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Does Sex-Role Orientation Predict Psychological Health?

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Does Sex-Role Orientation
Predict Psychological Health?

by

Jean Marie Bradt

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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VITA

The author, Jean Marie Bradt, was born on July 13, 1948, in Brockport, N.Y. She received the degree of Bachelor of Arts in Sociology from Nazareth College of Rochester in May, 1971. She was selected to be a member of Pi Gamma Mu, the national social science honor society.

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INTRODUCTION

This study investigated the relationship between sex-role orientation and psychological health. There are several sex-role orientations. Persons, usually men, who tend to behave in "masculine" ways are designated instrumentally sex-typed individuals. Persons, usually women, who tend to behave in "feminine" ways are designated expressively sex-typed individuals. Persons who behave in either "masculine" or "feminine" ways, depending on situational demands, are designated androgynous individuals.

It has been predicted that androgynous individuals constitute the most psychologically healthy sex-role group, because androgynous behavior is not limited by sex-role constraints. That is, both instrumental and expressive individuals avoid behaviors which are inconsistent with their sex-role orientations. On the other hand, an androgynous person is, by definition, a person who tends to be willing and able to perform whatever behavior is most adaptive in a particular situation. Therefore, neither instrumental nor expressive persons are expected to be as adaptable (at least in the sense of being able to solve problems) as persons who are willing and able to use both types of solutions; sometimes the best solution is not a socially approved behavior for their gender.

It is important to test this hypothesis because it is at the base

of sex-role research. Traditionally, most men have behaved instrumentally and most women have behaved expressively. Sex-role researchers have recommended that both men and women break from tradition and behave in an androgynous way in order to become more adaptable, flexible persons. Since such a change would necessarily be difficult, it is crucial to make sure that the expected advantages actually accrue to androgynous persons.

The adaptability hypothesis with respect to androgyny has, in fact, been extensively tested by psychological researchers. Results of these studies partially confirm this prediction; they suggest that androgynous individuals are the most adaptable ones, sex-typed individuals are moderately adaptable, and undifferentiated individuals are the least adaptable ones. However, these studies also indicate that instrumental behaviors are more likely to contribute to psychological health than are expressive behaviors. Thus, although past research supports the adaptability hypothesis with respect to androgyny, no study has yet upheld the hypothesis that instrumental and expressive behaviors contribute equally to the psychological health of androgynous persons. This study attempted to accomplish the latter objective as well as to replicate the former results.

In the first chapter of this dissertation, previous studies testing this hypothesis are reviewed. In the second chapter, two basic flaws in these studies are pointed out. First, several measures, including measures of Eriksonian maturity and subjective mental health, have been used which, it is claimed, tap psychological health. These

measures appear to be biased in favor of the instrumental sex-role type. For the purposes of this study, a measure of psychological health was found which, it was hoped, was not biased in favor of either sex-role type. This balanced measure (of Eriksonian maturity) was used, in conjunction with a measure of subjective mental health which was expected to be instrumentally biased, to test the above hypothesis. Thus, it was hoped that an estimate of the contribution of sex-role orientation to psychological health and subjective mental health would be obtained in which bias would be either nonexistent or identifiable.

Second, the sex-role inventories previously used appear to be ambiguously worded. Thus, it is possible that the items on these measures are interpreted in different ways by different subjects. Therefore, a sex-role measure was created which detailed specific behaviors. In the third chapter, creation and pilot-testing of this measure is described.

In the fourth chapter, the hypotheses of this study are listed, the major one of which was to test the adaptability hypothesis using the measures of psychological health and subjective mental health mentioned above. Also, the measures used and the subject population administered these measures are described. The fifth chapter describes the evaluation of the new sex-role measure and explains why the measure was not used to test the adaptability hypothesis. The results of statistical analyses testing the adaptability and developmental hypotheses are then described. The final chapter discusses these results.

CHAPTER I

REVIEW OF RELATED LITERATURE

This first chapter describes past research linking sex roles, psychological health and reports of life quality. The first section outlines the history of sex-role research in general. The second section briefly describes some of the research carried out in order to ascertain whether or not androgynous persons are more psychologically healthy and report a better quality of life than sex-typed persons.

History of Sex-Role Research

Sex roles are the sex-role stereotyped (sex-typed) traits and behaviors which many individuals exhibit. Masculine-typed persons are said to adhere to the masculine sex role; that is, they act in ways that much of society supposes men and boys should act. For example, men are expected to be assertive and to avoid expression of any feelings except anger. Feminine-typed persons, on the other hand, tend to be emotionally expressive and considerate of others' feelings; these are the behaviors which society expects of women and girls. Psychologists who have studied sex roles have coined the word "androgynous" to describe those persons who are behaviorally flexible. Thus, androgynous persons can and do act in either a masculine-typed or a feminine-typed manner, depending on which type of behavior is most adaptive in a particular situation.

The first psychologists who studied sex-role orientation (Gough, 1964; Guilford & Guilford, 1936; Hathaway & McKinley, 1943; Strong, 1936; Terman & Miles, 1936) based their work on Freudian theory. Thus, they assumed that the most psychologically healthy men and boys were those who were masculine-typed. Similarly, they assumed that feminine-typed women and girls were the psychologically most healthy ones. These researchers, then, considered androgyny to be the midpoint of a single continuum, with an undefined masculinity at one pole and an undefined femininity at the other pole.

Thus, sex roles were generally considered to be groups of unitary traits. The masculine and feminine sex-role types were seen as sets of positive, mentally healthy traits, although only for the appropriate gender. Therefore, persons who were neither masculine- nor feminine-typed (those now labeled "androgynous") were considered to be confused about their sexual identities.

Jung (Bennet, 1975) elaborated upon the general, Freudian ideas about sex roles. He saw the need for separation from others as a masculine need and the need for attachment to others as a feminine one. Unlike Freud and other researchers, however, he saw those who, in mid-life, learn to integrate these "masculine" and "feminine" needs as more psychologically healthy than were sex-typed persons because these persons could then fulfill both their separation and their attachment needs.

Bakan (1966) made the next major contribution to the study of sex roles. He coined the word "agentive" to denote those behaviors which he

believed are more common in men than in women. Further, he attempted the difficult task of defining agency. Agentic behaviors include "control over others, a high degree of deliberate channeling of activity, accumulation of material goods, high initiative, profound alienation of men from each other" (p. 17).

Bakan coined the word "communal" to denote those behaviors which he believed are more common in women than in men. Communal behaviors are not as clearly defined as are agentic behaviors, however. Communion consists of "the participation of the individual in some organism of which the individual is a part . . . the sense of being at one with other organisms . . . the lack of separations . . . contact, openness and union" (p. 15).

Bakan held that "the moral imperative is to try to mitigate agency with communion" (p. 14) because unmitigated agency leads to premature death. He adds that many women possess both agentic and communal traits while many men possess only agentic traits. This, he believes, explains why men tend to die younger than do women. Later studies of Type A behavior have supported Bakan's belief. Persons who take the agentic tendency to compete for success to an extreme do, indeed, tend to be more susceptible to coronary disease than do others (Friedman & Rosenman, 1974). On the other hand, persons whose acts blend agency and communion have healthier hearts than do others, on the average.

Thus, Bakan appears to have been the first to specifically predict that sex-typed behavior might be maladaptive. This prediction contradicted the belief prevalent at the time that sex-typed behavior was psy-

chologically healthy and non-sex-typed behavior (later to be called androgynous behavior) indicated confusion and even psychological maladjustment. In other words, while Bakan, like the other sex-role theorists, believed that agency was the opposite of communion on one continuous scale, he considered the midpoint of the continuum, where agency was mitigated by communion, to be positive and the sex-typed endpoints (at least the agentic endpoint) to be undesirable. On the other hand, the other researchers considered both sex-typed endpoints to be psychologically healthy and the midpoint to be negative.

While, as mentioned above, most researchers use the terms "masculine" and "feminine" to denote sex-typed behaviors and traits, Bakan used the terms "agentic" and "communal." Use of Bakan's terms appears preferable to use of the more common terms; there is a possibility that referring to some behaviors as "masculine" and some as "feminine" reinforces existing gender differences simply because the two words are gender-specific. Use of words which do not bring to mind the ideas of "maleness" and "femaleness" should incur less risk of causing readers to think in terms of appropriateness of certain behaviors for the male or the female gender.

The next major contribution to the sex-role literature was made by Jeanne Block (1973). Elaborating upon Bakan's theory, she gave a name to the persons who mitigate or blend agency with communion, that is, who are at the midpoint between the two opposite poles of the sex-role continuum. She called these individuals "androgynous" persons.

Block, then, saw the three sex-role orientations as agency, com-

munion and androgyny. Combined with gender, these sex-role types form six different categories. The two most common types are agentic men and communal women. Two smaller groups are androgynous men and women. The two smallest categories are communal men and agentic women, who are known as "cross sex-typed" persons.

Block (1973) further elaborated upon Bakan's (1966) position by specifically predicting that androgynous persons are more psychologically healthy than are either agentic or communal persons. Thus, Block considered androgyny, rather than sex-role typing, to be the "ultimate goal" for human beings. She wrote that once androgyny has become the norm, "the behavioral and experiential options of men and women alike will be broadened and enriched and we all can become more truly whole, more truly human" (p. 526).

At about the same time, Bem (1974, 1975) began her study of sex roles. Following Block's lead, she specifically predicted that androgynous persons are more psychologically healthy than are sex-typed individuals. Her reason was that androgynous behavior is not limited by sex-role constraints. That is, both agentic and communal individuals avoid behaviors which are inconsistent with their sex-role orientations. For example, an agentic person might settle for a poor diet rather than cook a meal and a communal person might become stranded rather than learn to change a tire. On the other hand, an androgynous person is, by definition, a person who tends to be willing and able to perform whatever behavior is most adaptive in a particular situation.

Thus, Bem sees androgyny as involving flexibility. On the other

hand, persons who are sex-typed, by definition, act only according to their approved sex roles. Therefore, neither agentic nor communal persons should be as adaptable (at least in the sense of being able to solve problems) as persons who are willing and able to use both types of solutions, since sometimes the best solution is not a socially approved behavior for their gender.

Bem developed the Bem Sex Role Inventory (BSRI), a measure of sex-role orientation which updated the terminology used in the old measures. (See Appendix B.) This measure was created by asking college students which of many behaviors were most appropriate for men and which were most appropriate for women. The items chosen by most of these pilot subjects were compiled into two lists made up of "masculine" and "feminine" items. Subjects administered the resulting measure were placed into either the agentic, communal or androgynous group according to which items they endorsed.

Bem's original model of androgyny is known as the balance model; androgynous persons were seen as possessing an approximately equal number, or a balance, of agentic and communal traits (Taylor & Hall, 1982). Bem (1974) originally scored the BSRI using t tests to discern whether or not there was a significant difference between each subject's agentic and communal scores. Thus, the scoring method used to test the balance-androgyny hypothesis was known as difference scoring.

While Bem was developing the BSRI based on a balance model of androgyny and using the difference method to score it, Constantinople (1973) wrote her seminal critique of the sex-role research that had been

performed before that time. Her major objections to the sex-role research that had been published at that time follow.

The definition of M-F that has been implicitly used by most test developers has contained two assumptions, unidimensionality and bipolarity, neither of which has been tested for the validity of its application to the M-F construct. The dimensionality question can be raised in two ways: (a) Is M-F a single bipolar dimension ranging from extreme masculinity at one end to extreme femininity at the other, or is it possible that there are also two separable dimensions of masculinity and femininity which vary independently of each other. (b) Within the constructs of M, F, or M-F are we dealing with unitary or multidimensional traits? (p. 391)

Constantinople added that her first objection "is unanswerable at present, since no measure of M-F has been devised that does not incorporate bipolarity from the start" (pp. 391-392). The sex-role inventory being developed by Bem at that very time was also based on a concept of androgyny as unidimensional and bipolar. Thus, the BSRI was no more successful than the old inventories in enabling Constantinople's first objection to be answered.

Spence, Helmreich and Stapp (1975), however, were themselves developing a measure of sex role orientation, the Personal Attributes Questionnaire (PAQ). (See Appendix C.) They based the PAQ on the theory that agency and communion comprise two separate dimensions. That is, they saw androgyny as a bidimensional concept. Thus, they answered Constantinople's first objection.

Spence and her colleagues also responded to Constantinople's second objection. They specified that both agency and communion are multidimensional constructs. They added that the PAQ measures only one dimension of agency, instrumentality, and one dimension of communion, expressivity. Thus, they acknowledged that androgyny contains still

more dimensions than the two tapped by the PAQ.

Further, Spence and her coworkers (1975) pointed out that Bem's balance-androgyny model allows one only to distinguish between instrumental subjects, expressive subjects and those whose instrumental and expressive scores are equal; all the latter are classed as androgynous. That is, difference scoring groups subjects with high numbers of both instrumental and expressive traits together with those who endorse low numbers of instrumental and expressive traits. In actuality, Spence and her fellow researchers asserted, these two groups are quite different; the former group should possess considerably more skills than should the latter group.

Subsequent to Spence and her colleagues' criticisms, Bem (1977) adopted the median-split method to score the BSRI. The median split method is now considered by most researchers to be the most appropriate method for scoring sex-role inventories. Each subject receives an instrumental score, the total of the numbers the subject has used in endorsing the instrumental items. Similarly, each subject receives an expressive score. Then an instrumental median is computed using all the subject's instrumental scores; an expressive median is computed in the same manner. Subjects whose instrumental scores are above the instrumental median are assigned to the instrumental sex-role group, those above the expressive median to the expressive sex-role group, those above both medians to the androgynous group, and those below both medians to a group designated, "undifferentiated." Spence and her coworkers (1975) have also adopted the median-split method to score the PAQ.

The four sex-role groups inherent in this model of androgyny, combined with gender, form eight different categories. First, there are the two most common types: instrumental men and expressive women. Two smaller groups are the androgynous men and women. The categories containing the fewest persons are those composed of undifferentiated men, undifferentiated women, expressive men and instrumental women.

This new conception of androgyny as a combination of high levels of both instrumental and expressive traits has been named the dualistic model (Kaplan & Sedney, 1980). On the other hand, the balance model involves viewing androgyny as equal numbers of instrumental (or agentic in general) and expressive (or communal in general) traits, ignoring actual levels of agency and communion.

In conclusion, since 1975, the dualistic model of androgyny has been the prevalent one. Therefore, for the remainder of this paper, agency is referred to as instrumentality and communion as expressivity; only these aspects of agency and communion have been measured. Many attempts to verify the adaptability hypothesis with respect to androgynous persons have been made using the dualistic model. These attempts are described in the next section.

History of the Adaptability Hypothesis

Sandra Bem was the first to empirically test the adaptability hypothesis with respect to androgyny. She insisted that both men and women "should be encouraged to be both instrumental and expressive, both assertive and yielding, both masculine and feminine -- depending upon the situational appropriateness of these various behaviors" (Bem, 1975,

p. 634). Her rationale was that persons who possess both instrumental and expressive skills and behaviors are better able to adapt to life's demands than are individuals who possess only instrumental or only expressive traits. She writes, "It is hoped that the development of the BSRI will encourage investigators in the area of gender differences and sex roles to question the traditional assumption that it is the sex-typed individual who typifies mental health and to begin focusing on the behavioral and societal consequences of more flexible sex-role self-concepts . . . Perhaps the androgynous person will come to define a more human standard of psychological health" (Bem, 1974, pp. 161, 162). She proceeds to attempt "to demonstrate both the behavioral adaptability of the androgynous individual, as well as the behavioral restriction of the person who is not androgynous" (1975, p. 635). Thus, she appears to use the terms "psychological health" and "mental health" interchangeably and to equate adaptability with psychological/mental health. She then tests the adaptability hypothesis using several different measures to tap this adaptability/mental health concept. This research is described below.

In 1974 and 1975, Bem tested the adaptability hypothesis using the balance model of androgyny. She found that adults rated as androgynous were, indeed, willing to perform both instrumental and expressive behaviors in a laboratory setting. Neither instrumentally sex-typed persons nor expressively sex-typed persons showed willingness to perform tasks not sanctioned for their gender, even if they were offered higher pay to do cross-sex tasks than same-sex tasks (Bem, 1974; Bem & Lenney, 1976; Bem, Martyna & Watson, 1976). Bem concluded that these results both

demonstrate that the BSRI's scales predict actual behavior and support the adaptability hypothesis.

After adopting the dualistic model of androgyny, Bem (1977) rescored the responses found during her previous studies using the median-split method, as opposed to difference scoring. She found that, as expected, not only did the androgynous group score higher on most measures than did the other three groups, but also the undifferentiated group scored the lowest.

However, Bem's research was carried out in limited laboratory settings. Thus, persons whom she found to be androgynous may only have had wider behavioral repertoires and have been better problem-solvers in the laboratory than may instrumental, expressive and undifferentiated persons. Further, it is possible that behavioral flexibility does not exhaust the domain of adaptability. Thus, to discern whether or not individuals are adaptable, it may be necessary to consider other factors.

Sex-Role Orientation and Psychological Health

Most studies which have assessed the relationship of aspects of psychological health to sex-role orientation have used more general measures of psychological health than did the above studies. However, the latter studies did not include observation of physical behavior. Rather, they employed self-report measures which, it was claimed, tapped psychological health. These studies are described here.

Bem (1977) administered her sex-role inventory (the BSRI) and the Texas Social Behavior Inventory (a measure of self-esteem) to 169 under-

graduates. Analysis of variance (ANOVA) results indicated that androgynous and instrumental persons did not significantly differ from one another in self-esteem and that both these sex-role orientations scored significantly higher in self-esteem than the undifferentiated and expressive orientations. Further, multiple regression analyses showed that self-esteem for men was significantly related only to instrumentality (not to expressivity), but that self-esteem for women was significantly related to both instrumental and expressive traits. Therefore, although the adaptability hypothesis was at least partially supported, instrumentality appeared to make a greater contribution to adaptability than did expressivity.

Flaherty and Dusek (1980) found similar results. These researchers broke the concept of self-esteem into four factors; the pertinent factor, for the purposes of this study, is "adjustment self-concept." (Unfortunately, "adjustment self-concept" was not further explicated.) ANOVAs showed that the androgynous group scored significantly higher than did the undifferentiated group on adjustment self-concept; no other significant differences were found. Multiple regression analyses showed that subjects who scored high on instrumentality tended to score high on adjustment self-concept, whether they were male or female. Yet only women who scored high on expressivity achieved high adjustment self-concept scores. Thus, the adaptability hypothesis with respect to androgyny was supported while the hypothesis of equivalent contributions of instrumentality and expressivity to adaptability was not supported.

Dusek and other researchers (Ziegler, Dusek & Carter, 1984) admin-

istered this same self-concept measure and the BSRI to sixth- through twelfth-grade adolescents. ANOVAs indicated that androgynous subjects scored higher in adjustment self-concept than did instrumental subjects, who scored higher than did expressive subjects. All these groups scored higher than did undifferentiated adolescents. Examination of both analysis of variance and multiple regression analysis results revealed that "while overall femininity does contribute significantly to adolescent self-concepts, . . . it is masculinity which is the primary determinant of overall adjustment during adolescence" (Ziegler et al., 1984, p. 35). Thus, this study's results were similar to those of the above study.

