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SOME MULTI-DIMENSIONAL AND VALUE ASPECTS OF HAPPINESS

by

Janis Owena Reffruschinni

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I hereby recommend that this dissertation prepared under my direction by Janis Owena Reffruschinni

entitled Some multi-dimensional and value aspects of happiness

be accepted as fulfilling the dissertation requirement for the degree of Doctor of Philosophy

George Domino — 5-1-78

Dissertation Director — Date

As members of the Final Examination Committee, we certify that we have read this dissertation and agree that it may be presented for final defense.

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Final approval and acceptance of this dissertation is contingent on the candidate's adequate performance and defense thereof at the final oral examination.

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ABSTRACT

The multi-dimensionality of happiness was investigated by the development and factor analysis of a Happy Events Questionnaire (HEQ), consisting of 90 brief phrases describing "events" associated with happiness. These events were compiled by interviewing over 100 individuals and included both observable and inferred activities (e.g., playing a game, receiving praise) and affective states (e.g., feelings of accomplishment). Subjects rated the degree of happiness experienced from each event on a 5-point scale. Factor analysis (N=198) yielded ten factors. Test-retest reliability of the factors ranged from .67 to .87. Nine of the factors were named as follows:

Factor 1. Accomplishment. This factor included items concerning a feeling of accomplishment as well as items concerning financial success.

Factor 2. Love and Belonging. This factor included items concerning friends and loved ones.

Factor 3. Inner Peace. This factor included items having to do with worship and aesthetic appreciation.

Factor 4. Appreciation of Nature. Items on this factor referred to interactions with nature.

Factor 5. Relief. Items on this factor described "time off" from duties or responsibilities.

Factor 6. Entertainment. This factor included activities related to vacations or a briefer break in routine.

Factor 7. Socializing. Items weighting this factor described "party" activities such as making new friends and drinking alcoholic beverages.

Factor 8. Exercise. Items involving physical exercise described this factor.

Factor 9. Relaxation. This factor was made up of items having to do with passive pursuits such as watching TV or fishing.

A battery of tests was administered to 86 college students. The battery included the HEQ; two measures of self-rated happiness, the Fordyce adaptation of the Wessman-Ricks scale (FHLS) and Beck's Optimism-Pessimism scale (OPS); and two value measures, Gordon's SPV and the Rokeach value measures. Scores on the various instruments were correlated, including the HEQ factors and the two self-rated happiness measures (FHLS and OPS), the FHLS and the value rankings, and the HEQ factors and the various value rankings.

Three of the HEQ factors (3, 4, and 8) correlated positively and significantly with self-rated happiness as measured by one or both happiness measures (FHLS and OPS). Factor 5 correlated negatively with the FHLS. Only two significant correlations were found between the FHLS and values. The correlations between the ten HEQ factors and the 42 values yielded 127 significant correlations.

The results were discussed as supporting a multi-dimensional approach to the measurement of happiness. A possible explanation for

the correlations between the HEQ factor and values was discussed, with the view that happiness can be seen as a result of the fulfillment of needs and that the subjects' endorsement of HEQ items can be seen as a measure of the strength of the expected reward, the value-goal. Results support Maslow's hierarchy of needs theory of motivation, as satisfaction of biological needs may not be sufficient for human happiness.

CHAPTER 1

INTRODUCTION

The human race has long sought happiness. The United States constitution outlines the right to pursue happiness and for most people happiness is a primary concern. But "happiness" is not easily defined. In fact, the English dictionary resorts to "characterized by, or indicative of pleasure, content, or gladness." Turning to the word "pleassure," we find: "enjoyment or satisfaction derived from what is to one's liking . . . ." (Barnhart, 1966). Yet the word "happy" is in common usage, and we assume we know of what we speak.

Psychologists are interested in happiness although as a research area happiness is not easily amenable to scientific investigation. The present study constitutes an attempt to examine the psychological question of whether happiness is multi-dimensional, i.e., whether all people are happy in the same way about the same things or whether this varies across individuals. The relationship between individual differences, if any, and individually held values will be examined as well.

Laing (1967) states that we can never know what another is experiencing: we can only infer what another is experiencing by what we ourselves experience. Cassel (1954) defines happiness as "goal-setting and goal-striving with ego involvement present on the part of the individual," (p. 79) thus implying individual or idiosyncratic motivation.

Psychologists are left, then, with the problem of studying something that is assumed to be not only idiosyncratic in definition, but difficult to measure. As psychology moved away from introspection, it became traditional to avoid areas of human experience which were not readily observable and measurable. Statistical methods have become popular, and the scaling of happiness, even on a nominal scale, is difficult. It is no wonder that relatively little research into human happiness has been undertaken.

However, the excuse that something is difficult to study hardly justifies leaving the field. Although early introspective work by Wundt and Titchener are considered naive and outdated, their efforts have led to a broadened understanding of sensation and perception. These elements of human experience are today understood to be only idiosyncratic within a normal distribution. Eventually each factor in happiness may be found to be normally distributed, and then the physiological and psychological antecedents of human contentment may be understood.

Recent attempts to study other areas which have been previously avoided because of their seemingly subjective nature such as peak experiences (Maslow, 1968), creativity (Barron, 1958), and humor (Levine, 1969) demonstrate a current trend toward investigation of subjective states.

The relation of happiness to psychological health has been largely overlooked. Psychotherapists tend to assume a correlation between mental health and happiness, but we do not know whether this is a valid assumption. Although it has been shown (Srole, Langner,

Michael, Opler and Rennie, 1962) that happiness is a good measure of adjustment, the two concepts are probably not synonymous (Bradburn, 1969; Jahoda, 1958; Jones, 1942; Wilson, 1967). Happiness has not been considered a goal of psychological treatment, although alleviation of depression and of anxiety are often undertaken. Happiness is popularly considered to be the opposite of depression. The MMPI depression scale does correlate negatively (-.83) with self-avowed and clinically adjudged happiness (Wessman and Ricks, 1966). Anxiety also correlates negatively with well-being (Bradburn and Caplovitz, 1965). Happiness has been typically viewed as something one enjoys when mental disturbance is absent rather than from a positive viewpoint. But mental health specialists must begin to view psychological health in all its aspects from a positive perspective if they hope to achieve primary preventive knowledge and techniques.

Although research into human happiness is relatively sparse, many studies have been done. Much of this work has been careful and some sophisticated. A body of knowledge has been gathered from surveys and correlational designs. Hopefully, this research will lead to theories testable by experimental methods.

Most of the research reported below has used self-report methods of gathering data. Although psychologists tend to distrust self-report, Allport has convincingly argued that for normal persons information gathered by direct methods coincides with that gathered by projective techniques (Allport, 1960). Where clinical assessment of happiness level has been used in conjunction with self-report, no great differences were noted (Wessman and Ricks, 1966).

People Perceive Themselves as Happy

Large scale surveys have repeatedly found that more persons perceive themselves as happy than unhappy (Bradburn and Caplovitz, 1965; Cameron, 1975; Cantril, 1965; Gurin, Veroff and Feld, 1960). In these surveys, avowed happiness has been operationally defined as the responses to various questions. Cantril's interviewers asked subjects to place a finger on the rung of a printed ladder, the bottom rung representing the worst possible life and the top rung the best possible life the subject could imagine. Even the most recent surveys (Common Market Survey, 1976) tend to use a format established by Gurin et al. (1960). Although these authors were examining mental health, they asked participants to decide whether they were "very happy," "pretty happy," or "not too happy." Bradburn and Caplovitz (1965) phrased it, "Taking all things together, how would you say things are these days--would you say you are very happy, pretty happy, or not too happy?" The unfortunate result of this format is that the scale has three points with no midpoint, so that the classes "very happy" and "pretty happy" are often used as one category. The wording has been criticized, as well (Cameron, 1972). However, this scale is widely used. Cameron (1975) has used a 3-point scale, asking whether the mood of the last half hour was happy, neutral, or sad, thus establishing a true midpoint and avoiding ambiguous wording. Another approach (Glenn, 1975) has been to rate Bradburn's categories 0, 1, or 2 for "not too happy," "pretty happy," or "very happy." Earlier research, although not of a large survey nature, had attempted a 7-point (Flügel, 1925) or a 6-point (Goldings, 1954) Likert-type scale. Wilson

(1967) cites the development of several happiness scales developed by early researchers. Wessman and Ricks (1966) developed a 10-point elation-depression scale, where each point was carefully defined.

All studies reviewed, whether the number of subject was large or small and regardless of the instrument used, find that more persons report themselves happy than unhappy.

Perception of Others

Some work has been done to ascertain how people perceive the happiness level of others. Goldings (1954) asked his subjects (20 Harvard men) to rate ambiguous photographs of strangers on a ten point Likert-type scale. The photographs tended to be rated between 6 and 7.5 on this scale indicating a fairly high degree of happiness. Goldings speculated that there may be a cultural expectation for the level of happiness. Although he had predicted that subjects would tend to project their own level of happiness upon others, each subject's self-rating happiness score correlated only -.17 with his scoring of 30 photographs.

Life Periods

People seem to view certain times of life as more happy than others. Tuckman and Lorge (1956) asked 123 psychology graduate students to rank eight periods of life as to happiness of each age. These subjects (mean age, 32 years), ranked their own period, 20-39 years, as the happiest. The age period "70 or older" was ranked least happy. Cameron (1972) asked 317 white adults (mean age, 47 years), their opinion on

generational differences in happiness. His subjects rated middle-aged persons (40-55) as happiest, followed by young adults (18-25) with oldsters (65-79) again being rated as least happy. Results again suggest that persons view their own age as the happiest. However, when Stewart (1976) asked 48 undergraduates to rate satisfaction in stages of the life cycle, he found that the order of perceived satisfaction was as follows, starting with the most satisfying: 1) middle adulthood; 2) early childhood; 3) later adulthood; 4) middle childhood; 5) old age; 6) later childhood; 7) early adulthood; and 8) adolescence. Their own age fared rather poorly, and old age was perceived as moderately satisfying.

Comparison studies obtain conflicting results on the issue of whether older people are actually unhappy. Gurin et al. (1960) report that older people tend to be less happy than younger people, although they worry less. Bradburn and Caplovitz (1965) also found a negative correlation between age and happiness, but when income and education level were parcelled out, they found that this difference was true only for the poor, both well- and poorly-educated. Among the poorly educated but well-to-do, there were fewer "not too happy" responses for those over 60 years than for those who were younger. Cameron (1967, 1972, 1975) found little difference in avowed happiness levels of young and old. Cameron (1967) feels that "normal" aged are as happy as the young. One assumes he means "not hospitalized," as this is the comparison group in his sample reporting less happiness. Recently Campbell (1976), reports that the largest contributor to

variance in sense of well-being as measured on three indices was place in life cycle, which combines age with the presence or absence of marriage and children.

