PREDICTING MORALE IN THE AGED

RICHARD KENT STEELE

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PREDICTING MORALE IN THE AGED

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ABSTRACT

The primary purpose of this psychometric study was to determine the effectiveness of the Bradburn (1969) Affect Balance Scale (ABS) and the Stones et al. (1977) Free Recall Task as predictors of well-being. A related issue involved assessing the pervasiveness of avowed happiness as a measure of morale. The assumption was tested that happiness ratings would be reflected in two personality measures; the Thematic Appreception Test (TAT) and the Adjective Check List (AJCL).

Fifty members of the St. John's Retired Citizen's Club (40 males, 10 females) were tested in the club rooms. The criterion variable, well-being, was assessed by requesting subjects to indicate their level of current happiness on a seven-point scale. Each subject was given the 10-item Affect Balance Scale, and was requested to provide a list of pleasant and unpleasant events encountered during the past month. In addition, subjects were asked to choose self-descriptive terms from a list of 40 adjectives. The final assessment involved tape-recording stories provided by subjects describing the scene in nine TAT cards.

A multiple regression analysis, in which happiness ratings were the predicted variables and the previously mentioned scales were the predictors, indicated that only 23% of the criterion's variance was accounted for. Positive TAT outcome was the only significant predictor. A subsequent factor analysis demonstrated that the assessment variables clustered into five distinct factors, tentatively titled Current Affect, Memory, Positive and Negative Self-Evaluation, and Gender. The study identified problems inherent in conducting research in a retirement club setting. Response bias is a principal variable. The prediction that avowed happiness would be reflected in the TAT was supported.

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INTRODUCTION

Research Issues in the Study of Morale in the Aged

During the past three decades the psychological well-being of the aged has become increasingly prominent as a subject for serious investigation (Beiser, 1974; Lohman, 1977). Well-being has been variously conceptualized as Adjustment (Cavan, Burgess, Havighurst & Goldhamer, 1949); Life Statisfaction (Cumming, Dean & Newell, 1958); Happiness (Bradburn & Caplovitz, 1965); and Morale (Kutner, Fanshell, Togo & Langer, 1956; Lawton, 1972). Although each of these conceptualizations has a different measurement approach, they have been used interchangeably (Graney, 1975). Lohman (1977), computed Pearson Product Moment correlation coefficients for seven of the most frequently used measures of well-being, and concluded that intercorrelations among the measures indicated a high level of interrelationship. For purposes of convenience this study will use the term morale, to denote psychological well-being.

During this period the nature of morale and the relationship between morale and other variables has provided a continuous impetus for both research and theory (Maddox, 1970). Social activities have been a prime research concern, both in terms of quantity (Schoenfield, 1973) and quality

(Graney, 1975). The interaction between activities and constraints such as health (Maddox & Eisdorfer, 1962; Atchley, 1976), and environment (Wolk & Tellean, 1976) has been a further area of interest. Other relevant variables have included cognitive levels (Cyr & Stones, 1976); social class (Spreitzer & Snyder, 1964; Edwards & Klemmack, 1973) and personality dimensions (Staats, 1974; Felton & Kahana, 1974; Kahana & Kahana, 1975). Maddox (1970) has expressed the view that this research has resulted in considerable advancement and refinement of the theoretical issues. However, a number of perplexing problems remain. The primary issues appear to involve the conceptualization and measurement of morale. A review of these conceptualizations and relevant measurement scales is the subject of the following discussion.

Conceptualization and Measurement of Morale: Initial Efforts

The conceptualization of morale has been characterized by a lack of consensus. Two general frames of reference exist: those researchers who define the construct unidimensionally (Cottrell, 1942; Pollak, 1948; Lebo, 1953; Rose, 1955; Cavan, 1962) and those who view it in multidimensional terms (Cavan, Burgess, Havighurst & Goldhamer, 1949; Havighurst & Albrecht, 1953; Neugarten et al. 1961). The issue is further confused by differing conceptualizations within each of the two general frames of reference.

The best known unidimensional approach has been advanced by Kutner, Fanshell, Togo and Langer (1956). Defining morale as "a continuum of responses to life... that reflect the presence or absence of satisfaction, optimism, and expanding life perspectives" (p. 48), Kutner et al. devised a seven-item index based on Guttman scaling techniques. The Kutner Morale Scale, however, has been severely criticized on both logical and empirical grounds. Rosow (1963) and Lawton (1971) objected to the limited item content and ponderous language; Neugarten et al. (1961) questioned the absence of an external criterion measure. Morrison and Kristjanson (1958) determined that the scale could not be used across different population samples without extensive revisions in the Guttman format. The most damaging criticism came from Cumming, Dean and Newell (1958) who reported that depressed and demoralized respondents obtained higher scores than those judged to be in high spirits.

Other attempts at devising a unidimensional scale were made by Cumming and her colleagues (Cumming et al., 1958; Cumming & Henry, 1961). Conceptualizing morale as social competence, Cumming et al. (1958) constructed the five-item Morale Index. A further reconceptualization of morale as contentment, by Cumming and Henry (1961), led to the development of a new four-item scale. Both indices were criticized for their narrow conceptualizations, very

limited scale content (Neugarten et al. 1961), and the small sample size employed while developing and testing the scales.

The alternative to a unidimensional conseptualization of morale is the multidimensional approach. Much of the research effort within the latter context has involved identifying the relevant components of morale. Neugarten et al. (1961), perhaps the clearest of the early thinkers in this area, developed a five-component model. Based on a survey of existent literature, these investigators opted for a morale construct composed of Zest, Resolution and Fortitude, Goal Congruence, Positive Self-Concept, and Mood Tone. The Life Satisfaction Rating Scale (LSR) was constructed to measure each of the five items. Because the LSR was cumbersome to administer, requiring an interview of up to four hours, two sub-scales, the Life Satisfaction Index A (LSI-A) and B (LSI-B) were derived. Although the LSR had achieved satisfactory reliability (.87), and moderately high validity (.64), when compared with the ratings of two experienced clinical psychologists, the psychometric characteristics of the A and B scales were attenuated. The scales had a validity coefficient of .55 and .58 against LSR as criterion, but this was reduced to .39 and .47 when an external criterion (a clinical psychologist's ratings) was employed.

Although Neugarten et al. (1961) attempted to develop a five-component morale index, Adams' (1969) factor analysis revealed only three discrete factors, Zest, Mood Tone and Goal Congruence. Subsequent experimentation and sub-scale construction with LSI-A items has met with limited success. Wood, Wylie and Sheafor (1969) found that the correlation between the LSR and the LSI-A varied markedly with age in a rural population (from .21 for ages 63-69, to .65 for respondents aged 80 and over). A new scale, the LSI-Z, based on an item analysis of LSI-A and a change in scoring technique, correlated reasonably well with the LSR for men (.83), but only moderately for women (.42). These findings suggest the LSI-A scale has very limited utility, being sensitive to age, geography and sex.