While the previous studies related sex-role orientation only to one self-concept measure, Antill and Cunningham (1979) used two self-concept measures as their dependent variables. They administered Berger's Self-Acceptance Scale and the Janis-Field Feelings of Inadequacy Scale to a sample of 237 undergraduates in order to tap psychological health. They administered both the BSRI and the Personal Attributes Questionnaire (PAQ) in order to tap sex-role orientation.

ANOVAs and subsequent t tests showed that androgynous and instrumental subjects did not differ significantly from each other on either of the measures of psychological health. Also, the scores of the expressive and undifferentiated groups were virtually identical. The instrumental and androgynous groups, however, scored significantly higher in self-esteem than did the expressive and undifferentiated groups, a result similar to that of Bem and Dusek.

An apparent contradiction of the adaptability hypothesis can be

found in the research of Lubinski, Tellegen and Butcher (1981). They used a measure of psychological "well-being" known as the Differential Personality Questionnaire (DPQ). This measure does not appear to directly tap psychological health; rather, it appears to tap subjective mental health. Perhaps Lubinski and his coworkers used it because they believed that subjective mental health is strongly correlated with psychological health. Backing for this belief can be found in the literature. For example, Diener (1984, p. 556) states that personality traits, such as self-esteem, correlate positively with subjective mental health; high self-esteem is generally thought to be psychologically more healthy than is low self-esteem.

Those of Lubinski and his colleagues' subjects who were expressively sex-typed (according to their BSRI scores) tended to state that they often felt "taken advantage of, treated unfairly and victimized" (p. 726). These subjects appeared to show an acceptance of certain types of constraints on their behavior, according to analyses of variance and multiple regression analyses of scores on the DPQ and the BSRI. This result, in itself, does not contradict the adaptability hypothesis. However, instrumental subjects achieved significantly higher scores on the psychological "well-being" measure than did either androgynous or expressive subjects. Thus, instrumental persons of both genders gave high evaluations to the quality of their lives. Androgynous persons gave moderately high evaluations to the quality of their lives, and expressive subjects gave the lowest evaluations of all to the quality of their lives.

In summary, the results of Lubinski and his colleagues' (1981) study appear to demonstrate that instrumental persons are more psychologically healthy and report a better life quality than androgynous persons. Also, they appear to demonstrate that expressive persons are less psychologically healthy and report a poorer life quality than androgynous persons. On the other hand, the remaining studies listed above support, or at least do not contradict, the hypothesis that the androgynous sex-role orientation is the most psychologically healthy one. However, these studies, like the Lubinski study, suggest that instrumentality contributes more to psychological health and reported life quality than does expressivity, especially for men. It is clear that research is sorely needed which will clarify exactly how psychological health and reports of life quality relate to sex-role orientation.

Della Silva and Dusek (1984) have attempted to execute such a study, using a measure of Eriksonian maturity to tap psychological health. The results of ANOVAs supported the adaptability hypothesis. Androgynous subjects showed the highest scores, instrumental and expressive subjects received intermediate scores, and undifferentiated subjects appeared to be the least psychologically healthy. However, multiple regression analysis found that high instrumental scores were more strongly related to psychological health than were high expressive scores. They write,

This finding casts the either/or nature of the androgyny versus masculinity controversy into a new light. The important question may not be whether masculinity or androgyny leads to greater adjustment but rather to what degree the masculine and feminine components of an androgynous orientation predict better adjustment. Our results leave no doubt that it is the masculine component which is

predominantly, but not solely, responsible for the positive relation between androgyny and psychosocial adjustment (p. 211).

Thus, these researchers conclude that both instrumental and expressive behaviors are psychologically healthy, although to different extents. To summarize once again, Bem implied that an equivalent combination of instrumental and expressive traits leads to the greatest psychological health. Some studies contradict this prediction by making the implication that instrumental behaviors, rather than expressive behaviors, contribute to psychological health (or to reported life quality). Della Silva and Dusek (1984) attempt to end the controversy by claiming that both instrumental and expressive traits are psychologically healthy, but that the former are more psychologically healthy. In the next section, this suggested conclusion are examined in further detail.

Sex-Role Orientation and Eriksonian Adjustment

Researchers who have explored the relationship between sex-role orientation and psychological health as conceived by Erikson (1959, 1963) have fared only slightly better in their attempts to verify the adaptability hypothesis. Waterman and Whitbourne (1982) administered the BSRI and the Inventory of Psychosocial Development (IPD), a measure of the degree of resolution of some of Erikson's psychosocial stages (Constantinople, 1969), to both college students and adults. Androgynous subjects, as predicted, scored higher on the IPD than did instrumental subjects. Also, expressive subjects scored lower than did instrumental and androgynous subjects, and undifferentiated subjects

scored lowest of all.

The study by Della Silva and Dusek (1984) mentioned in the previous section also tested the adaptability hypothesis using an Eriksonian measure of psychological health (again, the IPD). This study was considerably more comprehensive and more theoretically complex than any of the previously mentioned studies; however, these researchers tested only for resolution of Erikson's fourth (Industry vs. Inferiority) and fifth (Identity vs. Role Confusion) stages because these stages applied to their subjects (college freshmen and sophomores).

Although Della Silva and Dusek had a firm theoretical basis for their expectation that men's and women's resolutions of Erikson's fourth and fifth stages would take place in different ways, they found no significant gender differences in Eriksonian maturity. However, they did find sex-role differences in the direction predicted. Their androgynous subjects scored significantly higher on this measure of psychological health than did instrumental subjects, who outscored expressive subjects. Also as predicted, undifferentiated subjects scored lowest. These results were consistent with the findings of Waterman and Whitbourne (1982).

Last, Glazer and Dusek (1985) also tested the adaptability hypothesis using the IPD. They examined Erikson's first six stages, performing separate ANOVAs for each one. For the most part, androgynous subjects scored higher than did subjects in any of the other three groups. Instrumental subjects scored higher than did expressive subjects on half the scales and equal to expressive subjects on half the

scales. While androgynous subjects always scored higher than did instrumental subjects, expressive subjects only scored higher than did undifferentiated subjects on half the scales.

Both Della Silva and Dusek (1984), and Glaser and Dusek (1985), also performed multiple regression analyses to assess the relative influence of instrumentality and expressivity on IPD scores. Both studies concluded that instrumentality and expressivity are both significantly associated with IPD scores, but that instrumentality is a stronger predictor than is expressivity.

In summary, review of all previous tests of the adaptability hypothesis which have used the BSRI shows that the androgynous group appears to be the most behaviorally flexible and otherwise psychologically healthy group. Also, the androgynous group appears to report the highest life quality. However, these studies also indicate that instrumentality is a better predictor of psychological health, as well as these other factors, than is expressivity. Thus, although these studies support, or at least do not contradict, the adaptability hypothesis with respect to androgyny, no study has yet upheld the hypothesis that instrumentality and expressivity equally predict adaptability.

CHAPTER II

CRITIQUE OF SEX-ROLE RESEARCH

In this chapter, a critique of previous sex-role research is presented. In the first section, the operationalizations of psychological health used in previous studies are evaluated; then more appropriate methods for tapping psychological health and reported life quality are suggested. The second section critically examines the current definitions and measures of androgyny and sex roles.

A Balanced Definition of Psychological Health

Previous tests of the adaptability hypothesis (cited in Chapter I) have found instrumental traits to be more psychologically healthy and to be related to reports of greater "well-being" than were expressive traits. (Adaptability, psychological health and subjective "well-being" are treated as equivalent here, as they have been treated by previous researchers.) Jones, Chernovetz and Hansson (1978) have tried to explain these findings; they state that, on the whole, our society values the use of instrumental traits more than it values the use of expressive traits, a fact which appears to be true. They conclude that, because their behavior therefore accrues more rewards than does expressive behavior, instrumental individuals are the most psychologically healthy ones in our society.

Instrumental and Expressive Adaptability

However, before one bases conclusions on research findings, one should explore the possibility that the findings themselves may be artifactual. Previous tests of the adaptability hypothesis do not appear to have used questionnaires which are based on adequate definitions of psychological health; thus, the instrumental/expressive differences found may actually have resulted from use of instrumentally biased adaptability measures. To shed some light on this issue, first the definition of adaptability is discussed; then the implications of this discussion on adaptability measures is explored.

Kaplan and Sedney (1980) have stated that psychological health contains both an instrumental and an expressive facet; that is, both instrumentality and expressivity accrue rewards, and thus contribute to psychological health. However, Jones and his colleagues do not appear to agree, possibly because the advantages accrued by possession and use of expressive skills may be less immediate and more difficult to quantify than are instrumental behavior's advantages. Thus, expressive advantages, although every bit as real as instrumental advantages, may be more difficult to detect.

Suppose that an instrumentally skilled man wins a footrace; he is likely to be rewarded immediately by praise, higher status, and perhaps money. Such rewards are at least partially quantifiable; one can count races won and dollars earned. Also, such rewards are immediate. Other instrumental skills which tend to accrue relatively immediate, quantifiable rewards are the capabilities of running a successful business,

inventing a new machine and operating a computer.

On the other hand, suppose that an expressively skilled woman raises three children who become happy adults able to make societal contributions of their own. The expressive woman's skills, of which she surely possesses many, may be less likely to be praised. If the woman does receive praise for use of expressive skills, she may not be as likely to receive it until her children become adults. Further, her skills are not likely to accrue monetary rewards or high social status. Last, it would be very difficult to measure how well this woman raised her children; this may make it difficult for society to reward good parenting. Other expressive skills which do not tend to accrue immediate, quantifiable rewards are the capabilities of teaching moral values to children, caring for an elderly spouse dying of Alzheimer's disease and nursing the ill back to health.

However, just because expressive skills do not tend to be rewarded by our society, one is not justified in assuming that they accrue no rewards. To obtain information concerning just what advantages might accrue from possession and use of expressive skills, Bakan's (1966) theory was consulted. According to Bakan, expressive persons (in his words, "communal" persons) possess skills enabling them to think empathically, form strong bonds of attachment to others, and learn to help others in many different ways. Such skills, then, should cause expressive individuals to be more likely than are instrumental individuals to express affection and to be sensitive to others' needs; in short, expressive individuals should tend to consider others' interests fre-

quently. Such behavior, although not rewarded as often or as immediately as is instrumentality, may generate the sense of fulfillment which results in knowing that one has contributed significantly to others' happiness.

Also, expressive persons should be socially skilled and thus more likely than others to achieve intimate and satisfying social relationships. Last, possession and use of expressive skills should lead to knowledge of one's own feelings, values, hopes and desires; this self-knowledge, although rarely recognized, much less rewarded, by our society, should lead to feelings of contentment with oneself and acceptance of one's own personality. These expressive advantages, although they are difficult to quantify and, like the reward of knowing that one has raised children to become happy adults, often take years to come to fruition, may nonetheless exist and contribute to psychological health.

Society may well place a low value on expressive skills; however, Jones and his colleagues do not appear to be justified in assuming that societal approval (including the resultant money and status) is the only, or even the major, behavioral reward contributing to psychological health. Rather, researchers should search for possible advantages which could result from possession and use of expressive behaviors as eagerly as they have searched for possible instrumental advantages. Failure to do this places them under suspicion of buying into our society's devaluation of expressivity.

Thus, although expressive rewards, as compared to instrumental rewards, are often not immediate and quantifiable enough to be observed

by researchers, they may nonetheless contribute to psychological health. They may not contribute as much as do instrumental rewards; expressive individuals, because of society's influence, may not recognize expressive rewards much better than do researchers. However, if researchers continue to overlook the possibility that expressivity accrues any rewards at all, there is little chance that expressive individuals will improve their ability to recognize the advantages accrued by their behavior.

Kaplan and Sedney (1980) imply that the failure of psychological researchers to seek evidence of rewards accruing to expressive behavior has affected the measures previously used to test the adaptability hypothesis; these measures, they suggest, tap primarily instrumental rewards. This may have been a significant factor in the results of the studies (mentioned in Chapter I) which suggested that instrumentality is more adaptive than expressivity.

Since instrumentally sex-typed persons score significantly higher than do expressively sex-typed persons on measures of self-esteem, subjective "well-being," Eriksonian maturity, and manifest anxiety, these may well be examples of the instrumentally biased measures of psychological health to which Kaplan and Sedney refer. These researchers recommend that expressively biased measures also be used to test the adaptability hypothesis.

Kaplan and Sedney give examples of expressive behaviors which they believe contribute to psychological health and therefore should be tapped: "a capacity for working collaboratively, the expression of care

and concern for others, the ability to consider the interests of others as well as of oneself" (p. 28). They state that high scores on such measures of psychological health should be expected to correlate highly with endorsement of high numbers of the BSRI's expressive items, such as "eager to soothe hurt feelings" and "sensitive to the needs of others," and to show low or negative correlations with endorsement of high numbers of instrumental items. Thus, such measures of psychological health, if they are ever created, should be expressively, not instrumentally, biased.

In conclusion, the results of the studies described in the first chapter suggest that, although androgyny may be the most psychologically healthy sex-role orientation and contribute to reports of greater life quality than does any other sex-role orientation, the instrumental facet of androgyny may contribute significantly more to androgyny's adaptivity than does the expressive facet. Further, some researchers have implied that this occurs only because instrumental traits are, in themselves, more adaptive than are expressive traits, at least in our sex-typed society. It has been argued in this section that this may not be the only reason; previous studies may also have found such favor with instrumental traits because they have used measures which tap primarily instrumental adaptability rather than expressive adaptability.

Thus, measures of psychological health which are balanced with respect to instrumentality and expressivity must be used in studies testing the adaptability hypothesis. Or, at least, such studies must acknowledge the instrumental or expressive bias of the measures they are

using.

It was not possible to create a new adaptability measure, as recommended by Kaplan and Sedney (1980), for use in this study. However, this author searched through existing measures in hopes of finding at least one which would not be too instrumentally biased to be useful in testing the adaptability hypothesis.

Subjective Mental Health

One of the measures which has been used in tests of the adaptability hypothesis is Lubinski and his fellow researchers' (1981) Differential Personality Questionnaire (DPQ). The items in this questionnaire (mentioned in Chapter I) loaded on three factors which had emerged from factor analysis of the DPQ. These factors are (a) positive affectivity ("well-being"), (b) negative affectivity, and (c) "constraint." The constraint dimension has been found in earlier studies "to emphasize some form of acceptance versus rejection of various constraints on the self" (p. 728).

As mentioned earlier, Lubinski and his colleagues' data only partially supported the adaptability hypothesis. The BSRI-M and "well-being" loaded on the primary factor found in the study. The BSRI-F and "constraint" loaded on a lesser factor. These findings led Lubinski and his fellow researchers to question "the construct validity of the BSRI-F scale as an indicator of well-being" (p. 728).

It was legitimate for Lubinski and his colleagues to question the BSRI's construct validity. However, one might also question the validity of the DPQ; the measure may tap primarily instrumental, rather than

expressive, adaptability. Besides, the DPQ appears to elicit only affective, not cognitive, evaluations of experience. On the other hand, Bryant and Veroff (1984) have developed the Subjective Mental Health Test Battery (SMHT) a group of self-report measures which elicit both affective and more cognitive evaluations of experience.

Like the authors of the DPQ (Lubinski et al., 1981), Bryant and Veroff took into account, when compiling the SMHT, the fact that subjective mental health possesses both positive and negative aspects. Positive items are those whose wording orients respondents mainly to positive experiential aspects. For example, one positive SMHT item asks, "Would you say you're very happy . . . these days?" Negative items are those whose phrasing orients respondents primarily to the negative experiential dimension. For example, one negative item reads, "Do you have loss of appetite?"

In addition, Bryant and Veroff make a second distinction within the concept of subjective mental health: experience can be evaluated both affectively and cognitively. An affective item asks subjects for spontaneous evaluations of experience and to react directly to the resultant feelings. A cognitive item "may evoke a different set of evaluations than does an appraisal with a more general, spontaneous focus" (Bryant & Veroff, 1984, p. 122). Thus, Bryant and Veroff see four distinct aspects within the concept of subjective mental health: affective evaluations of positive experience, cognitive evaluations of positive experience, affective evaluations of negative experience and cognitive evaluations of negative experience.

Confirmatory factor analysis performed upon the SMHT (Bryant & Veroff, 1984) yielded the four factors mentioned above. Also, a fifth factor (self-confidence) and a sixth factor (uncertainty), both of whose items could be classified into more than one of the above four categories, were found. Thus, the SMHT appears to be made up of six factors:

1. Happiness/Unhappiness (affective evaluation of positive experience): general happiness, present happier than past, happiest time in present, high future morale, general satisfaction with life.
2. Gratification/Lack of Gratification (relatively cognitive evaluation of positive experience): value fulfillment and life satisfaction derived from relevant role relationships.
3. Freedom From Strain/Strain (affective evaluation of negative experience): a cluster of psychophysical symptoms, including alcohol abuse.
4. Feelings of Invulnerability/Vulnerability (relatively cognitive evaluation of negative experience): infrequent feelings of being overwhelmed or of pending nervous breakdown.
5. Self-Confidence/Lack of Self-Confidence (cognitive and affective evaluation of positive and negative experience): freedom from depression, high self-esteem, freedom from anomie.
6. Certainty/Uncertainty (cognitive and affective evaluation of positive and negative experience): infrequent worrying, freedom from immobilization and psychological anxiety, general satisfaction with life and time use, failure to admit own shortcomings.

Multiple regression analyses in which each predictor was consid-

ered, controlling for all others, supported the divergent validity of Bryant and Veroff's six-factor model of subjective mental health. Also, and very importantly, Bryant and Veroff have shown that both men and women use the first five of these six basic dimensions in the same ways in evaluating their subjective mental health. That is, the five factors appear to have the same meaning for both sexes. Thus, the SMHT can be validly used to compare men and women on their mean levels of subjective mental health.

The conception of subjective mental health as a compilation of factors, rather than as one factor, is considered to be more appropriate than other conceptions by those who have examined the issue in the most depth (Andrews & Withey, 1976; Bradburn, 1969; Bryant & Veroff, 1982, 1984; Campbell, 1980). Gurin, Veroff and Feld (1960) write:

Overall evaluations of psychological illness and mental health are too elusive to apply to mental life. Specifically, those who identify themselves as mentally ill or mentally healthy will vary according to the particular criteria actors apply to their own behavior (p. 654).

Therefore, the multifaceted SMHT was used in this study. However, because testing time was limited, the SMHT had to be shortened for the purposes of this study. Thus, the fifth and sixth factors were dropped from the measure; since they consisted of mixtures of the four aspects of subjective mental health, they did not fit as neatly with the theory as did the first four factors. This shortened version of the SMHT was used to test the adaptability hypothesis.

One additional difficulty needed to be overcome in preparing the shortened SMHT for use in testing the adaptability hypothesis. Although

subjective mental health is best considered to be made up of several factors, only unitary measures of subjective mental health have been used in previous tests of the adaptability hypothesis. Therefore, it was necessary to conceive of the SMHT as a unitary measure for the sake of comparison, even though this latter conception of subjective mental health is deficient.

