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CLOTHING AS AN INDICATOR OF PERCEIVED QUALITY OF LIFE

By

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ABSTRACT

CLOTHING AS AN INDICATOR OF PERCEIVED
QUALITY OF LIFE

By

Mary Suzanne Sontag

The goal of the study was to provide empirical evidence to support a recommendation for development and inclusion or omission of perceptual and objective clothing indicators in quality of life measurement. The rationale was based on a human ecological framework which views clothing as the individual's most proximate human constructed environment. As such clothing fulfills biophysical, psychological, social, and aesthetic needs. This study was limited to development and use of perceptual clothing indicators.

Two major purposes guided formation of eight hypotheses. The first purpose was to assess affective evaluations of clothing and to examine their ability to predict perceived overall quality of life (POQL) when added to a set of existing predictors. The second purpose was the determination of the proximity of clothing to the self on a map of the perceptual structure of people's affective evaluations of life concerns.

A survey research design was employed, and questionnaires were self-administered by 116 wife-husband pairs having school-age children. Households were drawn by a two-stage systematic random

sampling procedure with clustering from eleven urban/suburban townships in Oakland County, Michigan.

A domains-by-criteria matrix model developed by Andrews and Withey at the University of Michigan was the conceptual model used for measurement of perceived quality of life. This study expanded their previously tested matrix by adding the clothing domain to six other domains (housing, job, family life, neighborhood, spare time activities, and national government). These domains were evaluated by the eight value criteria in the matrix: standard of living, fun, independence or freedom, beauty and attractiveness, freedom from bother and annoyance, safety, accomplishing something, and acceptance and inclusion by others. Additional value criteria were identified through content analysis of responses to a question soliciting important reasons for respondents' feelings about clothing.

There was a significant positive correlation between affective evaluations of clothing and POQL for both women (.28) and men (.48) with effects of occupational prestige (men only), age, family income, education, and family size controlled.

Using reduced and full model multiple regression analyses, affective evaluation of clothing was found to be a significant predictor of men's POQL (standardized beta = .21) with a significant 2.9 percent increase in the adjusted coefficient of multiple determination and a 7.2 percent reduction in the residual variance. When added to other domain evaluations for women, clothing was not a significant predictor of women's POQL.

The set of eight value criteria was not significantly predictive of men's affective evaluations of clothing, accounting for

only 12.4 percent of the variance. The same set of criteria accounted for 64 percent of the variance in women's evaluations, with independence, accomplishing something, and fun as the most significant predictors. Additional value criteria mentioned by both sexes were functionality, fashion, economy, self-regard, self-expression, and variety.

Using analysis of covariance, no significant differences were found in affective evaluations of clothing with respect to occupational prestige (men only), age, family income, education, and family size for both women and men.

Matched pair t-tests showed that wives tended to evaluate the general clothing domain less positively than did their husbands. Of eight specific clothing-by-criterion evaluations, husbands gave significantly more positive evaluations to six.

Perceptual structures of life concerns were mapped using nonmetric multidimensional scaling and cluster analyses. Dimensions labeled as organization of self in the environment and psychological closeness characterized the perceptual structures of women and men.

When divided according to scores on the Proximity of Clothing to Self Scale, developed by the researcher, clothing clustered closer to self ($r = .71$) for high-scoring women than for low-scoring women ($r = .25$). To a lesser extent the same was true for men. High scorers tended to evaluate life more positively and have more positive views of what they are able to accomplish in life.

The findings provide some evidence to support the inclusion of clothing among the components of quality of life.

To

Dad, Mom, Jamie, Marie, and David

for their love, generosity
and steadfast encouragement
of my growth

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CHAPTER I

INTRODUCTION

An intensive national and international research effort has been made for more than a decade to determine the components of people's well-being or quality of life. Conceptual models and methods of measurement have been developed and tested to assess the level of well-being, to predict well-being from relevant variables, and to monitor change in the well-being of various groups in the population over time.

This effort has been motivated in part by the recognition of the limitations of economic indicators to adequately reflect the social welfare of the nation's people. Emphasis has been placed on supplementation of economic indicators with indicators of the quality of life or, alternatively, the conditions of human existence (Land, 1975).

In addition to the perspectives of social reporting and the measurement of social change, more controversial purposes for development of social indicators have included evaluation research and social experimentation, derivation of a measurement of the net national welfare, and national goals accounting (Parke & Seidman,

1978).[1] Whereas each of these rationales for development of social indicators has its supporters and its critics, Andrews and Withey (1976) have suggested that "monitoring a broadening range of social indicators does seem to have some potential for making contributions to these important goals and hence we believe social indicators deserve our serious attention and careful development efforts" (p. 3).

Various definitions of "quality of life" and "well-being" have been advanced. Many of these have been collated and reviewed by Butler (1977). Frequently well-being and quality of life are used interchangeably; that is, well-being is considered to be the level of life quality, and quality of life is defined in terms of the well-being or ill-being of individuals (Andrews, 1974; Dalkey & Rourke, 1973). Some researchers have defined quality of life in terms of the satisfaction or fulfillment of human needs (McCall, 1975; Campbell, Converse, & Rodgers, 1976; Mitchell, Logothetti, & Kantor, 1973), the satisfaction of wants (Liu, 1975), the quality of the environments of individuals (Joun, 1973), and one group of human ecologists have related the fulfillment of human needs to the capacity of the environment to provide the resources to meet these needs (Bubolz, Eicher, Evers, & Sontag, in press):

> We consider quality of life (QOL) in a very general sense to refer to the well-being or ill-being of people and/or the environment in which they live. From the standpoint of people, QOL consists in degree of fulfillment or satisfaction of their basic physical, biological, psychological and economic needs. These needs are met by the resources from

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[1]For a comprehensive summary and evaluation of the purposes for developing social indicators, the reader is referred to Parke and Seidman (1978), Butler (1977), and Land (1975).

> the environment which people exchange to meet needs. QOL from the standpoint of the environment is the degree to which the environment has the capacity to provide the resources to meet needs. (pp. 5-6)[1]

The definition and conceptual model one adopts help determine the nature of the quality of life indicators used. Some confusion exists with regard to the distinction between social indicators, quality of life indicators, and well-being indicators. There have been recent attempts to formalize these definitions which should clarify their differences (Bunge, 1975; Guttman, 1971; Levy & Guttman, 1975).[2]

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[1]This definition seems to minimize the degree to which needs are met by the internal resources of the individual. Further refinement and conceptualization of this definition are warranted. This author is grateful to Dr. Jean Davis Schlater for drawing this to her attention.

[2]Bunge's distinctions are the most definitive to date:

> "A social indicator is a variable serving as an indicator for a sociological variable. More exactly . . . Let S be a set of sociological variables (i.e. of functions representing properties of some social system or subsystem) and let I be the order relation 'is an indicator of'. . . . Then x is a <u>social indicator</u> if and only if (i) x is in S (i.e. x is a sociological rather than, say, a physical variable); (ii) there is a y in S, other than x, such that Ixy (i.e. x indicates or measures some other social variable). . . .
>
> "A quality of life indicator is supposed to contribute to the assessment of this degree of well-being. More precisely . . . Let S be a set of reliable indicators of the state of the individual components of some human community C. Then if x belongs to S, x is a <u>quality of life indicator</u> if and only if x is an indicator of the physical, psychical, social, or cultural well-being of the individual members of C. . . .
>
> "Contrary to widespread opinion . . . not all quality of life indicators are social indicators <u>stricto sensu</u>." (Bunge, 1975, pp. 72-75)

Andrews and Withey have suggested that research efforts should be directed to the development of a "limited yet comprehensive set of coherent and significant indicators, which can be monitored over time, and which can be disaggregated to the level of the relevant social unit" (1976, p. 4). Further, they propose that indicators of well-being should meet certain criteria: (1) breadth of coverage so as to include a variety of life concerns important to the population, (2) relevance to subgroups of the population who may be affected by social policies, (3) efficiency of measurement both statistically and economically, (4) high validity and reliability, and (5) flexibility of the instrument to provide for varying degrees of specificity, resources, and accuracy.