The Handicapped

Cameron and his coworkers have also examined the popular stereotypes that the retarded and the physically handicapped are less happy than the rest of us. Cameron, Van Hoeck, Weiss, and Kostin (1971) found no difference in life satisfaction or mood (happy, neutral, or sad) between 144 handicapped persons and 151 normal matched controls. The handicapped suffered from paralysis, deformities, amputations, blindness and hearing loss. Nor was there a difference in the number of reported attempted or contemplated suicides.

Cameron and Titus (1973) compared 40 retarded children with normal children. They used a time sampling behavioral measure utilizing observers. Observers, whose reliability is reported to be 97.7%, recorded impressions for 1-minute time segments both in and out of the classroom. Male retardates were rated significantly happier than normals. Cameron (1974) chooses to ignore this finding and reports that retardates and normals get equally much happiness out of life.

Comparisons by Race and Sex

Race fails to correlate with happiness at higher income levels although there is some positive correlation at levels below $7,000 (Bradburn, 1969). Cameron (1975) reports no difference in over-all happiness between blacks and whites. Clemente and Sauer (1974)

using the Philadelphia Geriatric Center Morale Scale, found that the morale of aged urban blacks is significantly higher than a comparable sample of whites.

Although men and women appear to demonstrate no difference in the evaluation of their own happiness (Bradburn, 1969; Bradburn and Caplovitz, 1965; Cameron, 1974; Fordyce, 1972; Gurin et al., 1960), women report more tensions, problems and dissatisfactions (Gurin et al., 1960). Knupfer, Clark, and Room (1966) have speculated that women are able to express specific concerns more easily than men. It is possible, however, that women actually have more problems, and that overall happiness is attained by some universally operating mechanism which is not related to an additive measure of worry and tension. The data showing the handicapped to report no unusual degree of unhappiness supports this supposition. Undoubtedly the handicapped have more problems than normals, yet level of happiness is not affected.

An exception to the general finding that one sex is no happier than the other is a report by Glenn (1975) that married women are slightly happier than married men. He concludes that although women may well experience more stress in marriage than men do, women may also derive more satisfaction from marriage.

Situational Correlates of Happiness

One stereotype which has held up very well is that of money relating to happiness. Researchers have repeatedly found that the rich perceive themselves as happier than the poor (Bradburn, 1969; Bradburn and Caplovitz, 1965; Cameron, 1975; Gurin et al., 1960). That this

difference is relative to a perceived societal standard of living is possible. Cantril (1965) exhaustively examined the aspirations of citizens of many countries. He reports that in countries emerging into the technical age, people aspire to own symbols of status such as refrigerators, televisions, etc. Recently, the measure of affluence as a qualitative aspect of life has been questioned. Campbell (1976) reviews recent surveys which appear to point to a decline in avowed happiness in American between 1957 and 1972 and a slightly more positive evaluation of the lives of persons living in Florida and Texas, states which have a rather low average annual income. More convincing than this argument is his analysis that shows income to account for only a small proportion of the variance in self-evaluation of pleasantness and satisfaction in life.

Gordon (1975) examined the relationship between happiness and the current receiving of several resources: love, status, information, money, goods, services and sex. He found that, although the receiving of all these resources is correlated with happiness, financial income is the least correlated. Bradburn and Caplovitz (1965) however, find an almost linear relationship between happiness and income, when controlling for education. When education is considered, it is among the better educated who are making more than $7,000 a year who more often say they are "not too happy." Controlling for age, the respondents over 40 report more unhappiness at low incomes than younger respondents. Hopes and expectations may be contributing to perception of income. The Bradburn and Caplovitz survey was done in almost exclusively

urbanized areas. It is possible that in rural areas this relationship would not be as strong. Nevertheless, referring again to Cantril's (1965) surveys, a predominant concern of all people was found to be economic security.

Turning to other situational correlates of happiness, health has been found to relate positively to happiness (Makarczyk, 1966; Wilson, 1967). Perceived stress does not predict reported affect level (Campbell, 1976). In fact, as perceived stress increases, so does life satisfaction.

Satisfaction with life in rural versus urban areas appears to be related to level of mechanization and economic growth of the country of residence (Cantril, 1965; Fischer, 1973; Gallup, 1970). No large differences in level of happiness between urban and rural areas is evident.

Marital status appears to be related to happiness. People who are married are much more likely to report that they are "very happy" and much less likely to report that they are "not too happy" than single people. Single men are even more unhappy than single women (Bradburn and Caplovitz, 1965; Gurin et al., 1960; Knupfer et al., 1966; Srole et al., 1962). The least happy of all persons have been married but are now separated, divorced or widowed (Bradburn, 1969). A recent finding (Common Market Survey, 1976) is that couples living together but not married are the most happy of all.

Education seems to enhance level of happiness, although this increase is slight when income is controlled (Bradburn, 1969). As

mentioned above, Bradburn and Caplovitz (1965) found a negative relationship between happiness and educational level for persons earning more than $7,000 a year.

Employment status relates positively to reported happiness, the employed reporting less unhappiness than the unemployed or retired. It is not clear exactly how this is related to income (Bradburn, 1969).

Having children appears to bear little relation to happiness level, even for women (Veenhoven, 1974). We recall, however, that Campbell (1976) found that place in the life cycle, which includes presence or absence of marriage and children, gives the highest situational prediction of sense of well-being.

Of the situational variables studied to date, only income (probably relative income) and marital status are strongly related to happiness. Age, educational level, and health are somewhat related. Campbell (1976) concludes that as he was able to account for only less than 17% of the variance in well-being by situational variables, the major determiners of well-being are psychological rather than economic or demographic. He suggests that long-term personality dispositions contribute to the way in which people evaluate their lives. He feels that the quality of interpersonal relationships may play a large part as well, and that the impact of psychological gains and losses resulting from births, deaths, accidents, and other such events will have to be assessed before we can predict well-being.

Personal and Personality Correlates of Well-Being

Formal personality correlational studies have been scanty. Most of the early literature is purely speculative (Fellows, 1966). Wessman and Ricks (1966) conducted the most sophisticated investigation into the relation of personality to mood. They compared the scores of their subjects (17 Harvard men) on Cattell's 16 Personality Factor Test in two conditions, when the subjects were elated, and when they were depressed. The only significant difference was on Factor F: Surgency versus Disurgency. An example of traits described by Cattell on Factor F are cheerful, joyous, sociable, responsive, adaptable, trustful, sympathetic, and open. No inter-subject comparisons are reported. These authors offer a description of their happier subjects, describing them as being more optimistic, self-confident, and successful. Social relationships were intimate and mutually rewarding (Wessman and Ricks, 1966).

Wilson (1967) found no correlation in aggression, as measured by the Rosenzweig Picture Frustration Test, and happiness. Wessman and Ricks (1966) found an increase in extrapunitive responses on the same instrument in depression as compared to elation.

Ego strength, as measured by the Barron Ego-Strength Scale appears to be unrelated to happiness. Using this scale, Cameron (1967) found a lowered ego strength in the aged but no significant drop in reported happiness, essentially showing no correspondence between ego strength and happiness. Gump (1972) reports no relationship between ego strength and happiness. Wessman and Ricks (1966) feel that ego strength was greater in their happier subjects but do not support their conclusion with test scores.

Anxiety would appear to be negatively associated with happiness. Bradburn and Caplovitz (1965) found a negative relationship between an anxiety index consisting of symptom check-list and respondents' reports of how happy they were. No other systematic approach to this question is known to this author.

Other personal variables explored as to their relationship to happiness are physical looks, sexual satisfaction, work satisfaction, marital satisfaction, thought content, and activities.

Mathes and Kahn (1975), using judges' ratings of physical attractiveness, found observer judged attractiveness to be significantly and positively correlated with happiness for women, but not at all for men. The subjects were 211 college freshmen. Wallace and Barbach (1974) found a reported improvement in overall level of happiness for 17 women treated successfully for orgasmic capability. Bradburn (1969) found a strong association between work satisfaction and overall happiness. This relationship however, was less strong for women. More noticeable, however, for women than men, was the association between marital happiness and over-all well-being. In the Gurin et al. (1960) study marital happiness correlated more highly with general avowed happiness than any one of the several indices of subjective adjustment.

The perception of being loved may be an important contributor to happiness. Gordon (1975) found that of 6 resources related to happiness, "love income" being currently received, was the most related. The value placed on love was individual, however, in that the perceived

lack of love during childhood seemed to result in a devaluing of love as an important resource in adulthood.

A few attempts have been made to answer the question, "What do happy people do?" Weintrub, Segal and Beck (1974) analyzed the content of five story completions given five times over a two-month period. The subjects were 30 Harvard men. Mood was measured by the Depression Adjective Checklist at each testing. The results indicated a negative cognitive content associated with depressed mood. That this cognitive association with mood is also related to positive feelings has been demonstrated in an experimental procedure whereby an elated mood was induced in subjects by having them read 50 cards expressing positive statements about themselves and how they felt (Aderman, 1972; Velten, 1967). The latter studies are a laudable and isolated attempt to experimentally elevate mood. A cognitive factor has also been extracted from a "pessimism" scale constructed by Beck and Weissman (1974) which consists of items relating to future expectations. This scale has been shown to be a valid assessment of recovery from suicidal depression. Taken together, the work in this area suggests that happy people think happier thoughts.

Outward activity of the happy and unhappy has been explored by Sheslow and Erickson (1975). These authors compared the percentage of time spent at 39 different activities by 20 depressed subjects with 20 normal controls. Subjects recorded the time spent at each activity on an activity checklist. Subjects were classified as depressed or normal by their scores on the Depression Adjective Checklist. All subjects

were "normal" college students. The experimental group was chosen on the basis of depressed adjectives checked. A step-wise discriminant analysis differentiated between the two groups, and with the inclusion of the 19th variable, all subjects were discriminated by their activities into their correct group. Happy subjects spent less time with others, eating alone significantly more often and engaging in athletics with others less often than the depressed subjects. Guirguis and Hermans (1973), using self-report measures of high school seniors taken over 28 days, report that their happiest subjects used the least amount of medicines and alcohol, worked the least on their homework, and spent more time at home. The unhappiest group worked most on their homework, went out the most, and were least busy with hobbies. Lewinsohn and Libet (1972) attempted to establish whether a person was happier after he engaged in pleasant activities, or whether a happier mood preceded an increase in pleasant activities. They were only able to establish an association between pleasant mood and a large number of pleasant activities on the same day. Cause and effect relationships await experimental investigation.