A more recent multi-component approach to conceptualizing morale is represented by Lawton's (1971) Philadelphia Geriatric Centre (PGC) Morale Scale. Beginning in a manner analogous to Neugarten et al. (1961), Lawton constructed a questionnaire composed of 41 items taken from existing scales, on the basis of an a priori consideration of what the essential morale components were. A factor analysis of the inventory indicated a six-component structure: Surgency, or freedom from anxiety; Positive Attitude Toward Aging;

Acceptance of the Status Quo; Agitation (insomnia and short temper); Optimism, and Lonely Dissatisfaction, described as a resigned acceptance of things as they are. When the PGC scale scores were compared to the ratings of two independent judges, the validity measure was only .47. Reliability, in the form of internal consistency was .81; stability measures ranged from .75 to .91 over a one to five-week period. In a cross-validation study with the LSR, the correlation was .57, hardly surprising since the PGC and LSR share common, but not similarly identified components. In follow-up studies of the PGC, Morris, Wolf and Klerman (1975) identified two reliable components (Agitation and Positive Attitude Toward Aging). Morris and Sherwood (1975) and Lawton (1975) reported a third stable factor, Acceptance of the Status Quo. Schooler (1970) factored a pool of morale related items responded to be a national probability sample of 4,000 people aged sixty-five and over. Included in the 45-item scale were 21 of the final 22 items from the PGC Morale Scale. Four components emerged, three of which resembled Lawton's (1971, 1975) Agitation, Lonely Dissatisfaction, and Attitude Toward Aging. Pierce and Clark (1973), in a similarly designed study found support for Lawton's Lonely Dissatisfaction and Surgency components.

Assessment of Initial Approaches

It is apparent from this review, that the conceptualization of morale is marked by diversity and disagreement. The early attempts by Kutner et al. (1956) and Cumming and her colleagues (1958, 1961) were characterized by a circumscribed approach which attempted to define psychological well-being in terms of rather vague, unitary constructs such as social competence and contentment. The more specific and comprehensive approach of Neugarten et al. (1961), represents the converse approach. While the Kutner and Cumming systems can be criticized for attempting too little in terms of defining well-being, the Neugarten et al. LSR scale, which requires a four-hour interview, appears to attempt too much.

The LSR conceptualization of morale is made less compelling by virture of the fact that other researchers are unable to replicate the five-factor structure initially identified by Neugarten et al. (1961). Lawton (1971) represents a compromise position by restricting the item content of his scale; however, because of the number of similarities in scale derivation and construction with the LSR, Lawton fails to contribute needed improvements or innovations. In addition, his six-factor model of morale has received little empirical support from others.

The success of the various scales, as measures of morale, appears to be related to the level of conceptual sophistication. The early inventories possessed serious psychometric faults, while the later versions, although statistically more adequate, were still not acceptable because of rather low reliability and validity levels. The LSR has the most satisfactory reliability and validity values, but it is not a practical assessment technique in terms of administration time. The LSI-A and B psychometrics are seriously attenuated. Although the PGC offers superior reliability, its validity (judges' ratings) is quite low. In view of the failure of empirical investigation to provide consensual validation of the content of morale, and as a concomitant, adequate psychometric characteristics, a more fruitful approach is likely to be a conceptual reformulation of the construct on rational rather than empirical grounds.

The Affect Balance Scale: An Innovative Approach

The approach adopted by Bradburn and Caplovitz (1965) and Bradburn (1969) represents such a reformulation of morale. These investigators limited their efforts to an assessment of avowed happiness, on the assumption that the hedonistic principle is central to the morale construct. A further

delimitation of the construct involved restricting the time focus to "the past few weeks" rather than using a generalized time dimension, on the assumption that current life expectancies are a major determining factor of morale. Such a narrow conceptualization of morale possesses several advantages over broader formulations. Firstly, it helps to maintain strict differentiation between morale and related constructs such as adjustment (Graney & Graney, 1973). Secondly, the restriction to current levels of happiness should provide sensitivity to short-term fluctuation in the associated measuring instruments. In addition, a distinction is maintained between affective state and the strategies that an individual utilizes to cope with such states. Coping strategies may be more appropriately conceptualized in terms of an "adjustment" construct (Graney & Graney, 1973) and may be more related to developmental task accomplishment than morale (Wolk & Telleen, 1976).

In order to assess avowed happiness Bradburn and Caplovitz (1965) developed, on an a priori basis, a ten-item inventory of affective states that an individual would normally encounter in day to day living. The items, following data analysis, clustered into two orthogonal or independent sub-scales which the investigators named Positive Affect

Scales (PAS) and Negative Affect Scale (NAS). Correlated with three levels of avowed happiness (very happy, pretty happy, not too happy), Bradburn (1969) reported that the best measure of happiness was represented by the difference between the two sub-scale scores, hence the descriptive title Affect Balance Scale (ABS).

The Rationale for Using Self-Reports as a Criterion Measure

The validity of self-reports has long been debated. The controversy is generally waged on two general issues: the use of denial by the respondent and the operation of social biases. Denial raises the issue of whether the respondent is able to tell the truth. One might report being happy, and believe it, but "really" be unhappy. Hartmann (1934) in a related study reported correlations of .34 between avowed happiness and the average ratings given by friends. The correlation between ratings by pairs of friends was .68. Wilson (1967) summarized a literature review by suggesting that although the overall validity coefficient against several measures is not as high as one might like, it is of the same magnitude as typically found in measures of traits other than happiness. Bradburn and Caplovitz (1965) devised a test of the second issue, re-

lating to social bias in reporting happiness. Assuming that while someone might not like to admit that he was unhappy, he might admit to not doing as well in life as he would like, Bradburn and Caplovitz (1965) had respondents rate themselves on two additional questions. The first concerned whether the individual wished to make changes in his life; the second requested a self-rating of success in achieving life goals. An overall correlation between avowed happiness and the two additional queries was .70 which was interpreted by the researchers as evidence for the validity of self-reports.

Avowed Happiness As A Pervasive Measure of Well-Being

Traditionally, researchers use judges ratings as an external validity criterion (despite increasing criticism of the practice: Graney, 1973; Rosow, 1963; Britton & Mather, 1958; Britton, 1964). Perhaps a more germane approach, but one that appears to have been mainly overlooked would be the use of projective tests. It does not appear unreasonable to assume that if avowed happiness (AVH) reflects a true state of psychological well-being (i.e., morale), then this state should be reflected in personality tests sensitive to these conditions. The Thematic Apperception Test (TAT), for

example, has been used extensively to assess changes in personality processes as a function of age (Neugarten, 1968; Rosen & Neugarten, 1964; Lukin, 1964; Singer, 1963; Guttmann, 1964). Stein (1953) has catalogued a variety of criteria which have been used in assessing TAT responses. One of the more interesting of these involves an analysis of "story" outcome. The critical issue is whether or not the principal character is perceived to be successful, happy, and a problem-solver. This assessment method adds the advantage of discrete scoring categories, to an assessment technique which is generally noted for its lack of structure.