Thus, for the purposes of this study, several ad hoc outcome measures derived from the SMHT were created in order to operationalize the concept of subjective mental health. Four outcome measures were created to tap each of the four factors selected for testing: happiness, gratification, freedom from strain and invulnerability. The happiness measure elicits affective evaluations of positive experience; it consists of the first three questions on the SMHT. These questions ask subjects to rate their present happiness, to predict their future level of happiness, and to rate their satisfaction with life in general. A fourth item, "present happier than past," had also loaded on the happiness factor (Bryant & Veroff, 1984); however, since it had not loaded as highly as the other items, it was not included in this study in order to shorten the SMHT.

Second, more cognitive evaluations of positive experience were elicited by the fourth through sixth items on the SMHT; this was denoted the gratification measure. Questions 4 and 5 tap value satisfaction, that is, "how much various things in your life (such as, work and leisure) have led to the most important value in your life." Question 6 taps life satisfaction derived from relevant role relationships.

Third, affective evaluations of negative experience were elicited by the seventh through eighteenth SMHT items; this was denoted the freedom from strain measure. Each freedom from strain item taps a specific psychophysical symptom. A thirteenth item, alcohol abuse, had also loaded on the freedom from strain factor (Bryant & Veroff, 1984); however, since it had not loaded as highly as the other items, it was not included in this study in order to shorten the SMHT.

Fourth, more cognitive evaluations of negative experience were elicited by the last three SMHT items; this was denoted the invulnerability measure. Item 19 taps feelings of pending nervous breakdown. Items 20 and 21 tap feelings of being overwhelmed by large numbers of bad events in one's life. Since reports of many positive experiences were indicated by high scores, the items on the two negative measures were reverse-scored so that reports of many negative experiences would be indicated by low scores. This made it possible to add scores of the positive and negative scales together.

Last, an overall subjective mental health outcome measure was created by adding scores on the above four scales together. This measure of subjective mental health, although inappropriate for the reasons mentioned above (Bryant & Veroff, 1984), was comparable to the DPQ and other measures of subjective mental health which have previously been used to test the adaptability hypothesis. Thus, this overall measure was used to attempt to replicate previous tests of the adaptability hypothesis.

Thus, the SMHT taps evaluations of both positive and negative

experience. Further, unlike the DPQ, the SMHT taps both affective and more cognitive evaluations of experience; it is well-grounded in theory. The measure also has been shown to be reliable and valid. Therefore, it was used in this study to test the adaptability hypothesis.

Eriksonian Maturity

When testing the adaptability hypothesis, Della Silva and Dusek (1984) used Constantinople's (1969) IPD to tap the dependent variable. This scale contains a measure of intimacy, since it tests for achievement of Erikson's sixth maturity level. However, a cursory glance at the scale reveals that it otherwise measures primarily instrumental adjustment. For example, autonomy vs. shame and doubt is measured by such items as, "values independence above security." Initiative vs. guilt is tapped by, "sexually blunted," and, "adventuresome." Further, industry vs. inferiority is measured by, "a playboy, always 'hacking' around." Thus, the IPD appears to be another instrumentally biased measure of psychological health.

However, the search for non-instrumentally biased measures of adjustment to be used in this study was not taken outside the domain of Eriksonian measures because Erikson sees psychological health in a broader way than do most theorists. Thus, theoretically at least, Eriksonian measures should be more likely than other measures to include both instrumentally and expressively biased subscales. For example, Erikson's (1959, 1963) concepts of the development of intimacy and of generativity (the ability to pass on what one has learned to the next generation) are clearly expressive ones.

However, Franz and White (1985), in their thoughtful critique of Erikson's theory, state that some important concepts have been left out of the theory:

Acknowledged but scarcely developed are intimacy as sharing, openness, and caring, and generativity as part of a vital, transactional family process. Virtually omitted are alternative forms of intimate sexual relationships and nonsexual intimate relationships such as friendship (p. 239).

Nonetheless, the search for an Eriksonian measure of adjustment which would not be instrumentally biased was pursued. The Eriksonian Psychosocial Inventory (EPSI), a measure developed in Australia (Rosenthal, Gurney & Moore, 1981), was eventually found. The EPSI items are more specific and possess more face validity than do the IPD items because the former relate closely to statements actually made by Erikson (1959, 1963). However, the EPSI taps only the first six stages of development and, like the IPD, is instrumentally biased.

The third Eriksonian measure examined was the Developmental Conflicts Measure (DCM) created by Speisman (1983). This measure taps all Erikson's stages except the fifth (Identity vs. Role Confusion). While the first-, second-, fourth- and eighth-stage scales conform closely to Erikson's theory, the remaining scales do not. The third (Initiative vs. Guilt) stage is reconceived as "Role experimentation vs. Role fixation." Its scale taps primarily subjects' adventurousness and rebelliousness as teenagers and, like the IPD's third stage, omits interpersonal initiative altogether.

Erikson's sixth (Intimacy) stage is reconceived in the DCM as "Sexual polarization vs. Bisexual confusion." This leads to at least

two problems. First, the expressive traits of willingness and ability to enter into open, intimate relationships is entirely omitted from the measure. Second, Speisman's measure is not based on acknowledgement of the possibility that an adjusted person could be involved solely in non-sexual or homosexual relationships.

Last, the DCM reconceives Stage 8 (Generativity vs. Stagnation) as "Leader and followership vs. Authority confusion." Thus, its scale does not tap the expressive ability and eagerness to pass on one's wisdom to the next generation. Overall, then, the DCM appears to be extremely instrumentally biased.

The last Eriksonian measure examined was that created by Hawley (1984), the Eriksonian Measure of Psychosocial Development (EMPD). This measure, unlike the measures mentioned above, taps all eight of Erikson's stages. The items conform well to Erikson's theory, yet the EMPD does not appear to be very instrumentally biased. The second-, third- and fourth-stage scales are clearly instrumentally biased; however, the sixth-stage (intimacy) scale is clearly expressively biased and the first- and seventh-stage scales may also be expressively biased. The fifth- and eighth-stage scales would appear to be neutral with respect to instrumentality and expressivity. Last, the EMPD does not favor any specific group of people, whether they be married or single or have homosexual, heterosexual or celibate preferences. Thus, the EMPD was chosen for use in this study because it appears to be the least biased Eriksonian measure available which is also psychometrically sound.

According to Erikson, sex-role development is a pertinent aspect

of identity development (e.g., Bourne, 1978; Waterman, 1982). Therefore, sex-role identity in particular was expected still to be in the process of developing in adolescents, since they should not yet have mastered Stage 5 (Identity). On the other hand, sex-role identity was expected to be more solidified in adults, since adults should already have succeeded in mastering Stage 5.

Conclusion

Instrumental measures of psychological health tap behaviors which tend to accrue immediate, quantifiable rewards associated with societal approval. On the other hand, expressive measures tap behaviors which tend to lead to formation of intimate relationships, many of whose rewards are not associated with societal approval and accrue only after months or years.

This study attempted to avoid instrumental bias by measuring psychological health using both instrumental and expressive measures. Thus, Hawley's EMPD was used; both its theory base and its structure led to the expectation that it would tap both instrumental and expressive aspects of psychological health. Also, Bryant and Veroff's SMHT was used. Since the DPQ, which measures subjective mental health, was instrumentally biased, the SMHT was also expected to be instrumentally biased.

Sex-Role Measurement

The second problem with previous studies of the adaptability hypothesis is that the sex-role scales which have been used may be inadequate. In the first section of this chapter, Constantinople's objection to the sex-role measurement methods current at that time is discussed. In the second section, two other objections are presented and discussed.

Constantinople's Objection

Constantinople (1973) stated that the terms "masculinity" and "femininity . . . seem to be among the muddiest concepts in the psychologist's vocabulary" (p. 390). She continued her discussion of the fact that sex-role researchers had not defined their terms by criticizing the original sex-role inventories (e.g., Gough, 1964; Guilford & Guilford, 1936; Hathaway & McKinley, 1943; Strong, 1936; Terman & Miles, 1936).

Anything that discriminates between men and women, usually at a particular point in time in a particular culture, is taken as an indicator of M-F with no assessment of the centrality of that trait or behavior to an abstract definition of M-F. In the absence of an accepted definition of the construct, it seems that the empirical approach alone will not suffice to generate a definition" (p. 390).

Although the BSRI was published after Constantinople's review had been written, it was constructed using only empirical methods. Bem had defined androgyny only insofar as she specified that it involved possession of a combination of the behaviors grouped by college students into each of two ("masculine" and "feminine") categories. That is, she simply used items which her pilot subjects believed discriminated between men and women. For example, the subjects believed that independence was

more desirable for men than for women. "Independence" is a vague term; the word was not defined. It was simply used, along with other words, to measure Bem's undefined concept of "masculinity."

It may be said in objection that Bem cited Bakan's concepts of agency and communion when describing the theoretical base of the BSRI. However, as explained in Chapter I, although Bem acknowledged the theoretical usefulness of Bakan's concepts of agency and communion, she did not use these concepts in creating the BSRI. Rather, the BSRI was constructed using only college students' classifications of certain adjectives as most appropriate for either men or women.

Spence and her colleagues' PAQ (1974) is also vulnerable to Constantinople's objection. The PAQ is made up of traits commonly believed to be more typical of one gender than of the other. They stated that these traits did not exhaust the domains of "masculinity" and "femininity" but, rather, were either instrumental or expressive. Parsons (1951) and Bales (Parsons & Bales, 1955) are the ones who first used these two terms; they listed specific behaviors which they believed characterized instrumentality and expressivity. However, Spence and her colleagues did not use these lists to create the PAQ. Rather, they used vague adjectives. They selected these adjectives because they are commonly believed to discriminate men from women, not because they fit with Parson's and Bales' theory.

Thus, both the BSRI and PAQ items were chosen for these measures only because it was believed that they discriminated between men and women. The fact that a behavior or trait discriminates between men and

women is not sufficient to justify its placement on a sex-role inventory. For example, women may prefer baths and men showers, but preferring baths is not central to the concept of expressivity and preferring showers is not central to the concept of instrumentality. Therefore, because the BSRI and PAQ items were not assessed for their centrality to the concepts of instrumentality and expressivity, Constantinople's objection that instrumentality and expressivity must be adequately defined before the concepts can be tested holds for the BSRI and the PAQ as well as for the older measures.

Locksley and Colten (1979, p. 1020) agree that "restriction of scale content to items perceived to be linked to sex" leads to invalid scales. They give a second reason why this is so; they state that the BSRI and the PAQ are lists of perceived differences between the sexes. Yet the BSRI and PAQ are purported to predict actual behavioral differences between the sexes. Locksley and Colten point out that between perceived and actual behaviors there exists "cognitive mediation of a sense of self" (p. 1021). It would appear that they question the assumption that attitudes and behaviors are closely linked. Thus, they are in agreement with Constantinople that a measure predicting actual sex-role behaviors cannot be based upon arbitrary gender differences, adding the reason that these arbitrary gender differences are often arbitrary because they are perceived, not actual, differences.

Locksley and Colten add that both "the BSRI and the PAQ are constructed in exactly the same manner as the sex-stereotype scales" (p. 1020). They ask, "Can an inventory developed to tap beliefs about

aggregate sex differences be used as a measure of individual differences?" (p. 1020) They object to inferring actual gender differences in behavior from what are really belief or attitude measures.

It is likely that this objection is a valid one. Current sex-role theorists (Bem, 1974, 1975; Spence et al., 1974, 1975) define androgyny as actual behaviors. Thus, their sex-role inventories need to be shown to measure actual behaviors. However, both the BSRI and the PAQ were developed by ascertaining prevalent sex-role attitudes.

Bem (1974; Bem & Lenney, 1976; Bem et al., 1976) did, indeed, show that individuals tend to behave, in laboratory settings, consistently with their sex-role orientations as tapped by the BSRI. However, no one individual was tested for willingness to exhibit both instrumental and expressive behaviors. Also, as Locksley and Colten state, sex-role behavior outside the laboratory is not as predictable as behavior within it. Third, since the current sex-role measures are lists of sex-role attitudes rather than behaviors, findings that sex-role attitudes, like behaviors, vary from situation to situation cast further doubt upon any hope that Bem's findings might generalize outside the laboratory.

Locksley and Colten add that androgyny has only been defined as that behavioral style which is most flexible. It is true that Bem's studies, cited in the previous chapter, have shown that androgynous persons are the most flexible ones in laboratory settings (Bem, 1974; Bem & Lenney, 1976; Bem et al., 1976). However, Bem concludes from these findings that androgyny can thus be defined as flexibility. This is circular reasoning. One cannot deduce that androgyny (or anything) has

construct validity simply because it has predictive validity. One must define what construct one is examining before attempting to test different predictions about the construct.

Further, only when one defines the constructs one is examining can one easily choose items whose meanings are commonly understood. It is important that sex-role test items consist of words whose meanings are commonly understood. Locksley and Colten (1979), referring to the BSRI and PAQ items, state, "when trait items are the only means by which respondents may distinguish females from males, the terms may be used to signify something other than their original meanings" (p. 1021). This potential problem can be prevented from occurring by avoiding vaguely worded trait items such as those on the BSRI and PAQ (e.g., "emotional," "strong personality") in favor of behavioral items upon whose meanings there is common agreement (e.g., "am a good parent," "am a good leader").

Other Objections

Factor Analyses of Sex-Role Measures

Constantinople (1973, p. 390) stated that "the empirical approach alone will not suffice to generate a definition" of instrumentality or of expressivity. However, the empirical approach is needed to evaluate measures whose creation has been based upon theoretical definitions. Thus, several attempts have been made to factor analyze both the BSRI and the PAQ in order to seek support for the authors' claims that each measure contains two independent factors, one of which consists of the

instrumental items and one of which consists of the expressive items.

Gaudreau (1977) performed a principal axis factor analysis of the BSRI responses of 253 adult men and women. She states, "A principal-axis factor analysis of all item intercorrelations followed by a varimax rotation resulted in four interpretable factors . . . Most items loading .30 or higher were included in the definitions of each factor" (p. 301). She does not explain her criterion for choosing which items were eliminated; possibly, it was the items' fit with the interpretations she placed upon the factors.

Seventeen instrumental items loaded on her first factor; 13 expressive items loaded on the second. On a third factor were found only the items, "feminine," "masculine," and "athletic;" thus, "this factor appears to reflect the actual gender of the subject. The fourth factor was defined in terms of a few adjectives from each of the three adjective groups . . . This factor can perhaps best be interpreted as a neutral 'maturity' factor" (p. 301). Gaudreau states that only these four factors were "interpretable," and mentions no additional ones. She states in summary that, "When items were factor analyzed, they loaded on two common factors" (p. 302). It should be noted that, in using varimax rotation in an exploratory analysis, Gaudreau forced the four factors to be independent. Oblique rotation, which does not force independence, may have produced a different factor pattern, since the factors may not actually have been independent.

Waters, Waters and Pincus (1977) also factor analyzed the 60-item BSRI, which was administered to 252 undergraduate men and women; they

also employed varimax rotation. Their results were similar to those of Gaudreau. Fourteen items loaded highly on an expressive factor, and ten items loaded highly on an independent instrumental factor.

Last, Feather (1978) also used principal axis factor analysis followed by varimax rotation to examine the original BSRI. His subjects consisted of 358 Australian undergraduates, including their parents and siblings. He found 18 factors with eigenvalues greater than one. Possibly he found such a large number of factors because of his larger sample size. Like the previous researchers, Feather considered only five of these factors to be interpretable. The first factor involved dominance (instrumentality) and the second involved "tender concern for others" (expressivity). The third factor did not appear to relate to sex-role orientation; however, the fourth was related to independence, another instrumental concept. The fifth factor, like the third, was not related to instrumentality or expressivity. He states:

The findings from the present study [suggest] that Bem's (1974) assumption of two separate and independent dimensions of masculinity and femininity is also an oversimplification. It was clear from the analysis that the BSRI is factorially complex and that the masculinity score loaded on at least two main factors (dominance, independence), while the femininity score loaded on one (tender concern for others) (p. 250).

It must be remembered that Feather analyzed the 60-item BSRI. Thus, his conclusions may not apply to the BSRI-S.

All these researchers claimed that the BSRI contained either four or five factors. Later, the BSRI was shortened from the 60 items factor analyzed by Gaudreau to 20 items: ten of the 17 instrumental items and ten of the 13 expressive items. Thus, the BSRI now retains only the

first two of the original factors: the instrumental and expressive ones. The question may arise whether or not the shortened BSRI would show these two factors if it were analyzed in turn. However, the BSRI-S has not been factor analyzed. Further, it was not possible to administer the BSRI-S to enough subjects to perform a BSRI-S factor analysis as a part of this study.

Helmreich, Spence and Wilhelm (1981) factor analyzed the PAQ scores of 674 high school students, 3050 undergraduates and 1954 parents. They performed six maximum-likelihood factor analyses, one on responses of males and one on responses of females in each of the three samples. These analyses were followed by "oblique rotation with varying degrees of obliqueness." They state:

In each of the six factor analyses, a two-factor solution was optimal. Two large factors emerged with eigenvalues around 4. When a three-factor solution was computed, the third factor proved to be highly correlated with the first factor. Accordingly, the solution was reduced to two factors employing a delta value of zero . . . The results provide strong support for the dualistic conception of masculinity and femininity, and the unitary constructs of instrumentality and expressiveness (p. 1102).

Although they stated that the two largest eigenvalues were near 4, these researchers did not specify what the other eigenvalues were or whether any of them were greater than one. Further, they did not state how much variance was accounted for by the factors they found. Thus, it is unclear what criterion they used to conclude that the PAQ contains two factors.

Also, the explanation of their methods, stated in its entirety in the quote above, is vague. It is not clear whether they used higher-order factor analyses or not, or why they used oblique rather than varimax

rotation. Also, Helmreich and his colleagues did not justify their separate analyses of male and female subjects' responses. There does not appear to be any other study in the literature which suggests that factor-analyzed sex-role data should be separated by sex of subject. These researchers did not indicate whether or not the male and female covariance matrices were equivalent. (See Cunningham, 1978, for a discussion of this statistical issue.) Thus, we cannot evaluate whether or not this distinction was justified on statistical grounds.

We cannot know the validity of statistical analytic procedures unless we have the facts about how they are performed. Since Helmreich and his colleagues have not stated these facts, they have not fully justified their conclusion that the PAQ contains two independent factors.

In sum, the authors of both the BSRI-S and the PAQ claim that each of their measures contains two independent factors. However, it is not clear exactly how many factors the PAQ contains because the summary of its factor analysis results is not clearly stated. Similarly, it is not known how many factors make up the BSRI-S because the measure has not, itself, been factor analyzed.

The Median Split

Those administering the BSRI and PAQ have used the medians of each of their testing samples' instrumental and expressive scores as their cutoffs between high and low scorers on each of the instrumental and expressive dimensions. Pedhazur and Tetenbaum (1979) point out two problems with this use of the median-split method. First, suppose that you are androgynous and are responding to a sex-role questionnaire.

Since you are androgynous, you will endorse high levels of both instrumental and expressive skills. If your responses are scored using the median-split method, your instrumental scores are compared with those of the others in your testing sample.