Much attention has been directed toward the selection and assessment of life concerns as components of well-being. Some concerns are intensely personal (such as self or religion), and others have been selected from the near and distal environments (housing and family are examples of the former and national government is an example of the latter). With the exception of only two related studies of an elderly population (Butler, 1977; Bubolz et al., in press), clothing has not been included as such among the lists of life concerns. Yet clothing meets important biophysical needs for thermal regulation of body temperature and protection from injurious elements in the environment as well as psychological, aesthetic, and social needs. Clothing is one's most proximal environment that is certainly more portable than one's housing or neighborhood and, thus, influences one's day-to-day interactions with others.

The general purpose of this study is to provide some empirical evidence to support a recommendation for the development and inclusion or omission of objective and perceptual clothing indicators in quality of life measurement.

Rationale

The underlying rationale for the consideration of clothing as a potentially important life concern for the assessment of life quality is based on a human ecological framework recently proposed for the study of quality of life by Bubolz et al. (in press). The interaction of human organisms with their environment constitutes a human ecosystem. The three organizing concepts of a human ecosystem are represented and defined in Figure 1[1] (Bubolz, Eicher, & Sontag, in press). These include the human environed unit (HEU),[2] the environment, and the interactions between and within these two (Sprout & Sprout, 1965). Although three environments [natural environment (NE), human constructed environment (HCE), and human behavioral environment (HBE)] have been identified as conceptually distinct entities to clarify the total environment, in reality one is embedded within the other as shown in Figure 2. The HEU (e.g., individual, wife-husband pair, family) depends on the resources

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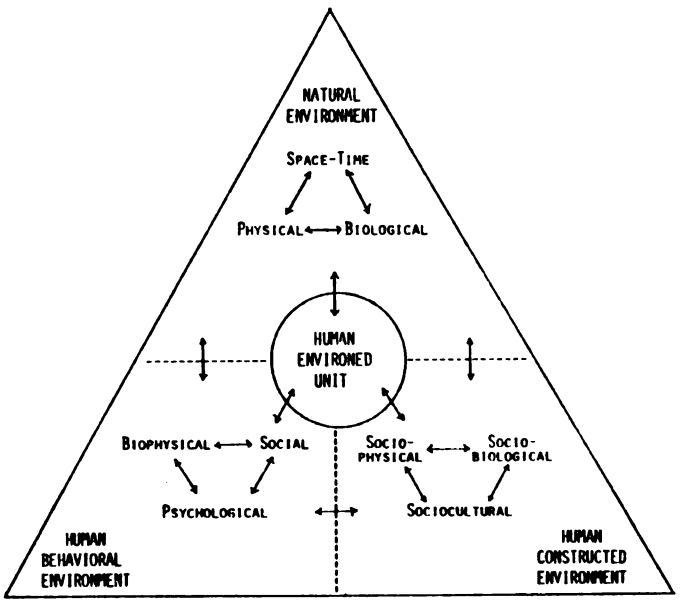
[1]The model evolved over several years as a result of conceptualization by faculty and students of the College of Human Ecology, Michigan State University. This figure is an adaptation of one previously developed by Morrison (1974).

[2]Cyprian Cooney, Associate Professor of Gerontology, Mercyhurst College, Erie, Pennsylvania, has proposed that a more accurate descriptive term for the human organism is "human environing unit" emphasizing the dynamic and ongoing nature of the process.



HUMAN ENVIRONED UNIT

A. A SINGLE INDIVIDUAL; OR

B. A PLURALITY OF INDIVIDUALS WHO HAVE SOME FEELINGS OF UNITY, SHARE SOME COMMON RESOURCES, GOALS, VALUES, AND INTERESTS AND HAVE SOME SENSE OF COMMON IDENTITY.

THE HUMAN ENVIRONED UNIT IS LOCATED IN A PARTICULAR SPACE AT A POINT IN TIME.

INTERACTION

INTERACTION IN AN ECOSYSTEM OCCURS WHEN ANY PART OF AN ECOSYSTEM INFLUENCES OR ACTS ON ANY OTHER PART AND IS INFLUENCED OR ACTED UPON IN RETURN.

INTERACTION CAN TAKE PLACE WITHIN THE ENVIRONED UNIT, BETWEEN THE ENVIRONMENTS, BETWEEN COMPONENTS WITHIN AN ENVIRONMENT, AND BETWEEN THE ENVIRONED UNIT AND ENVIRONMENT(S).

Fig. 1. The human ecosystem.

NATURAL ENVIRONMENT: THE ENVIRONMENT AS FORMED BY NATURE

COMPONENTS:

SPACE--THE UNLIMITED THREE-DIMENSIONAL EXPANSE IN WHICH EVENTS OCCUR AND IN WHICH MATTER AND ENERGY EXIST

TIME--THE CONTINUOUS DURATION IN WHICH EVENTS OCCUR AND ARE SEQUENTIALLY RELATED TO ONE ANOTHER AS IN PAST, PRESENT AND FUTURE

PHYSICAL--THAT PART OF THE ENVIRONMENT WHICH INCLUDES SUCH FACTORS AS ATMOSPHERE, CLIMATE, SOIL, WATER, MINERALS AND TOPOGRAPHICAL FEATURES

BIOLOGICAL--THAT PART OF THE ENVIRONMENT WHICH INCLUDES PLANTS, ANIMALS (INCLUDING HUMANS) AND MICROORGANISMS

HUMAN CONSTRUCTED ENVIRONMENT: THE ENVIRONMENT AS ALTERED OR CREATED BY HUMAN BEINGS

COMPONENTS:

SOCIOCULTURAL--THAT PART OF THE ENVIRONMENT WHICH INCLUDES HUMAN FORMATION OF CULTURAL PATTERNS (SUCH AS TECHNOLOGY, LANGUAGE, LAWS, VALUES AND AESTHETIC STANDARDS) AND OF SOCIAL INSTITUTIONS (SUCH AS ECONOMIC, POLITICAL, RELIGIOUS, FAMILIAL, HEALTH, RECREATIONAL AND EDUCATIONAL)

SOCIOPHYSICAL--THAT PART OF THE ENVIRONMENT WHICH INCLUDES HUMAN ALTERATIONS OF THE NATURAL PHYSICAL ENVIRONMENT AND CONSTRUCTED OBJECTS

SOCIOBIOLOGICAL--THAT PART OF THE ENVIRONMENT WHICH INCLUDES HUMAN ALTERATIONS OF PLANT AND ANIMAL (INCLUDING HUMAN) SPECIES AND MICROORGANISMS