The Gough (1952) Adjective Check List (AJCL) lacks the fertile research background of the TAT, but nonetheless appears to possess substantial face validity as a measure of psychological well-being. Given a choice between negative and positive self-descriptors, it seems a reasonable proposition that happier people will choose more positives than less happy persons. At the very least one would expect the AJCL and the TAT to represent a measure of concurrent validity vis à vis AVH ratings. These questions appear worthy of empirical research.

Pros and Cons of the ABS Scale

In addition to the 1965 and the 1969 studies conducted by Bradburn and Caplovitz, two other researchers have provided evidence relevant to the Affect Balance Scale. Beiser (1974) in an empirical study conducted a factor analysis and reported the independence of the PAS and NAS. Moriwaki (1974) also found evidence for the two orthogonal components and reported that the ABS score was the best single overall measure of happiness in relation to the sub-scales.

The Bradburn scale as a measure of morale in the aged is faced with certain difficulties. Sampling bias is the most important. The original study conducted in 1965 restricted sampling to the 25-49 years of age range. Similarly, Bradburn (1969) confined his sample to the 21-59 years bracket. Beiser (1974) included older respondents, but data analysis, in terms of age, is not available. Moriwaki (1974) used subjects 60 years of age and older. She found the correlation between avowed happiness and the ABS was positive, but not statistically significant. Reliability is a further issue. Bradburn (1969) reported test-retest coefficients of .76 to .83 over a three-day period. The coefficient was, however, severely attenuated over periods ranging up to 90 days, a situation which the researcher attributed to true changes in

happiness levels. Other issues relate to the technical construction of the ABS. The choice of only three levels of avowed happiness (very happy, pretty happy, not too happy) appears limited. The "yes" - "no" format of the ten-item sub-scales is similarly restrictive. Stones (1974) found that institutionalized patients exhibited a marked "yes" response bias to items of the type typically contained in geriatic morale scales.

In addition, the ABS has been criticized for its narrow conceptualization. Beiser (1974), following a factor analysis of his data, concluded that "Long Term Satisfaction" with life was an essential dimension of well-being that was overlooked by the Bradburn scale. Wilson (1967) took issue with the PAS and NAS content, suggesting that the orthogonality of these scales was an artifact of scale content rather than a valid assessment of affective states. Wilson argued that the PAS measured positive feelings in relation to success and energy, while the negative items, rather than referring to negative feelings about failure and fatigue, refer instead to negative emotional feelings of a general nature. Wilson (1960) measured positive and negative states using corresponding items; with this approach, the scales were correlated rather than independent. Wilson (1967) was also critical of the Bradburn assumption that the relative number

of positive and negative feelings (PAS, NAS) is the critical measure. He cited the findings of Barschak (1951) which showed that groups comparable in happiness remembered happy and unhappy experiences in very different ratios. Stones, Kozma and Hunt, (1977) similarly questioned the Bradburn (1969) assumption that the two sub-scales, PAS and NAS, were of equal weight in predicting the dependent variable, avowed happiness. Stones et al. (1977) computed regression equations on the data provided by Bradburn (1969), Beiser (1974), and Moriwaki (1974). Bradburn's (1969) sample consisted of younger and middle-aged respondents; the respective PAS and NAS weightings were approximately even. Beiser's (1974) sample included younger, middle-aged and older adults; again the weightings were approximately equal. However, the Moriwaki (1974) sample included only those subjects who were over 60 years of age; the respective PAS and NAS beta weights were in the order of .48 and -.04. This finding raises serious problems regarding the applicability of the ABS in its current form, to an aged population. The relevant research question relates to the appropriate scoring changes.

Stones et al. (1977) developed a paradigm for the assessment of well-being, based on the assumption that morale is best measured through a free recall of recent, pleasant and

unpleasant events, rather than being assessed by a "restrictive" catalogue such as the Affect Balance Scale. These researchers employed groups of young (age 20-40), middle-aged (age 40-60), and older subjects (60-80) in an experiment involving avowed happiness as the predicted variable and the free recall of pleasant and unpleasant events as the predictor variables. For the young and middle-aged groups, the beta weights, (Standardized Regression Coefficients), associated with the number of pleasant and unpleasant events recalled, were of approximately equal magnitude, but opposite sign. That is, the equations were similar to those obtained from the data of Bradburn (1969) and Beiser (1974) where the ABS was used. For the older group, however, beta weights were of equal magnitude but common sign, i.e., negative. Stones et al. (1977) account for the latter findings with the hypothesis that affective experience, whether positive or negative, is stressful for older persons. Of additional importance, given our research interest, is the finding that the Pleasant Events (PE) and Unpleasant Events (UPE) equation accounted for 45% of the variance of the predicted variable as opposed to 25% accounted for by the Moriwaki (1974) data using the ABS. This evidence suggests that Free Recall of Pleasant and Unpleasant events are more appropriate as predictors of

happiness (morale) than PAS and NAS. It may well be as Stones et al. (1977) argue, that PE and UPE represent more salient cues for the recall of affective material than PAS or NAS.

Although the Affect Balance Scale is conceptually innovative and seemingly appropriate relative to the confusion in defining morale, it is not, in its current form, an acceptable index of morale in the aged. It would appear that further research is necessary in order to assess the scale's reliability and validity relative to an aged population.

Aims of Present Research

The principal purpose of this investigation was to evaluate the effectiveness of the Affect Balance Scale and the Free Recall Task as predictors of morale in an aged population. A related issue involved assessing the pervasiveness of avowed happiness as a measure of morale.

Earlier research by Wilson (1960, 1967) and Bradburn & Caplovitz (1965), indicated that AVH was a valid measure of well-being; it was as good as the most common assessment of morale, rater's judgments. This study tested the assumption that the generality of AVH as a measure of well-being is reflected in personality measures such as the TAT and the Adjective Check List.

METHOD

Subjects

All subjects were members of the St. John's Retired Citizens' CIub. This association has a membership of 325 persons, 75% of whom are males. The association was established in April 1976. Membership is open to all local residents who are retired from active employment, and who are able to pay the initiation fee ($5 for females, and $10 for males). Subjects were selected over a 90-day period from members present during the experimenter's visits. (There were five refusals.) These visits were irregular both in terms of specific days of the week, and in terms of arrival times. The sample consisted of 40 men and 10 women. The subject's age range was 60-89 years; the mean was 71 years.