Now suppose that this particular sample contains many high-instrumental, moderately expressive persons. Your score may well be below the median of that particular sample on instrumentality and above the expressive median. In that case, you will be classified as expressively sex-typed even though you would be correctly classified as androgynous using general population medians. Similarly, the same person who is classified as androgynous when compared with elementary school teachers may be classified as instrumentally sex-typed when compared with college students. Therefore, use of a universal median would be preferable.

However, the universal median is not known; not enough varied samples have been taken to represent any population sufficiently. Sex-role researchers are forced to use sample-specific medians because they are the only ones available at this time. Only when sex-role measurement has been done using many and varied samples can this problem be solved.

Pedhazur and Tetenbaum (1979) pose a second objection to use of the median split. They believe that the median split artificially dichotomizes nondichotomous groups of scores. That is, they say, in any random sample, the largest number of subjects is likely to score at the median; these scores are likely to be grouped very close together. Thus, they believe, the instrumental median places many persons whose instrumental scores are only slightly below some of the high-instrumen-

tality scores in the low-instrumentality category. Besides placing proximate scores into separate categories, the median split, Pedhazur and Tetenbaum assert, places distant scores into the same category. For example, extremely high expressive scorers are grouped with persons who are very close to the median on expressivity although their two scores are quite far apart.

The underlying premise, that random samples tend to be grouped in normal curves around median scores, is true. However, any measure of androgyny taps two samples: men and women. Men are likely to group themselves in normal-curve fashion around a high instrumental median and a low expressive median. On the other hand, women's scores are likely to cluster near a high expressive median and a low instrumental median. In the general population, neither men nor women are likely to score near the overall male-female median.

However, college undergraduate samples may be an exception to this rule, since they may tend to consist of large numbers of androgynous persons. Since most of the subjects tested in this study were college undergraduates, this objection applies to it. Nonetheless, the median-split method was used because all previous tests of the adaptability hypothesis used this method; the same scoring method used in previous tests needed to be used here to make comparisons possible.

In conclusion, the preceding analysis of the sex-role literature has made it clear how one should go about designing and scoring sex-role measures. Chapter III describes the creation of a measure which takes these concerns into account.

CHAPTER III

CREATION OF A NEW SEX-ROLE SCALE

Kaplan and Sedney (1980) believe that the instrumental and expressive dimensions exhaust the domain of dualistic androgyny. Thus, within the dualistic model of androgyny, instrumentality is considered to be the same concept as that of agency, expressivity is equated with communion, and androgyny is defined as a combination of high levels of both instrumental and expressive behaviors.

This is the same definition of dualistic androgyny which is used by Spence and her coworkers (1975). This definition is based on the assumption that there may well exist other dimensions within the concepts of agency and communion, but that it is possible to measure only instrumentality and expressivity (dualistic androgyny) at this time. Since this assumption appears to be valid, the instrumentality/expressivity definition of androgyny was used as the basis for the creation of a new sex-role measure, the Bratt Instrumentality/Expressivity Scale.

Instrumentality and Expressivity

Definitions of Instrumentality and Expressivity

The terms "instrumental" and "expressive" were first used by Bales (1951) to describe two leadership styles found within small groups. The instrumental leader is the functional one who deals most of the time with the "object-world;" the expressive leader attends to the "symbolic"

aspects of leadership, whether they be religious symbolism, ceremonial symbolism, or symbolic ways of expressing affect.

Parsons (1951) elaborated upon Bales' definitions, applying them to family as well as to work leadership. He specified that the instrumental style of leadership is very different from the expressive style. Instrumental leadership is "affectively neutral" and is characterized by a system of different technical roles, striving for "achievement goals," and monetary remuneration. Expressive leadership, on the other hand, is laden with affect, especially with love, and is characterized by lack of achievement striving or monetary remuneration; kinship is more significant than work here.

Parsons emphasizes that differentiation of instrumental and expressive structures necessitates differentiation in rewards between those who perform these roles. That is, the instrumental role leads to higher business and professional competence than does the expressive role; thus, since this competence is valued more highly in Western societies, the instrumental role accrues more rewards than does the expressive role. Parsons' argument is congruent with the position, stated in Chapter II, that instrumental behaviors accrue more immediate, quantifiable rewards associated with societal approval than do expressive behaviors.

While instrumental behaviors are performed primarily to achieve rewards or to avoid punishments, expressive behaviors are performed primarily for "cathectic" reasons, Parsons states. For example, a mother does not merely respond to her crying child to end the unpleasant noise

but also because she loves the child. Thus, the acts of mothers and spouses tend to be "expressive" of their feelings of love for their children and spouses; on the other hand, the acts of workers tend to be "instrumental" in the attainment of rewards.

Parsons and Bales (1955) further apply the instrumental/expressive distinction to family structures, saying that this "differentiation of sex role in the family is . . . primarily an example of a basic qualitative mode of differentiation which tends to appear in all systems of social interaction regardless of their composition" (p. 22). The question is not why family roles differentiate but why the man usually takes the instrumental role and the woman the expressive one.

Parsons and Bales believe that the father is usually the family's "task leader;" he gives directions and opinions, inhibits his emotions and can keep "pressing a point" although others express hostile reactions. The mother tends to be the family's "sociometric star;" she expresses her emotions, shows "supportive behavior to others" (p. 309), and both likes others more and desires to be liked by others more than does the father.

For the purposes of this study, Parsons' and Bales' definitions have been summarized as follows. Instrumental behavior consists of those acts or traits which result from a person's high valuation of instrumental (quantifiable, societally rewarded) success and that tend to result in the desired instrumental success. Expressive behavior constitutes those specific acts and traits that result from high valuation of intimate interpersonal relationships and that tend to result in for-

mation and prolongation of the desired intimate relationships. These definitions were those upon which creation of the Bradt Instrumentality/Expressivity Scale was based. The format of this scale is described below.

The Instrumentality Subscale

As explained in Chapter II, instrumentality should be measured by a subscale containing situationally specific items whose meanings are commonly understood. Orlofsky (1981) has developed a measure, the Sex Role Behavior Scale (SRBS), which appears to be a sufficiently specific measure of sex-role behaviors. He has stated that the male-valued items on the SRBS tap instrumental behaviors (p. 938).

Thus, for the purposes of this study, three of Orlofsky's male-valued items were adapted for use on the new instrumentality subscale. The other male-valued behaviors (e.g., opening the car door for one's date, playing football, and wishing to enter the career of policeman) were not used because they did not fit Parsons' and Bales' definition of instrumentality. The three items chosen, on the other hand, adhere well to this definition. However, they were changed to make their meanings more clear and to avoid biasing them in favor of either single or married persons. They then read:

1. Take the first step to meet persons of the opposite sex.
2. Manage my finances well.
3. Skilled at making simple repairs.

Three more items were adapted from the short form of the BSRI for use on the new instrumentality subscale. While the SRBS items were

already situationally specific, the BSRI items needed elaboration so that they would meet this criterion. However, they were not biased toward single or married persons. These items then read:

4. Am/would be a good leader.
5. Stand up for what is right even if others are against me.
6. Take financial risks when necessary.

Last, four items were written specifically for the new subscale. Like the previous items, these items are situationally specific. They read:

7. Work hard to be better than my competitors.
8. Give orders when necessary.
9. Spend long hours working in the area in which I want to succeed.
10. Successfully solve most problems with which I am faced.

These ten instrumentality items were all central to this study's definition, and thus to Parsons' definition, of the term. Each of the ten behaviors appeared to be instrumental in the most basic sense of the word, that is, to increase the likelihood of the actor's achieving immediate rewards through society. Item 1 should increase the likelihood of attaining sexual rewards. Items 2, 3, 6, 7 and 9 were expected to increase the probability of achieving financial rewards, or at least of saving money. Last, items 4, 5, 8 and 10 should increase the likelihood of attaining the respect and obedience of others.

The Expressivity Subscale

A ten-item subscale was also constructed by listing behaviors which were central to Parsons' and Bales' (1955) definition of expressivity. First, since they defined expressive behavior as the complement of instrumental behavior, four items measuring expressivity were written which were the complements of four items on the instrumentality subscale. Following are the four items; the numbers of the complementary instrumentality items are written after them:

1. Am/would be a good parent. (4)
2. Admit it if another person is right and I am wrong. (5)
3. Work well with other people. (7)
4. Carry out orders willingly when necessary. (8)

It will be noticed that these items and their complements are not mutually exclusive. Thus, these items appropriately tapped the dualistic model of androgyny, according to which androgynous individuals perform both instrumental and expressive behaviors. Instrumentality and expressivity are not opposites; they are independent of each other.

One expressivity item was adapted from the BSRI item, "tactful." It was made more specific:

5. Say the right thing to avoid hurting others' feelings.

This behavior appeared to represent the behavior of the expressive leader, whose task it is to prevent friction between individuals.

Another item was an elaboration upon both "warm," a BSRI item, and "very warm in relation with others," a PAQ item. This item, which clearly tapped expression of affection, was worded as follows:

6. Warmly express my affection for others at the right times.

Last, four items were written which more directly tapped the tendency to express one's feelings in a situationally appropriate manner:

7. Ask for help when I need to. (Expression of fears, inadequacy feelings, etc.)

8. Give my friends a shoulder to cry on when they need it. (Expression of compassion.)

9. Adjust what I do to the moods of my close friend(s). (Expression of care, responsibility feelings.)

10. Skilled at putting my feelings into words. (Expressivity in general.)

It may be noted that Orlofsky's (1981) SRBS was not used in constructing the expressivity subscale. This was because the female-valued items, such as "looking for bargains" and "cooking," appeared to be more instrumental than expressive.

Thus, the Bradt Instrumentality/Expressivity Scale was created. The measure was scored in the same way as is the Bem Sex-Role Inventory. It asked subjects to indicate on a seven-point scale (1 = "never or almost never true" to 7 = "always or almost always true") how well each of the twenty (later changed to sixteen) adjectives described themselves. Ten (later eight) of the items described instrumental behaviors; ten (later eight) described expressive behaviors. Subjects were not aware of these groupings. All items were worded so as to be seen as desirable when used to describe people.

Changes After the Pilot Study

During the spring of 1986, the Bradt Instrumentality/Expressivity Scale was administered to 46 undergraduates obtained from the subject pool at Loyola University of Chicago. Coefficient alphas were then computed. Each subscale of the measure proved to be highly reliable (Instrumental $\alpha = .83$; Expressive $\alpha = .80$). However, in order to increase reliability even further, two of the instrumental and two of the expressive items were eliminated; these items did not contribute as well as did the other items to the consistency of the scale. The instrumental items eliminated were, "Take financial risks when necessary," and, "Manage my finances well." The expressive items eliminated were, "Ask for help when I need to," and, "Say the right thing to avoid hurting others' feelings."

Also in order to increase the measure's reliability, one expressivity item was revised to incorporate one of the eliminated expressivity items. Thus, "Skilled at putting my feelings into words," subsequently read, "Ask for advice when I am worried about something." The revised Bradt Instrumentality/Expressivity Scale can be found in Appendix A. This scale now contained 16 items. However, since internal consistency tends to decrease with larger samples, the instrumentality subscale's reliability decreased when computed using responses of the second, larger, sample used in this study (Instrumental $\alpha = .73$). The expressivity subscale's reliability also decreased with the larger sample (Expressive $\alpha = .76$).

Self-Disclosure

The pilot study was further enhanced by addition of a self-disclosure measure and assessment of the relationship of self-disclosure to expressivity. This was done because self-disclosure is considered to be an expressive behavior. Therefore, subjects scoring high in expressivity should also score high in self-disclosure, providing validation for the new expressivity subscale.

The primary measure of self-disclosure used in previous studies has been Jourard's (1958) Self-Disclosure Scale. This measure contains six groups of ten items each. Each group of items taps one "aspect" of the self which one can disclose to others. The six aspects are: attitudes and opinions, tasks and interests, work (or studies), money, personality, and body. Subjects are asked to indicate the extent to which they have talked about each item with each of four persons: mother, father, male friend or spouse, and female friend or spouse.

Thus, the Jourard Self-Disclosure Scale was administered as part of the pilot study. However, a main effect of sex-role orientation was not found, although a main effect of gender was found. Women disclosed significantly more than did men, $F(1, 45) = 4.78, p < .05$.

Similar analyses using BSRI and PAQ scores were performed. Use of BSRI scores revealed no main effects. Use of PAQ scores showed results similar to those obtained by use of the Bradt measure. No main effect of sex-role orientation was found, and women disclosed significantly more than did men, $F(1, 45) = 5.48, p < .05$.

A comprehensive review of the literature by Winstead, Derlega and

Wong (1984) revealed that these same results (main effects of gender but not of sex-role orientation) were obtained in most of the previous studies which used Jourard's measure to tap self-disclosure. Therefore, it was suspected that Jourard's Self-Disclosure Scale might discriminate between those whose conversations center on topics preferred by women and those whose favorite topics are preferred by men rather than between open disclosers and nondisclosers.

Upon close examination, it became apparent that Jourard's scale inquires about disclosures of information which are unlikely to be considered intimate, at least in today's society. For example, the questionnaire requested ratings of extent of disclosure of "my views on communism," "my favorite foods," and "some major purchase that is desired or needed." Nonintimate disclosures might be made as often by open disclosers and nondisclosers; it may only be amount of intimate disclosures which discriminates open disclosers from nondisclosers.

Thus, a search was made for a measure of intimate self-disclosure. Such a measure has been developed by Lombardo (Lombardo & Berzonsky, 1979). To create his new scale, Lombardo first took 50 items directly from the Jourard (1971) Self-Disclosure Scale. That is, he used all ten of the items from each of five of Jourard's six subscales; he left out only the "money" subscale. Then Lombardo selected ten new items for addition to the scale from one written by Solano (1981). All ten of these items deal with sex. The resulting self-disclosure scale, therefore, contains three nonintimate subscales (attitudes and opinions, tastes and interests, and work) and three intimate subscales (personal-

ity, body and sex), each of which contain ten items. This measure is scored in exactly the same manner as is the Jourard Self-Disclosure Scale.

Lavine and Lombardo (1984) carried out a study using this new questionnaire. They did not find the usual main effect of gender; thus, the measure does not appear to discriminate between those whose conversations center on topics preferred by women and those whose favorite topics are preferred by men. However, they did find the expected effect of sex-role orientation. (The BSRI was used to ascertain sex-role orientation.) Androgynous subjects disclosed more than did sex-typed subjects, who disclosed more than did undifferentiated subjects. However, it is not known if expressively sex-typed subjects disclosed more than did instrumentally sex-typed subjects because Lavine and Lombardo aggregated both these sex-role orientations during all analyses. Thus, the relationship of Lombardo Self-Disclosure scores to either instrumentality or expressivity has not yet been studied.

Nevertheless, this study replaced Jourard's measure of self-disclosure with Lombardo's measure because the results of the above study suggested that the latter might more accurately discriminate between open disclosers and nondisclosers. It was expected that expressivity, as tapped by the Bradt subscale, would predict scores on this improved measure of self-disclosure better than would Bradt instrumentality.

CHAPTER IV

HYPOTHESES AND METHOD

The primary purpose of this study was to attempt to clarify the complex relationship between sex-role orientation and psychological health. The first step was the pilot study, which was described at the end of the first section of Chapter III.

The second step of the study was to evaluate the newly created Bradt Instrumentality/Expressivity Scale. Third, the adaptability hypothesis examined by so many previous researchers was tested. Last, the hypotheses that Eriksonian maturity and androgyny would increase with age were tested.

Hypotheses of the Study

The specific hypotheses of the proposed study were as follows:

Evaluation of the Bradt Measure

1. Construct validity of the Bradt expressivity subscale: Bradt expressivity was expected to be more strongly associated with self-disclosure than was Bradt instrumentality.
2. Convergent validity of the Bradt measure:
 - a) High correlations were expected to be found between the Bradt Instrumentality Scale, the BSRI-M, and the instrumental scale of the PAQ.

- b) High correlations were expected to be found between the Bradt expressivity subscale, the BSRI-F, and the expressivity subscale of the PAQ.
3. Criterion validity of the Bradt measure: Men were expected to obtain higher instrumentality scores than women; women were expected to obtain higher expressivity scores than men.

Adaptability Hypotheses

1. Eriksonian maturity: Androgynous subjects were expected to achieve higher scores on the EMPD than were instrumentally and expressively sex-typed subjects. Instrumentally and expressively sex-typed subjects were expected to achieve equally higher scores than were undifferentiated subjects.
2. Subjective mental health: Androgynous subjects were expected to achieve higher scores on the SMHT than were instrumentally sex-typed subjects. Instrumentally sex-typed subjects, in turn, were expected to achieve higher SMHT scores than were expressively sex-typed subjects. Undifferentiated subjects were expected to achieve the lowest SMHT scores of all.

Developmental Hypotheses

1. Eriksonian maturity: Each age group was expected to receive EMPD scores which were near the national EMPD norms.
2. Sex-Role Development: Feldman, Biringen and Nash (1981) found sex-role differences between three groups: students, those

raising children, and grandparents. For example, grandparents tended to exhibit more cross-sex traits than did subjects in other stages of life. Therefore, sex-role differences were expected to be found between the three age groups in the present study. Specifically, the adult group was expected to be the most androgynous group, with the undergraduates slightly less likely to be androgynous and the teenagers the most sex-role stereotyped of all.

Method

This section describes the samples, measures and procedures used in the study. For a complete list of the measures used, see Table 1.

The study was done in three steps. The first step consisted of the pilot study. The second step obtained the data needed for a factor analysis of the Bradt Instrumentality/Expressivity Scale. The third step entailed testing of the hypotheses detailed above.

Subjects

Step One

This was the pilot study. Forty-six full-time undergraduate students, primarily freshmen, at Loyola University of Chicago (20 men and 26 women) were tested. A complete description of this step can be found in Chapter III.

Step Two

All subjects participating in the fall, 1986, mass-testing session

TABLE 1
List of Measures

Sex-Role Measures

1. The Bradt Instrumentality/Expressivity Scale (BIES)
 2. The short form of the Bem Sex Role Inventory (BSRI)
 3. The Personal Attributes Questionnaire (PAQ)
-

Measures of Adaptability

1. A shortened version of Bryant and Veroff's Subjective Mental Health Test Battery (SMHT)
 2. Hawley's Eriksonian Measure of Psychosocial Development (EMPD)
-

Measures of Self-Disclosure

1. A shortened version of the Lombardo Self-Disclosure Scale (SDS)
-

at Loyola University were administered the Bradt Instrumentality/Expressivity Scale. Thus, 315 subjects (117 men and 198 women) were tested. (See Appendix A for a copy of the Bradt scale.)

Step Three

Also in the fall of 1986, 92 of the undergraduates (aged 18 to 22) tested in Step Two were retested by administration of the Bradt measure, the BSRI, the PAQ, the two measures of the dependent variable (SMHT and EMPD), and Lombardo's Self-Disclosure Scale. These measures can be found in Appendices A to F, respectively. In addition, 29 high-school

students (aged 15 to 17) and 46 Loyola part-time undergraduate students between the ages of 23 and 50 were administered the above measures. These students spanned the four levels, from freshman to senior. Inclusion of the additional two age groups enabled testing of the developmental hypotheses.