HUMAN BEHAVIORAL ENVIRONMENT: THE ENVIRONMENT OF SOCIALIZED HUMAN BEINGS AND THEIR BEHAVIOR

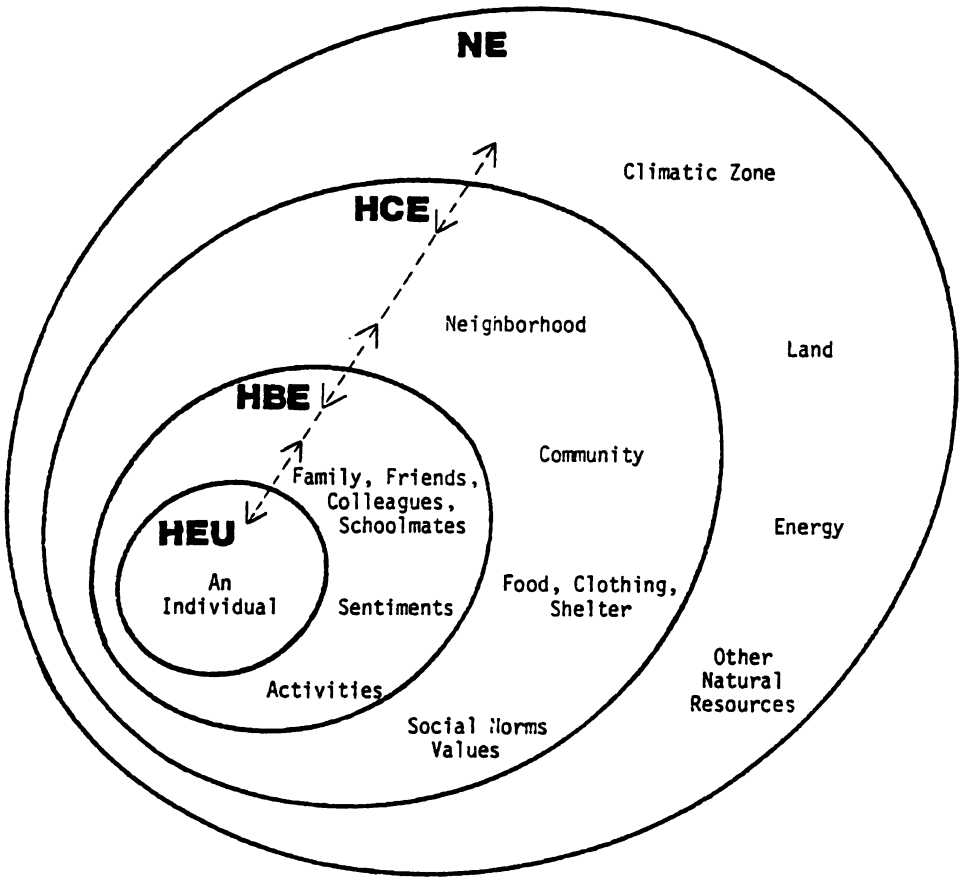
COMPONENTS:

PSYCHOLOGICAL--THAT PART OF THE ENVIRONMENT WHICH INCLUDES THOUGHTS AND EMOTIONS OF INDIVIDUALS

BIOPHYSICAL--THAT PART OF THE ENVIRONMENT WHICH INCLUDES THE BIOPHYSICAL PRESENCE OF PERSONS, THEIR BODILY MOVEMENTS AND PHYSICAL POSTURE

SOCIAL--THAT PART OF THE ENVIRONMENT WHICH INCLUDES INTERACTING PERSONS AND GROUPS AND SOCIAL RELATIONSHIPS OF SHORT OR LONG TERM DURATION

SOURCE: Margaret M. Bubolz, Joanne B. Eicher, and M. Suzanne Sontag, "The Human Ecosystem: A Model," Journal of Home Economics (in press).



SOURCE: Margaret M. Bubolz, Joanne B. Eicher, Sandra J. Evers, and M. Suzanne Sontag, "A Human Ecological Approach to Quality of Life: Conceptual Framework and Results of a Preliminary Study," Social Indicators Research (in press).

Fig. 2. A human ecosystem with examples of the human environed unit (HEU) and the near human behavioral environment (HBE), human constructed environment (HCE), and natural environment (NE).

provided by the environment for the fulfillment of its needs. In turn the HEU acts on its environment, affecting its quality.

Clothing, as seen in Figure 2, is an example of a human constructed environment which draws on resources from the natural environment (petroleum products, cotton, and wool fiber) for its production and maintenance. Food and fiber compete for land use and depleting energy resources for raw materials and production. According to data just released from the 1972-73 Consumer Expenditure Survey, clothing[1] accounts for 6.8 percent ($565.38) of the average annual total consumption expenditures ($8270.48) by all families during that time period (U.S. Department of Labor, 1978). This compares with 30.8 percent spent on housing, 19.3 percent on food, 8.6 percent on recreation, 6.4 percent on health care, and 1.3 percent on education, i.e., other important areas of indicator development.

Such expenditures on clothing help meet the biophysical, psychological, social, and aesthetic needs of family members. Through inputs of clothing goods and services and information about peer group, community and societal values, laws, rules, customs, mores, and taboos, the family ecosystem sets goals for consumption and use of clothing by its members. Families invest resources (e.g., clothing, services, time, and information) in the production of human capital which ideally takes the form of members of society who are (with reference to individual and societal benefits) (1) adequately clothed for physical health and comfort, (2) clothed

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[1]Includes outerwear, underwear, hosiery, footwear, hats, gloves, jewelry, other accessories as well as materials, repairs, alterations, and other services excluding drycleaning, laundry, and gifts.

in a manner compatible with the norms, attitudes, and customs of society, (3) clothed in such a way as to evoke social acceptance, approval, recognition, and validation of the self, (4) clothed in such a way as to promote self-esteem, motivation, and role performance, and (5) clothed in an aesthetically pleasing fashion (to the self and society) according to the aesthetic standards of the culture.

To the extent that clothing, as the most proximate constructed environment for the self, exerts some effect on the nature of social impressions and behavioral transactions, facilitates role enactment, and acts as a nonverbal communicator of the self, clothing may be considered to be an instrumentally functional as well as expressive interface between the personal system and the interpersonal, familial, and larger social systems.

To the extent that clothing assists in the regulation of body temperature through thermal insulation, conduction, convection, and evaporation and offers protection from injurious elements in the environment (e.g., fire, insects, bacteria), clothing may be considered as a protective interface between the HEU and the natural environment.

Clothing is an integral part of the near environment for the individual. Several prominent persons involved in the development of indicators of the quality of life have recognized that "the influence of factors on QOL are [sic] a rapidly decreasing function away, either in space or time" (Dalkey, 1973, p. II-196) from the

individual's life space. Findings from Andrews' and Withey's studies lend further support for this proposition:

> The higher relationships shown by concerns that are close to the respondent carry implications for the design of social indicator systems. They suggest that these are particularly important matters and that a set of social indicators that aspires to be reasonably comprehensive should probably include measures of these more personal aspects of life. (1976, p. 114)

In a summary of the 1972 Organisation for Economic Co-operation and Development (OECD) seminar proceedings on subjective well-being, Campbell and Strumpel proposed the following direction:

> Data on perception and evaluation of well-being ought to be analyzed in their linkage with: a) the environment, b) the person, c) his behavior, and d) other areas of subjective well-being.
>
> While there is no mechanistic relationship between objective and subjective changes, . . . a thorough analysis of the impact of the environment on people's feeling is called for. (1974, p. 188)

This study then represents an attempt to clarify the relative importance of the closest material environment of persons, clothing, as a determinant of perceived life quality.

Statement of the Problem

A recommendation for the inclusion of perceptual and objective clothing indicators among the list of limited, comprehensive, coherent, and significant indicators of quality of life to be monitored over time can be strengthened by empirical evidence of the contribution clothing makes to the perceived overall quality of life (POQL) relative to the contribution of other life concerns already included as indicators. The primary purpose of this research is to assess affective evaluations of clothing of adult married

women and men with school-age children and thereby examine the ability of affective evaluations of clothing to predict POQL when added to a set of existing predictors.