Procedure

With the exception of Avowed Happiness ratings and the Thematic Apperception Test (TAT), the tasks were presented in a random order. AVH was the initial measure obtained from each subject, based on the rationale that it was the easiest to administer, and the one best suited to place subjects at ease. The TAT, because it was the longest and the most ambiguous undertaking (from the subjects' point of view) was

always given last. In addition to randomizing assignments, sub-scales within a test were also administered randomly as a control for response bias. An entire scale was administered before proceeding to the next. For example, both sub-scales of the Affect Balance Scale were given before proceeding to the next task.

Materials

Avowed Happiness ratings. The experimenter was seated at one end of a table in the club's board room. Each subject sat to the experimenter's immediate right. After introductions, the experimenter explained the purpose of the study as an assessment of the attitudes and feelings of retired persons. This satisfied most persons; few had further questions. Avowed Happiness ratings were measured using a ladder technique. The 7-rung cardboard ladder (29 cm. x 9 cm.) was mounted on two pieces of burnt cork panelling, 30 cm. square, with the pieces positioned to form a right angle. The overall setting, when placed before the subject, resembled a ladder against a wall. The ladder offered two advantages: it broadened the subject's response choice from three (very happy, pretty happy, not too happy) to seven, and as well, presented the AVH question in a much

more concrete manner. Each subject was given the following narration in conjunction with having the ladder placed before him: "All things considered, how would you say things are these days?" ...Would you say you are 'very unhappy' -- here at the bottom of the ladder at number 1, -- 'very happy' -- here at the top of the ladder, at number 7 -- or at some other place on the scale. Point out your position on the ladder to me."

Affect Balance Scale. The Affect Balance Scale consists of two, 5-item sub-scales (Appendix A), the Positive Affect Scale (PAS), and the Negative Affect Scale (NAS). Each sub-scale was administered in its entirety before proceeding to the next. Items were read to the subject, one at a time, each item preceded by the oral question: "During the past month did you ever feel..." Subjects were requested to answer each question in a 'yes' or 'no' manner. The time span of 'one month' is a revision of Bradburn (1969), who chose 'the past few weeks'. The revision presented the advantage of defining a relevant time period in a more precise manner. Each scale item answered 'yes' was scored as 1; a value was computed for both the PAS and NAS. The maximum score for each scale was 5. The Affect Balance Scale (ABS) score was obtained by subtracting the NAS from the PAS.

Free Recall of Pleasant (PE) and Unpleasant Events (UPE). This technique was developed by Stones, Kozma and Hunt (1977). Subjects were presented with a blank, lined sheet of standard sized white paper, and pen. The following instructions were given: "Try to think of as many (un) pleasant events that have happened or (un) pleasant experiences you have had during the past month. Briefly describe these events; only a few words are necessary. For example, it would be sufficient to say 'Went to a birthday party last week', rather than describing who it was for, and who was there. You may write the details on the paper provided, or if you prefer, I will write them for you." (Only two of the 50 subjects preferred to record the details.) Seven minutes were allowed for recall from each category. Each event recalled was scored as one. Two values were computed; one for Pleasant Events (PE) and one for Unpleasant Events (UPE).

Adjective Check List. Appendix B lists 40 adjectives, 20 positive and 20 negative, drawn from the Gough (1952) Adjective Check List. The 40 descriptors selected, from a catalogue of 300 possibilities, were those judged by the experimenter and two colleagues, to be the most easily recognized, spelled, and pronounced, given the age and broad social spectrum of the 50 subjects to be tested. Each of

the adjectives was centered on a 10 cm. x 7.5 cm. index card. The cards were printed with a felt tip marker, with the letters sufficiently large to be clearly legible. The shuffled cards were presented to each subject as a pack with the following instructions: "Each card contains a word that may, or may not, describe you. Sort the pack into two piles, one which describes you and one which does not." Two scores were obtained for each subject; the number of positive descriptors (POSACL) and the number of negative choices (NEGACL).

Thematic Apperception Test. The ambiguity of some TAT stimuli, the depiction of conflict and related negative feelings in other cards, as well as the difficult task of creating a story, combined to increase the risk of subject drop-out. For this reason, the TAT was always presented last. The full TAT kit of 30 cards presented two problems. The age of the subjects precluded a 30-card interview; in addition, it was desirable to have a selection of ambiguous cards that would permit an individual to make up either happy or sad endings, depending on his or her affective state. Both issues were dealt with in a preliminary study using community-based subjects over 60 years of age. These people rated the content of each of the 30 standard TAT cards in terms of whether the cards elicited 'happy' or 'sad' feelings.

The preliminary study identified 13 suitable cards. Nine of these (card numbers 17BM, 5, 6BM, 10,20,18BM, 4,13G) were selected on a random basis by the experimenter. (The others were excluded to reduce the relatively long testing period.) The cards were presented in a randomly predetermined, fixed order (as listed above). These instructions, taken from Stein (1959, p. 31), preceded presentation of the initial card:

> "I am going to show you some pictures, one at a time, and your job will be to make up as dramatic a story as you can for each. Tell what has led up to the scene in the picture, describe what is happening, what the characters are feeling and thinking, and then tell how the story will end. Do you have any questions?"

If, following presentation of the first card, subjects had questions relative to the instructions, the latter were repeated. Respondents' protocols were recorded on a portable Sony Tape recorder, Model TC 110B, after first informing subjects of the intention to record, and assuring them that their identity on the tape would be treated as confidential. Less than 10% of the subjects were able to provide continuous stories. As a result standard prompts were provided by the experimenter. These took the form of: "What is happening in the story?"; "Why is he (she, they) doing that?"; "What will the outcome be?". The prompts were not given as a

matter of course, but only where required. The protocols were later scored by two independent raters. (See Results section for an outline of the rating process.) Two values were computed for each subject; the number of positive outcomes (POSOTCOM), and the number of negatives (NEGOTCOM).

The maximum attainable TAT score was 9. Occasionally, however, judges were faced with ambiguous outcomes and according to instructions rated the stories as Indeterminate. Indeterminate ratings were discarded, consequently lowering the maximum TAT score. As a result the correlation between POSOTCOM and NEGOTCOM, despite the complementary arithmetic relationship between the scales, was less than 1.0.

DESCRIPTION OF THE STATISTICAL ANALYSES

As an initial assessment, the simple relationship between the predicted variable, Avowed Happiness, and each of the independent variables, as well as the relationship between each of the predictor variables, was assessed through the use of Pearson Product Moment Correlation Coefficients. Multiple relationships between happiness ratings (AVH) and the 10 predictors (PAS, NAS, PE, UPE, POSACL, NEGACL, POSOTCOM, NEGOTCOM, AGE, SEX) were also computed using a stepwise regression analysis (Nie, Hull, Jenkins, Steinbrenner,

& Bent, 1975). As a final step, a factor analysis was generated, using Varimax rotation (Nie et al., 1975).