Materials

Sex-Role Measures Used

1. The Bem Sex Role Inventory: The short form of the Bem Sex Role Inventory (BSRI-S, 1974, 1977) is a measure of the extent to which a subject has internalized the behaviors and attitudes stereotyped by the culture as more appropriate for each of the sexes. (See Appendix B.) The measure asks subjects to indicate on a seven-point scale (1 = "never or almost never true" to 7 = "always or almost always true") how well each of 30 adjectives describe themselves. Ten of the items consist of instrumental traits, ten consist of expressive traits, and ten are neutral with respect to sex-role stereotypes. Subjects are not aware of these groupings. All adjectives are generally seen as desirable when used to describe people. Internal consistency is acceptable (Instrumentality $\alpha = .86$; Expressivity $\alpha = .80$) and the test-retest reliability statistics are also satisfactory ($r = .90$ over a 4-week period).
2. The Personal Attributes Questionnaire: The Personal Attributes Questionnaire (Helmreich et al., 1981; Spence et al.,

1974; Spence & Helmreich, 1978) is composed of items which have all been judged to be stereotypically more characteristic of men than of women or vice versa. (See Appendix C.) The measure asks subjects to indicate on a five-point scale how well each of 16 bipolar adjectives describe themselves. Eight of the items describe instrumental persons and eight describe expressive persons. Internal consistency is acceptable ($\alpha = .80$) and test-retest reliability is satisfactory ($r = .60$ over a 2-month period.)

Measures of Adaptability Used

1. Bryant and Veroff's (1984) Subjective Mental Health Test Battery (SMHT) taps six aspects of subjective mental health. A shortened version of this measure was used in this study. Two of the six factors, the self-confidence and uncertainty factors, were removed because it was necessary to shorten the measure. (See Appendix D.)

Also, a few items were removed from the remaining four factors before administration in order to shorten the measure. These particular items were chosen for deletion because they were found by Bryant and Veroff (1984) to have relatively low loadings on their respective factors. The items removed and their loadings are as follows:

- a. "happiest time in past," which loaded only .36 on the happiness factor
- b. "present happier than past," which loaded only .39 on the

happiness factor

c. "alcohol abuse," which loaded only .23 on the freedom-from-strain factor

2. Hawley's (1984) Eriksonian Measure of Psychosocial Development (EMPD) is made up of 112 items, which take the form of brief phrases. Eight phrases tap mastery of each of Erikson's eight psychosocial stages, and eight phrases tap failure to master each stage. Therefore, the EMPD is balanced to prevent positive response bias. Subjects administered the EMPD are asked to rate self-descriptiveness of each item on a five-point scale. Test-retest reliability coefficients range from .67 to .89, more than adequate levels for a personality measure. Internal consistency between the subscales was also high; correlations ranged from .65 to .84. Interrater reliability was high also. Last, use of the multitrait-multimethod matrix design showed that the convergent validity of the EMPD was high. (See Appendix E.)

Self-Disclosure Measure Used

Lombardo's (Lombardo & Berzonsky, 1979) self-disclosure measure contains six subscales containing ten items each, totalling 60 items. (See Appendix F.) The scale contains three nonintimate subscales (attitudes and opinions, tastes and interests, and work) and three intimate subscales (personality, body and sex).

Subjects are asked to indicate the extent to which they have talked about each item with each of four persons: mother, father, male

friend or spouse, and female friend or spouse. For the purposes of this study, Lombardo's measure was shortened by selection of only four of the items from each of the six subscales. Thus, the scale used here contains only 24 items.

CHAPTER V

RESULTS

The results of the study are presented in the following order: the factor analyses and other assessments of the newly created sex-role measure, the tests of the adaptability hypothesis, and the tests of the developmental hypotheses.

Evaluation of the Bradt Measure

The first step of the study was the pilot test evaluating the Bradt measure. During the second step of the study, the expressivity subscale was first related to self-disclosure. Then factor analyses were performed on the Bradt Instrumentality/Expressivity Scale in order to evaluate it further. Last, more tests were performed to ascertain whether or not the expected two factors underly the Bradt measure.

Relationship of Expressivity To Self-Disclosure

If an expressivity scale possesses construct validity, it should be more closely related to self-disclosure than is instrumentality, since the theory predicts that expressive persons are high self-disclosers. Therefore, stepwise multiple regression analyses were performed to test the relationship of the Bradt expressivity subscale to self-disclosure. Self-disclosure scores were regressed on Bradt instrumental and expressive scores, as well as on gender and age. Also, multiple

regression analyses were performed using BSRI and PAQ scores to tap sex-role orientation in order to make comparisons possible. Table 2 shows the results.

TABLE 2

Results of Stepwise Multiple Regressions of Self-Disclosure on Instrumentality and Expressivity Scores, Gender and Age

Predictors	Change in <u>R</u> Squared	Total <u>R</u> Squared	<u>F</u> Ratio
Bradt			
1. Expressivity	.205	.205	41.9
2. Age	.081	.286	32.2
3. Instrumentality	.018	.304	23.3
4. Gender	.021	.325	19.1
BSRI			
1. Expressivity	.170	.170	33.1
2. Age	.079	.249	26.7
3. Instrumentality	.042	.291	21.8
PAQ			
1. Age	.104	.104	18.9
2. Expressivity	.068	.172	16.7
3. Instrumentality	.026	.198	13.1
4. Gender	.002	.220	11.2

Note. All $ps < .0001$.

The strongest single predictor of self-disclosure, across all three measures, was Bradt expressivity. The second strongest predictor was BSRI expressivity. Age was also associated with self-disclosure; undergraduates scored higher than did either adolescents or adults.

Instrumentality, as determined by all three of the measures, was the fourth predictor of self-disclosure, and gender was the weakest predictor of all; female subjects disclosed more than did male subjects. In sum, Bradt expressivity predicted self-disclosure better than did any other subscale, including BSRI and PAQ expressivity and Bradt instrumentality. Therefore, it appears that the Bradt expressivity subscale measures at least one aspect of expressivity: self-disclosure.

Factor Analysis Results

Maximum-likelihood factor analysis followed by varimax rotation was performed, using data obtained from 315 male and female undergraduates' responses to the Bradt Instrumentality/Expressivity Scale. This technique was chosen because the creation of the Bradt measure was based on Parsons' (1951) theory proposing the existence of independent instrumental and expressive dimensions. Since the theory assumes that the two subscales are independent, varimax rotation, which forces independent factors, was deemed appropriate.

This factor analysis can legitimately be compared to those performed on other sex-role inventories. Gaudreau's subjects consisted of 253 adult men and women, Waters' of 252 undergraduate men and women, and Feather's of 358 undergraduates. Thus, gender and age of subject were comparable in all samples, including the sample tapped by this factor analysis.

As can be seen in Table 3, four factors were found which together accounted for 35.4% of the total variance. The first factor accounted for 21.9% of the variance, the second factor for 6.2%, the third for

TABLE 3

Maximum-Likelihood Factor Pattern of the Bradt
Instrumentality/Expressivity Scale Using Varimax Rotation (n = 315)

	Factor			
	1	2	3	4
Instrumental Items				
1 Meet opposite sex	.06	.24	.07	.27
2 Small repairs	.06	.06	.14	.38
3 Good leader	.02	.83	.12	.19
4 Stand up for right	.12	.35	.03	.44
5 Better than competitors	.05	.15	.75	.31
6 Give orders	.25	.43	.12	.19
7 Long hours working	.36	.02	.52	.25
8 Solve problems	.33	.23	.11	.55
Expressive Items				
1 Good parent	.40	.26	.07	.14
2 Admit I am wrong	.42	.11	.07	.17
3 Work with people	.40	.33	.19	.16
4 Carry out orders	.45	-.07	.28	.21
5 Express affection	.65	.16	.12	.04
6 Shoulder to cry on	.63	.19	.16	-.04
7 Adjust to moods	.09	.08	.31	-.01
8 Ask for advice	.42	-.05	.03	.12
Eigenvalue	3.51	.99	.78	.39
Percent of Total Variance	21.9	6.2	4.9	2.4

4.9%, and the fourth for 2.4%. The eigenvalue of the first factor was 3.5; the eigenvalues of the other three factors were less than 1.

Seven expressive items had loadings greater than .30 on the first

factor. However, Instrumental Items 7 (long hours working) and 8 (solve problems) also loaded above .30 on this factor. Instrumental Items 3 (good leader), 4 (stand up for right), and 6 (give orders), and Expressive Item Number 3 (work with people) loaded above .30 on the second factor. Instrumental Items 5 (better than competitors) and 7 (long hours working) and Expressive Item Number 7 (adjust to moods) loaded on the third factor. Instrumental Items 2 (small repairs), 4, 5 and 8 loaded on the fourth factor. Last, Instrumental Item Number 1 (meet opposite sex) did not load on any of the factors.

It had been expected that this analysis would find two independent factors: an instrumental factor and an expressive one. This result was not found by the factor analysis; however, it was found by other analyses of the Bradt measure. Therefore, evidence for making both of these conclusions is presented here in order to evaluate the adequacy of the Bradt measure as a sex-role inventory. First, evidence that only one factor underlies the measure, then evidence that two or more factors underly the measure, is presented.

Evidence That One Factor Underlies the Bradt Measure

Factor Analysis

The factor-analytic results suggested that only one factor underlies the Bradt measure, at least when the two most commonly used criteria for ascertaining the number of factors were used. First, only one factor had an eigenvalue greater than 1. Second, scree plotting showed the one-factor interpretation to be the optimal one.

The items which had the highest loadings on the first factor were expressive ones; however, as mentioned above, two instrumental items also loaded higher than .30 on this factor. The instrumental items were scattered among all four factors. Thus, it appears that only one coherent factor, made up mainly of expressive items, underlies the Bradt measure.

Internal Consistency

In order to estimate the internal consistency of the Bradt Instrumentality/Expressivity Scale, coefficient alphas were computed. The analyses found both the instrumentality and expressivity subscales to be internally consistent (Instrumental $\alpha = .73$; Expressive $\alpha = .76$). However, when the instrumentality and expressivity subscales were combined and one coefficient alpha was computed on the resultant scale, internal consistency increased further ($\alpha = .82$). This result suggests that the Bradt instrumentality and expressivity subscales may both tap the same concept, and thus should not be given the two separate designations.

Instrumentality/Expressivity Correlations

The Pearson product-moment correlation between the Bradt instrumentality subscale and the Bradt expressivity subscale was higher than would be expected if the subscales were independent; $r(\text{IN}, \text{EX}) = .50$. On the other hand, the BSRI fared better $r(\text{IN}, \text{EX}) = .24$. The PAQ boasts the lowest correlation of all $r(\text{IN}, \text{EX}) = .12$.

Evidence That Two or More Factors Underlie the Bradt Measure

Factor Analysis

Although the factor analysis results, for the most part, suggested that only one factor underlies the Bradt measure, use of Bartlett's change in chi-square criterion suggests that a three-factor solution is optimal. However, Zwick and Velicer (1986) state that this criterion is not valid with samples as small as the one used in this study ($n = 315$).

T tests

To possess criterion validity, a sex-role measure should consist of an instrumentality subscale on which men score higher than women and an expressivity subscale on which women score higher than men. Therefore, the Bradt measure was examined for the existence of such subscales; one-tailed t tests were computed to assess the differences between the male and female mean instrumental and expressive scores on the Bradt measure. Male and female scores on the BSRI and the PAQ were tested in this same way in order to make comparisons possible. The results are presented in Table 4.

Male and female respondents to the Bradt measure differed in the expected direction; women achieved significantly higher mean expressivity scores than did men, and men achieved significantly higher instrumentality scores than did women. These results suggest that the Bradt measure may possess two subscales, one of which may be instrumental and one of which may be expressive. (The expected male/female differences were also found on the PAQ instrumentality subscale and the BSRI and PAQ

TABLE 4
Gender Differences on the Bradt, BSRI and PAQ

	<u>N</u>	Mean	<u>T</u> Value	<u>df</u>	1-tailed p
Bradt-In					
Men	66	41.38			
Women	126	39.38	1.96	162.03	.025
Bradt-Ex					
Men	66	42.89			
Women	126	44.87	-2.21	146.76	.025
BSRI-In					
Men	64	49.75			
Women	123	48.89	0.60	134.36	.400
BSRI-Ex					
Men	64	52.42			
Women	123	57.45	-3.58	119.43	.005
PAQ-In					
Men	64	22.20			
Women	123	20.53	2.55	146.57	.010
PAQ-Ex					
Men	64	22.57			
Women	123	24.41	-3.16	166.34	.005

expressivity subscales.)

Correlations With the BSRI and PAQ

Pearson product-moment correlations were then computed between the instrumentality and expressivity subscales of the Bradt, the BSRI and

the PAQ. The Bradt instrumentality subscale correlated highly with both the BSRI-M and the PAQ instrumentality subscales. The Bradt expressivity subscale correlated moderately to highly with the BSRI-F and the PAQ expressivity subscales. (See Table 5.) This is further evidence that the Bradt measure may possess two subscales, one of which may be instrumental and one of which may be expressive.

TABLE 5

Correlations Between Instrumentality and Expressivity Subscales of the Bradt, BSRI and PAQ

	Bradt-I	Bradt-E	BSRI-I	BSRI-E	PAQ-I	PAQ-E
Bradt-I	1.00					
Bradt-E	.50**	1.00				
BSRI-I	.65**	.36**	1.00			
BSRI-E	.25*	.65**	.24**	1.00		
PAQ-I	.51**	.16*	.66**	.04	1.00	
PAQ-E	.09	.50**	.08	.71**	.12*	1.00

Note. * $p > .05$. ** $p < .001$.

Divergent Validity

Another question asked in the attempt to determine the number of factors underlying the Bradt measure was whether the Bradt instrumentality and expressivity subscales differentially relate to other measures

in meaningful ways. To answer this question, four SMHT outcome measures were used. As mentioned in Chapter 2, for the purposes of this study, four ad hoc outcome measures derived from the SMHT were created, one to tap each of the first four SMHT factors: happiness, gratification, freedom from strain and invulnerability; these four scales were used here. Thus, happiness, gratification, lack of strain and invulnerability scores were regressed on Bradt instrumental and expressive scores, and also on gender and age of subject. Since the correlations between gender, age, and each of the sex-role subscales were all below .33, multicollinearity did not appear to be a problem.

Results (shown in Table 6) reveal that Bradt instrumentality, rather than expressivity, predicts happiness and freedom from strain, while expressivity rather than instrumentality predicts gratification. However, neither subscale predicts invulnerability. These unexpected differences will be discussed in Chapter VI.

Comparisons of Multiple Regression Results

More multiple regression analyses were then executed. First, two separate sets of multiple regression analyses were performed, one set regressing SMHT scores on BSRI instrumental and expressive scores, gender and age, and one set regressing SMHT scores on PAQ instrumental and expressive scores, gender and age. R squareds resulting from these analyses are listed below the R squareds resulting from the corresponding analysis of the Bradt measure in Table 6. Then combined multiple regression analyses were performed in order to compare the relative predictability of the Bradt, BSRI and PAQ. Scores on all three sex-role

TABLE 6

Change in R Squared Found by Three Separate Regressions of SMHT Scale Scores On Instrumentality, Expressivity, Gender and Age

Predictors	Happiness	Gratification	Freedom From Strain	Invulnerability
Bradt				
1. Expressivity	---	.14	---	---
2. Instrumentality	.08	.03	.06	---
BSRI				
1. Expressivity	---	.09	---	---
2. Instrumentality	.02	.03	---	---
3. Gender	---	---	.02	---
PAQ				
1. Expressivity	---	.10	---	---
2. Instrumentality	.04	.04	.06	.03

inventories (as well as gender and age) were entered as independent variables. (Since the correlations between gender, age, and each of the sex-role subscales found during the combined analysis were all below .30, multicollinearity, again, did not appear to be a problem.) R squareds resulting from these analyses can be found in Table 7.

First, three separate analyses found that the Bradt, BSRI and PAQ instrumentality subscales all predicted happiness to a small extent. On

TABLE 7

Change in R Squared Found by Multiple Regression of SMHT Scale Scores on Instrumentality, Expressivity, Gender and Age

Predictors	Happiness	Gratification	Freedom From Strain	Invulnerability
1. Bradt-E	---	.14	---	---
2. Bradt-I	.08	.03	---	---
3. PAQ-E	---	.03	---	---
4. PAQ-I	---	---	.07	.03
5. BSRI-E	---	---	---	---
6. BSRI-I	---	---	---	.03

the other hand, the combined analysis, whose results are shown in Table 7, showed Bradt instrumentality to be the only predictor of happiness. Since BSRI and PAQ instrumentality no longer predicted happiness when the subscales were entered together, it appears that the Bradt, BSRI and PAQ instrumentality subscales tap the same dimension.

Second, Bradt, BSRI and PAQ instrumentality all predicted gratification when entered in three separate analyses. However, when all three subscales were entered together, BSRI and PAQ instrumentality no longer predicted gratification. Again, this was support for the conclusion that the Bradt instrumentality subscale taps what the BSRI and PAQ instrumentality subscales tap.

Bradt, BSRI and PAQ expressivity also predicted gratification when

entered in three separate analyses. However, when all three expressivity subscales were entered together, BSRI expressivity no longer predicted gratification, and the contribution of PAQ expressivity decreased. This is evidence that the Bradt expressivity subscale may tap what the other two expressivity subscales tap.

Third, the three separate analyses found Bradt and PAQ instrumentality to be predictors of freedom from strain. However, the combined analysis showed only PAQ instrumentality to predict freedom from strain. This further supports the conclusion that the Bradt instrumentality subscale taps what the other instrumentality subscales tap. Last, since neither Bradt subscale predicted invulnerability, this result did not reveal additional information about the above prediction.

Conclusions

Evidence was found for unidimensional, bidimensional and even multidimensional interpretations of the Bradt measure. However, it was concluded that the factor analysis found only one dimension, since the eigenvalue and scree plotting criteria are better indicators in this case than is Bartlett's change in chi-square criterion.

Further, the correlations of Bradt instrumentality with other instrumentality subscales and of Bradt expressivity with other expressivity subscales were not so high as to provide strong support for the bidimensional hypothesis. In light of these two facts and of the strength of the evidence for the unidimensional interpretation of the Bradt measure, it was concluded that the Bradt measure is not the improved sex-role measure it was expected to be, although it may tap

some meaningful aspect of sex-role behavior. Thus, the Bradt measure was not used in the third stage of the study, in which the hypothesis that androgynous persons are more adaptable than instrumental, expressive and undifferentiated persons was tested.

Tests of the Adaptability Hypothesis

The major purpose, and third step, of the study was to test the hypothesis that androgynous persons are psychologically more healthy than instrumental and expressive persons, who were expected to be psychologically more healthy than undifferentiated persons. The results of these tests are presented here.

MANOVAs

Two-way multivariate analyses of variance (MANOVAs) were first performed in order to test the adaptability hypothesis. This method of analysis was employed because those who have previously tested this hypothesis have used analysis of variance; thus, use of MANOVAs enabled replication of previous studies to be attempted.

