part, is created by societal history.

Taylor and Brown (1988) analyzed some of the cognitive factors which contribute directly to the enhancement of mental health. They reported on several studies which concluded that people who are rated as mentally healthy distort their perceptions of reality in a direction which is overly positive toward their perceptions of themselves, toward their sense of control and mastery, and are overly optimistic. Moreover, these illusions appeared to promote other criteria of mental health, including the ability to care about others, the ability to be happy and contented, and the ability to engage in productive and creative work. It must be noted that these criteria apply also to criteria for maturity according to the theories used in this study.
Another branch of current research has focused on the importance of relationships for women. Baruch (cited in Peck) stated that for women to feel satisfied and competent, they must feel that they can both influence their relationships and have those relationships respond positively to them. Pearlin (1980) supported these findings when she studied the importance of relationships which are flexible (can be influenced) and responsive (positively) and determined that these characteristics were crucial to women's emotional well-being.

Baruch's ideas of what creates satisfaction and competence were further corroborated in a study by Black and Hill (1984). Good marriages, engrossing job or volunteer activities, histories of coping well in crisis, and reported self-esteem were associated with psychological well-being. In contrast, women with lower levels of well-being had not coped well with crises in the past and reported feeling beaten down or unfairly treated. They interpreted this to mean that they could not depend on themselves to influence relationships in desirable ways or have others respond positively to them. In addition, they tended to report
problems with their marriages and their children. Black and Hill suggested that women’s abilities to cope with the circumstances of their lives rather than the circumstances per se are the chief determinants of well-being.

 current thinking, therefore, is focusing on the ways in which objective circumstances are experienced. Personality characteristics become important because of the contribution they make to the experiencing and utilization of these circumstances. Karp (1988) studied age consciousness in a group of people between the ages of 50 and 60. "The meanings attached to all aspects of social life are not fixed and immutable... [they] emerge out of a process of interaction" (p. 727). He concluded that the frequency and intensity of aging messages, which increase in the fifties, foster a sense of aging which is interpreted differently by people depending on their circumstances. If a woman 50 years old has two sisters who are active and vital at 70 and 75, she will interpret the fact of her age quite differently than a 50 year old woman without such role models. However, the strength of the contribution of these role models is enhanced if the 50 year old is
optimistic about herself and enjoys the relationships she has with her sisters.

Maturity, then, has an important relationship with well-being because of its major contribution to how we interpret the facts of our lives. Women who are rated as more mature have more options at their disposal for dealing with the circumstances of their lives. According to each theory of maturity presented, higher levels of maturity allow for greater engagement between the individual and her world. For Freud, it makes possible work and play. For Erikson, it creates the ratio of generativity over stagnation and integrity over despair. For Ego Psychology, it creates an ego which performs its myriad of functions with high levels of controlled energy. And for Object Relations, it creates a self which exists independent of the other and thereby capable of intimate relationships. Maturity influences the weight given to different factors and mature people can tolerate shifts in these weights as circumstances change. Maturity carries a flexibility to respond which is essential to the creation and maintenance of well-being.

Applying the thinking of these theoreticians,
maturity contributes to well-being through its contribution to the creation of gratifying relationships and the way women interpret the circumstances of their lives. These ideas elaborate the thesis of Campbell (1981) that the contribution of internal and external resources to well-being lies in the degree to which they help satisfy certain basic needs. The more recent work reported here has focused more specifically on what those needs are.

Well-being contributes to maturity by reinforcing the positive contributions of maturity. The link will never be a perfect one, however, because of the multiplicity of contributing variables. Life is unpredictable so we can talk only in terms of likelihoods and specify the types of variables which are influential.

Confidence and gratification appear to be those factors of well-being which are most closely linked to maturity. Affective and cognitive factors are intimately intertwined in both these factors as they are in the concept of maturity. Confidence is the fuel necessary to exercise one's available options. Women can attempt only what they have some hope of achieving.
Gratification is closely linked to maturity because it is the way by which women can judge the quality and strength of their well-being. If they feel gratified, their choices are confirmed. In addition, since it appears that histories of success and failure influence women’s perceptions of themselves, confidence and gratification tend to reinforce themselves.