Stepwise Multiple Regression

Multiple regression is a statistical technique which provides an analysis of the relationship between a dependent variable and a set of predictors. As a descriptive tool, multiple regression determines the best linear prediction equation and an evaluation of the equation's predictive accuracy, i.e., a multiple correlation coefficient. It accomplishes this while controlling for other confounding factors, such as intercorrelations between predictor variables (in a manner in which Pearson coefficients do not), in order to evaluate the contribution of each specific variable. The terminal prediction equation indicates the manner in which independent variables should be weighted (beta weights) and summed to obtain the most accurate prediction of the dependent variable.

The stepwise regression procedure enters variables into the equation one at a time with the order of entry dependent on the amount of additional variance accounted for from greatest to least. In this fashion, the order of best prediction amongst the variables is determined as well as the amount of criterion variance accounted for by each.

The stepwise regression procedure outlined in the Nie et al., (1975) manual, allows the user to specify a set of three statistical criteria to be used in deciding which variables are to be included in the equation. The criteria employed in the present investigation were: 1) the maximum number of predictors to be entered into the equation, (in order to choose the "N best" predictors); 2) the minimum F value the user is willing to accept for variables that will be included in the equation (see 5. below); 3) the tolerance of an independent variable being considered for inclusion. Tolerance is the proportion of the variance of that variable not explained by the independent variables already in the regression equation. The automatic default values, when these three criteria are not specified, are 80, .01 and .001 respectively.

The following information is provided by the computer analysis after the addition of each predictor variable:

1. multiple R, a measure of relationship between the criterion measure and the set of predictor variables in regression
2. R Square, representing the proportion of criterion-score variance accounted for by the equation predicting the criterion variable
3. simple R, a measure of the simple, or zero-order relationship between the criterion variable and each predictor
4. standardized regression coefficients, or beta weights, represent the expected change in the

criterion variable, expressed in standard deviation units, with each unit of change in a predictor variable.

5. F values determine the significance of the linear association expressed by the multiple regression equation, and also determine the significance of the contribution of each predictor. The latter F test is made to determine the relative effect of entering the predictor variable in excess of the effect of other variables already entered into the equation.

Factor Analysis

The most distinctive feature of factor analysis is its data reduction capability. The aim of this process is the isolation of a set of factors or components that may be taken as source variables accounting for interrelations in the data. There are three customary steps involved in factor analysis: 1) the preparation of an intercorrelation matrix, 2) the extraction of initial factors, and 3) the rotation of these factors to a terminal solution. With respect to 2), the extraction of initial factors, there are five different methods of factoring available. This study used the most popular of the five, principle factoring with iteration. The immediate result of this initial factoring stage is the extraction of an unrotated factor matrix. During this process all factors are imposed to be orthogonal. Factors are arranged in the order of their importance; the

first factor is the most important component, the second is the second most important, and so on. In addition, the first factor tends to be a general factor; it has significant loading on every variable. Subsequent factors are bipolar, some factor loadings are positive, while others are negative. The Nie et al. (1975) programme contains a default parameter which limits factor-matrix inclusion to those factors which account for at least the amount of the total variance of a single variable.

Unrotated factors, identified in 2) normally do not provide a meaningful patterning of variables. This is the function of rotation, or phase 3). There are two general rotation techniques, Oblique and Orthogonal; since the initial analysis of the data of this study indicated the factors were orthogonal, the latter technique was used. Three options are available to the user within the Orthogonal paradigm: Quartimax, Varimax, and Equimax. The Quartimax method emphasizes simplification of the rows of the factor matrix; so that the first rotated factor tends to be a general factor (many variables tend to load high on it), while subsequent factors tend to be subclusters of variables. Varimax is a process which simplifies the columns of a factor matrix so as to maximize the variance of the loadings in each column. Equimax is a compromise between the other

two. Varimax is the most widely used method of rotation (Nie et al. 1975) and was employed in this study.

The Nie et al. (1975) computer printout provides a final matrix of coefficients relating factors (identified at the top of each column), and variables (each row of the matrix represents a variable). These coefficients represent both regression weights and simple (Pearson) correlation coefficients. That is, each row of the matrix can be characterized as a multiple regression equation with each variable being the criterion and each factor a predictor. (See Table 8, p. 40) The columnar coefficients describe the loadings of each variable on the respective factors.

RESULTS OF THE DATA ANALYSES

Of the 10 predictors of Avowed Happiness employed in the present investigation, the interpretation of TAT outcomes as Negative, Positive, or Indeterminate appeared to be the most susceptible to scoring error. Accordingly, scoring criteria were established for outcomes analogous to those suggested by Stein (1953). These criteria are listed in Appendix A. An acceptable reliability coefficient of .89 was obtained when TAT outcomes were classified by two independent raters, and these outcomes were, as a result, included in the statistical analysis.

Table 1 includes the means and standard deviations of the relevant independent and dependent variables. Table 2 lists the intercorrelations of the 10 predictor variables, and the independent measure, Avowed Happiness. Of the predictor variables, only Positive TAT Outcome (POSOTCOM) was correlated at a significant level with the criterion variable. The two Affect Balance Scales, Positive Affect (PAS) and Negative Affect (NAS), are statistically independent. The Free Recall tasks, Pleasant Events (PE), and Unpleasant Events (UPE), are positively interrelated ($p < .001$); however, neither scale is correlated with AVH at a significant level. The correlations between the two Adjective Check List scales, (NEGACL and POSACL), and their relationship with the criterion variable fail to reach statistical significance. The magnitude of the largest correlation reported in Table 2 is .49, a coefficient which accounts for only 24% of shared variance. (The -.66 correlation between POSOTCOM and NEGOTCOM has no significance in terms of data analysis. The correlation reflects the complementary arithmetic relationship between the two scales. Given nine TAT cards subjects could choose either a positive or negative outcome for each. The correlation would have been one, except judges were instructed to discard ambivalent ratings, resulting in net scores ranging from zero to nine.)