Perceptual (or subjective) indicators are those based on the personal, subjective evaluations of reporting individuals, whereas objective indicators are measurements of external physical and social conditions of the individual's existence and do not require a personal evaluation of the reporting individual (Andrews, 1974). Speaking before the American Statistical Association about the importance of perceptual indicators of life quality, Campbell (1977) stated:

> We must take account not only of the objective circumstances in which our people live but of the desirable and undesirable impact these circumstances have on their life experience. . . . There is no doubt that we should extend and refine the accounts we keep on standard of living and the objective circumstances of life. They tell us a great deal and they are indispensable. But we will need a different set of accounts to inform us about the subjective experience of life. They will not be as precise or as elegant but they will be measuring the right thing. (pp. 7-8)

Whereas objective and perceptual indicators can be conceived of and developed as separate entities, Withey (1974) while addressing the international Organisation for Economic Co-operation and Development (OECD) in 1972 called attention to the fact that

> Both the circumstances of people's lives and their feelings about those conditions are woven together so tightly that it is very artificial to talk about them as separate entities. Even though someone else may see them as separate strands or threads, the individual sees the weave, the texture and the pattern. (p. 21)

Cognizant of the imprecision of perceptual indicator measurement yet realizing that persons' perceptual evaluations of clothing will be based on some objective aspects of the condition of their

clothing relative to value criteria which they consider important for need fulfillment, the decision was made to focus on perceptual measures in this study within the framework of a model with known validity and reliability. If this investigation does provide evidence to support the inclusion of clothing indicators of quality of life, then the development of additional perceptual measures and the more costly and laborious development of objective indicators could follow. An attempt to obtain data from which objective clothing indicators could be developed was made within the goals of the entire research group effort of which this study is a part. But the analysis of that data is beyond the scope of the study reported here.

Correlational analysis between affective evaluations of clothing and POQL is made controlling for variables which may be suspected of contributing to a spurious relationship between POQL and clothing. Further implementation of the major research objective is achieved through the expansion of a domains-by-criteria matrix model developed and tested by Andrews and Withey (1976) at the Institute for Social Research, University of Michigan. The matrix model was essentially developed to reflect the manner in which people arrive at overall evaluations of life quality. This will be clarified in the description of the conceptual framework. The matrix expansion permits a precise probabilistic estimate of the contribution of affective evaluations of clothing to POQL when added to affective evaluations of other life concerns through the use of full and reduced model multiple regression analyses explained in Chapter III. Specific evaluations of clothing with respect to

eight value criteria are examined in terms of their ability to predict general evaluations of clothing and general evaluations of value criteria. The effect of social status and other demographic variables on the affective evaluations of clothing is examined through covariance analysis.

Eventually the development of indicators of the quality of life of families, with an emphasis on a larger unit of analysis than the individual, should be an important contribution particularly for the measurement of social change and as a guide for social policy formation. That the family has been neglected in quality of life indicator formation has been acknowledged in the literature (Weitzman, 1978; OECD, 1973). Since wife-husband data were available for the present study, preliminary attempts were made to determine differences between wives and husbands in their evaluations within the clothing domain with a view toward future development of composite measures of family clothing indicators.

A secondary purpose of this study is the determination of the proximity of clothing to the self on a map of the perceptual structure of people's affective evaluations of life concerns. From the perspective of the individual, is clothing perceived to be psychologically close to the self or is it perceived to be more remote? Indeed, is clothing viewed as "the visible self" (Roach & Eicher, 1973, p. xxiii) and "the second skin" (Crawley, 1931, p. 4; Horn, 1975, title page)? Based on social psychological theory to be reviewed later and on the expectation that how one views the self

is important to perceived life quality,[1] it is expected that there will be a stronger relationship between clothing and POQL for people whose perceptual structures show clothing to be more closely associated with feelings about the self than those for whom clothing is more psychologically remote from the self.

Conceptual Model for Measurement of Perceived Quality of Life: Domains-by-Criteria Matrix

Several models for assessing the contribution of clothing to POQL were available. Some were eliminated because they were too limiting (e.g., Strumpel's model of economic well-being, 1976). Others had no reported validity or reliability (e.g., Gitter & Mostofsky, 1973), and others were evaluated as conceptually inadequate. The model finally chosen was one which provided a framework broad enough to encompass the multidimensional aspects of clothing, had known validity and reliability, could be readily adapted to include clothing indicators and provide a test of their potential importance to POQL as it has been operationalized to date, and at the same time was consistent with the assumptions and propositions of the human ecological model.

The model chosen for this study is a two-dimensional matrix model proposed by Andrews and Withey (1976) for the evaluation of perceptions of well-being. The model employs quality of life

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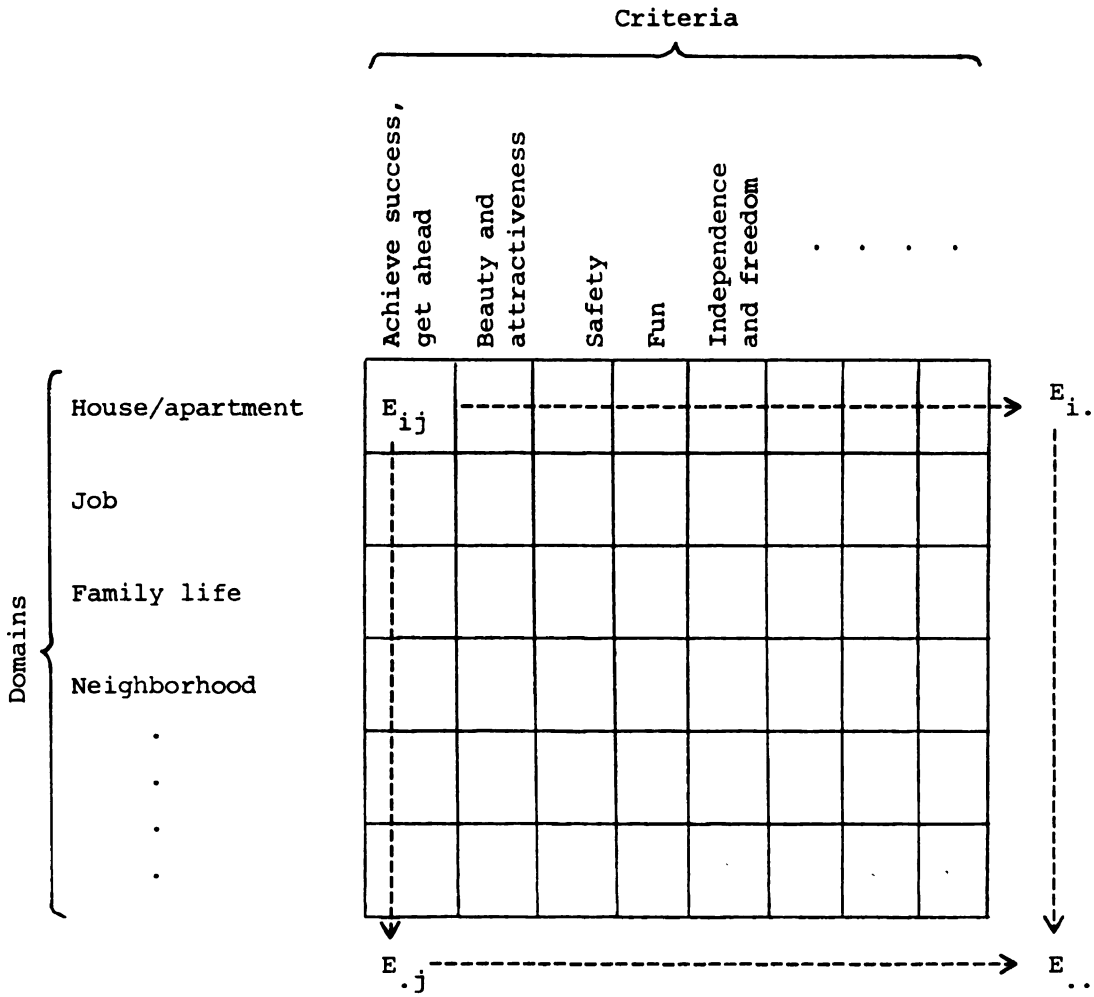
[1]Withey (1974) has said: "One aspect of quality of life is 'what I am'--short, tall, male, female, young or old--and the extensions of myself that are part of my identification--my house, job, spouse, children and possessions" (p. 21).

indicators at three levels of specificity which are illustrated in Figure 3. The authors' discussion is summarized below.