Emotional Components of Happiness

As part of their work in assessing level of happiness, Bradburn and Caplovitz (1965) used what they called "positive and negative feeling indices", consisting of four positive and five negative statements of feeling. The positive and negative clusters were not statistically correlated, i.e., a single subject might report both positive and negative feelings within the same time period. Additionally, it was found

that level of happiness appeared to correlate with the difference in number proportion, of positive to negative feelings. From this data, Bradburn and Caplovitz developed a model. They theorized that positive and negative feelings are on separate dimensions and that happier people may experience many negative feelings. They are to be distinguished, however, from less happy people in the number of positive feelings they experience in proportion to the negative feelings. Treating their data as though the two feeling levels were on separate dimensions, rather than opposites, they found many interesting correlations: for example, social interaction was related to higher scores on the positive feelings index; level of education related to numbers of different feelings, both positive and negative; tensions in marriage are strongly related to negative affect, but not to positive affect. By 1969, Bradburn felt that the difference between positive and negative feelings was a good indicator of level of happiness. He improved his scale to include another negative item so that there were five each of positive and negative statements.

Even with this improvement, the scale is only tapping three or four facets of a possible large population of feelings relating to happiness. The negative and positive feelings in the Bradburn scale are not always even tapping the same facet. For example, the negative item, "So restless you couldn't even sit long in a chair," is not reflected in the positive list by an item suggesting calm or content. It is hardly surprising, moreover, that over the course of a week, which was the time period Bradburn's subjects were asked to consider, that a

person entertains both positive and negative feelings. A further criticism is that the lack of correlation between positive feelings and marital tension reported by Bradburn and Caplovitz, as one example, is intuitively denied by the finding these same authors report of a correlation between marital compatability and positive feelings. It is suggested here that the evident lack of correlation between positive and negative feelings reported by Bradburn and Caplovitz (1965) and Bradburn (1969) is an artifact of the design of the scale used to measure them and of the time period measured. This suggestion in no way challenges the finding that one is happier if one enjoys more positive than negative feelings.

The work of Wessman and Ricks (1966) is also pertinent. These researchers utilized ten feeling scales, each scaled to measure ten equally-scaled items on a single dimension of emotional experience. Thus ten facets of feelings possibly constituted or related to happiness were tapped. These included scales of elation versus depression, sociability versus withdrawal, harmony versus anger, tranquillity versus anxiety, and energy versus fatigue. The results indicated that whereas for some subjects all scales rose and fell simultaneously, for most subjects more than one factor was present, usually from two to four factors. The elation versus depression measure was found to account for most of the variance. This factor evidently accounted for the variability on five other scales. The second most important factor, accounting for 22% of the variance for women, appeared to be within-day variability. This factor was partially independent of average mood

level. This data supports the Bradburn effect that the proportion of good feelings versus bad feelings correlates with the level of happiness. It also supports his finding that the number of moods, or variability did not appreciably affect happiness. Fordyce (1972) investigated this issue by asking subjects to report daily on happiness level, number of good and bad moods as well as the duration of these moods. He found that the duration of moods strongly correlated with daily happiness level. Taking an absolute difference between the percentage of time spent in happy and unhappy moods, he obtained a correlation of .87 between this difference and absolute happiness. He found a non-significant but positive correlation between the proportion of happy to unhappy moods and overall happiness.

Wessman and Rick's data also indicated that happiness probably includes an elevation on a number of facets of feeling. When one is happier, one is apt to feel less isolated, more tranquil, more energetic, more sociable, and that life is more full. Feelings of personal freedom were not related to elation for men, and love and sex feelings were not related to elation for women. Personal freedom scales were not given to the women. In the Netherlands, Guirguis and Hermans (1973) used the mood scales developed by Wessman and Ricks on high school seniors. They found the love and sex index to be the most central cluster. Their data was not separated as to sex. Radcliffe women studied by Wessman and Ricks (1966) may have placed less emphasis on love and sex.

The evidence so far suggests that what we call happiness consists of positive feelings on a rather broad spectrum of emotional experience.

We are likely to rate ourselves "happy" over a period of time in which we have experienced predominantly pleasant feelings.

Factors in Happiness

If demographic situational factors account for only 17% of the variance in the level of happiness (Campbell, 1976), and no obvious personality characteristics stand out as large contributors to happiness, (Hartmann , 1934; Wessman and Ricks, 1966; Wilson, 1967), how can we account for the rest of the variance? To date there has been little experimental research attempting to directly manipulate the well-being of individuals. Bradburn (Bradburn, 1969; Bradburn and Caplovitz, 1965) has advanced a model that suggests that the relative number of positive and negative feelings determine happiness. Situational variables that affect the number of positive experiences may contribute to the general level of happiness. Behavioral theory hypothesizes that depression may be regarded as a function of inadequate or insufficient positive reinforcers within the depressed person's environment (Lazarus, 1968). Lewinsohn and Libet (1972) found a significant correlation between higher self-ratings of depression and a reduced number of pleasant events engaged in on the same day. Although it may be overinclusive to combine theories of happiness and depression, the similarity of the idea of positive reinforcers with pleasant events and what one would suppose to be the result of these things, namely positive feelings, is worth investigation. What events might contribute to happiness? Are these events similar for all human beings, or are they idiosyncratic?

And further, are any inter-individual differences related to individual goals, attitudes or values?

Sporadic attempts have been made to ascertain what people themselves believe is related to happiness. The responses appear to depend largely upon the stimulus question, and therefore at times result in events as reasons for happiness and at times as values as reasons for happiness. An early study (Watson, 1930) is reported by Fellows (1966). Watson reported that enjoyment of and success in work, good health in childhood, and success in dealing with people contributed to happiness. He felt that music and poetry were refuges of the unhappy.

Gillespie (1942) conducted a survey of 587 working class persons in London. Respondents voted on what they considered most conducive to happiness for themselves. The alternatives offered might be considered values. Responses were as follows: security, 129 votes; knowledge, 118; religion, 104; humor, 80; equality, 79; beauty, 34; action, 23; pleasure, 10; leadership, 8; and politics, 2. Subjects were asked to select one response only rather than to rank these alternatives.

Lawton (1943) interviewed 50 elderly persons, rather incidentally recording comments on what contributed to happiness. Subjects offered good health, trust in God, cheerful state of mind, money, friends, useful activity, pleasant familial relationships, contemplation of one's children and grandchildren, doing things for others, and kindly treatment from others as contributing to happiness. Because of the openended nature of the interview, we see a composite of events and values.

Goldings (1954) asked his 20 Harvard subjects to rate areas of life as to contribution of general satisfaction on a 6-point linear-type scale. Ranking was as follows:

1. Intellectual activities
2. Personal friendship
3. Sex relations
4. Health
5. Family relations
6. Leisure time
7. Physical exercise

The popularity of intellectual activities, not found elsewhere, raises the possibility of either a biased sample or social desirability effects. It is of interest that the elderly rate their health as more important than do the younger subjects.

Working with 113 Danish students, Iisager (1948) asked them to rate 31 factors considered important for attainment of happiness. The use of the word "attainment" may unfortunately elicit values where events appear to be under study. The list itself is noteworthy in its inclusiveness. Nature, travels, good food, joy of collecting, and thinking illustrate the broad sampling of events. Respondents rated good health, joy of work, and love as the most essential factors, followed by clear conscience, freedom, and nature. The relatively high rating given to nature is of interest, as other investigators have entirely overlooked this factor. Money was given a very low rating whereas economic independence was much higher. The value-oriented

stimulus question may have affected these responses. Not much preference difference due to the various ages of the respondents was noted, except for a rise in appreciation of art and a drop in thrills, entertainment, and friends with age increase. Comparing, however, a group of 32 women not in college (average age, 39 years) with a group of 57 college women (average age, 23 years), Iisager found that to the older women, security and economic independence were felt to be more essential to happiness.

Evidence of events contiguous with happiness is sparse. Bradburn and Caplovitz (1965) found an association between positive affect and social participation. Specifically, social participation consisted of making new friends, meeting new people, traveling further from home, getting together with friends, activity in organizations, and chatting with friends on the telephone. Social adjustment has been shown to correlate with reported happiness (Wilson, 1967). Cutler (1976) reports on a number of studies that found a positive relationship between psychological well-being on various measures and association membership. When he controlled for health and SES, he found that only church related memberships were associated with well-being. It will be recalled that Sheslow and Erickson (1975) found that percentage of time spent in social interaction helped to discriminate the unhappy from the happy, the unhappy engaging in more social activities. These authors suggested that the social environment of the depressed students in their study was serving to maintain the depressed behavior. An alternative suggestion may be that the more depressed are seeking situations in

which they have experienced positive affect in the past. These authors did not include staying at home in their activity checklist. Iisager (1948) found that his happier subjects stayed at home more. Bradburn (1969) found an association between new experiences and going places and positive affect. Here again one may speculate that the unhappy are seeking positive affect.

Cameron (1975) interrupted persons aged 4 to 99 while they were at leisure, at home, at school, or at work and asked them to assess their mood for the last half hour. The highest frequency of happy mood was reported at leisure, as well as the lowest frequency of unhappy mood.

Happiness and Values

Although the studies cited in the previous section pertained to possible determinants of happiness, many seemed to be drawing on a ranking of values. Values and happiness have been studied directly. Hartmann (1934) found no significant relationships with the values surveyed on the Allport-Vernon Study of Values except for religious attitudes. Wilson (1967) found a relation between happiness and religious values as well. Moylan (1973), using a Philippine sample, found spiritual outlook to be the highest happiness value. Gurin et al. (1960) asked subjects what things had helped in times of unhappiness. The highest percentage reported prayer as the method of handling periods of unhappiness.

Using the Morris Ways to Live Questionnaire, Wilson (1967) reports no significant correlation between happiness and preference for the various ways of life. But more recently, Fordyce (1972) found

significant correlations between happiness and several values. He used the Morris Inventory, the Allport-Vernon Study of Values, and the Rokeach Value Scales. Happiness was positively correlated with content stressing happiness, inner peace, meaning in life, love of life, love of others, and optimism. It was negatively correlated with being inner-directed and fairness/justice. More specifically, values stressing social interaction and concern for others, as well as religious values were strongly related to female happiness. Concern for others was negatively related to male happiness. Intellectual and ambitious goals and self-control were negatively related to happiness for both sexes.

How might values affect our happiness? The evidence suggests that some events are more associated with pleasant affect than others. A deficit of pleasant events may contribute to unhappiness and a surfeit of pleasant events may contribute to happiness. Our goals may affect our activities, putting us in the way of either pleasant or less pleasant events as well as contribute to our perception of these events. There is, as yet, no evidence as to whether certain activities are intrinsically rewarding to everyone. It is possible that large individual differences in what people experience as rewarding. Whether the perception of events as being pleasant or unpleasant is related to values has not been investigated.

Rokeach (1973) sees a strong motivational component in values defining a value as a prescriptive or proscriptive belief which gives expression to human need in ongoing behavior, guides conduct, and

helps one choose between alternatives or, in Allport's words, "A value is a belief upon which a man acts by preference."

Purpose of This Study

Campbell (1976) in a thorough review of subjective measures of well-being indicates quite clearly that 1) happiness is multi-dimensional; 2) psychologists have ignored this area to the point that even the most fundamental questions have not been asked; 3) research in this area is of both theoretical and empirical importance.