TABLE 1

Summary statistics of psychometric variables

Variable	Mean	Max. Scale Value	Standard Deviation
Avowed Happiness	5.5	7.0	0.99
Positive Affect	3.2	5.0	1.40
Negative Affect	1.4	5.0	1.42
Free Recall Pleasant Events	3.2	n/a	2.20
Free Recall Unpleasant Events	1.9	n/a	1.64
Positive Adjective Check List	16.1	20	2.52
Negative Adjective Check List	4.6	20	3.83
Positive TAT Outcome	5.6	9.0	1.66
Negative TAT Outcome	1.9	9.0	1.28
Age	71.1	-	6.25
Sex	-	-	-

TABLE 2

Intercorrelations of all variables

	PAS	NAS	PE	UPE	POSACL	NEGACL	POSOTCOM	NEGOTCOM	AGE	SEX
AVH	.12	-.07	.16	-.13	-	-.14	.27*	-.13	.02	.19
PAS	-	.23	.24	.15	.21	.33*	-	-.07	.03	.24
NAS	-	-	.13	.33*	.09	.31*	.06	.09	.02	-.11
PE	-	-	-	.49***	-.04	.09	.21	-.31*	-.09	-.02
UPE	-	-	-	-	-.08	-.19	.27*	-.10	-.13	-.08
POSACL	-	-	-	-	-	.08	-.15	.30*	.27*	.09
NEGACL	-	-	-	-	-	-	-.17	-.05	.11	.04
POSOTCOM	-	-	-	-	-	-	-	-.66***	-.06	-.19
NEGOTCOM	-	-	-	-	-	-	-	-	-.03	-.18
AGE	-	-	-	-	-	-	-	-	-	-.07

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

TABLE 3

Terminal Multiple Regression Equation
(all independent variables included) nb

Component Variables	Simple R	Standardized Regression Coefficient (Beta)	F
POSOTCOM	.27019	.53956	5.982*
SEX	.19296	.27971	2.913
PE	-.16012	-.10749	0.387
NEGOTCOM	-.12996	.24419	1.130
UPE	-.12950	-.22661	1,741
PAS	.12101	.18919	1.323
NEGACL	-.14238	-.15479	0.933
AGE	.02257	.06964	0.224
POSACL	-.00065	-.05798	0.131

nb. NAS failed to meet default values of computer programme and was excluded from further analysis.

Equation's Summary Statistics

Multiple R	.51100
R Square	.26112
Standard Error	.94362

Analysis of Variance: Regression Equation

Variable	df	SS	F
Regression Predictors	9	12.65	1.57
Residual (Error)	40	35.82	

*p < .05

It should also be noted that the summary data of Table 1 represents, in some cases, skewed distributions. The scores were not normalized for two reasons: there was only a slight possibility that normalization would improve the correlations. In addition, other studies, notably the Stones et al. (1977) research, demonstrated significant correlations, despite highly skewed distributions.

A multiple regression analysis was used to evaluate the independent contributions of each of the 10 predictors (PAS, NAS, PE, UPE, POSOTCOM, NEGOTCOM, POSACL, NEGACL, AGE, SEX) of Avowed Happiness. The amount of variance accounted for by these variables was 26%. However, the multiple R of .511 failed to reach statistical significance; $\underline{F}(9,40) = 1.57$, $p > .05$ (Table 3).

The Nie et al. (1975) stepwise regression computer prinout provides a complete statistical analysis after each and every variable is included. A post hoc inspection of the printout indicated the best prediction equation (evaluated by an $\underline{F}$ test) contained these five predictors: POSOTCOM, SEX, NEGOTCOM, PE, UPE. When the prediction of Avowed Happiness was restricted to these five best predictors, a significant multiple R of .477 was obtained, $\underline{F}(5,55) = 2.60$; $p < .05$ (Table 4). The 23% variance accounted for by the five

best predictors is only 3% less than the variability accounted for by all ten independent variables. Of these five, two were statistically significant: POSOTCOM, $F(1,44) = 7.13$; $p < .05$, and SEX, $F(1,44) = 4.49$; $p < .05$. These measures accounted for 14.1 and 8.9% respectively of the variance of the Happiness ratings (Table 4).

Since Bradburn (1969) argued that the best predictor of Avowed Happiness by the Affect Balance Scale (ABS) was the arithmetic difference between the two orthogonal sub-scales, PAS and NAS, a second multivariate analysis using the net Affect Balance scores, was completed. The only major effect of this procedure was a reduction of the variance accounted for by the Bradburn (1969) measures from a meagre 2.4% to 1.0% (Tables 5 and 6). Supplementary statistics produced by this analysis indicated the zero-order correlations of the net Affect Balance score with Avowed Happiness, PAS, and NAS were .15, .62, and -.62 respectively. The latter two were statistically significant ($p < .05$).

Because of the limited information provided by the regression analyses, a factor analysis was completed. The initial analysis, using the Oblique rotation procedure (Nie et al., 1975) indicated the factors were orthogonal (Table 7). Accordingly the data was reassessed using the Varimax rotation method. Table 8 lists the initial factors,

TABLE 4

Per cent of variance accounted for by each of the five best predictors of Avowed Happiness

Variable	(R^2) Accounted for	F
POSOTCOM	14.11%	7.13*
SEX	8.88	4.49*
NEGOTCOM	2.86	1.45
UPE	2.23	1.13
PE	0.71	0.36

Summary Statistics

Multiple R	.47729*
R Square	.22781
Standard Error	.92240

Analysis of Variance: Regression Equation

Variables	df	SS	F
Regression Predictors	5	11.04	2.60*
Residual (Error)	44	37.44	

*p < .05

TABLE 5

Per cent of variance (R^2) of Avowed Happiness ratings accounted for by each predictor (all variables included)

Variable	% of variance accounted for	F
POSOTCOM	10.7%	5.67*
SEX	5.4	2.84
UPE	2.8	1.50
PAS	2.4	1.28
NEGOTCOM	1.9	1.06
NEGACL	1.5	0.79
PE	0.69	0.36
AGE	0.41	0.20
POSACL	0.25	0.13
NAS	-	-

*$p < .025$

TABLE 6

Per cent of variance of Avowed Happiness ratings accounted for by each predictor
(net Affect Balance Score substituted for NAS and PAS)

Variable	% of variance	F
POSOTCOM	12.60	6.86*
SEX	6.95	3.79
NEGOTCOM	2.59	1.41
UPE	1.78	0.97
ABS (PAS-NAS)	1.04	0.57
PE	0.65	0.36
NEGACL	0.47	0.25
POSACL	-	-

*$p < .05$

TABLE 7

Factor correlation matrix derived from initial oblique factor analysis

Factor	1	2	3	4	5
1	-	-.056	.064	.151	-.067
2	-	-	.176	.034	.142
3	-	-	-	-.051	-.052
4	-	-	-	-	.014

TABLE 8

Initial factors identified before rotation, using the method of principal factoring with iterations

	FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4	FACTOR 5
AVOW HAPP	.106	-.195	-.269	.167	.269
POSAFECT	.138	.561	-.178	.293	.296
NEGAFECT	.134	.449	.170	-.122	.080
PE	.466	.314	.153	.080	-.092
UPE	.606	.293	.599	.221	-.128
POSACL	-.270	.162	.205	.047	.596
NEGACL	-.098	.740	-.450	-.386	-.155
POSOTCOM	.863	.282	-.140	-.259	.290
NEGOTCOM	-.674	.104	.432	.021	.048
AGE	-.128	.069	-.066	-.121	.279
SEX	-.028	.075	-.428	.611	-.112
Per cent of variance accounted for by each factor	32.0%	23.4%	19.1%	13.1%	12.4%

TABLE 9.