1. At the most general level are global indicators that refer to life-as-a-whole. Response to a question such as "How do you feel about your life as a whole?" provides a global level evaluation of well-being represented by $E_{..}$ in the matrix.

2. At a less general level are general evaluations of life concerns which are defined as "aspects of life about which people have feelings" (Andrews & Withey, 1976, p. 11). Two categories of life concerns have been identified: domains and criteria.

a. Domains of life are "places, things, activities, people and roles" (Andrews & Withey, 1976, p. 11). Six domains were used to test their model: house or apartment, job, family life, neighborhood, spare time activities, and national government. Not all domains are shared by all people. For example, some people do not have jobs. Nor is there the implication that getting into or out of a domain improves well-being. For example, getting a job may increase the perceived well-being of some and decrease the sense of well-being of others. General affective evaluative responses to questions about domains, such as "How do you feel about your own family life--your husband or wife, your marriage, and your children, if any?" are represented by the $E_{i.}$'s in the matrix.



E_{ij} = Affective evaluative response to a particular domain with respect to a particular criterion

$E_{i.}$ = General affective evaluative response to a domain (across criteria)

$E_{.j}$ = General affective evaluative response to a criterion (across domains)

$E_{..}$ = General affective evaluative response to life-as-a-whole--i.e., perceived quality of life

SOURCE: Frank M. Andrews and Stephen B. Withey, Social Indicators of Well-Being (New York: Plenum Press, 1976), p. 13.

Fig. 3. Andrews' and Withey's two-dimensional conceptual model with examples of possible domains and criteria and with evaluations of well-being at three levels of specificity.

b. Criteria are "values, standards, aspirations, goals, and--in general--ways of judging what the domains of life afford. There are criteria that people do not share, but people seem to differ more in their particular standards and their ideas of relevance than in the presence or absence of criteria" (Andrews & Withey, 1976, p. 12). Eight value criteria were chosen to test their model: standard of living, fun, independence or freedom, beauty and attractiveness, freedom from bother and annoyance, safety, accomplishing something, and acceptance and inclusion by others. General affective evaluative responses to questions about criteria such as "How do you feel about your independence or freedom--the chance you have to do what you want?" are represented by the $E_{.j}$'s in the matrix.

Feelings about domains and criteria are determinants of one's assessed quality of life.

3. The most specific level involves a person's evaluation of a specific domain with respect to a specific criterion. Affective evaluative responses to a particular domain with respect to a particular criterion such as "How would you feel about your own family life if you considered only its effect on your independence or freedom--the chance you have to do what you want?" are represented by the E_{ij}'s within the individual cells of the matrix.

The matrix suggests that the marginal evaluations ($E_{i.}$ and $E_{.j}$) are some function or combination (not necessarily additive) of

the evaluations in the respective rows and columns. For example, how a person evaluates his/her family life may be a result of how well family life meets several relevant criteria such as independence or freedom, fun, and accomplishing something. Similarly, column-wise combinations can be made for the criteria. How a person feels about a particular value, goal, or standard in his/her life depends upon its fulfillment in various domains according to the model. Global evaluation of life-as-a-whole may result from a combination of the marginal evaluations (general life concerns) across columns (criteria) or down rows (domains). That is, at the second level of specificity, some combination of feelings about several criteria may predict POQL or feelings about several domains may predict POQL.

Affective evaluations are assessed with the Delighted-Terrible (D-T) Scale[1] (Figure 4) for all three levels of specificity. Andrews and Withey have conducted extensive validity and reliability research on several scales (including the D-T Scale) used in quality of life studies and have tested the matrix model using the six domains and eight criteria named previously. This information is reported in the Review of Literature.

Although Andrews and Withey tend to define criteria rather broadly (i.e., in terms of values, standards, aspirations, and goals), the emphasis is placed on value criteria.

> The quality of life is not just a matter of the conditions of one's physical, interpersonal and social setting but also a matter of how these are judged and evaluated by oneself and others. The values that one brings to bear on life are in

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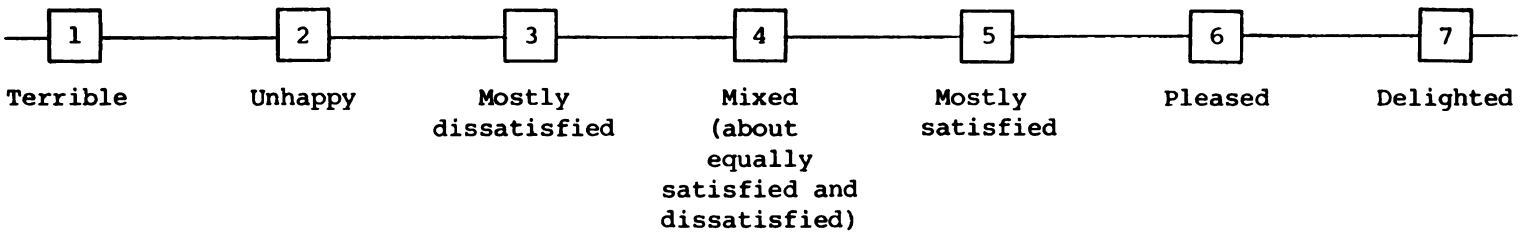
[1]Used with the written permission of Frank M. Andrews and Stephen B. Withey, September 1977.

I feel:



A	Neutral (neither satisfied nor dissatisfied)
B	Never thought about it
C	Does not apply to me

SOURCE: Frank M. Andrews and Stephen B. Withey, Principle Investigators, Development and Measurement of Social Indicators (Ann Arbor, Mi.: Institute for Social Research Social Science Archive, 1975), Codebook, July Data, p. 28.

Fig. 4. The Delighted-Terrible Scale developed by Andrews and Withey used for the assessment of affective evaluations.

> themselves determinants of one's assessed quality of life. Leave the situations of life stable and simply alter the standards of judgment and one's assessed quality of life could go up or down according to the value framework. It may well be that subjective quality of life is better understood by studying the nature and determinants of value structures than by assessing the more objective conditions of living. It is undoubtedly better to try and link them in a common understanding. (1976, p. 12)

Rescher (1969) has also reflected on the relationship between values and well-being:

> Values are intangibles. They are, in the final analysis, things of the mind that have to do with the vision people have of "the good life" for themselves and their fellows. A person's values . . . represent factors that play a role in his personal welfare function, the yardstick by which he assesses the extent of his satisfactions in and with life. (pp. 4-5)

The Andrews and Withey model places an evaluated object within a valuation framework. According to Rescher (1969) this may indicate either:

1. the extent to which the value is embodied in the object [i.e., prediction of domains by domains-by-criteria evaluations], or
2. the extent to which realization of the value is facilitated by the object, i.e., the extent to which the value is realizable through the object [i.e., prediction of value criteria by domains-by-criteria evaluations]. (p. 63)

Clothing is considered a domain of life about which people have feelings. Clothing may be evaluated with respect to certain value criteria. Most of the value criteria specified in the original test of the matrix model seemed to provide a good cross-section of those which have been studied previously in the clothing literature. In addition, it was considered desirable to make some comparisons of the findings of this study with the results of implementation of the model in the July 1973 Toledo study (Andrews & Withey, 1976). The matrix investigated in this study is presented

in Figure 5. The only change from the 1973 Toledo study is the addition of a seventh domain, clothing. By implementing a model with preselected value criteria, one runs the risk of not tapping those value criteria actually used by a respondent in the assessment of a given domain or POQL. Therefore, the need to solicit additional value information in a more indirect manner from the respondent when investigating a new domain was recognized and implemented.