The aim of the present study is two-fold. First, this study will attempt to investigate the hypothetical multi-dimensionality of happiness through the development and validation of a happiness questionnaire. On the assumption that this first step will yield usable results, a second step will be taken, namely an attempt to empirically and theoretically relate happiness to personal values.

The questionnaire to be developed will focus on "events" associated with happiness. Events include both observable or inferred activities performed by an individual (e.g., climbing a mountain, driving a car), as well as affective states (e.g., feelings of accomplishment, being liked by someone else). While the label "event" is often interpreted to mean objective environmental happenings, its use here to include both internal and external phenomena is similar to Lewin's theoretical approach (cf. Hall and Lindzey, 1970) which defines an event as the interaction of several "facts" which can be either empirical or phenomenological.

CHAPTER 2

METHOD

Instruments

Five instruments were used in this study. The first of these was a questionnaire developed as part of the present investigation. This questionnaire is composed of brief phrases describing various positive activities and events, the majority of which most of the subjects could be expected to have experienced. In addition, two instruments were utilized to assess level of happiness. Two separate value measures were employed.

Measures of Happiness

1. Happy Events Questionnaire (HEQ). The HEQ, developed specifically for this study, consists of 90 items (see Appendix A). The subject is instructed to rate each of the items on a five point scale, that indicates the degree of happiness associated with each item, as follows:

0 = This does not make me happy.
1 = This makes me slightly happy.
2 = This makes me moderately happy.
3 = This makes me quite happy.
4 = This makes me very happy.

The 90 items were obtained by interviewing 100 subjects and eliciting from these subjects free-form responses. In addition, the psychological literature on happiness was reviewed. From this initial

pool, duplicates, poorly-worded responses and idiosyncratic responses were eliminated. The remaining items were then analyzed by several judges as to appropriateness, clarity, and substance. The final 90 items were thus empirically obtained, related to the available literature, and clinically screened.

Finally, three judges were asked to independently classify the 90 items into content categories. Each judge was given several tentative category titles which were selected from the literature on happiness. Judges were encouraged to modify or to add to these categories should they feel that a different heading would better define a group of items. Where judges differed in their judgement as to which category best described an item, that item was sorted into both categories. The resultant sorting yielded 12 categories. These were considered highly tentative and subject to revision. Asterisks denote items sorted into more than one category. They were:

Category	Item Number
Accomplishment	1, 6*, 11, 19, 28, 30, 58*, 68, 72, 74*, 85*
Basic Needs	4*, 15, 18*, 50, 52, 54, 55, 88*
Creativity	6*, 9, 43, 58*, 61, 81*
Entertainment	3, 14, 17, 32*, 52*, 59, 67, 79*
Exercise	13*, 23, 46*, 47, 53*, 63, 66, 76, 78*, 79*
Financial Security	26, 34, 39, 45, 48, 86
Inner Peace	5*, 8, 18*, 49*, 65, 81*, 83
Interpersonal	4*, 7*, 10*, 12, 20*, 25, 29, 33, 40, 57, 64, 69, 73*, 77, 82
Mobility and Variety	20*, 21, 31, 44, 75, 89

Category	Item Number
Nature	2, 5*, 13*, 16, 22, 35, 36*, 41*, 46, 49*, 53*, 62, 71, 78*, 90
Relief	27, 32*, 41*, 42, 51, 52*, 56, 84, 88*
Self-esteem	7*, 10*, 24, 37, 38, 51, 60, 70, 73*, 74*, 80, 85*, 87

2. Fordyce Happiness Level Scale (FHLS). A second happiness measure was the FHLS, which asks the subject to rate his level of happiness on a ten-point scale. This scale is a modification by Fordyce (1972) of the Wessman and Ricks (1966) Elation-Depression mood scale. Originally this scale was developed as part of an intensive investigation of mood. Fordyce (1972) modified this scale since he felt the original scale resulted in a limited range of variation; he reports that his modification correlates .93 with the original scale but allows for a greater range of mood variation. Several studies (e.g., Constantinople, 1966; Fordyce, 1972; Wessman and Ricks, 1966) support the utility and validity of both the original and the Fordyce modification of this scale. Scores on this scale can range from 1 to 10, reflecting the statement chosen by the respondent.

3. Optimism-Pessimism Scale (OPS). At least at a subjective, cognitive level, happiness appears to be related to optimism, particularly as it applies to future expectations. Thus a third "happiness" scale was included in this study, namely the Optimism-Pessimism scale developed by Beck and Weissman (1974). This scale consists of 20 statements which the respondent is asked to endorse as true or false

(see Appendix C). Beck and Weissman (1974) report an internal consistency reliability coefficient of .93 and some data that suggest adequate validity for this scale. On the basis of a factor analysis, the scale yields three factors reflecting an affective, motivational, and cognitive aspect. This scale, however, yields only a total score.

Measures of Values

1. Rokeach Scale of Values, Form D (RSV). This scale was developed by Rokeach (1967) and consists of 18 instrumental and 18 terminal values (see Appendix D). Instrumental values are defined by Rokeach as values endorsed by the individual as being instrumental in bringing about more final, or terminal goals. For example, Honest is an instrumental value, while a World at Peace is a terminal value.

Form D presents the two sets of values to the subject in alphabetical order on removable gummed labels. The subject is instructed to rank the values in order of importance, within each of the two sets of values.

This scale was developed and used by Rokeach in a major study of values and substantial evidence is presented by Rokeach (1973) as to psychometric and theoretical properties. Test-retest reliability over a two to four month span appears adequate (.65 for instrumental values and .76 for terminal values). Validity data are more complex to evaluate, particularly since Rokeach's study was related to political and social attitudes. However, Rokeach reports significant changes in target values due to experimental manipulations, and Fordyce (1972) reports significant correlations between specific values and reported

level of happiness. The score for each value is simply the rank of that value and can thus range from 1 to 18.

2. Survey of Personal Values (SPV). Gordon's SPV (Gordon, 1967) yields six value scores: Practical Mindedness, Achievement, Orderliness, Variety, Decisiveness, and Goal Orientation. The SPV consists of thirty triads. For each triad the subject picks the most and the least representative item. Items making up a triad are equated for social desirability. The SPV manual presents considerable information that suggests adequate reliability (test-retest from .74 to .92) and validity. Thus for each subject six scores are generated by the SPV; these do not overlap in content with the Rokeach Scale of Values.

Hypothesis

Due to the exploratory nature of this study and, as indicated by Campbell (1976) the state of the art, specific hypotheses as such were not formulated at this point. Rather, the areas of concern were enumerated:

1. Can happiness be viewed as a multi-dimensional phenomenon? The answer to this will come from several sources, e.g., a) will the results of a factor analysis produce a meaningful pattern with several distinct factors and do they show a differential patterning between subjects; are there sex differences? b) are the clinical clusters meaningful, i.e., are they related to the factorially derived clusters? c) what is the relationship between happiness as measured in a multi-dimensional manner versus happiness as measured in a unitary fashion?

2. Will different happiness items relate to values? On the assumption that meaningful answers can be obtained to the above concerns, a second focus of interest will be the relationship of happiness to values. As indicated in the literature review, there are a number of studies relating these two areas of concern. For the present study evidence will be obtained by comparing scores on the HEQ with scores on the Rokeach and Gordon measures of values.

Subjects

Phase 1--Approximately 200 students in introductory psychology classes were administered the Happy Events Questionnaire. This administration yielded 198 usable protocols. This sample consisted of 109 females, 87 males, and 2 unknown. Mean age was 23 years. The 198 protocols were subjected to a factor analysis to determine whether happiness, as measured by this questionnaire, can be thought of as multidimensional.

Phase 2--Forty-five of the above 198 subjects were retested with the HEQ approximately two weeks later to determine the test-retest reliability of the HEQ. Since factor analysis yielded meaningful factors, the test-retest reliability was determined on these factor scores rather than on individual items.

Phase 3--The entire battery of five instruments was administered to over 90 subjects drawn from Pima Community College and The University of Arizona. An attempt was made to obtain a heterogeneous sample that would reflect different majors, educational backgrounds, intellectual capacities, and age. From this sample 86 complete protocols were

obtained. This sample consisted of 38 males and 47 females, as well as one subject who did not specify sex. The mean age was 24 years.

Subjects for all three phases were volunteers. Test protocols were obtained in small to medium sized groups (not more than 25 members). Order of presentation was randomized. Subjects were asked simply to answer the questions carefully, but without taking too much time on any one item.

Statistical Analysis

As part of the development of the Happy Events Questionnaire, and in order to investigate the hypothetical multi-dimensionality of happiness, the following analyses were undertaken.

1. Factor analysis of the 198 HEQ protocols collected in Phase 1 was employed. A varimax rotation with Kaiser normalization of a principle factor analysis, with unities as diagonal elements, was used (SPSS version 6.5.3.).

2. A test-retest correlational analysis of the 45 HEQ protocols collected in Phase 2, using the factor scores of the first eight factors, was computed. To obtain the factor scores, items weighting each factor clearly were scored on the basis of the weights assigned to them by the subjects, and then summed.

3. A mean and a mode for each item was compiled to ascertain whether some items were endorsed in the same direction by most subjects.

In order to compare the measurement of happiness as measured in a multi-dimensional manner and as measured on a single dimension,

correlational analyses of the 86 protocols collected in Phase 3 were undertaken, including

1. Correlation of the two happiness level scale scores (FHLS and OPS).

2. Correlation of the HEQ total scores with the scores on the FHLS and the OPS, and

3. Correlations of the HEQ factorially derived clusters with scores on the FHLS and the OPS.

To investigate the relationship of values to happiness as measured both on a single dimension and on several dimensions, correlational analyses of the 86 protocols included

1. Correlations between the FHLS and value rankings, and

2. Correlations of HEQ factors with scores on the Rokeach Scale of Values and on the Survey of Personal Values.

Factor scores for these analyses were obtained by using the factor coefficient of each item and the weighting assigned by each subject. The resulting factor scores were converted to standard scores with a mean of 50 and a standard deviation of 10.

A comparison of male and female scores on the HEQ factors was done, using a t test with pooled variance estimates.

Composite factor scores for the 23 (27%) happiest and the 23 (27%) unhappiest subjects on the HEQ were calculated (median score), and the profiles visually compared. Happiest and unhappiest subjects were determined on the basis of scores on the FHLS and the OPS.

CHAPTER 3

RESULTS

Factor Analysis

Factor analysis of the HEQ yielded 26 factors with an eigenvalue of one or greater. A scree test (as described by Gorsuch, 1974) suggested 8 factors. As many factors extracted appeared to be specific factors, the correlational matrix was rotated again, extracting 10 factors. These 10 factors accounted for 47.6% of the variance. The first 9 of these factors appeared to produce a meaningful pattern. They were named as follows:

Factor 1: Accomplishment--This factor included items concerning a feeling of accomplishment as well as items concerning financial success and security. Specific HEQ items concerning accomplishment included, for example, "Doing something well," "Being a success in life," and "A good grade after I've worked hard." Financial concerns were represented by such items as "Receiving some money," "Feeling financially secure," and "Having a good paying job."