Varimax rotated factor analysis of all experimental variables

	FACTOR 1 (Current Affect)	FACTOR 2 (Memory)	FACTOR 3 (Negative Self-Evaluation)	FACTOR 4 (Gender)	FACTOR 5. (Positive Self-Evaluation)	% variance accounted for by Factors 1 to 5 NB
AVH	.299	.166	-.147	.256	.145	23
PAS	.058	.343	.297	.460	.344	54
NAS	-.046	.391	.277	-.096	.172	27
PE	.162	.550	.103	.043	-.112	35
UPE	.042	.900	-.195	-.074	-.148	88
POSACL	-.174	.035	-.088	-.003	.648	50
NEGACL	-.051	.021	.963	.051	.027	93
POSOTCOM	.948	.203	-.125	-.199	-.001	99
NEGOTCOM	-.730	-.093	-.105	-.171	.271	66
AGE	.019	-.110	.097	-.040	.307	12
SEX	-.014	-.076	-	.739	-.153	58

N.B. Per cent variance accounted for by factors 1 to 5 indicates that 25% of the variance of AVH can be accounted for by the five factors. Similarily, 99% of POSOTCOM is attributable to these five factors. The per cent variance is obtained by squaring and summing each respective row of the Matrix. This operation is possible because the tabled values, when read across, represent regression weights.

before rotation, and the amount of variance accounted for by each. Table 9 includes the final factor solution; the analysis indicated the 11 variables (AVH plus the 10 predictors used in the original multiple regression analysis) clustered into five distinct factors. Because the factors are orthogonal, the rows of the Table 9 matrix can be viewed as a series of 11 multiple regression equations (see Description of Statistical Analysis section) with each of the 11 variables representing criterion measures, and factors denoting predictors. As the final column in Table 9 indicates, the five factors are able to account for greater than 50% of the criterion variance in seven of the 11 equations. Viewed from a different perspective, in terms of the columns of the matrix, rather than the rows, an analysis of the factor loadings on each of the variables (AVH to Sex, inclusive) can be determined. All factors except the first, correlate, or load, on only one variable. The exception, factor one, relates materially, to two variables, POSOTCOM and NEGOTCOM.

DISCUSSION

An initial assessment suggests that this study presents little evidence in support of the Bradburn (1969) model. The expected correlations of PAS, NAS, and ABS with Avowed

Happiness did not occur at statistically significant levels. Neither were any of these independent variables statistically significant as components of the multiple regression equations predicting Happiness ratings. The major finding of relevance to the model was the replication of the independent or orthogonal nature of the NAS and PAS scales.

Similarily, the Free Recall model of Stones et al. (1977), based on the recall of Pleasant and Unpleasant events, received theoretical support only to the extent that the component sub-scales (PE and UPE) were interrelated in the direction and at a magnitude that was consistent with their paradigm. As predictors of AVH, however, the Free Recall sub-scales were able to account for only 2.9% of the variance in the criterion variable. Although only a small amount, and not statistically significant, the variance attributable to the Free Recall task was considerably greater than that accounted for by the Affect Balance Scale.

Although it appears that neither the Bradburn (1969) nor the Stones et al. (1977) models were effective as predictors of avowed happiness, such a finding is precluded by the fact that the happiness ratings in this study were unusually elevated. Comparative data is limited, but Bradburn (1969) indicated that 30% of his subjects in the most senior age group

(50-59 years) reported feeling"very happy" (p. 45). Assuming that a rating of five and above on this study's seven point scale corresponds with Bradburn's "very happy", then 82% of this sample is in that category. Given this circumstance, it is only possible to assess the Affect Balance Scale and the Free Recall Task as predictors of degree of happiness rather than predictors of happiness per se. Neither model is effective in this context.

The elevated happiness ratings are an interesting phenomenon in themselves. Although the data is not conclusive, it appears likely the club environment is a key component of the ratings. A strong sense of well-being, a sense of euphoria, seems a likely concomitant of entering the club. The extremely good humor of the membership and the well-defined sense of camaraderie can be attested to be the experimenter during the course of approximately 25 visits over a three-month period to the club. These high spirits were continually fostered by a well appointed (and well used) games room, a plethora of card players, and virtually everyone's involvement in the sale of raffle tickets in the St. John's community (to meet the association's operating expenses). Indeed, a member would feel out of place in this environment if he or she was not 'happy'.

This form of environmental constraint no doubt contributed to the elevated feelings of well being and at the same time, elicited a defensive attitude relative to reporting unpleasant events in the Free Recall Task. There is evidence for this argument. Next to the TAT, the Free Recall assignment represented the greatest burden to the subjects. The responses were generally characterized by hesitation; the mean number of responses to the UPE question (1.86), and the number of subjects reporting no UPE (24%) attests to the manner in which this task was perceived. (Hunt & Stones, 1976, reported the mean UPE recall of 6.5; all subjects reported at least one Unpleasant event).

In addition to the elevated AVH ratings, this group had one further unique characteristic which would attenuate the capacity of the Affect Balance Scale as a predictor of AVH. All subjects were fully retired from gainful employment. It is not unreasonable to argue that retirement from employment would alter one's day to day life experiences in both a quantitative and qualitative manner. Sussman (1972) had stated, "retirement implies withdrawal, leaving the scene of the action" (p. 33), it involves "taking on a smaller complement of roles" (p. 36). It seems safe to assume that a consequence of this diminished activity would be a sharp reduction in the number of interpersonal contacts per unit of

time. Butler (1972) has identified a feeling of "social uselessness" (p. 169) as a characteristic common to retirees; this suggests that variety and intensity of situations encountered are likely to be substantially reduced. In addition, a person's interests and pursuits, in retirement, are likely to become much more idiosyncratic; as Belbin has commented, "the aging individual becomes more preoccupied with himself and less concerned with the outside world" (p. 185).

Bradburn and Caplovitz (1965) developed the 10-item ABS inventory, based on what they considered to be a "wide range of pleasurable and unpleasurable experiences apt to be common in a heterogeneous population" (p. 16). However, the subsequent population samples used in the development and validation of the ABS scales were in the age range of 25 to 59 years. The items are, therefore, not likely to be relevant to the type of population used in the current study.