The compatibility of the Andrews and Withey model which emphasizes implementation of value criteria within domains and the human ecological framework which emphasizes need fulfillment by resources in one's environment requires some explication. At the outset the relation between needs and values is recognized as a controversial, debatable issue.

According to Maslow, physiological and psychological needs are "deficiencies which must be optimally fulfilled by the environment to avoid sickness and to avoid subjective ill-being" (1959, p. 123). Value, defined by Maslow as the "gratification of any such need" (1954, p. 6), is as important as deprivation in his theory of motivation. Needs "press for gratification, which is to say, [their] own obliteration" (Maslow, 1954, p. 133). Maslow proposed a hierarchy of basic needs ranging from basic low level physiological needs through safety, love and belonging, esteem by self and others to self-actualization. For Maslow what one needs one values, and there is thus a correspondence between the needs hierarchy and an implicit values hierarchy. "A greater value is usually placed upon the higher need than upon the lower by those

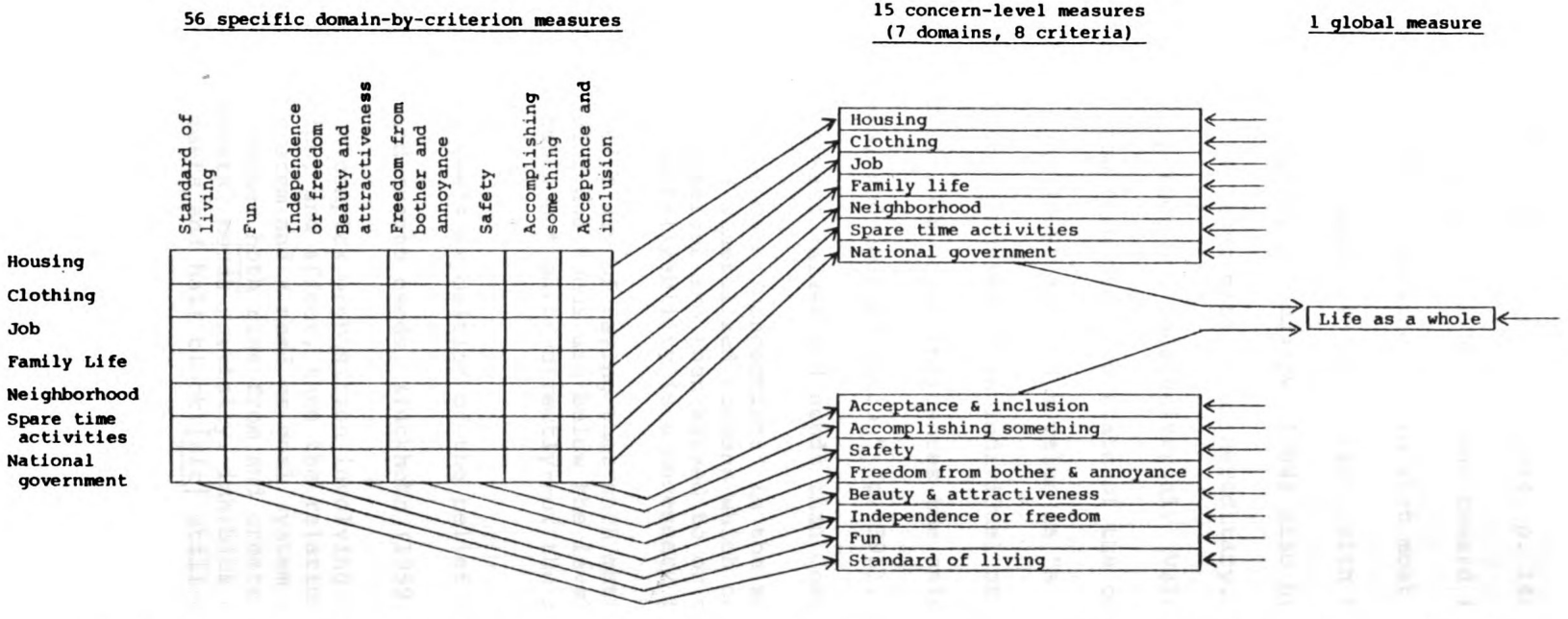


Fig. 5. Domains-by-criteria matrix model used in this study. The model represents an expansion of a matrix model tested by Andrews and Withey (1976).

who have been gratified in both" (Maslow, 1954, p. 148). And "the human being is so constructed that he presses toward fuller and fuller being and this means pressing toward what most people would call good values . . ." (Maslow, 1959, p. 126), with the ultimate value being self-actualization. Maslow (1954) also hypothesizes that the basic needs are "instinctoid" or hereditary, part of the constitution of every person and thus universal. Values, i.e., need gratification, stem from the need state of the organism.

Clyde Kluckhohn (1959) defined a value as "a conception, explicit or implicit, distinctive of an individual or characteristic of a group, of the desirable which influences the selection from available modes, means, and ends of action" (p. 395). He makes a clearer distinction between values and needs than does Maslow:

> Implicit values remain "conceptions" in the sense that they are abstract and generalized notions which can be put into words by the observer and then agreed to or dissented to by the actor. Verbalizability is a necessary test of value.
>
> This is perhaps a way of saying that such matters as instinctual behavior and needs are below the level of abstraction and hence not part--directly--of the realm of value. (p. 397)

Responding to Dorothy Lee's exposition of the belief that values derive from culture and create needs, Kluckhohn (1959) states:

> Since a value is a complex proposition involving cognition, approval, selection, and affect, then the relationship between a value system and a need or goal system is necessarily complex. Values <u>both</u> rise from and create needs. A value serves several needs partially, inhibits others partially, half meets and half block [<u>sic</u>] still others. (p. 428)

Thus, Kluckhohn allows for needs which are not intrinsic to the organism but derive from the values of the culture.

By adopting the model of Andrews and Withey this study is engaged more directly with the benefit derived from the realization of values than with the direct perception of need fulfillment, although the former in some cases may reflect the latter. For example, an answer of "mostly satisfied" to the question "How do you feel about what you are accomplishing in your life?" may suggest that a need is being fulfilled, but the specific need is not well defined. Accomplishing something may meet a need for esteem by self or others or for self-actualization. At the present, however, the methods for directly measuring perception of need fulfillment within the context of quality of life research have not been developed. Since Andrews and Withey (1976) obtained a reasonably good fit of empirical data in the 1973 test of their model, their model was adopted as a close approximation to the assumptions and relationships defined in the human ecological framework.

The D-T Scale does not measure the comparative extent of subscription to a value but does measure the degree of feeling about having been able to realize the benefits at issue in a certain value. [Refer to Rescher (1969) for a discussion of value scales]. The option of responding off scale provides an important alternative for those for whom the value is not relevant.

Objectives

The objectives of the research are:

1. To determine the relationship between affective evaluations of clothing and perceived overall quality of life for women and men while controlling for several demographic characteristics.

2. To determine whether the affective evaluation of clothing is a significant predictor of perceived overall quality of life and whether the extent to which eight value criteria are implemented in the clothing domain is a significant predictor of (1) general affective evaluations of clothing and (2) general affective evaluations of the eight value criteria.

3. To determine whether women and men differ in their affective evaluations of clothing with respect to selected demographic characteristics.

4. To determine whether wives and husbands differ in their (1) affective evaluations of clothing and (2) affective evaluations of clothing with respect to each of the eight value criteria.

5. To identify the proximity of clothing to the self in the structure of perceptions of life concerns for women and men.

Hypotheses

The null hypotheses for each research objective are stated below.