Factor 2: Love and Belonging--This factor included the items concerning friends and loved ones. Representative items were "Being with people I love," "Seeing my wife/husband/sweetheart," and "Feeling like I'm needed."

Factor 3: Inner Peace--This factor included items having to do with worship, meditation, and aesthetic appreciation; for example,

"Feeling that God loves me," "Meditating," "Going to church," and "Hearing the birds sing."

Factor 4: Appreciation of Nature--Items on this factor referred to interactions with nature, such as "Being alone with nature," "Looking at the mountains," "Camping out," and "Swimming in a lake/river."

Factor 5: Relief--Items on this factor described "time off" from duties or responsibilities: for example, "Freedom from too many duties," and "Time without anything to do."

Factor 6: Entertainment--This factor included activities related to vacations or a briefer break in routine. Some items on this factor were "Taking a trip," "Seeing a good movie," and "Receiving an unexpected gift."

Factor 7: Socializing--Items weighting this factor described "party" activities such as making new friends and drinking alcoholic beverages: "Being with members of the opposite sex," "Drinking beer/wine/drinks."

Factor 8: Exercise--Items involving physical exercise described this factor. These items included such activities as "Riding a bike," "Playing tennis/racketball/golf/handball," and "Swimming in a pool."

Factor 9: Relaxation--This factor is made up of items having to do with more passive pursuits. Examples of items weighting this scale are "Seeing a good movie," "Watching TV," and "Eating lunch."

Factor 10 was not named as it was most highly weighted with negative loadings. It will be discussed at more length below.

Certain of the previously described clinical clusters were closely related to the actual HEQ factors. For example, Factor 1 included all but one item presorted into the "Accomplishment" category and all of the items presorted into the "Financial Security" category; Factor 2 included most of the items presorted into the "Interpersonal" category; Factor 3 included many of the items presorted into the "Inner Peace" category and all of the items presorted as "Creativity"; Factor 4 paralleled the "Nature" category very closely; and Factor 8 was weighted with items presorted into the "Exercise" category. Table 1 indicates the relationship between the first 9 factors and the presorted clinical clusters.

Items clearly weighting each factor are shown in Table 2. Three representative items from each factor are included. The number of items on each factor ranges from four on Factor 5 to 23 on Factor 1. One item (#29) weighted three factors and 18 items weighted two factors. Items which did not clearly weight any of the factors are omitted.

The protocols collected in Phase 3 (N=87) were scored on the ten HEQ factors, using factor loadings. These scores were then correlated. Intercorrelations of the factors are presented in Table 3.

Test-retest reliability for the first eight HEQ factors was assessed by retesting 45 of the 198 subjects participating in Phase 1, after a two-week interval. For this analysis, factor

Table 1. Categories Represented by Factors

Factor	Clinical Category
1	Accomplishment, Financial Security
2	Interpersonal
3	Inner Peace, Creativity
4	Nature
5	Relief
6	Not related
7	Not related
8	Exercise
9	Somewhat related to Entertainment
10	Not related

Table 2. Variables Weighting Each Factor

Factor 1 (23 items)

Item numbers: 1, 6*, 11, 15, 19, 26, 28*, 30*, 34, 38, 39, 44, 45, 48, 68, 70*, 72, 73, 74, 75*, 85, 86, 89.

Representative items:

Doing something well. (.43)[a]
Feeling financially secure. (.71)
Completing something. (.59)

Factor 2 (13 items)

Item numbers: 10, 12, 20*, 25, 29*, 51, 60, 64*, 69, 77*, 80, 82*, 87*.

Representative items:

Knowing that someone loves me. (.76)
Being with people I love. (.67)
Loving someone who loves me. (.69)

Factor 3 (20 items)

Item numbers: 2, 6*, 7, 8, 9, 14, 18, 37, 40, 43, 50*, 57*, 58, 60, 61*, 65, 66*, 77*, 81*, 83.

Representative items:

Feeling that God loves me. (.36)
Hearing the birds sing. (.52)
My work. (.56)

Factor 4 (10 items)

Item numbers: 5, 36, 41, 46, 49, 53, 62, 66*, 71*, 90.

Table 2, Continued

Representative items:

Being alone with nature. (.67)
Walking in the desert/mountains. (.72)
Camping out. (.70)

Factor 5 (4 items)

Item numbers: 27, 42, 56, 81*.

Representative items:

Time without anything to do. (.58)
Freedom from too many duties. (.66)
Feeling free from responsibility. (.74)

Factor 6 (11 items)

Item numbers: 3*, 17, 21, 29*, 31, 64*, 71*, 76*, 82*, 84, 87*.

Representative items:

Going to a place I've never been before. (.64)
Taking a trip. (.57)
Seeing a good movie. (.40)

Factor 7 (5 items)

Item numbers: 20*, 28*, 29*, 32, 33.

Representative items:

Making new friends. (.33)
Drinking beer/wine/drinks. (.54)
Being with members of the opposite sex. (.64)

Factor 8 (11 items)

Item numbers: 13, 23, 24, 30*, 47, 54, 61*, 63, 70*, 76*, 78.

Table 2, Continued

Representative items:

Doing something athletic (getting my blood circulating). (.62)
Playing tennis/racketball/golf/handball. (.65)
Playing an outdoor sport. (.70)

Factor 9 (9 items)

Item numbers: 3*, 35, 50*, 57*, 59, 67, 75*, 79, 88.

Representative items:

Watching TV. (.65)
Sleeping in. (.53)
Driving a car. (.49)

Factor 10 (5 items)

Item numbers: 4, 52, 18(-), 19(-), 83(-).

Representative items:

Making love. (.57)
Smoking grass in a mellow atmosphere. (.54)
Doing well in school. (-.33)

* Items weighting more than one factor.

[a]Factor loadings for representative items.

Table 3. Intercorrelations of Factors in Present Sample

	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
F1		15	-14	-20	03	-19	24	16	10	-06
F2			12	09	08	-05	-03	-04	08	04
F3				32	-02	-16	-01	-05	-16	09
F4					-04	26	-03	14	-17	06
F5						02	02	16	13	22
F6							27	02	-19	-04
F7								19	11	01
F8									19	06
F9										-07

scores for each administration were obtained by adding each subject's scores on the items clearly weighting each factor. Reliability coefficients are shown in Table 4.

Table 4. Test-Retest Reliability

Factor	1	2	3	4	5	6	7	8
	.85	.85	.80	.84	.67	.86	.81	.87

Popular Items

In order to ascertain whether some items were endorsed highly by most subjects, i.e., whether some items were endorsed as making most subjects "quite happy" or "very happy," a mean and a mode for each HEQ item was calculated. A few items were notably preferred. These items had a mode of 4 and mean of 3.5 or higher. They were "Doing something well," "Knowing that someone loves me," "Being with people I love," "Loving someone who loves me," and "Completing a job and knowing it's well done."

Certain items were popularly endorsed as "This does not make me happy," or as "makes me slightly happy." These nonpreferred items had a mode of 0 and a mean of 1.5 or lower. They were "Fishing," "Smoking grass in a mellow atmosphere," and "Meditating."

Correlational Analysis

Self-Rated Happiness Measures

A comparison between scores on the Fordyce Happiness Level Scale and the Optimism-Pessimism Scale yielded a Pearson coefficient of .46. The total Happy Events Questionnaire scores correlated .31 with happiness level as measured by the FHLS and .28 with the OPS. These correlations are significant ($p < .01$), but lower than might be expected.

Four of the 10 factors correlated significantly with one or both happiness level measures. Factor 3 (Inner Peace) was positively related to both happiness level measures (FHLS and OPS), as was Factor 4 (Appreciation of Nature). Factor 8 (Exercise) was positively related to the FHLS. Table 5 shows the correlations between the ten factors and the two happiness level measures.

Table 5. Correlations Between Factors and Happiness Level Measures

	HEQ Factor									
	1	2	3	4	5	6	7	8	9	10
FHLS	11	15	21*	21*	-20*	-06	14	20*	10	-16
OPS	-07	06	30**	42**	-12	15	11	-07	06	-09

n=86

*$p < .05$
**$p < .01$

Happiness and Values

Happiness level as measured by the FHLS, and preferred values, as measured by the Rokeach Scale of Values and the Survey of Personal Values, were not highly related. Self-reported happiness as measured by the FHLS was significantly correlated with only two of the values considered in this study. Happiness level was positively related to the Rokeach instrumental values "Forgiving" and "Obedience" ($p < .05$).

Significant correlations were found between each of the 10 HEQ factors and several values. The correlations between the ten HEQ factors and the six Gordon (SPV) values yielded 60 coefficients. Of these, seven were significant at the .05 level of significance and eleven were significant at the .01 level. Of the 360 correlation coefficients between the ten HEQ factors and the 36 Rokeach values, 109 were significant. Of these, 60 were significant at the .05 level and 49 reached the .01 level of significance.

Nine of the ten factors correlated significantly with at least one of the SPV values with three of the factors correlating significantly with three values. Each of the ten factors correlated significantly with at least one of the Rokeach values. Two of the factors correlated with as many as ten of the Rokeach values.

Inspection of these relationships suggested certain patterns. For example, Factor 1 (Accomplishment) was positively related to values stressing self-discipline: Ambitious, Clean, Courageous, Obedient, Responsible, and Self-Controlled as well as to the values: A Comfortable Life and Social Recognition. This factor was negatively

related to more altruistic values: Honest, Broadminded, Loving, Wisdom, Mature Love, and Inner Harmony. Factor 2 (Love and Belonging) was related positively to values concerning personal relations: Decisiveness, Forgiving, Helpful, Loving, Family Security, Mature Love, True Friendship and Happiness. Persons scoring high on Factor 2 cared less for the values of Capable, Intellectual and Logical. Factor 3 (Inner Peace), which also related positively to happiness level, was positively correlated to what might be termed "social consciousness" values: A World at Peace, World of Beauty, Equality, Salvation, Courageous, Helpful, Achievement, and Decisiveness and negatively to the more hedonistic and practical values. Tables 6, 7, and 8 present the significant correlations between the ten factors and 42 values. Factor 10, which was not named, was positively and negatively related in the same direction to many of the values which have been found to differ between control groups and drug users (Cochrane, 1974). As the item "Smoking pot in a mellow atmosphere" is heavily weighted (.54) on this factor, it was hypothesized that Factor 10 may be related to drug use.