Dependent Variables

Subjective Mental Health Test Battery (SMHT) and Eriksonian Measure of Psychosocial Development (EMPD) scores were the dependent variables. The SMHT is best seen as tapping a compilation of different aspects of subjective mental health. However, all those who have heretofore tested the adaptability hypothesis using subjective mental health measures have conceived of subjective mental health as unidimensional. Therefore, in order to attempt replication, it was necessary for this

study to test the adaptability hypothesis using an overall subjective mental health outcome measure created especially for the purposes of this study.

Independent Variables

Sex-role orientation and gender were the independent variables. Sex-role orientation was determined by both the Bem Sex Role Inventory (BSRI) and the Personal Attributes Questionnaire (PAQ).

Both sex-role measures were scored using the median-split method. The median-split method and the reasons for using it are described in the first section of Chapter I. Table 8 lists the instrumental and expressive medians found for both sex-role measures used. Before these medians were obtained, some of the women's scores were randomly removed from the sample data. This was done because equal numbers of men and women were needed to prevent artifactual differences between the instrumental and expressive medians.

TABLE 8

Medians at Which BSRI and PAQ Instrumental and Expressive Scores Were Split

	BSRI	PAQ
Instrumental	50	22
Expressive	55	23

MANOVA Results

Two two-way (sex-role by gender) multivariate analyses of variance (MANOVAs) were performed, one using scores obtained on each sex-role questionnaire. Since sex-role orientation was determined by the median-split method, this variable contained four levels.

For the first MANOVA, the BSRI was used to group subjects by sex-role orientation. Sex-role orientation was shown to contribute significantly to both SMHT and EMPD scores, $\Lambda = .743$, $F(6, 354) = 9.4$, $p < .0001$. Univariate tests on SMHT, $F(3, 178) = 4.8$, $p < .01$, and EMPD scores, $F(3, 178) = 18.7$, $p < .0001$, also found significant effects.

Sex-role groups' mean SMHT scores from low to high were: undifferentiated ($\underline{M} = 68.5$), expressive ($\underline{M} = 75.1$), instrumental ($\underline{M} = 75.3$), androgynous ($\underline{M} = 77.1$). (See Table 9.) Post-hoc analysis (Student Newman-Keuls) found that, as expected, the undifferentiated group scored significantly lower than did any other group. The other three groups did not differ.

Sex-role groups' mean EMPD scores, from low to high were, as predicted: undifferentiated ($\underline{M} = 40.0$), expressive ($\underline{M} = 71.5$), instrumental ($\underline{M} = 83.6$), androgynous ($\underline{M} = 107.9$). Post-hoc analysis found that the expected undifferentiated/expressive and expressive/androgynous differences were significant. Also as expected, the undifferentiated group scored significantly lower than did any other group. Last, the androgynous group outscored the other groups.

The second MANOVA, for which the PAQ was used to group subjects by sex-role orientation, again found sex-role orientation to be signifi-

TABLE 9

Mean SMHT and EMPD Scores by Sex-Role Orientation and Gender

	BSRI			PAQ		
	Men	Women	Overall	Men	Women	Overall
Mean SMHT Score						
Undifferentiated	72.8	64.6	68.5	70.5	65.9	67.4
Expressive	73.1	75.5	75.1	70.9	72.7	72.3
Instrumental	75.8	74.6	75.3	76.2	75.8	76.1
Androgynous	78.7	76.4	77.1	81.6	78.9	79.7
Mean EMPD Score						
Undifferentiated	50.4	30.5	40.0	48.6	47.7	48.0
Expressive	59.1	74.1	71.5	49.6	69.8	64.8
Instrumental	76.9	92.3	83.6	72.7	75.3	73.5
Androgynous	96.1	112.3	107.9	105.8	115.7	113.0

cantly related to both SMHT and EMPD scores, $\Lambda = .754$, $F(6, 354) = 8.9$, $p < .0001$. Both univariate effects, SMHT, $F(3, 178) = 9.3$, $p < .0001$, and EMPD, $F(3, 178) = 18.3$, $p < .0001$, were significant.

Mean SMHT scores (shown in Table 9) from low to high were: undifferentiated ($M = 67.4$), expressive ($M = 72.3$), instrumental ($M = 76.1$), androgynous ($M = 79.7$). Post-hoc analysis found that, as expected, all other sex-role groups scored significantly higher than did the undiffer-

entiated group. Also as expected, androgynous subjects scored significantly higher than did expressive subjects.

Mean EMPD scores found by this analysis were again found to be distributed in the expected order: undifferentiated ($\bar{M} = 48.0$), expressive ($\bar{M} = 64.8$), instrumental ($\bar{M} = 73.5$), androgynous ($\bar{M} = 113.0$). Here, undifferentiated subjects scored significantly lower than did instrumental and androgynous subjects. Also, the androgynous group scored significantly higher than did any other group. Both these differences were expected.

The main effect of gender was not significant. Also, neither analysis found a significant gender by sex-role interaction.

Sex-Role Orientation By EMPD Stage

Since Glazer and Dusek (1985) explored the relationship between sex-role orientation and each of the EMPD stages separately, an attempt was made here to replicate their findings. A MANOVA was executed where the eight EMPD stages were the dependent variables. Since BSRI sex-role orientation was used as the independent variable by Glazer and Dusek, the BSRI was also used to tap sex-role orientation here. Sex-role orientation significantly contributed to mastery of every EMPD stage, $\Lambda = .432$, $F(24, 511) = 7.1$, $p < .001$. Post-hoc analyses (SNK) revealed that, as in the Glazer and Dusek study, androgynous subjects were generally more likely to have mastered the stages than were any of the other three sex-role groups. Also, sex-typed subjects, particularly instrumentally sex-typed subjects, consistently showed more successful resolution of the stages than did undifferentiated subjects. (See Table

10 for means for each of the eight stages.) Although Glazer and Dusek found these same post-hoc results, they found them in only five out of the six stages they examined; this study found these results in all eight stages.

TABLE 10
Mean EMPD Stage Scores by Sex-Role Orientation

Stage	Undifferentiated	Expressive	Instrumental	Androgynous
Stage 1	8.76	9.47	12.44	13.75
Stage 2	2.71	3.44	10.87	11.08
Stage 3	2.21	4.13	11.10	11.19
Stage 4	8.12	10.81	13.97	16.65
Stage 5	2.40	6.42	9.20	12.38
Stage 6	4.24	7.27	13.25	14.03
Stage 7	4.48	9.56	10.17	13.95
Stage 8	7.02	11.48	11.57	14.90

Multiple Regression Analyses

Since analysis of variance tends not to be as sensitive when based upon median-split categorization of the data, multiple regression analyses of raw scores were also performed in order to test the adaptability hypothesis. SMHT and EMPD scores were regressed in a stepwise fashion on both BSRI and PAQ scores, as well as on gender and age. Separate analyses were performed using scores obtained on each of the two sex-

role inventories. Table 11 shows the results of these analyses.

Subjective Mental Health

The strongest predictor of SMHT scores was PAQ instrumentality. BSRI instrumentality was the second strongest predictor. BSRI and PAQ expressivity also predicted SMHT scores. These results support the expectation that the SMHT would more adequately tap instrumental than expressive adaptability.

However, the results shown in Table 6 (which can be found earlier in this chapter) suggest that, at this point, to come to the conclusion that the SMHT is instrumentally biased would be premature. When four separate multiple regression analyses were performed entering each of the four SMHT scales as the dependent variable in one analysis (as they were meant to be entered), it became apparent that the multiple regression analyses in which overall SMHT scores had been entered as the dependent variable had masked important information. Instrumentality, as expected, is the strongest predictor of high affective evaluations of positive experience (happiness), low affective evaluations of negative experience (freedom from strain), and low cognitive evaluations of negative experience (invulnerability). However, expressivity is, by far, the strongest predictor of high cognitive evaluations of positive experience (gratification).

This result was not expected but does not appear to contradict the theory; while previous research has shown instrumentality to predict affective evaluations of experience, it has not elicited cognitive evaluations. Thus, high cognitive evaluations of experience could be pre-

TABLE 11

Results of Multiple Regression of Instrumentality and Expressivity Scores, Gender and Age on SMTB and EMPD Scores

	Change in <u>R</u> Squared	Total <u>R</u> Squared	<u>F</u> Ratio	<u>p</u>
Subjective Mental Health Test Battery				
BSRI				
1. Instrumentality	.083	.083	14.7	.0002
2. Expressivity	.023	.106	9.6	.0001
PAQ				
1. Instrumentality	.199	.199	40.2	.0000
2. Expressivity	.028	.227	23.6	.0000
Eriksonian Measure of Psychosocial Development				
BSRI				
1. Instrumentality	.267	.267	59.1	.0000
2. Expressivity	.073	.340	41.5	.0000
PAQ				
1. Instrumentality	.392	.392	104.6	.0000
2. Expressivity	.093	.485	75.7	.0000
3. Gender	.021	.506	54.6	.0000

dicted by expressivity. Bryant and Veroff (1984) appear, in adding cog-

nitive evaluations to the SMHT, to have removed some potential instrumental bias from the questionnaire.

Eriksonian Maturity

PAQ instrumentality was also the strongest predictor of EMPD scores. BSRI instrumentality was the second strongest predictor. PAQ and BSRI expressivity were also predictors of EMPD scores. Last, gender was quite weakly associated with EMPD scores, suggesting that women may be slightly more mature than men. Thus, unexpectedly, it appears that the EMPD may tap primarily the instrumental aspect of adaptability. However, the measure does appear to tap expressive adaptability to some extent.

Tests of the Developmental Hypotheses

The last step carried out in this study was to test the developmental hypothesis. How did this study's subjects master the Eriksonian stages, as compared with national norms? And is the frequency of androgynous persons higher in higher age groups?

Age and EMPD Scores

As was mentioned in the previous section, no significant effect of age on EMPD scores was found. (See Table 11.) However, age groups were nonetheless expected to differ in Eriksonian maturity. Thus, a two-way ANOVA was performed where total EMPD score was the dependent variable and age group and gender were the two independent variables. The three age groups were high-school students (aged 15 to 17), full-time undergraduate students (aged 18 to 22) and part-time undergraduate students

(aged 23 to 50). No significant effects of either age group or gender were found; no interactions were found.

Next, a oneway MANOVA was performed where the eight EMPD stages were considered separate dependent variables. The independent variable, again, was age group. A significant multivariate effect for age group was found, $\Lambda = .793$, $F(16, 354) = 2.7$, $p < .0001$. However, no significant univariate effects were found. Rather, two marginally significant univariate effects were found, for Stage 2, $F(2, 184) = 2.6$, $p < .08$, and Stage 6, $F(2, 184) = 2.4$, $p < .09$. The oldest group showed slightly better mastery of Stage 2, Autonomy, ($M = 8.98$) than did adolescents ($M = 7.17$), who outscored young-adult undergraduates ($M = 6.11$). The young adults showed slightly better mastery of Stage 6, Intimacy, ($M = 11.49$) than did adolescents ($M = 10.93$), who outscored the oldest group ($M = 8.22$). Thus, there is a small possibility that the oldest group may be the most autonomous one and the young-adult undergraduates may be the most advanced in terms of intimate relationships.

The next step was to compare this study's cell medians with the national EMPD norms (Hawley, in press). The median scores obtained for men and women in the present study for each of the three age groups are listed in Table 12. Under each median is its percentile rank with respect to the norms.

Examination of Table 12 indicates that adolescents and young adults appear to have scored near the norms, as expected, while the oldest group appears to have scored much lower than the norms, particularly

in Stages 1 and 3 and in the later stages. Possibly the stress associated with attempting to simultaneously work, raise children and attend school lowered the older group's EMPD scores. If this is the case, the EMPD is not as adequate as expected, since the measure was created to tap Eriksonian maturity, not the presence of environmental stressors.

Age and Sex-Role Scores

Two three-by-four chi-square analyses, in which the independent variables were sex-role orientation and age group, were performed to test the hypothesis that numbers of androgynous and sex-typed subjects would differ by age group. Sex-role groups were determined for each inventory using the median-split method. No significant differences were found when either the BSRI or the PAQ was used. Thus, these different age groups do not appear to vary by sex-role orientation, as did the age groups in the study executed by Feldman and his coworkers (1981). Perhaps this was because the age range in the present study was not as broad as that in Feldman and his colleagues' study.

TABLE 12

Median EMPP Scores by Age Group and Gender, and Their Percentile Ranks
Based on Hawley's National Sample

Stage	Teen		Undergraduate		Adult	
	N	P	N	P	N	P
Stage 1						
Median	13	13	12	13	10	10
File	60	53	51	40	14	19
Stage 2						
Median	6	7	5	6	10	9
File	45	58	45	42	52	43
Stage 3						
Median	7	9	5	7	7	7
File	47	49	38	50	35	35
Stage 4						
Median	7	13	11	10	15	15
File	22	60	49	45	41	39
Stage 5						
Median	7.5	9	5	7	13	8
File	60	59	49	50	57	34
Stage 6						
Median	11.5	14	9	15	8	9
File	49.5	57	50	65	34	26
Stage 7						
Median	10.5	11	9	11	12	9
File	50.5	62	49	36	23	11
Stage 8						
Median	11.5	15	9	12	10	11
File	53.5	65	48	41	12	17
4	9	21	15	73	21	29

CHAPTER VI

DISCUSSION

In this chapter, the results detailed in Chapter V are discussed. The first topic covered is the set of analyses evaluating the Bradt measure. Second, the tests of the adaptability hypothesis using the measures of psychological health and subjective mental health mentioned above are discussed. The third topic is the test of the developmental hypothesis. Fourth, the measures used in this study will be evaluated. Last, further research in this field is suggested.

Evaluation of the Bradt Measure

Self-Disclosure and Expressivity

The Bradt measure was first evaluated by assessment of the relationship of self-disclosure to Bradt expressivity. This was done because self-disclosure is considered to be an expressive behavior. Therefore, subjects scoring high in expressivity should also score high in self-disclosure, providing validation for the new expressivity subscale.

The primary measure of self-disclosure used in previous studies has been Jourard's (1958) Self-Disclosure Scale. However, Jourard's measure was not used in this study to tap self-disclosure because the results of the pilot study suggested that the Jourard measure discriminates between those whose conversations center on topics preferred by

women and those whose favorite topics are preferred by men rather than between open disclosers and nondisclosers. Further, a comprehensive review of the literature by Winstead and his colleagues (1984) revealed that the same effects found in the Bradt pilot study (main effects of gender but not of sex-role orientation) were obtained in most of the previous studies which used Jourard's measure to tap self-disclosure.

However, Lavine and Lombardo (1984) have also developed a measure of self-disclosure. As opposed to users of Jourard's scale, Lavine and Lombardo did not find a main effect of gender; thus, their measure does not appear to discriminate between those whose conversations center on topics preferred by women and those whose favorite topics are preferred by men. However, they did find an effect of sex-role orientation. Thus, Lavine and Lombardo's (1984) Self-Disclosure Scale was used in this study to tap self-disclosure. Expressivity predicted self-disclosure better than did instrumentality. This is evidence for the construct validity of the Bradt expressivity subscale. Expressivity, as determined by the Bradt measure, appears to predict self-disclosure better than does instrumentality.

Unidimensionality or Bidimensionality?

As mentioned in Chapter I, most sex-role researchers have agreed that the concept of androgyny is bidimensional (Bem, 1977; Constantino-ple, 1973; Spence et al., 1975). That is, a sex-role measure should contain two independent factors, one of which consists of instrumental items and one of which consists of expressive items. Thus, several attempts have been made to factor analyze both the PAQ and the long form

of the BSRI in order to seek support for the authors' claims that their measures are bidimensional (Feather, 1978; Gaudreau, 1977; Helmreich et al., 1981; Waters et al., 1977).

The authors of both the short form of the BSRI (the BSRI-S) and the PAQ claim, on the basis of these factor analyses, that each of their measures contains two independent factors. However, it is not clear exactly how many factors the PAQ actually contains because the summary of its factor analysis results is not clearly stated. Similarly, it is not known how many factors make up the BSRI-S because only the long form of this measure has been factor analyzed.

As a part of this study, factor analysis was performed on the newly-created Bradt Instrumentality/Expressivity Scale. However, for the above reasons, direct comparisons with results of previous factor analyses of sex-role inventories was not possible. Rather, the Bradt measure was simply evaluated in its own right. The results of the factor analysis suggested that the Bradt measure, in its current form, is unidimensional. However, this study used several different criteria for evaluation, as opposed to the previous studies; use of some of them suggested that the Bradt measure is bidimensional, as expected. Therefore, evidence obtained using each of the criteria was evaluated in order to determine if the measure was unidimensional or bidimensional.

Evidence for the measure's unidimensionality included the facts that internal consistency increased when both subscales were combined into one overall scale and that the correlation between the instrumentality and expressivity subscales was high. Further, expressivity

appeared to emerge in the factor analysis, while instrumentality did not.

On the other hand, evidence for bidimensionality included the fact that male subjects achieved significantly higher Bradt instrumentality scores than did female subjects, and women achieved significantly higher Bradt expressivity scores than did men. Also, the three instrumentality subscales (of the Bradt, the BSRI and the PAQ) were highly intercorrelated; the three expressivity subscales were also highly intercorrelated. Last, the instrumentality and expressivity subscales differentially predicted high scores on each of the four SMHT scales. Since the evidence for unidimensionality appeared to outweigh the evidence for bidimensionality, it seems that the Bradt measure is unidimensional.

The Bradt Instrumentality/Expressivity Scale appears to conform to the definitions of instrumentality and expressivity proposed by Parsons (1951). It thus answers Constantinople's (1973) objection: creators of previous sex-role inventories simply chose traits or characteristics which discriminated between men and women, usually at particular points in time in particular cultures, as indicators of instrumentality or expressivity; they did not assess the centrality of those traits to theoretical definitions of instrumentality or expressivity. Although the items on both the BSRI and the PAQ were chosen for the measures solely because it was believed that they discriminated between men and women, the Bradt items were chosen because they were based on Parsons' (1951) definitions of instrumentality and expressivity. Yet the Bradt measure is, like the BSRI and the PAQ, brief enough to be used quite easily.

Further, it is important that sex-role test items be written in the form of behaviorally specific items rather than of global, unspecified traits or characteristics, which are subject to more than one interpretation. Items such as, "strong personality," and, "emotional," are found on the BSRI and the PAQ. The Bradt items, such as, "Am/would be a good parent," appear to be more clearly written.

Last, results of multiple regression analyses of the Bradt, BSRI and PAQ subscales suggested that the Bradt instrumental items did, indeed, measure some facet of instrumentality. However, Bradt instrumentality did not emerge as a unitary factor. Possibly these instrumental items were too specific, causing respondents to break them into separate, conceptually distinct categories, such as, leadership, hard work and problem-solving.

Thus, it was concluded that, although the Bradt measure may adequately tap expressivity, is made up of behaviorally specific items, and is strongly based on theory, it is not the improved sex-role measure it was expected to be, largely because it appears to be unidimensional. Rather, it needs more work before it can be used to ascertain sex-role orientation in tests of the adaptability hypothesis. In this study, therefore, the adaptability hypothesis was tested using only the BSRI and the PAQ.