Hypothesis for Research Objective 1:

H_1: There is no relationship between affective evaluations of clothing and perceived overall quality of life for women and men controlling for (1) age, (2) total family income, (3) education, (4) family size, and (5) occupational prestige.

Hypotheses for Research Objective 2:

H_2: Affective evaluations of the clothing domain by women and men do not explain perceived overall quality of life when the clothing domain is added to other selected domains.

H_3: Affective evaluations of clothing with respect to the eight value criteria do not explain affective evaluations of clothing for women and men.

H_4: Affective evaluations of clothing with respect to each of the eight value criteria by women and men do not explain general affective evaluations of the eight value criteria when the clothing-by criterion evaluation is added to other selected domains-by-criterion evaluations.

Hypothesis for Research Objective 3:

H_5: There is no difference in the affective evaluations of clothing for women and men with respect to (1) age, (2) total family income, (3) education, (4) family size, and (5) occupational prestige.

Hypotheses for Research Objective 4:

H_6: There is no difference between wives and husbands in their general affective evaluations of clothing.

H_7: There is no difference between wives and husbands in their affective evaluations of clothing with respect to each of the eight value criteria.

Hypothesis for Research Objective 5:

H_8: On a map of the perceptual structure of life concerns, clothing is in closer proximity to the self for high scorers on the Proximity of Clothing to Self Scale than for low scorers.

The expectation was that null Hypotheses 1 through 7 would be rejected and that Hypothesis 8 would fail to be rejected with application of appropriate statistical tests and analytical techniques.

Assumptions

The assumptions of this study are:

1. A person's evaluation of life quality and life concerns involves both cognitive and affective components.

2. The domains and criteria selected for analysis in this study do not represent an exhaustive list of life concerns but reflect a sample of life concerns chosen to extend past research.

3. The domains-by-criteria matrix model assumes "that the same set of elementary domain-by-criterion evaluations, when combined in different ways, can account for both concern-level evaluations of the domain type and concern-level evaluations of the criterion type" (Andrews & Withey, 1976, p. 233). The model also assumes that either domain-level evaluations or criterion-level evaluations can be used to account for global evaluations of life quality.

4. The difference in meanings between adjacent scale categories on the Delighted-Terrible Scale is roughly equivalent thus permitting the numerical responses to be treated as interval-level data.

5. Value criteria used to evaluate clothing can be identified through content analysis of responses to a question soliciting important reasons for respondent's feelings about clothing.

6. Most likely there is a reciprocal influence between wives' and husbands' beliefs and feelings about life concerns and the quality of their lives which precludes the treatment of wives and husbands as a single sample due to assumptions of independence underlying many statistical models.

There is some supportive evidence for the legitimacy of the fourth assumption. Andrews and Withey (1976) used

multidimensional scaling techniques for analysis of data in which the Delighted-Terrible Scale was used. A matrix of Pearson product-moment correlation coefficients (r's) was the input to these analyses. They report:

> Strictly speaking, the data do not fully meet all the statistical assumptions for r: Our scales are ordinal, many distributions are skewed, and some relationships are not perfectly linear. However, a careful check showed that the pattern of relationships in a matrix of gamma coefficients (for which the data do meet all the assumptions) was virtually identical to that in a matrix of r's. (The rank correlation--rho--between the r's and the gammas was .95 for sixty-six pairs of variables we examined.) Whether our variables were collapsed to reduce skew prior to computing r's also proved to make virtually no difference. (Rho between r's based on collapsed scales and those based on uncollapsed scales was .98.) (Footnote 4, p. 36)

Additional explorations by Andrews and Withey (1976) into the magnitude of the intervals between adjacent D-T Scale categories determined by comparison with responses on three other scales showed that the intervals were approximately equal between the five least positive scale categories with somewhat smaller intervals between Mostly Satisfied and Pleased and between Pleased and Delighted. Taken together, the correlation results, the comparative interval investigation, and other evidence, give these researchers confidence that the difference in meanings of adjacent scale categories is roughly equivalent.

Theoretical Definitions

Affective Evaluation. The assessment of life quality and life concerns involving both cognitive evaluation and some degree of positive and/or negative feeling, i.e., affect.

Clothing. All items of apparel including outerwear, accessories, underwear, and footwear for all activities.

Perceived Overall Quality of Life (POQL). A person's affective evaluation of life-as-a-whole; a subjective assessment, involving both cognitive and affective components, of the well-being of the individual.

Life Concerns. Domains of life and criteria about which people have feelings.

Domains. "Places, things, activities, people and roles" (Andrews & Withey, 1976, p. 11). Domains of life are evaluated with respect to criteria, and they contribute to a person's perceived overall quality of life.

Criteria. "Values, standards, aspirations, goals, and--in general--ways of judging what the domains of life afford" (Andrews & Withey, 1976, p. 12). Changes in the importance and/or relevance of criteria affect the perceived overall quality of life.

Proximity of Clothing to Self. The psychological closeness of clothing to the self measured by the extent to which clothing is perceived as a part of the self, as an aspect of appearance by which the self is established and validated, as a symbol of one's identity, mood, and/or attitude, as an expression of self-regard, and/or the extent to which clothing is expressed as an element of an affective response to self-evaluation and/or body cathexis.

Occupational Prestige. "The phenomenon of differential societal evaluations of occupations according to their social standings" (Otto, 1975, p. 326). "The prestige position of an occupation is apparently a characteristic of that occupation, generated by the way in which it is articulated into the division of labor, by the amount of power and influence implied in the activities of the occupation, by the characteristics of incumbents, and by the amount of resources society places at the disposal of incumbents" (Hodge, Siegel, & Rossi, 1966, p. 322).

Self-Esteem. A multidimensional construct involving evaluative and affectional aspects of the self-concept which are of a processual nature. Self-evaluation is an attitudinal process which involves cognitive comparisons of characteristics of the self with some standard. As an affective process, self-esteem consists of the emotional (cathectic) and behavioral response to self-evaluation (Wells & Marwell, 1976).

Internal-External Locus of Control. "The extent to which persons perceive contingency relationships between their actions and their outcomes. People who believe they have some control over their destinies are called 'Internals'; that is, they believe that at least some control resides within themselves. 'Externals' . . . believe that their outcomes are determined by agents or factors extrinsic to themselves, for example by fate, luck, chance, powerful others, or the unpredictable" (Robinson & Shaver, 1973, p. 169).

Operational Definitions

Affective Evaluation. A person's response, selected from seven on-scale categories and three off-scale categories on the Delighted-Terrible Scale, to questions pertaining to life quality and life concerns.

Affective Evaluation of Clothing. A person's response to the question "How do you feel about your clothing?" on the Delighted-Terrible (D-T) Scale (Appendix A, item 1.15a).

Perceived Overall Quality of Life (POQL). The average of a person's responses to the questions "How do you feel about your life as a whole?" on the Delighted-Terrible (D-T) Scale (Appendix A, items 1.1 and 9.2).

Domains. Seven domains are included in the matrix model of this study: housing, clothing, job, family life, neighborhood, spare time activities, and national government (Appendix A, items 1.3a, 1.7, 1.10, 1.12, 1.14-1.15a, 1.16). Additional domains are included for the analysis of perceptual structures of life concerns: self, changes in family's lifestyle to conserve energy, health, and total family income (Appendix A, items 1.17-1.18 and 1.23-1.24).