Sex Differences

A comparison of male and female factor scores (47 females, 38 males) yielded no overall significant differences between the sexes. *t* tests of the separate factors, using pooled variance estimates, yielded significant sex differences on three of the factors. Women scored significantly higher on Factor 3 (Inner Peace) than men, $t(83) = 3.32$, $p < .001$. Women also scored higher than men on Factor 4

Table 6. Signficant Correlations Between HEQ Factors and Gordon's PVS

	P	A	V	D	O	G
F1	ns	ns	+29	ns	ns	ns
F2	ns	ns	ns	+30	ns	ns
F3	-37	+24	ns	+28	ns	ns
F4	-38	ns	+28	+30	ns	ns
F5	ns	-20	ns	ns	ns	ns
F6	ns	ns	+51	ns	-40	-32
F7	ns	ns	ns	ns	ns	ns
F8	ns	-19	ns	ns	ns	ns
F9	+27	ns	-24	ns	+20	ns
F10	-19	-23	ns	ns	ns	ns

Note: Only significant levels are given. Coefficients above .17 are significant at $p < .05$; those above .24 are significant at $p < .01$.

Table 7. Significant Correlations Between HEQ Factors and Instrumental Values (Rokeach)

	Ambitious	Broad-minded	Capable	Cheerful	Clean	Courageous	Forgiving	Helpful	Honest	Imaginative	Independent	Intellectual	Logical	Loving	Obedient	Polite	Responsible	Self-controlled
F1	+38	-25	ns	ns	+29	+18	ns	ns	-22	-28	ns	ns	ns	-22	+19	ns	+22	+28
F2	ns	ns	-33	ns	ns	ns	+40	+24	ns	ns	ns	-24	-20	+26	ns	ns	ns	ns
F3	ns	ns	ns	ns	ns	+29	ns	+33	ns	ns	ns	ns	ns	ns	ns	-25	-23	ns
F4	ns	+30	ns	ns	-36	ns	+23	ns	ns	+18	ns	ns	ns	ns	ns	-22	ns	ns
F5	ns	+18	ns	+19	ns	-28	ns	ns	ns	ns	-24	ns	ns	ns	ns	ns	ns	ns
F6	ns	+24	ns	+19	-34	ns	ns	ns	ns	+41	ns	ns	ns	ns	-20	ns	-18	ns
F7	+26	ns	+24	-19	-20	ns	ns	ns	ns	ns	ns	ns	ns	-27	ns	ns	ns	ns
F8	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	-28	ns	ns	ns	ns
F9	ns	-22	ns	ns	+20	ns	ns	+19	ns	-40	-29	ns	ns	ns	+22	+43	ns	+21
F10	ns	+38	ns	ns	-21	ns	-19	ns	ns	+34	+20	+22	ns	ns	-28	-26	ns	ns

Note: Only significant levels are given. Coefficients above .17 are significant at $p < .05$; those above .24 are significant at $p < .01$.

Table 8. Significant Correlations Between HEQ Factors and Terminal Values (Rokeach)

	A Comfortable Life	An Exciting Life	A Sense of Accomplish.	A World at Peace	A World of Beauty	Equality	Family Security	Freedom	Happiness	Inner Harmony	Mature Love	National Security	Pleasure	Salvation	Self-Respect	Social Recognition	True Friendship	Wisdom
F1	+30	ns	ns	ns	ns	ns	ns	ns	ns	-27	-29	ns	ns	ns	ns	+23	ns	-32
F2	ns	ns	ns	ns	ns	ns	+23	ns	+22	ns	+23	ns	ns	ns	ns	ns	+27	ns
F3	-43	-20	ns	+20	+27	+30	ns	ns	-20	ns	ns	ns	-54	+29	ns	-28	ns	ns
F4	-31	ns	ns	ns	+39	+18	ns	ns	ns	+21	ns	-21	-28	ns	ns	-20	ns	+23
F5	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	+24	ns	ns	ns	ns	ns	ns
F6	ns	ns	ns	ns	ns	+18	ns	ns	ns	+20	ns	-21	ns	-20	ns	ns	ns	ns
F7	ns	ns	ns	ns	ns	+26	ns	ns	ns	-20	ns	ns	ns	ns	ns	ns	ns	ns
F8	ns	ns	ns	+19	ns	ns	ns	+21	ns	-25	-22	+25	ns	ns	-20	ns	ns	ns
F9	+21	-21	-32	+27	-18	ns	+31	ns	ns	-43	ns	+22	+35	ns	ns	ns	ns	-22
F10	ns	ns	ns	ns	+20	ns	ns	ns	ns	ns	ns	ns	ns	-49	+19	ns	ns	ns

Note: Only significant levels are given. Coefficients above .17 are significant at $p < .05$; those above .24 are significant at $p. < .01$.

(Appreciation of Nature), $t(83) = 2.62$, $p < .01$. Men scored significantly higher than did women on Factor 9 (Relaxation), $t(83) = -3.92$, $p < .001$.

Happiest and Unhappiest Subjects

Happiest and unhappiest subjects were determined by selecting the top and bottom 27% (n=23) on the basis of scores on both the FHLS and the OPS. A composite (median) score on each HEQ factor was calculated for both of these groups. Composite profiles for the happiest and unhappiest subjects are illustrated in Figure 1.

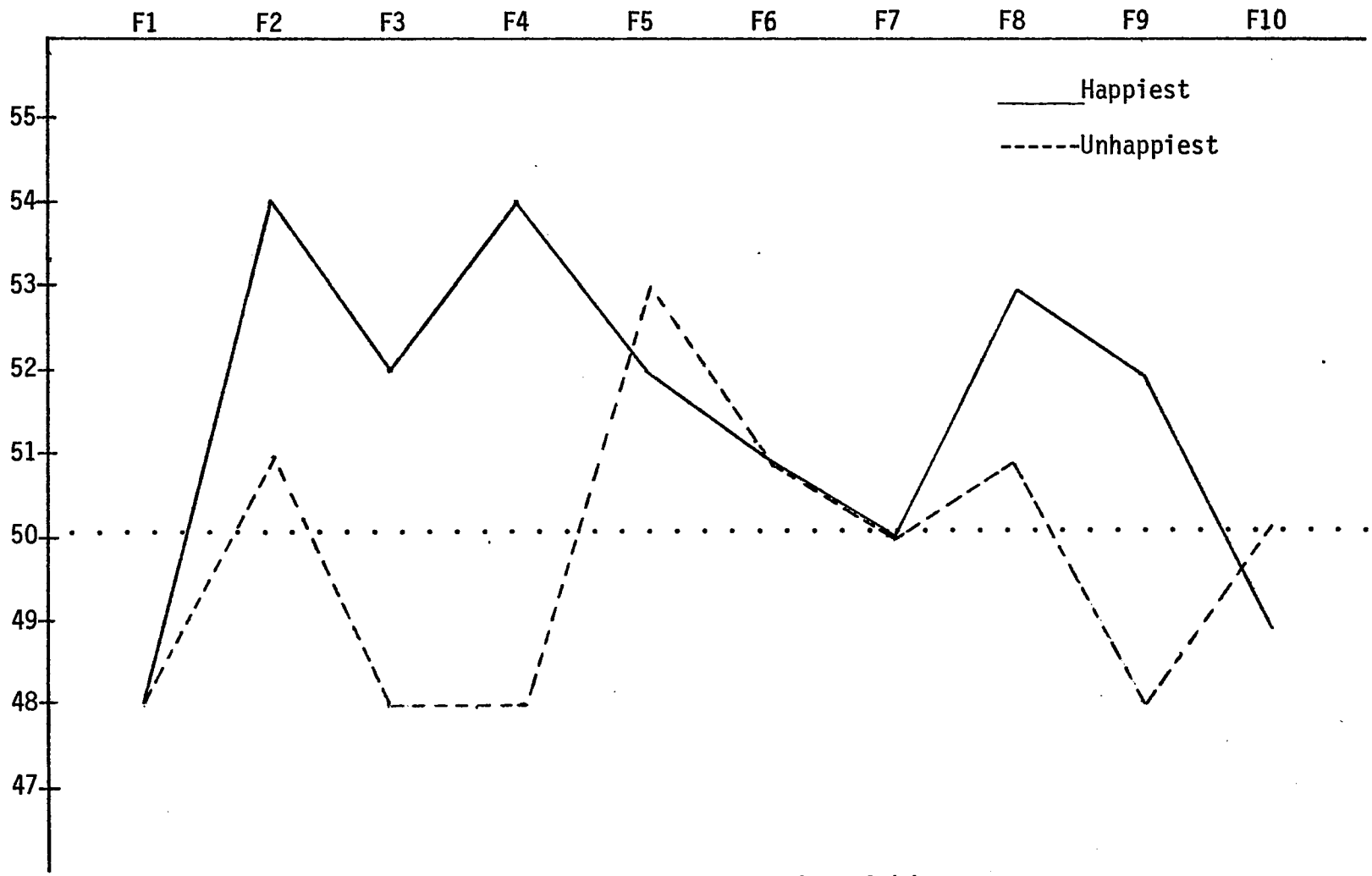

Figure 1. Composite Profiles of Happiest and Unhappiest Subjects

CHAPTER 4

DISCUSSION

The results suggest that happiness can be viewed as multidimensional. Events which contribute to happiness may be seen as classes of events which are perceived by the individual as rewarding in varying degrees. The present study outlines some possible classes of events which contribute to happiness. The exploratory nature of this work prevents conclusions as to the exclusiveness of these categories. However, the obtained factors suggest tentative dimensions.

Events for the Happy Events Questionnaire were drawn almost entirely from free-form responses, and whereas they cannot be considered exhaustive of events perceived as contributing to happiness, it is felt that these events can be seen as representative. Although the sample from which the factor analysis was done was somewhat small (N=198), several of the obtained factors are supported by the literature on happiness and are related to the categories of events hypothesized in this study. Validity of the specific factors is supported by the various significant correlations between the factors, happiness level, and values.

Dimensions of Happiness

Factor 1 --Factor 1, "Accomplishment," includes 23 items exemplified by statements such as "Doing something well," (one of the most

preferred items), "Receiving some money," and "Feeling financially secure." That accomplishment, both personal and financial, may be a factor in happiness is not surprising. The feeling of self-achievement of personal and societal goals is probably closely related to self-image. In accomplishment, an individual's image of himself can be expected to draw closer to his ideal self-image. Wilson (1967) has shown that the reduction of the gap between perceived self and ideal self-image is positively related to happiness. Maslow (1967, 1968) proposed that esteem by self and others is a basic human need. The weighting of items concerning economic security and the earning or receiving of money on this scale may be a reflection of our society where financial success is often used as a yardstick for accomplishment. It is likely that, at least in America today, most people's ideal self-image includes the concept of financial achievement. It may be, that to the present sample, financial security is equated with other accomplishments. An alternative explanation is that the convergence of accomplishment and monetary items in the present study may be an artifact of the number of factors called for and that the two classes would emerge as separate factors should replication be attempted. When Butler (1975) factored the Q-sorts of 90 statements related to causes, control, and antecedents of happiness, his first factor, "Being and Self-Actualization," included learning and personal accomplishment; however, financial security fell into a second factor, as did family, friends and religion. However, as Butler's factor analysis was based on a sample of only 35 subjects with 90 items, his factors would be expected to be less

than stable. Supporting the convergence of accomplishment and financial success is the Bradburn and Caplovitz (1965) analysis which showed that the better educated and older respondents to their survey were more likely to report unhappiness when income was not high, suggesting that hopes and expectations of financial success may contribute to the correlation between income and reported happiness.