Tests of the Adaptability Hypothesis

The results of both MANOVAs and multiple regression analyses partially supported the major hypothesis of this study: the adaptability hypothesis. The results of analyses using SMHT scores as the dependent variable are discussed here; in the second part of this section, the analyses using EMPD scores are discussed.

Subjective Mental Health Test Battery

It will be remembered from Chapter II that the conception of subjective mental health as a compilation of factors is considered to be more appropriate than is the unidimensional conception by those who have researched the issue in the most depth (Andrews & Withey, 1976; Bradburn, 1969; Bryant & Veroff, 1984; Campbell, 1980). However, in previous tests of the adaptability hypothesis, only unitary measures of subjective mental health have been used. Therefore, it was also necessary to conceive of the SMHT as a unitary measure for the sake of comparison. Thus, for the purposes of this study, four outcome measures based on the SMHT were created. First, the results found by administration of the overall SMHT are discussed here; then the results found by administration of the four outcome measures are discussed.

Examination of results of the overall MANOVAs (which used the BSRI and the PAQ to ascertain sex-role orientation and in which gender was the other independent variable) revealed that the androgynous group scored higher than did any other group in subjective mental health and that undifferentiated subjects consistently scored lower than did other subjects in subjective mental health.

These results are consistent with the adaptability hypothesis (Bem, 1974, 1975; Block, 1973) which proposes that androgynous persons should possess more and undifferentiated persons should possess fewer adaptive skills than should others. Persons possessing many adaptive skills may accrue more rewards than others, and persons who are lacking in adaptive skills may well not accrue many rewards at all. Accrual of many of these rewards may cause individuals to give high evaluations to the quality of their lives.

Multiple regression analyses revealed that instrumentality was the strongest predictor of SMHT scores and that expressivity was a weaker predictor. At first glance, this appears to replicate the findings of previous researchers; while instrumentality and expressivity both predicted subjective mental health, instrumentality was found to be the better predictor. However, the results of regressing each of the four SMHT factors on age, gender, instrumentality and expressivity indicate that entering the overall SMHT scores into the multiple regression analysis had masked important information. As expected, instrumentality, not expressivity, predicted high affective evaluations of both positive and negative experience. Also, instrumentality was the only predictor of high cognitive evaluations of negative experience. However, expressivity was the strongest predictor of high cognitive evaluations of positive experience. Thus, Bryant and Veroff (1984), in adding the cognitive aspect to the SMHT, appear to have removed some potential instrumental bias from the questionnaire.

Conclusions Concerning the Four Outcome Measures

It will be remembered that the SMHT is made up of four scales.

They are as follows:

1. Happiness (affective evaluation of positive experience): general happiness, high future morale, general satisfaction with life.
2. Gratification (relatively cognitive evaluation of positive experience): value fulfillment and life satisfaction derived from relevant role relationships.
3. Freedom From Strain (affective evaluation of negative experience): freedom from a cluster of psychophysical symptoms.
4. Feelings of Invulnerability (relatively cognitive evaluation of negative experience): infrequent feelings of being overwhelmed or of pending nervous breakdown.

Post-hoc analyses using these four outcome measures to tap adaptability revealed that instrumentality predicted happiness, freedom from strain, and invulnerability, while expressivity predicted gratification. These results suggest that expressive behavior may fail to predict primarily affective evaluations of experience. On the other hand, expressivity may be a better predictor of relatively cognitive evaluations of experience, at least of positive experience, than is instrumentality.

Perhaps instrumentally sex-typed individuals receive more societal approval, in the form of such rewards as praise, high status, and money, than do expressively sex-typed individuals. Such immediate, quantifiable rewards may be particularly conducive to spontaneous positive feelings and may prevent or reduce spontaneous negative feelings. For exam-

ple, Diener (1984, p. 553) states that there is "an overwhelming amount of evidence that shows a positive relationship between income and SWB [subjective well-being] within countries." Campbell (1981) also acknowledges this fact, and adds evidence that occupational status correlates positively with happiness. These findings are consistent with the fact that instrumental individuals achieved the highest SMHT scores when affectively evaluating their experience.

On the other hand, expressive behaviors may tend to accrue rewards which are not as immediate and quantifiable as are instrumental rewards, such as, the sense of fulfillment which results in knowing that one has contributed significantly to others' happiness, intimate and satisfying social relationships, knowledge of one's own feelings, values, hopes and desires, and feelings of contentment with oneself and acceptance of one's own personality. Therefore, the average individual may not be as conscious of the accrual of these rewards as of the accrual of instrumental rewards.

However, expressive rewards may be brought to consciousness by stimulating subjects to think about whether or not they are fulfilling their values and goals or to make other relatively cognitive evaluations of their experience. The reason expressive persons achieved higher gratification scores than did instrumental persons may have been that the gratification scale (which elicited relatively cognitive evaluations of positive experience) stimulated expressive persons' awareness of the existence of expressive rewards. Thus, expressive persons, when asked to report how much various things in their lives had fulfilled their

values and how much satisfaction they had gotten from different life activities (answers elicited by the gratification scale) may have reported higher evaluations of this aspect of their life quality than did instrumental persons because they had been made aware of rewards they had received. Since expressive subjects were being made aware of their rewards for the first time, these rewards may have been quite salient. On the other hand, instrumental rewards may be so tangible that subjects were aware of them without reminders. Because they are constantly aware of their repeated rewards, each individual reward may not have been very salient to instrumental subjects.

Or, perhaps expressive persons have set different values for themselves than have instrumental persons, values which are fulfilled by the role relationships detailed in the gratification scale. Timmer and Kahle (1983) found that "women are more likely than men to identify warm relationships with others and a sense of belonging as their most important value, and men are more likely than women to value a sense of accomplishment and fun-enjoyment-excitement" (p. 75). Thus, expressive subjects may be most likely to value warm relationships and belonging, while instrumental subjects may be most likely to value accomplishment, fun, enjoyment and excitement.

The first of the two questions on the SMHT's gratification measure elicits ratings of the contributions of five role relationships to subjects' values. The role relationships are: leisure, the work you do in and around the house, work at a job, relationships with members of the opposite sex, and relationships with family or friends. These role

relationships may be more likely to fulfill the (expressive) values of warm relationships and belonging than to fulfill the (instrumental) values of fun, enjoyment and excitement, and possibly also the (instrumental) value of accomplishment.

Summary

The measure which has previously been used to tap subjective mental health in order to test the adaptability hypothesis is Lubinski and his colleagues' (1981) Differential Personality Questionnaire (DPQ). As mentioned in Chapter II, their findings using the DPQ led Lubinski and his fellow researchers to question "the construct validity of the BSRI-F scale as an indicator of well-being" (p. 728). Their instrumental subjects achieved significantly higher subjective mental health scores than did either androgynous or expressive subjects.

On the other hand, this study found that expressivity may make a significant contribution to subjective mental health. Results of MANOVAs revealed that instrumentality predicted SMHT scores better than did expressivity but not as well as did androgyny (which includes expressivity). Results of multiple regression analyses also revealed that expressivity was a predictor of SMHT scores, although not as good a predictor as was instrumentality. Since, as argued in Chapter II, the SMHT appears to be a more adequate measure of subjective mental health than does the DPQ, it seems that this study's conclusion is the more credible one; expressivity does appear to predict a significant portion of subjective mental health.

Eriksonian Measure of Psychosocial Development

Examination of MANOVA results revealed that the androgynous group was more likely to have mastered the Eriksonian stages than were any of the other three sex-role groups. Also, undifferentiated individuals achieved lower EMPD scores than did subjects in the other three sex-role groups. Thus, androgynous persons may master more and undifferentiated persons may master fewer Eriksonian stages than may other persons. These results were identical to those found in tests of the adaptability hypothesis which used the IPD to tap Eriksonian maturity (Della Silva & Dusek, 1984; Flaherty & Dusek, 1980; Ziegler et al., 1984).

The attempt to replicate the breakdown of the EMPD by stage, which was first done by Glazer and Dusek (1985), was partially successful. Both this study and Glazer and Dusek's study found that sex-role orientation significantly affected mastery of each of the individual Eriksonian stages. Also, both studies found that the androgynous group was generally more likely to have mastered the stages than were any of the other three sex-role groups. Last, both studies found that sex-typed individuals, particularly instrumentally sex-typed individuals, showed more successful resolution of the stages than did undifferentiated individuals. In other words, undifferentiated persons consistently scored lower in Eriksonian maturity than did other persons. These results are consistent with the results detailed above.

Examination of the results of multiple regression analyses also revealed that instrumentality was a stronger predictor of EMPD scores than was expressivity. Although this result has been found in previous

tests of the adaptability hypothesis which used Eriksonian maturity as the dependent variable, it was not expected; it was thought that the EMPD, unlike other Eriksonian measures, was not instrumentally biased. The EMPD, because of its wording, appears to be biased in favor of instrumentally sex-typed behaviors, like the other Eriksonian measures. On the other hand, the SMHT does not appear to be as strongly instrumentally biased. Apparently, the measure which had been expected to be strongly instrumentally biased (the SMHT) is not and the measure which had not been expected to be instrumentally biased (the EMPD) is.

Despite this unexpected result, this study appears to have confirmed the first aspect of the adaptability hypothesis. Androgynous persons appear to be more successful in mastering the Eriksonian stages and to report a higher quality of life than traditionally sex-typed persons and undifferentiated persons; undifferentiated persons appear to be less successful in mastering the Eriksonian stages and to report a lower quality of life than traditionally sex-typed persons and androgynous persons. Also, this study appears to have supported the second aspect of the adaptability hypothesis, that instrumentality and expressivity both contribute to adaptability. However, on the whole, instrumentality appears to contribute more to adaptability than does expressivity.

Developmental Hypothesis

The expectation that older subjects would achieve the highest EMPD scores was not borne out in this study. Comparison of this study's median EMPD scores with national norms showed that the adolescents and young-adult undergraduates in this sample scored near the national norms

in Eriksonian maturity, while this study's oldest subjects (part-time undergraduates) scored lower than the national norms.

Perhaps the older subjects' EMPD scores were lowered by the presence of environmental stressors. It is possible that more of the older subjects and fewer of the younger subjects had recently experienced stressful life changes, such as divorce, job termination, and job burn-out. Further, 61 percent of the older students tested in this study were married; therefore, most probably have children. Wilensky (1961) suggests that individuals are most likely to experience high levels of stress during the time of their lives in which they are raising children.

Since they are part-time students, older subjects may also be much more likely to have full-time jobs than may younger subjects, who are full-time students. Thus, the older students may be encountering more stressors than are the younger students; the resultant stress may have lowered the older adults' EMPD scores. It is possible that many of the EMPD items are vulnerable to high stress levels. For example, subjects undergoing high stress may have given very low ratings to themselves on items such as, "calm, relaxed, easygoing," "good things never last," and, "it's a cold, cruel world." If this is the case, the EMPD is not as adequate as expected, since the measure was created to tap Eriksonian maturity, not the presence of environmental stressors.

Evaluation of Measures of Psychological Health

Two measures of adaptability, the EMPD and the SMHT, were used in this study; they have not previously been used in tests of the adaptability hypothesis. Therefore, they are evaluated here for their appropriateness for this purpose.

Erikson's theory contains certain stages which were expected to be more instrumentally biased or more expressively biased than other stages. The three most instrumentally oriented stages were expected to be Stage 2 (autonomy), Stage 3 (initiative) and Stage 4 (industry). Use of MANOVAs where EMPD stages were the dependent variables and the BSRI determined sex-role orientation found that, as expected, instrumental subjects consistently achieved higher scores on Stages 2 to 4 than did expressive subjects.

The most expressively oriented stage was expected to be Stage 6 (intimacy). Expressive subjects, as expected, achieved higher Stage 6 scores than did instrumental subjects. Stages 1 (trust), 5 (identity), 7 (generativity) and 8 (integrity) were expected to be neutral with respect to sex-role orientation; these stages' instrumental and expressive scores fulfilled expectations in that they did not differ significantly. Thus, the EMPD appears to be instrumentally biased. However, in light of the literature review described in Chapter II, it is likely that no less instrumentally biased measure of Eriksonian maturity exists than the EMPD. Thus, the EMPD appears to be more appropriate than is any other Eriksonian measure for use in testing the adaptability hypothesis.

Perhaps Erikson's theory itself is instrumentally biased, stressing autonomy and individuation over cooperation and responsibility. In that case, measures of subjective mental health may be more appropriate for use in testing the adaptability hypothesis. Results of this study suggest that one measure of subjective mental health, the SMHT, may be particularly appropriate for this purpose; it appears that the SMHT may be the least instrumentally biased measure of adaptability yet found. However, replication of these results by administration of the SMHT, along with the BSRI and the PAQ, to more and different groups of subjects must take place before this conclusion can be firmly made.

However, measures of subjective mental health do not directly tap psychological health. As mentioned in Chapter II, perhaps previous researchers, particularly Lubinski and his coworkers (1981), used subjective mental health measures to tap psychological health because they believed that subjective mental health is strongly correlated with psychological health. Thus, measures of subjective mental health, especially the SMHT, may be adequate for use in testing the adaptability hypothesis.

Implications for Further Research

Sex-role research is a burgeoning area. Specifically, many tests of the adaptability hypothesis have heretofore been carried out. The complex results of this study make it clear that more such tests must be made. However, it is not useful to haphazardly choose sex-role and psychological health measures for this purpose. If further contributions are to be made in this field, sex-role inventories which fit Parsons'

(1951) definitions of instrumentality and expressivity and which answer the objections of Constantinople (1973) and others must be carefully chosen or created.

The Bradt measure appears to answer most of these objections. The measure is made up of behaviorally specific items and is strongly based on Parsons' (1951) theory. However, the Bradt Instrumentality/Expressivity Scale needs further work before it will be ready to be used in tests of the adaptability hypothesis, because the instrumentality subscale is flawed. The scale items might simply be too specific; perhaps making them more general might be sufficient to create an adequate sex-role measure. Or, future researchers might use the Bradt expressivity subscale, which appears to be adequate, and add an adequate instrumentality subscale.

Also, measures of adjustment must be carefully chosen or created, since measures are needed which tap both the instrumental and the expressive aspects of psychological health. Possibly such a measure has been found in the SMHT; this possibility must be investigated further so that the adaptability hypothesis can be adequately tested. Other possible measures tapping the expressive aspect of adaptability could be measures of knowledge of subjects' own feelings and true desires or measures of level of intimacy of subjects' interpersonal relationships. Specific examples of expressive measures cannot be given; such measures do not appear to exist. It may be quite difficult to create such measures for a western-hemisphere society such as ours, since this society may be very instrumentally biased (Jones et al., 1978).

The generalizability of the results found by this study is limited. Since it sampled only educated, middle-class, white students, this study needs to be replicated with other samples. Since lower-class individuals may be more likely to be sex-typed than to be androgynous, somewhat different sex-role groupings would probably be found among such groups as assembly-line workers. Second, perhaps androgyny does not predict psychological health among assembly-line workers as well as it does among college undergraduates, among whom androgyny and skill in interpersonal relationships may be more highly valued and instrumentality less highly valued. Thus, it may not be wise to generalize from the results found in the course of this study to persons who are not currently college undergraduates.

Also, since previous tests of the adaptability hypothesis, at least those which have used the BSRI to determine sex-role orientation, have been cross-sectional, longitudinal tests of this hypothesis would be particularly valuable. Last, although studies tapping actual sex-role behavior have been carried out, they have tapped only behavior found within the laboratory. It would be useful to perform field studies testing the adaptability hypothesis so as to tap behavior in normally occurring situations.

Conclusion

In summary, it seems safe to conclude that androgyny predicts psychological health and high evaluations of life quality better than does instrumentality or expressivity and that undifferentiated individuals are the least psychologically healthy ones and report the lowest levels

of life quality. There are three reasons why this conclusion appears to be justified. First, MANOVAs have shown that androgynous persons' SMHT scores are higher than those of both instrumental and expressive persons and that undifferentiated persons' SMHT scores are lower than those of any other sex-role group.

Second, androgynous persons appear to be more successful in mastering the Eriksonian stages than are either instrumental or expressive persons, who appear to be more successful than are undifferentiated persons. That is, androgynous individuals not only achieve the highest scores and undifferentiated individuals the lowest scores on the instrumentally oriented stages -- 2 (autonomy), 3 (initiative) and 4 (industry) -- but also on the expressively oriented Stage 6.

Third, multiple regression analyses have shown that expressivity, as well as instrumentality, predicts both high EMPD and high SMHT scores. Thus, the suggestion of Della Silva and Dusek (1984) that the androgyny versus instrumentality controversy with respect to adjustment be abandoned appears to be well grounded in fact. It would be more appropriate to investigate the degree to which instrumentality and expressivity each predict adjustment; it is clear that both are important predictors.

CHAPTER VII

SUMMARY

To explore the relationship between sex-role orientation and adaptability, three steps were executed. First, an attempt was made to create a new sex-role inventory in order to better tap sex-role orientation. Items which fit Parsons' definitions of instrumentality and expressivity were created or adapted from other measures. The new measure was then administered to a pilot sample; changes were made based on the information obtained.

Second, the new Bradt Instrumentality/Expressivity Scale was evaluated. Evidence was found for both a one-factor and a two-factor structure. This evidence was weighed carefully. It was concluded that, although the Bradt measure is more adequate, in many ways, than other sex-role measures, it needs more work before it can be used in tests of the adaptability hypothesis. The study was, therefore, continued using other measures to ascertain sex-role orientation.

The third and primary endeavor undertaken by this study was to test the adaptability hypothesis. Androgynous persons appear to be more successful in mastering the Eriksonian stages than are traditionally sex-typed persons, who appear to be more successful here than are undifferentiated persons.

Further, it appears that androgynous persons evaluate the quality

of their lives higher than do sex-typed persons, who evaluate the quality of their lives higher than do undifferentiated persons. Last, although instrumentality appears to predict psychological health (in the sense of both Eriksonian maturity and subjective mental health) better than does expressivity, expressivity also predicts psychological health to some extent.

Thus, this study has answered some questions but also evoked some new ones. Can an adequate sex-role measure be created which answers Constantinople's objections? Does there exist a measure of psychological health which is not instrumentally biased? Is that measure the SMHT? And, perhaps most important, are androgynous persons in populations other than college populations the most psychologically healthy group? If these questions can be answered, we can improve our understanding of how sex roles are related to adaptability.

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APPENDIX A

BRADT INSTRUMENTALITY/EXPRESSIVITY SCALE

Instrumental

1. Take the first step to meet persons of the opposite sex.
2. Skilled at making small repairs.
3. Am/would be a good leader.
4. Stand up for what is right even if others disagree with me.
5. Work hard to be better than my competitors.
6. Give orders when necessary.
7. Spend long hours working in the area in which I want to succeed.
8. Successfully solve most problems with which I am faced.

Expressive

1. Am/would be a good parent.
2. Admit it if another person is right and I am wrong.
3. Work well with other people.
4. Carry out orders willingly when necessary.
5. Warmly express my affection for others at the right times.
6. Give my friends a shoulder to cry on when they need it.
7. Adjust what I do and say to the moods of my close friend(s).
8. Ask for advice when I am worried about something.