The other factors of subjective mental health do not appear to have as crucial a link to maturity. Happiness, strain, and vulnerability are different affects. In this study, the roles played by these affects were less straightforward. For these women, happiness was often unrelated to both the other factors of well-being and to maturity. Strain and vulnerability were sometimes positively and other times negatively related to aspects of well-being and aspects of maturity. According to Black and Hill (1984), the role they play depends on their contribution to coping mechanisms. They can be the forces behind rechanneling energies or contribute to depression and the lowering of well-being. Further research is necessary to clarify these associations.

The role of uncertainty remained unclarified. It
measures anxiety and dissatisfaction with life and self. It is different from strain, and includes hope for the future. Its correlations with confidence and the integrated stage of the measure of Freudian theory suggest that it is a measure of strengths within the individual. At this point however, any conclusions are tentative.

Several suggestions for future research have been mentioned throughout this discussion. One thing which stands out as a methodological problem in this study is the size and homogeneity of the sample. Further studies, using a larger and more heterogenous sample are required and might yield different relationships. Additionally, if measures based on projective tests could be more finely tuned to the subtle differences within a normal population, they would be more valuable to this type of research.

The lack of integration among the efforts of researchers is disheartening. It is essential to create a measure for assessing subjective well-being which would be universally recognized. People are still resorting to Bradburn’s Affect Balance Scale (Emmons & Diener, 1985)! Many experiments have
concluded that personality variables are necessary to understanding subjective well-being and that objective indicators are of limited importance, but the findings are not capable of integration because each study has its own definition of well-being and its own way of measuring it.

Unfortunately, the issue is far from settled. Further work on a measure of subjective mental health will probably yield other factors which will add to our understanding. For example, aspirations, creativity, and the capacity for risk are possibilities which suggest themselves as potential features of subjective mental health. Stability of subjective mental health over time requires further study as does the relationship of factors to one another. We have to consider the possibility of non-linear relationships between factors.

The contribution of this study is that despite the limitations of size and homogeneity of the sample, strong associations were made between several factors of well-being according to a validated measure and specified aspects of maturity. These findings justify further work to clarify the nature of these associations.
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CODE NUMBER ___________________________  AGE ___________________________

BACKGROUND INFORMATION

In responding to this questionnaire, please remember that all information is completely confidential.

1. RELIGION: Jewish ______ Protestant ______ Catholic ______ Other ______

   If "other", please specify: ___________________________

   Degree of Observance:
   - Strict adherence to doctrine: ______
   - Moderate adherence to doctrine: ______
   - None or sporadic adherence to doctrine: ______

2. EDUCATIONAL HISTORY

   Put a check mark in front of the highest level of education that you have achieved.
   - Grade School
   - Some High School
   - High School
   - Some College
   - College Degree
   - Master's Degree
   - Post-Master's Degree (e.g. Ph.D., M.D., J.D.)
   - Other (please specify): ___________________________

   For college and advanced degrees state major field of study.
   ___________________________
   ___________________________

3. MARITAL STATUS

   (Please state year in which this event occurred, where appropriate)
   Never married ______
   Married ______
   Separated or Divorced ______
   Widowed ______
   Remarried ______

   How many years have you been married in TOTAL (including previous marriages) _______ Years
SPouse's Education and Employment

If you have been or are married, please answer the following for your spouse. If you have been married more than once, answer according to your most current marriage.

(a) Educational History

Put a check mark in front of the highest level of education your spouse has achieved.

- Grade School
- Some High School
- High School
- Some College
- College Degree
- Master's Degree
- Post-Master's Degree (e.g. Ph.D., M.D., J.D.)
- Other (please specify):

For college and advanced degrees, state major field of study.

(b) Indicate your spouse's job title and a short description if clarification is needed.


4. Children: List ages of each of your children. (If you have none please indicate so).

Daughters: ________________________________

Sons: ________________________________

Which period of raising children did you enjoy the most? (Check one).

Birth to 2 years: _____
3 to 5 years: _____
6 to 12 years: _____
12 to 18 years: _____
18 and older: _____

5. Grandchildren: How many do you have? _____ Ages: _________

On the average, how often do you see them? (Check one).

Weekly: _____ 3 to 4 times a year: _____
Monthly: _____ Fewer than 4 times a year: _____
6. PARENTS: Please answer the following with respect to your own parents (or the family in which you grew up).

A. What was your father's major occupation? _____________________________
B. Is your father still living? Yes ___ No ___
C. If he is not living, what was your age when he died?
   My age was: __________
D. Is your mother still living? Yes ___ No ___
E. If she is not living, what was your age when she died?
   My age was: __________
F. Was your mother employed outside the home? Yes ___ No ___
G. If yes, what was her major occupation? _____________________________

During what periods did she work? (Check as many as applicable).