Factor 2--The second largest factor, "Love and Belonging," 13 items concerning interpersonal relations, is well-documented in happiness research. The association between marriage and happiness, for example, has been shown repeatedly (Bradburn, 1969; Bradburn and Caplovitz, 1965; Gurin et al., 1960; Knupfer et al., 1966). Lawton's (1943) subjects rated "good friends" and "pleasant familial relationships" as important to happiness in advanced age. Danish subjects (Iisager, 1948) rated "love" third in importance out of a list of 31 factors contributing to happiness. Gordon (1975) found that "love income" was the most correlated to happiness of the six resources studied. Campbell (1976), as indicated previously, concluded that the quality of interpersonal relationships may play a large part in happiness. Maslow (1968) lists the need for love and belonging among the most basic of human needs. Three items on this scale were among the most preferred by all subjects. The interesting fact that the item, "Liking myself" weights the interpersonal factor suggests that social relationships may be concerned in self-image, as well.

Factor 3--This factor, named "Inner Peace," includes 20 items. These items concern religion and meditation, as well as items which

might be termed aesthetic, such as "My work," "Cooking," and "Hearing the birds sing." Some aspect of religion or religious values has been noted repeatedly in research into well-being, both as a belief by people that it is a necessary factor in happiness (Gillespie, 1942; Lawton, 1943; Iisager, 1948) and as a correlate (Cutler, 1976; Fordyce, 1972; Moylan, 1973: Wilson, 1967). Traditionally, religion and meditation have been believed to bring peace of mind and to aid in overcoming life's vicissitudes. Alternatively, religion or a system of beliefs has been seen as a human need (Cantril, 1965; Maslow, 1967, 1968).

The convergence of religious and aesthetic items on Factor 3 may be due to the low number of items clearly describing aesthetic events. It is possible that had there been more items clearly related to aesthetic pursuits, that this may have emerged as a separate factor. Again, it is also possible that aesthetics, as related to happiness, is tapping the same dimension as meditation and religion.

Factor 4--The fourth factor, named "Appreciation of Nature," included ten items concerning interaction with nature such as "Walking in the desert/mountains," "Swimming in the lake/river," and "Experiencing the out-of-doors." Man's relationship to nature is a dimension which has not been well explored. Intimations that appreciation of nature may be an important factor in happiness have appeared briefly in Iisager's (1948) subjects' rating of nature as the sixth most important factor in happiness, and in Maslow's (1967) speculation that nature may in some way be necessary for self-recognition and self-experience because of man's biological evolution. More recently, Ittelson

(1978) suggested that the deepest and most significant values can only be experienced in a natural as opposed to a man-made setting. He noted that even urban dwellers referred to natural settings when recounting instances of the physical environment playing an important role in their lives. The idea that natural settings may be intrinsically necessary to man's feeling of well-being warrants further investigation.

Factor 5--The fifth factor, which was named "Relief," was clearly weighted by only four items. It is possible that this factor would have been larger had there been more items of this type on the questionnaire. Items weighting Factor 5 express relief from pressures: "Freedom from too many duties," "Feeling free from responsibility," or the impression that time is too crowded: "Time without anything to do." Wessman and Ricks (1966) noted that their unhappy subjects experienced happiness as relief, or a temporary lull in a life of struggles.

Factors 6 and 7--Factor 6, named "Entertainment," suggests that vacations or breaks in routine may be a factor in happiness. Items on this scale have a more positive quality than the breaks in routine described on the previous scale. "Seeing a friend after an absence," and "Taking a trip," are examples of this dimension. Bradburn (1969) proposed that the economic ability to experience variety as well as to enjoy social participation may contribute to the higher happiness level of the well-to-do. Variety and social participation were confounded in his study. In the present study, Factors 6 and 7 ("Socializing") are correlated. Bradburn felt that social participation was a larger

contributor to happiness level than was variety. Factor 7 is not well defined in the present analysis, as it is weighted clearly by only five items. These items suggest socializing with acquaintances rather than with intimates, whereas Factor 2 suggested close interpersonal relationships. Representative items on Factor 7 are "Making new friends," "Being with members of the opposite sex," and "Drinking wine/beer/drinks."

Factor 8--Eleven items concerning physical exercise, for example, "Riding a bike" and "Playing an outdoor sport," weighted Factor 8 ("Exercise"). Exercise as a factor in happiness has been mentioned in the literature. Goldings' (1954) subjects ranked physical exercise seventh as an area of life contributing to general satisfaction. The amount of time spent in athletic activities has been shown to differentiate happy from unhappy subjects (Guirguis and Hermans, 1973; Sheslow and Erickson, 1975). Sufficient exercise is probably directly related to physical health. Most researchers into the factors in happiness have found that good health is considered an important antecedent to happiness (Cutler, 1976; Fellows, 1966; Goldings, 1954; Iisager, 1948; Lawton, 1943). In the present study, the item, "Being in good health" clearly loads Factor 1 (Accomplishment), rather than Factor 8, suggesting that good health may be experienced as an achievement. Exercise may have physiological correlates aiding in reduction of the consequences of stress (Navrátil, 1975), and may in itself increase the experience of well-being.

Factor 9--Factor 9 included nine items suggesting relaxation of the kind one might enjoy alone and without much physical exertion, for instance, "Fishing," "Watching TV," and "Sleeping in." The idea that relaxation is a separate dimension in happiness also finds support in the literature. Guirguis and Hermans' (1973) happiest subjects spent more time at home. Various activities, similar to those outlined by items on Factor 9, distinguished happy from depressed subjects (Sheslow and Erickson, 1975): sleeping, driving, watching TV. Happy subjects seemed to take more time to relax alone. However, in the present study, Factor 9 did not correlate significantly with self-rated happiness level.

Factor 10--Factor 10 includes the popular item, "Making love," and the least popular item "Smoking pot...." It is heavily and negatively loaded with religious items, and with the item "Doing well in school." It is unclear whether a dimension of sensuality is being tapped by this scale or whether this factor is simply a residual factor. This factor was not named.

Certain of these dimensions appear to have more of a relationship to overall self-rated happiness than others, as though by preferring certain types of activities over others, subjects increased or decreased their perceived level of happiness. Assuming that a person particularly enjoys two classes of events equally well, do each contribute in the same measure to his overall well-being? This question cannot be conclusively answered as yet; however, the finding that certain of these factors correlated significantly with self-rated

happiness and others did not suggest that some class of events may be intrinsically more rewarding than others. Alternatively, as no assessment was made of the actual current experiencing of events on the HEQ, it may be equally possible that each of these dimensions is important to well-being but that some are in better supply, so to speak, than others. The factors correlating positively with happiness (as measured by the FHLS and the OPS) were "Inner Peace," "Appreciation of Nature," and "Exercise." In other words, subjects who feel highly rewarded by meditation or going to church, nature, or exercise may find these types of events more available than others. It may be easier to enjoy a few quiet moments in meditation, a view of the mountains, or a bike ride, for example, than to accomplish goals which may be difficult or deferred. Supply of rewarding events may also be influenced by the individual's values, which may effect the way he spends his time. Persons who see no importance in worship, nature, or exercise may not take time for these events. Our modern society tends to occupy itself with achievement and passive relaxation: it may be equally important to our sense of well-being to worship, interact with nature, and obtain adequate exercise.

One of the factors, "Relief," was negatively correlated with happiness as measured by the FHLS. That "Relief" is related to unhappiness is less difficult to explain. Persons experiencing such an overload of activity and stress that they are highly rewarded by events such as "Time without anything to do," are probably also somewhat deficient not only in pleasant activities found to be positively correlated

with happiness but somewhat deficient in time to relax, vacation, socialize, etc. These subjects see less reward in many activities than do more happy subjects (see Figure 1). Wessman and Ricks (1966) described a certain lack of zest in their subjects when they felt depressed. Perhaps there is a circular relationship here. As persons experience themselves as less happy, they may find less reward in events which may be otherwise rewarding.

Turning to sex differences in dimensions related to overall self-rated happiness, it is of considerable interest that significant differences between men and women were found on two of the three HEQ factors that were positively related to overall well-being measures (FHLS and OPS). Women in this study tended to rate "Inner Peace" and "Nature" items higher than did men. One might speculate that this would mean that women are happier than men. It has been shown repeatedly (Bradburn, 1969; Bradburn and Caplovitz, 1965; Cameron, 1974; Fordyce, 1972; Gurin et al., 1960) that this is not the case. As discussed in Chapter 1, women report more tensions, problems and dissatisfactions than do men (Gurin et al., 1960). This report, together with the finding that women in the present sample scored higher on HEQ factors that were positively related to happiness than did men, suggests that their tensions and worries may be counterbalanced by a propensity for worship and enjoyment of nature.

Men endorsed "Relaxation" items higher than did women. It is possible that men are less distracted from passive pursuits by worry and tension, thus enjoying them more.

Relationship to Values

Each of the ten HEQ factors was found to be correlated with certain values. These correlations are surprisingly high, considering the low correlations obtained between values and self-rated happiness level (as measured by the FHLS) both in prior research (Fordyce, 1972; Hartmann, 1934; Wilson, 1967) and in the present study. It appears that the relationship between values and happiness is obscured to a large extent when happiness is viewed on a single dimension. The values that one holds appear somehow related to the perceived reward value of various events and classes of events.

The patterning of this relationship is not immediately evident. It might be supposed that a cogent relationship between certain dimensions of happiness and corresponding values would emerge, such as a positive correlation between "Accomplishment" as a category and the high valuing of achievement. To some extent this is true. Subjects rating HEQ items concerning accomplishment as highly rewarding value ambition and other instrumental values stressing self-discipline, as well as terminal values of A Comfortable Life and Social Recognition. Subjects rating personal relationships as rewarding value family, friendship and love. Subjects rating nature items as rewarding rank World of Beauty higher than do other subjects. But inspection of Tables 6, 7 and 8 shows that the patterning of relationships between the factors and the measured values is a more complicated one. For example, there appears to be no immediately evident reason why persons who enjoy exercise should value Freedom, National Security, and a World at Peace,

although all three of these values would seem to involve patriotic goals.

Rokeach (1973) reported that factor analysis of the 36 Rokeach values yielded seven factors. Two of these factors show close similarity to patterns of positive and negative correlations between the factors in the present study and the Rokeach values. The Rokeach factor, "Social vs Personal Orientation" is reflected in the values correlating both positively and negatively with Factor 7 ("Exercise"). The Rokeach factor "Competence vs Religious Morality" values are somewhat similar to values which correlate with the present Factor 10. Although the Rokeach factor analysis was based on a sample of 1,409 and should be replicable, the large negative loadings, a result of the ipsative nature of his scale, make clear interpretation of his factors difficult.