APPENDIX B

Men Sex Role Inventory

On the opposite side of this sheet, you will find listed a number of personality characteristics. We would like you to use those characteristics to describe yourself, that is, we would like you to indicate, on a scale from 1 to 7, how true of you each of these characteristics is. Please do not leave any characteristic unmarked.

Example: sly

Write a 1 if it is never or almost never true that you are sly.

Write a 2 if it is usually not true that you are sly.

Write a 3 if it is sometimes but infrequently true that you are sly.

Write a 4 if it is occasionally true that you are sly.

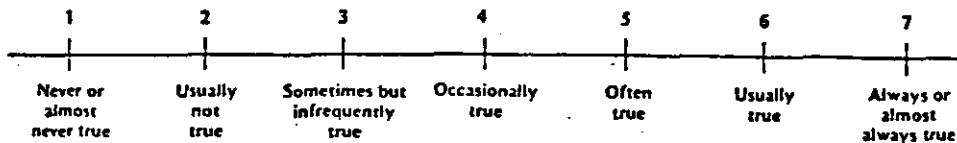
Write a 5 if it is often true that you are sly.

Write a 6 if it is usually true that you are sly.

Write a 7 if it is always or almost always true that you are sly.

Thus, if you feel it is sometimes but infrequently true that you are "sly," never or almost never true that you are "malicious," always or almost always true that you are "irresponsible," and often true that you are "carefree," then you would rate these characteristics as follows:

Sly	3	Irresponsible	7
Malicious	1	Carefree	5



Defend my own beliefs	Adaptable	Understanding
Affectionate	Dominant	Jealous
Conscientious	Tender	Forceful
Independent	Conceited	Compassionate
Sympathetic	Willing to take a stand	Truthful
Moody	Love children	Have leadership abilities
Assertive	Tactful	Eager to soothe hurt feelings
Sensitive to needs of others	Aggressive	Secretive
Reliable	Gentle	Willing to take risks
Strong personality	Conventional	Warm

APPENDIX C

PERSONAL ATTRIBUTES QUESTIONNAIRE

The items below inquire about what kind of a person you think you are. Each item consists of a pair of characteristics, with the letters A-E in between. For example:

Not at all Artistic A....B....C....D....E Very Artistic

Each pair describes contradictory characteristics -- that is, you cannot be both at the same time, such as very artistic and not at all artistic.

The letters form a scale between the two extremes. You are to choose a letter which describes where you fall on the scale. For example, if you think you have no artistic ability, you would choose A. If you think you are pretty good, you might choose D. If you are only medium, you might choose C, and so forth.

1. Not at all independent A....B....C....D....E Very independent
2. Not at all emotional A....B....C....D....E Very emotional
3. Very passive A....B....C....D....E Very active
4. Not at all able to devote self completely to others A....B....C....D....E Able to devote self completely to others
5. Not at all competitive A....B....C....D....E Very competitive
6. Very rough A....B....C....D....E Very gentle
7. Has difficulty making decisions A....B....C....D....E Can make decisions easily
8. Not at all helpful to others A....B....C....D....E Very helpful to others
9. Gives up very easily A....B....C....D....E Never gives up easily
10. Not at all kind A....B....C....D....E Very kind
11. Not at all self-confident A....B....C....D....E Very self-confident
12. Not at all aware of feelings of others A....B....C....D....E Very aware of feelings of others
13. Feels very inferior A....B....C....D....E Feels very superior

14. Not at all understanding of others

A....B....C....D....E Very understanding of others

15. Goes to pieces under pressure

A....B....C....D....E Stands up well under pressure

16. Very cold in relations with others

A....B....C....D....E Very warm in relations with others

APPENDIX D

SUBJECTIVE MENTAL HEALTH TEST BATTERY (SHORTENED VERSION)

Please try to answer all these questions. For some questions, it may be difficult to pinpoint exactly how you feel, but try to do your best.

1. 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. Compared to your life today, how do you think things will be 5 or 10 years from now -- do you think things will be happier for you, not quite as happy, or what? (Circle one.)

- a. Happier than they are now b. Just as happy as they are now
c. Not quite as happy as they are now

3. In general, how satisfying do you find the way you're spending your life these days? Would you call it completely satisfying, pretty satisfying, or not very satisfying? (Circle one.)

- a. Completely satisfying b. Pretty satisfying c. Not very satisfying

4. Here is a list of things that many people look for or want out of life. Please study the list of values carefully, then circle the one that is the most important in your life.

- a. Sense of belonging b. Excitement
c. Warm relationship with others d. Self-fulfillment
e. Being well-respected f. Fun and enjoyment in life
g. Security h. Self-respect
i. A sense of accomplishment

5. Now we'd like to ask you how much various things in your life have led to (the MOST IMPORTANT VALUE) in your life.

First, how much have the things you do in your leisure time led to (the MOST IMPORTANT VALUE) in your life?

- a. Very little b. A little c. Some
d. A lot e. A great deal

Second, how much has the work you do in and around the house led to (the MOST IMPORTANT VALUE) in your life?

- a. Very little b. A little c. Some
- d. A lot e. A great deal

Third, how much has work at a job led to (the MOST IMPORTANT VALUE) in your life?

- a. Very little b. A little c. Some
- d. A lot e. A great deal

Fourth, how about relationships with members of the opposite sex? How much have your relationships with the opposite sex contributed to (the MOST IMPORTANT VALUE) in your life?

- a. Very little b. A little c. Some
- d. A lot e. A great deal

Fifth, what about relationships with your family and friends? How much have your relationships with your family or friends contributed to (the MOST IMPORTANT VALUE) in your life?

- a. Very little b. A little c. Some
- d. A lot e. A great deal

6. 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 some of the following things?

1. Consider the things you do in your leisure time. All in all, how much satisfaction would you say you have gotten from the things that you do in your leisure time?

- a. Great satisfaction b. Some satisfaction
- c. Little satisfaction d. No satisfaction

2. How about the work you do in and around the house? How much satisfaction would you say you have gotten from the work you do in and around the house?

- a. Great satisfaction b. Some satisfaction
- c. Little satisfaction d. No satisfaction

3. How much satisfaction have you gotten out of work at a job?
- a. Great satisfaction
 - b. Some satisfaction
 - c. Little satisfaction
 - d. No satisfaction
4. How much satisfaction have you gotten from your relationships with members of the opposite sex?
- a. Great satisfaction
 - b. Some satisfaction
 - c. Little satisfaction
 - d. No satisfaction
5. How much satisfaction have you gotten from your relationships with your family and friends?
- a. Great satisfaction
 - b. Some satisfaction
 - c. Little satisfaction
 - d. No satisfaction
7. Do you have any particular physical or health problems? Yes _____
No _____
8. Do you ever have trouble getting to sleep or staying asleep? (Circle one.)
- a. Nearly all the time
 - b. Pretty often
 - c. Not very much
 - d. Never
9. Have you ever been bothered by nervousness, feeling fidgety and tense? (Circle one.)
- a. Nearly all the time
 - b. Pretty often
 - c. Not very much
 - d. Never
10. Are you troubled by headaches or pains in the head? (Circle one.)
- a. Nearly all the time
 - b. Pretty often
 - c. Not very much
 - d. Never
11. Do you have loss of appetite? (Circle one.)
- a. Nearly all the time
 - b. Pretty often
 - c. Not very much
 - d. Never

12. How often are you bothered by having an upset stomach? (Circle one.)

- a. Nearly all the time b. Pretty often
c. Not very much d. Never

13. Has any ill health affected the amount of work you do? (Circle one.)

- a. Nearly all the time b. Pretty often
c. Not very much d. Never

14. Have you ever been bothered by shortness of breath when you were not exercising or working hard?

- a. Nearly all the time b. Pretty often
c. Not very much d. Never

15. Have you ever been bothered by your heart beating hard?

- a. Nearly all the time b. Pretty often
c. Not very much d. Never

16. When you feel worried, tense or nervous, do you ever take medicines or drugs to help you handle things?

- a. Nearly all the time b. Pretty often
c. Not very much d. Never

17. Do you feel you are bothered by all sorts of pains and ailments in different parts of your body?

Yes _____ No _____

18. For the most part, do you feel healthy enough to carry out the things you would like to do?

Yes _____ No _____

19. Have you ever felt that you were going to have a nervous breakdown?

Yes _____ No _____

20. 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

21. When bad things like these have happened to you, have there been times when you found it very hard to handle? That is, when you couldn't sleep or stayed away from people, or felt so depressed or nervous that you couldn't do much of anything?

Yes _____

No _____

APPENDIX E

Eriksonian Measure of Psychosocial Development

Rating Scale

- 0 — Not at all like me
 1 — Not much like me
 2 — Somewhat like me
 3 — Like me
 4 — Very much like me

In the example below, the person answering indicated that the description is somewhat like him.

Example: Rather than circling numbers, please use white
 Like to have many close friends 0 1 2 3 4

There are no right or wrong answers to the statements. Do not think too long about any one statement. Remember that your first impressions are generally the best. Be sure to answer every item. ~~Check~~ Only one number for each item.

	Not at all like me	Not much like me	Somewhat like me	Like me	Very much like me
1. Calm, relaxed, easygoing	0	1	2	3	4
2. Stick to the tried and tested	0	1	2	3	4
3. Have worked out my basic beliefs about such matters as occupation, sex, family, politics, religion, etc.	0	1	2	3	4
4. Bored	0	1	2	3	4
5. Self-sufficient; stand on my own two feet	0	1	2	3	4
6. Easily distracted; can't concentrate	0	1	2	3	4
7. Warm and understanding	0	1	2	3	4
8. Life has passed me by	0	1	2	3	4
9. Good things never last	0	1	2	3	4
10. Seek out new projects and undertakings	0	1	2	3	4
11. Not sure of my basic convictions	0	1	2	3	4
12. Like taking care of people and things	0	1	2	3	4
13. Easily embarrassed	0	1	2	3	4
14. Eager to learn and develop my skills	0	1	2	3	4
15. Prefer doing most things alone	0	1	2	3	4
16. Believe in the basic dignity of all people	0	1	2	3	4
17. Generally trust people	0	1	2	3	4
18. Can't seem to get going	0	1	2	3	4
19. Clear vision of what I want out of life	0	1	2	3	4
20. Younger generation is going to the dogs	0	1	2	3	4
21. Make my own decisions	0	1	2	3	4
22. Give up easily	0	1	2	3	4
23. Share my most private thoughts and feelings with those close to me	0	1	2	3	4
24. Full of regret	0	1	2	3	4
25. It's a cold, cruel world	0	1	2	3	4
26. Insist on setting goals and planning in advance	0	1	2	3	4
27. A bundle of contradictions	0	1	2	3	4
28. Involved in service to others	0	1	2	3	4

	Not at all like me	Not much like me	Somewhat like me	Like me	Very much like me
29. Can't be myself	0	1	2	3	4
30. Industrious, hardworking	0	1	2	3	4
31. Keep my feelings to myself	0	1	2	3	4
32. Believe in the overall wholeness of life	0	1	2	3	4
33. Optimistic, hopeful	0	1	2	3	4
34. Tend to delay or avoid action	0	1	2	3	4
35. Stand up for what I believe, even in the face of adversity	0	1	2	3	4
36. Not getting anywhere or accomplishing anything	0	1	2	3	4
37. Do things my own way, though others may disagree	0	1	2	3	4
38. Feel inferior to others in most respects	0	1	2	3	4
39. Others share their most private thoughts and feelings with me	0	1	2	3	4
40. Wish I'd lived my life differently	0	1	2	3	4
41. Others let me down	0	1	2	3	4
42. Like to get things started	0	1	2	3	4
43. Wide gap between the person I am and the person I want to be	0	1	2	3	4
44. Absorbed in the creative aspects of life	0	1	2	3	4
45. Stubborn; obstinate	0	1	2	3	4
46. Competent, capable worker	0	1	2	3	4
47. No one seems to understand me	0	1	2	3	4
48. Life is what it should have been	0	1	2	3	4
49. Good things are worth waiting for	0	1	2	3	4
50. Cruel, self-condemning conscience	0	1	2	3	4
51. Found my place in the world	0	1	2	3	4
52. Self-absorbed; self-indulgent	0	1	2	3	4
53. Independent; do what I want	0	1	2	3	4
54. Do only what is necessary	0	1	2	3	4
55. Comfortable in close relationships	0	1	2	3	4
56. A "has been"	0	1	2	3	4
57. Generally mistrust others	0	1	2	3	4
58. Like to experiment and try new things	0	1	2	3	4
59. Uncertain about what I'm going to do with my life	0	1	2	3	4
60. Deep interest in guiding the next generation	0	1	2	3	4
61. Very self-conscious	0	1	2	3	4
62. Proud of my skills and abilities	0	1	2	3	4
63. Emotionally distant	0	1	2	3	4
64. Life has meaning	0	1	2	3	4
65. Generous	0	1	2	3	4
66. Inhibited; restrained	0	1	2	3	4
67. Others see me pretty much as I see myself	0	1	2	3	4
68. Uninvolved in life	0	1	2	3	4
69. Neither control, nor am controlled by, others	0	1	2	3	4
70. Can't do anything well	0	1	2	3	4
71. Willing to give and take in my relationships	0	1	2	3	4

	Not at all like me	Not much like me	Somewhat like me	Like me	Very much like me
72. Life is a thousand little dis gusts	0	1	2	3	4
73. Pessimistic; little hope	0	1	2	3	4
74. A real "go-getter"	0	1	2	3	4
75. Haven't found my place in life	0	1	2	3	4
76. Doing my part to build a better world	0	1	2	3	4
77. Uptight; can't let go	0	1	2	3	4
78. Stick to a job until it is done	0	1	2	3	4
79. Avoid commitment to others	0	1	2	3	4
80. Feel akin to all humankind, past, present, and future	0	1	2	3	4
81. Trustworthy; others trust me	0	1	2	3	4
82. Passive; not aggressive	0	1	2	3	4
83. Appreciate my own uniqueness and individuality	0	1	2	3	4
84. Stagnating	0	1	2	3	4
85. Control my own life	0	1	2	3	4
86. Lack ambition	0	1	2	3	4
87. Others understand me	0	1	2	3	4
88. No hope for solutions to the world's problems	0	1	2	3	4
89. People take advantage of me	0	1	2	3	4
90. Adventurousome	0	1	2	3	4
91. A mystery, even to myself	0	1	2	3	4
92. Trying to contribute something worthwhile	0	1	2	3	4
93. Uncertain; doubting	0	1	2	3	4
94. Take pride in my work	0	1	2	3	4
95. Many acquaintances; no real friends	0	1	2	3	4
96. Would not change my life if I could live it over	0	1	2	3	4
97. Trust my basic instincts	0	1	2	3	4
98. Overwhelmed with guilt	0	1	2	3	4
99. Content to be who I am	0	1	2	3	4
100. Vegetating, merely existing	0	1	2	3	4
101. Feel free to be myself	0	1	2	3	4
102. Without my work, I'm lost	0	1	2	3	4
103. There when my friends need me	0	1	2	3	4
104. Humankind is hopeless	0	1	2	3	4
105. On guard lest I be stung	0	1	2	3	4
106. Aggression helps me get ahead	0	1	2	3	4
107. In search of my identity	0	1	2	3	4
108. Finding new avenues of self-fulfillment	0	1	2	3	4
109. Easily swayed	0	1	2	3	4
110. Productive; accomplish much	0	1	2	3	4
111. Wary of close relationships	0	1	2	3	4
112. Satisfied with my life, work and accomplishments	0	1	2	3	4

PLEASE BE SURE THAT YOU ANSWERED ALL 112 ITEMS

APPENDIX F

Lombardo Self-Disclosure Scale

Subject No. _____

Please read each item, and then indicate how much you have talked about each item with your mother, father, male friend, female friend and spouse (if you are married). That is, indicate the extent to which you have made yourself known to each person by putting a number on the line under each person, for each item. (Each item will then have four or five numbers after it.) Use this rating scale to decide what number to put on each line:

- 0: Have told the person nothing about this aspect of me.
- 1: Have talked in general terms about this item. The other person has only a general idea about this aspect of me.
- 2: Have talked in full and complete detail about this item to the person. He/she knows me fully in this respect, and could describe me accurately.
- X: Have lied or misrepresented myself to the person so that he/she has a false picture of me.

		Male	Female	
	Mother	Father	Friend	Friend Spouse
Attitudes and Opinions				
1. What I think and feel about religion; my personal religious views.	—	—	—	—
2. My views on the present government: the president, government, policies, etc.	—	—	—	—
3. My views on the question of racial integration in schools, transportation, etc.	—	—	—	—
4. My personal opinions and feelings about other religious groups than my own, e.g., Protestants, Catholics, Jews, atheists.	—	—	—	—
Tastes and Interests				
5. My favorite foods, the ways I like food prepared.	—	—	—	—
6. My likes and dislikes in music.	—	—	—	—
7. My tastes in clothing.	—	—	—	—
8. My favorite ways of spending spare time, e.g., hunting, reading, cards, sports events, parties, dancing, etc.	—	—	—	—
Work (If you are a student, please read "studies" for "work.")				
9. What I feel are my shortcomings and handicaps that prevent me from working as I'd like to, or that prevent me from getting further ahead at work	—	—	—	—
10. What I feel are my special strong points and qualifications for my work	—	—	—	—
11. My ambitions and goals in my work.	—	—	—	—
12. How I feel about the choice of career that I have made--whether or not I'm satisfied with it	—	—	—	—

	Mother	Father	Male Friend	Female Friend	Spouse
Personality					
13. Whether or not I feel that I am attractive to the opposite sex; my problems, if any, about getting favorable attention from the opposite sex	---	---	---	---	---
14. What it takes to get me real worried, anxious, and afraid	---	---	---	---	---
15. What it takes to hurt my feelings deeply	---	---	---	---	---
16. The kinds of things that make me especially proud of myself, elated, full of self-esteem or self-respect	---	---	---	---	---
Body					
17. My feelings about the appearance of my face-- things I don't like, and things that I might like about my face and head--nose, eyes, hair, teeth, etc.	---	---	---	---	---
18. My feelings about different parts of my body-- legs, hips, waist, weight, chest, or bust, etc.	---	---	---	---	---
19. Whether or not I now have any health problems-- e.g., trouble with sleep, digestion, female complaints, heart condition, allergies, headaches, piles, etc.	---	---	---	---	---
20. My present physical measurements, e.g., height, weight, waist, etc.	---	---	---	---	---
Sexual Relationships					
21. What particularly annoys me about my closest friend of the opposite sex.	---	---	---	---	---
22. My views about what is acceptable sex morality for people to follow.	---	---	---	---	---
23. My most common sexual fantasies and reveries.	---	---	---	---	---
24. Disappointments I have had with the opposite sex.	---	---	---	---	---

APPENDIX G

ERIKSON'S STAGES

- Stage 1: Trust vs. Mistrust
- Stage 2: Autonomy vs. Shame and Doubt
- Stage 3: Initiative vs. Guilt
- Stage 4: Industry vs. Inferiority
- Stage 6: Intimacy vs. Isolation
- Stage 7: Generativity vs. Stagnation
- Stage 8: Integrity vs. Despair

APPROVAL SHEET

The dissertation submitted by Jean Marie Bradt has been read and approved by the following committee:

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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.

4/18/88
Date

Paul Jose
Director's Signature