Full-time  Part-time

Before you were born  ______  ______
During your childhood ______  ______
When you were in high school ______  ______
When you were in college or after you left home ______  ______

7. OCCUPATIONAL HISTORY

Beginning with your current employment (including homemaker or student), please list your activities by type or job title (not by employer) and the dates of these jobs. For example, a salesperson who did the same type of selling for several different employers would group these activities together as one item; a person who was in sales and then became a manager for the same employer would list these as two different types of work. Please describe each type of work briefly if it is not clear from the title.

<table>
<thead>
<tr>
<th>TITLE AND DESCRIPTION</th>
<th>DATES (IN YEARS)</th>
</tr>
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<tbody>
<tr>
<td>Current Employment:</td>
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<td></td>
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</table>

| Prior Employment:     |                  |
|                       |                  |
|                       |                  |
|                       |                  |

Income: Check one for (a) and one for (b).

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<thead>
<tr>
<th></th>
<th>$0 - 25,000</th>
<th>$25,000 - 50,000</th>
<th>$50,000 and above</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(b)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
8. VOLUNTARY ACTIVITIES AND LEISURE TIME

Beginning with your current or most recent participation, please list your participation in activities associated with political organizations, community organizations, church or synagogue, professional groups, hobbies, or leisure time.

<table>
<thead>
<tr>
<th>TYPE OF GROUP, ORGANIZATION OR ACTIVITY</th>
<th>WHAT DO YOU DO</th>
<th>HOW OFTEN</th>
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**TO ANSWER ITEMS 9 and 10 CONSIDER THE NUMBERS A CONTINUOUS LINE BETWEEN EXTREME POSITIONS AND CIRCLE THE NUMBER WHICH BEST DESCRIBES YOUR RESPONSE.

9. HEALTH

A. Describe your general physical condition (check one).
   
   Excellent ___; Good ___; Fair ___; Poor ___

B. Has it changed in recent years? (Circle number which best describes your situation).
   
   1—2—3—4—5—6—7
   much worse same much better
   If it has changed, explain why? ________________________________

C. How does it compare with most other women your age? (Circle number which best describes your situation).
   
   1—2—3—4—5—6—7
   much worse same much better

10. How happy have you been? Please circle the number which best describes how you felt for each period of your life listed below.

<table>
<thead>
<tr>
<th>Period</th>
<th>Extremely Unhappy</th>
<th>Neutral</th>
<th>Extremely Happy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birth to 15 years</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 to 25 years</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25 to 35 years</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>35 to 45 years</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>45 to present</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
10. (continued)

What factor or factors were most responsible for how you felt?

Environment (other people or circumstances):

1 2 3 4 5 6 7
not at all responsible
very responsible

You (some personal qualities):

1 2 3 4 5 6 7
not at all responsible
very responsible

Thank you. If you want to, please use the bottom and/or reverse of this form to expand on any of your answers.
ITEMS DELETED FROM THE ES SCALE DUE TO NEGATIVE RELIABILITIES WITH THE TOTAL ES SCORE

1. I go to church almost every week. (T)
2. Some people are so bossy I feel like doing the opposite of what they request even though I know they are right. (T)
3. I like collecting flowers or growing house plants. (T)
4. I have never had a fainting spell. (T)
5. Sometimes I enjoy hurting persons I love. (T)
6. I am not afraid of fire. (T)
7. The man who had most to do with me when I was a child (such as my father, stepfather, etc.) was very strict with me. (T)
8. I feel weak all over much of the time. (F)
9. If I were an artist, I would like to draw children. (F)
10. I do not like to see women smoke. (F)
11. One or more members of my family is very nervous. (T)

Letter in parentheses stands for the answer of True or False thought to be consonant with ego strength.
APPROVAL SHEET

The dissertation submitted by Carol Fuchs Kaufman has been read and approved by the following committee:

Dr. Dan McAdams, Director
Associate Professor of Psychology
Loyola University of Chicago

Dr. Fred Bryant
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Loyola University of Chicago

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Associate Professor of Psychology
Loyola University of Chicago

The final copies have been examined by the director of the dissertation and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the dissertation is now given final approval by the Committee with reference to content and form.

The dissertation is therefore accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

4/14/84
Date

[Signature]
Director’s Signature