The Adjective Check List, which was a less effective AVH predictor than the Affect Balance Scale and the Free Recall Task, was also subject to the elevated AVH ratings. Subjects were clearly reluctant to choose negative self-descriptors even though many of the latter terms were only mildly self-negating (see Appendix A). Perhaps as well, the adjective lists were too brief (20 positives and 20 negatives). Also, the task

might have been made more objective and valid if the prefacing remarks were something like, "Choose those words that others, from your experience, have used in describing you."

Of the four scales (ABS, Free Recall, Adjectives, and TAT), only the TAT was a statistically significant predictor of Happiness ratings. Collectively, the two complementary TAT scales accounted for 59% of the explained variance, with POSOTCOM being the statistically relevant variable.

The TAT was particularly well suited to the sample chosen for this study. Constructed as a projective test and designed to overcome personality defenses (Murray, 1938), the TAT was the only measure sensitive to the elevated criterion ratings. The TAT offered two advantages relative to the other scales; it permitted a broad range of feeling to be expressed in the context of composing the story, while at the same time structuring the subject's thinking relative to the dichotomous choice of outcome.

The factor analysis clearly demonstrates that the TAT scales (POSOTCOM and NEGOTCOM) are measuring the same dimension. The respective loadings on Factor 1 of .948 and -.730, support this interpretation, and suggest that this factor might be appropriately designated as assessing Current Affect. When each of the TAT scales is viewed as the criterion variable in a multiple regression equation, two conclusions are apparent: each subscale is unidimensional

(neither loads on other factors at a substantial level), and each measures a different aspect of the factor, Current Affect, as evidenced by the contrasting coefficient valences.

Factor 2 has an evident and unique relationship with the Free Recall scales. Because the Free Recall tasks were based on the Stones et al. (1977) paradigm, this factor has been designated as the Memory dimension. This is a somewhat arbitrary identification; the factor may possibly be assessing verbal fluency, or some other related cognitive dimension. The common positive valence of the coefficients suggests that the two Free Recall tasks are measuring identical dimensions rather than different aspects of the same characteristic. Further research employing appropriate cognitive tasks, such as the Set Test (Isaacs & Akhtar, 1972) would clarify the issue.

Factor 3, because of its heavy (and exclusive) loading on the Negative Adjective Check List NEGACL), appears to represent Negative Self-Evaluation. Similarly, the Factor 5 loading on POSACL, leads to the conclusion that this factor is assessing Positive Self-Evaluation. Again, this is an area where further research such as the use of Sentence Completion inventories (Rapaport et al. 1946), would provide some degree of validation for the kind of labelling that is

being applied here. There is no question that Factor 4 is a unitary measure of gender.

The most significant conclusion to be drawn from the factor analysis is that TAT outcomes, specifically positive outcomes, are better predictors of the main factor, tentatively labelled Current Affect. Only 23% of the variance in Happiness ratings can be accounted for, while 99% of POSOTCOM variance can be attributed to the five factors, when they are employed as predictors in a multiple regression equation with POSOTCOM as criterion. In fact, the poorest measure of affect, when all variables are considered (Age excepted) is AVH.

In order to pursue the original aims of this study, it would be necessary to first obtain a group of subjects whose AVH ratings covered a greater range. In retrospect, it seems unlikely that the required variability will be found in retirement clubs, at least in clubs as successful as the one chosen. In addition, it seems quite likely that members attend their club on the days they feel in a good mood, probably preferring other activities when their mood is down. This assumption should be tested by further research.

A part of the preceeding discussion relates reasons why the Affect Balance Scale may not be an effective instrument with fully retired subjects. This also seems a worthy topic of

additional research. As well, the Adjective Check List concept should be tested more exhaustively by employing an expanded list of descriptors, and by revising the introductory remarks in a manner similar to the one previously outlined.

Again, in terms of the study's research goals, the pervasiveness of AVH as a measure of well-being was reflected by the Thematic Apperception Test. Further research, employing more diverse groups is warranted.

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APPENDIX A

1. The Bradburn (1969) Affect Balance Scale
2. Adjective Check List
3. Instructions for rating TAT outcomes

BRADBURN (1969) AFFECT BALANCE SCALE

During the past month did you ever feel . . .

Positive feelings (PAS)

1. Pleased about having accomplished something?
2. That things were going your way?
3. Proud because someone complimented you on something you had done?
4. Particularly excited or interested in something?
5. On top of the world?

Negative feelings (NAS)

1. So restless you couldn't sit long in a chair?
2. Bored?
3. Depressed or very unhappy?
4. Very lonely or remote from other people?
5. Upset because someone criticized you?

ADJECTIVE CHECK LIST

alert	absent minded
calm	anxious
capable	bitter
pleasant	complaining
friendly	demanding
kind	dissatisfied
affectionate	fearful
witty	fussy
cheerful	lazy
considerate	quarrelsome
dignified	rude
efficient	unfriendly
active	argumentative
cooperative	bossy
dependable	confused
easy going	gloomy
efficient	irritable
generous	moody
optimistic	nervous
relaxed	suspicious

INSTRUCTIONS FOR RATING TAT OUTCOMES

Outcomes are story endings relative to the central character. The three possible outcomes are Positive, Negative, and Indeterminate. Happy outcomes involve the successful completion of a task, the resolution of a conflict, or the respondent's prediction of positive prospects for the central figure. Unhappy outcomes describe such events as continuation of an identified problem, or other unfavourable consequences for the principal. It is important to make your ratings from the central character's point of view. If, for example, the principal is depicted as planning a nefarious act, such as robbery, and will be successful, according to the interviewee, then the rating is positive, based on the predicted successful outcome. Similarly, if incarceration is reported as an outcome, the appropriate rating is negative, despite the argument that might be made from the citizen's point of view that incarceration is a positive finale.

Detailed stories were difficult to elicit, although subjects, at times, offered comments relative to the future prospects of the central character. Typical comments included, "Everything will be OK here"; "He will be pleased with himself"; or, "He is going to be very sorry for it". Such comments, stated this clearly and directly, are rateable. Cases which do not fit the above described outcome categories should be rated as Indeterminate. Enter your

ratings on the Data Sheets, and complete the Summary table. Please note: The following data are not available and should be rated as Indeterminate:

- Subject # 2: Outcome of Story Two
- Subject #20: Outcome of Story Six
- Subject #25: Outcome of Story Nine

Identifying the Central Character

The first, third, sixth, seventh and ninth cards are not a problem; each contains a single character. Cards 2, 4, 5, and 8 have two interacting figures. In these latter cases the interviewer, in most instances, has requested the subject to identify the principal. In the few occasions where ambiguity remains a problem, the following conventions will apply:

> the principal is the figure performing or initiating the perceived activity. Example: Card # 2 - "Son seeking advice from the father." The son would be the central character. "Older man giving advice to younger man." Here, the older man would be the principal. "Two unhappy people involved in a quarrel." In this case, the respondent does not make a distinction between the characters; ratings in this instance would be made on the dyad.