A possible explanation for the correlation between events perceived as rewarding and personal values can be found in motivation theory. The idea that happiness, particularly as a mental health concept, can be seen as a result of fulfillment of needs has been advanced (Reffruschinni, 1976). Murray and Kluckhohn (in Hall and Lindzey, 1970) proposed that a need arouses a state of tension in the individual that when reduced is experienced as pleasure. Tolman (in Atkinson, 1966) advanced a model describing the mediator between drive and behavior as the strength of the expected reward. Consider the endorsement of the items on the HEQ, for a moment, as the strength of the expected reward, drive as the precipitating need states described by

the names of the factors themselves, and values as goals which have been promised by society and by the observation of role models. The weight assigned an HEQ item may be seen as a measure of the strength of the value-goal which is approached through execution of the behavior described by the statement. As the attractiveness of a goal increases, the strength of the expected reward will also increase.

need state $\longrightarrow$ expectancy of goal $\longrightarrow$ goal

This speculative attempt to explain the observed relationship between classes of events and values places the antecedent of both variables as prior experience, possibly coupled with hereditary dispositions, including previous thoughts and careful goal-selection. The individual's perception of certain behaviors and events as approaches to goals are probably to a large extent learned, as are his values. With this model we can explain observed results.

Returning to the values correlated with Factor 1, "Accomplishment," the terminal values of A Comfortable Life and Social Recognition are valued by many members of our society. One learns early in life that to achieve these goals, one must be Ambitious, Clean, Courageous, Obedient, and Responsible. Events described on Factor 1 such as "Accomplishing something," "A good grade after I've worked hard," or "Having some money," could very well describe approaches to the above value-goals.

If one esteems the terminal values of Family Security, Mature Love, and True Friendship, he will logically also esteem the instrumental values of being Forgiving, Helpful, and Loving as means to these

ends. The strength of these goals should be reflected in a high endorsement of interpersonal relations (Factor 3), which is in fact the case.

One may speculate that the observed relationship between "Exercise" as a factor and patriotic values may have as an antecedent learning experience the relatively recent emphasis placed by President Kennedy on physical fitness, which he felt was necessary to keep Americans strong.

An assumption has been made here that human motivating needs are broader than those described by drive theory, or in fact, by Tolman himself. This assumption is one introduced by Maslow (1967, 1968) who postulated that man has needs, capacities and tendencies which are genetically based and therefore are characteristic of the whole human species. He included as basic the needs for affection, self-esteem, security and belonging. It is suggested here that the results of the present study lend support to Maslow's theory. The previous finding (Campbell, 1976) that situational variables account for so little of the variance in overall satisfaction with life, can be explained by postulating with Maslow that once physiological needs are satisfied, humans actively seek satisfaction of other needs, the fulfillment of which contribute continually to overall satisfaction.

Comments on Further Research

The importance of investigating dimensions of human happiness cannot be overemphasized. Social reformers have traditionally assumed that commodity prosperity equals happiness. Although the American

constitution has been a refreshing improvement in that equality and justice are also emphasized, modern thought continues to neglect the study of peculiarly human needs. The satisfaction of consumer needs has not brought the contentment we had been led to expect. In the interests of primary prevention of mental illness we need to assess the necessary ingredients to a healthy and happy life.

A possible method of research would be to control for satisfaction of physiological needs and investigate the variation of life-satisfaction on other dimensions, such as those suggested here. Income level itself may not be a valid measurement for control of basic need fulfillment. One reason for this is that income level is most likely inextricably confounded with possible self-esteem variables. Income level may also be confounded with the ability to vacation, seek variety, and to socialize, as noted by Bradburn (1969). Another reason is that usual income level measurement does not take into account public assistance in the form of food stamps and medical care. It might be possible to assess the fulfillment of physiological needs in a more careful manner.

Experimental manipulation of variables in happiness may be difficult but not impossible. For example, it should be possible to test an hypothesis that interaction with nature increases human happiness by teaching subjects to appreciate nature and providing opportunities to do so, and measuring self-rating of happiness level before and after.

Correlational research designs may also prove fruitful. The finding that happiness measured in a multi-dimensional manner as

opposed to a unitary manner amplifies and clarifies to some extent the relationship between values and happiness suggests, for example, that this type of measurement might amplify and clarify relationships between the experience of happiness and personality variables, as well.

Summary

Results support the hypothesis that happiness is multi-dimensional. Among the tentative dimensions suggested by these findings are many which correspond to previously investigated factors in happiness. Some of these dimensions have been seen by Maslow (1967, 1968) as motivating needs. The importance placed upon each of these dimensions varies across individuals. Some sex differences were found. Certain of these dimensions are more related to self-rated overall happiness than others.

Significant correlations were found between scores on the various dimensions and the ranking of certain values. The patterning of relationships between classes and events and values suggests that the experienced reward level of an event corresponds to the strength of the value which is approached through the enacting or experiencing of that event.

The probability of dimensions in human happiness which go beyond creature comforts makes further research into these factors of considerable importance.

APPENDIX A

HAPPY EVENTS QUESTIONNAIRE

This questionnaire is designed to measure what makes people happy. This is a personal matter: items should be answered according to how you yourself feel. Your answers are anonymous. No one can identify which questionnaire is yours nor how you answered any of the items. After reading each item, please indicate how happy each event makes you feel by writing "0", "1", "2", "3", or "4" at the left of each. Choose only one response, according to the following guideline.

0 = This does not make me happy (or I've never experienced this).
1 = This makes me slightly happy.
2 = This makes me moderately happy.
3 = This makes me quite happy.
4 = This makes me very happy.

Sex____M ____F Age____

____1. Doing something well.

____2. Hearing the birds sing.

____3. Seeing a good movie.

____4. Making love.

____5. Being alone with nature.

____6. Learning something new.

____7. Helping someone else.

____8. Feeling that what I have is enough.

____9. Playing a musical instrument.

____10. Knowing that someone loves me.

____11. Accomplishing something.

0 = This does not make me happy (or I've never experienced this).
1 = This makes me slightly happy.
2 = This makes me moderately happy.
3 = This makes me quite happy.
4 = This makes me very happy.

____12. Being with people I love.

____13. Riding a horse.

____14. Reading a good book.

____15. Being in good health.

____16. A fine day.

____17. Listening to good music.

____18. Feeling that God loves me.

____19. Doing well in school.

____20. Making a new friend(s).

____21. Going to a place I've never been before.

____22. Enjoying my pet.

____23. Riding a bike.

____24. Knowing that I look nice.

____25. Seeing my wife/husband/sweetheart.

____26. Receiving some money.

____27. Feeling free from responsibility.

____28. Completing something.

____29. Being with friends (or a friend).

____30. Winning a game.

____31. Taking a trip.

____32. Drinking beer/wine/drinks.

____33. Being with members of the opposite sex.

0 = This does not make me happy (or I've never experienced this).
1 = This makes me slightly happy.
2 = This makes me moderately happy.
3 = This makes me quite happy.
4 = This makes me very happy.

____34. Feeling financially secure.

____35. Fishing.

____36. Walking in the desert/mountains.

____37. Seeing a family member do well.

____38. Keeping my living space neat.

____39. Having a good paying job.

____40. Communicating my feelings to others.

____41. Getting away from the city.

____42. Freedom from too many duties.

____43. Cooking.

____44. Having transportation.

____45. Knowing I will be able to pay off my debts.

____46. Looking at the mountains.

____47. Doing something athletic (get my blood circulating).

____48. Having some money.

____49. Sitting in the grass watching the clouds go by.

____50. Eating lunch.

____51. Liking myself.

____52. Smoking grass in a mellow atmosphere.

____53. Swimming in a lake/river.

____54. Eating good food.

____55. Taking a shower.

0 = This does not make me happy (or I've never experienced this).
1 = This makes me slightly happy.
2 = This makes me moderately happy.
3 = This makes me quite happy.
4 = This makes me very happy.

____56. Time without anything to do.

____57. Being at home with my family.

____58. My work

____59. Reading the paper.

____60. Feeling that I'm a good person.

____61. Singing.

____62. Camping out.

____63. Playing tennis/racketball/golf/handball.

____64. Getting a letter from a friend.

____65. Meditating.

____66. Walking.

____67. Watching TV.

____68. Being a success in life.

____69. Loving someone who loves me.

____70. Being in good physical shape.

____71. Being by the ocean (at the beach).

____72. Understanding what I'm trying to learn.

____73. Receiving an unexpected gift.

____74. A good grade after I've worked hard.

____75. Driving a car.

____76. Swimming in a pool.

____77. Someone helping me.

0 = This does not make me happy (or I've never experienced this).
1 = This makes me slightly happy.
2 = This makes me moderately happy.
3 = This makes me quite happy.
4 = This makes me very happy.

____78. Playing an outdoor sport.

____79. Driving a jeep/motorbike in the desert.

____80. Feeling like I'm needed.

____81. Sitting thinking.

____82. Seeing a friend after an absence.

____83. Going to church.

____84. Getting away from restraining people.

____85. Completing a job and knowing it's well done.

____86. Knowing I have no debts.

____87. Receiving praise.

____88. Sleeping in.

____89. Buying something new.

____90. Experiencing the out-of-doors.

APPENDIX B

OPTIMISM-PESSIMISM SCALE*

---

1. I look forward to the future with hope and enthusiasm.
2. I might as well give up because I can't make things better for myself.
3. When things are going badly, I am helped by knowing they can't stay that way forever.
4. I can't imagine what my life would be like in 10 years.
5. I have enough time to accomplish the things I most want to do.
6. In the future, I expect to succeed in what concerns me most.
7. My future seems dark to me.
8. I expect to get more of the good things in life than the average person.
9. I just don't get the breaks, and there's no reason to believe I will in the future.
10. My past experiences have prepared me well for my future.
11. All I can see ahead of me is unpleasantness rather than pleasantness.
12. I don't expect to get what I really want.
13. When I look ahead to the future, I expect I will be happier than I am now.

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6. In the future, I expect to succeed in what concerns me most.
7. My future seems dark to me.
8. I expect to get more of the good things in life than the average person.
9. I just don't get the breaks, and there's no reason to believe I will in the future.
10. My past experiences have prepared me well for my future.
11. All I can see ahead of me is unpleasantness rather than pleasantness.
12. I don't expect to get what I really want.
13. When I look ahead to the future, I expect I will be happier than I am now.

---

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14. Things just won't work out the way I want them to.

15. I have great faith in the future.

16. I never get what I want so it's foolish to want anything.

17. It is very unlikely that I will get any real satisfaction in the future.

18. The future seems vague and uncertain to me.

19. I can look forward to more good times than bad times.

20. There's no use in really trying to get something I want because I probably won't get it.

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