Criteria. Eight criteria are included in the matrix model of this study: standard of living,[1] fun, independence or freedom,

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[1]Standard of living as used by Andrews and Withey is operationalized as "the things you have like housing, car, furniture, recreation, and the like" (Andrews & Withey, 1976, p. 33, item 85). For purposes of comparison and ease of interpretation by

beauty and attractiveness, freedom from bother and annoyance, safety, accomplishing something, and acceptance and inclusion by others (Appendix A, items 1.2, 1.4-1.6, 1.8-1.9, 1.11, and 1.13). Additional criteria are included in the analysis of perceptual structures of life concerns: financial security, interesting day-to-day life, extent to which physical needs and social/emotional needs are met, creativity and expressiveness, and learning and exposure to new ideas (Appendix A, items 1.19-1.22 and 1.25-1.26).

Domains-by-Criteria. Specific evaluations of the seven domains with respect to the eight criteria in the matrix model (Appendix A, items 2.1a-2.7h). Under the assumptions of the model, these evaluations predict general domain evaluations and general criterion evaluations.

Proximity of Clothing to Self. A person's score on the Proximity of Clothing to Self Scale which embodies the criteria previously specified in the theoretical definition at three levels ranging from no perception of clothing to self to perception of a close relation between clothing and the self. Scores are based on responses to item 1.15b, "What are some of the most important reasons why you feel as you do about your clothing?"

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respondents the term "standard of living" was retained although the accurate term for the operational definition is "level of living." Standard of living is more accurately defined as "the level of living that a family or individual desires and strives to attain . . ." (Hafstrom & Dunsing, 1973, p. 120), i.e., what ought to be, whereas level of living refers to what is.

Occupational Prestige. Hodge, Siegel, and Rossi's two-digit occupational prestige scores reported by the Social Science Research Council (1975) generated by societal rankings of the social standing of numerous occupations. Scores were assigned on the basis of responses to items 13.9b-13.9e and 13.9g (Appendix A). The prestige scores were designed for use with the 1960 U.S. Census occupational codes (U.S. Bureau of the Census, 1960) and have been adapted to the 1970 Census listings (U.S. Bureau of the Census, 1971). Hodge, Siegel, and Rossi (1966) have reported the substantial stability of occupational prestige scores over time, i.e., from 1925-1963.

Self-Esteem. Feelings of self-worth as measured by a person's attitudes to the self on the Rosenberg Self-Esteem Scale (Appendix A, items 3.1-3.10).

Internal-External Locus of Control. A person's score on four forced-choice items which constitutes the Index of Personal Competence (Campbell et al., 1976). The higher the index (which ranges from 0 - 4), the greater the degree of internal control (Appendix A, items 4.1-4.4).

CHAPTER II

REVIEW OF LITERATURE

The research reviewed in this chapter is organized in six sections. The first section, determination of components of well-being or quality of life, provides evidence that clothing meets the criteria for inclusion as a potential component of quality of life. A review of the few quality of life studies that have included clothing among the life concerns constitutes the second section. The third section is a discussion of the validity of perceptual measures and the evidence for the validity of the domains-by-criteria matrix model. The fourth section, perceptual structures of well-being, describes the theoretical framework upon which maps of perceptual structures are based and explores the known relationships among life concerns as people perceive them. In the fifth section the theoretical development of the relationship between clothing and the self is accomplished by a review of the classics in the social psychological literature and in the clothing literature. Selected pertinent clothing satisfaction studies and associated evaluative criteria comprise the sixth section.

Determination of Components of Quality of Life: The Case for Clothing

With the almost universal omission of clothing from the lists of quality of life components, one must ask why. Is there an historical reason for the omission? Does clothing not meet the criteria for inclusion as a quality of life component? Do perceptual and objective indicators of clothing conform to the definition of quality of life indicators?

These are important questions to answer before one can add another factor to the already extensive QOL factor lists. If clothing does meet the criteria and indicators are consistent with the definitions, then only empirical research will determine the magnitude of its significance as a component of the quality of life.

Historical Identification of Quality of Life Components

Historically, in 1966 President Lyndon B. Johnson mandated the Department of Health, Education, and Welfare (HEW) to develop the necessary social indicators as a supplement to the economic indicators prepared by the Bureau of Labor Statistics and the Council of Economic Advisors. This resulted in the publication, Toward a Social Report, which defined a social indicator as:

> . . . a statistic of direct normative interest which facilitates concise, comprehensive and balanced judgments about the condition of major aspects of a society. It is in all cases a direct measure of welfare and is subject to the interpretation that, if it changes in the "right" direction, while other things remain equal, things have gotten better, or people are "better off." (U.S. Dept. of HEW, 1969, p. 97)

The report clearly identified social indicators as measures of "national well-being" or "the quality of American life" and

named several aspects of life quality for which social indicators had been or were being developed: health and illness, social mobility, the physical environment, income and poverty, public order and safety, learning, science, and art, and participation and alienation. HEW recommended the preparation of a comprehensive social report to the nation and the development of social indicators that would measure social change and be useful in establishing social goals. In its list of components of the quality of life, the physical environment was defined as the natural and man-made environments. The latter, however, was narrowly restricted to housing, urban space, and transportation.

Prior to publication of this report, former Senator Walter C. Mondale introduced Senate Bill S.843, the "Full Opportunity and Social Accounting Act," which would have required the transmission to Congress by the President of an annual social report since

> . . . it is the continuing policy and responsibility of the Federal Government, consistent with the primary responsibilities of state and local governments and the private sector, to promote and encourage such conditions as will give every American the opportunity to live in decency and dignity, and to provide a clear and precise picture of whether such conditions are promoted and encouraged in such areas as health, education, and training, rehabilitation, housing, vocational opportunities, the arts and humanities, and special assistance for the mentally ill and retarded, the deprived, the abandoned, and the criminal, and by measuring progress in meeting such needs. (S.843, 1967, p. 974)

Those areas were emphasized in which there was a visible, obvious lack in the opportunity for every American to live in "decency and dignity." Although this act was passed by the Senate, it did not come to a vote in the House. The same outcome occurred when it was reintroduced as S.5 in 1972. Both the proposed bill

and the HEW report set the stage for the development of social indicators by researchers cognizant of the political and social implications.

By 1972 there was confusion over and an obvious lack of consensus in definition of the quality of life concept. The Environmental Protection Agency sponsored the Airlie Symposium in August of that year to explore the notion of quality of life--its definition, its components, and its potential quantitative approaches to its use in guiding public policy. The definition of QOL advanced in the report of this symposium was "the well-being of people--primarily in groups but also as individuals--as well as . . . the 'well-being' of the environment in which these people live" (Environmental Protection Agency, 1973, p. I-1). Aside from the fact that this definition introduces another loosely defined concept, i.e., "well-being," it does focus on an important issue--the unit of analysis. The suggestion was made that it is appropriate to study the quality of life of groups, the quality of life of individuals, and the "quality of life" of environments in which people live.

Many conceptualizations of quality of life differ as to which unit of analysis is emphasized. McCall, for example, emphasizes quality of life on the macro level. "QOL consists in the obtaining of the necessary conditions for happiness in a given society or region" (McCall, 1975, p. 234). He considers it appropriate to talk in terms of societies with high QOL or low QOL based on the equitable distribution of resources to meet human needs (since the necessary conditions for happiness are the general

happiness requisites, i.e., the fulfillment of human needs). "QOL in a given region consists in the satisfaction of the GHR's (general happiness requisites) throughout the region, i.e., for each inhabitant. The greater the percentage of people in the region for which GHR's are satisfied, the higher the level of QOL" (McCall, 1975, p. 239). In this approach, if a certain percentage of the population's physical needs for clothing were met and additional clothing was available, distribution of the surplus clothing to those who already had a sufficient amount would not result in an increase in QOL. But distribution to those whose needs were not met would increase the QOL of that society.

Joun emphasized the quality of life of the environment. "The quality of life encompasses all aspects of the environment surrounding human beings. Such an environment could be divided into two broad categories--human and natural environments" (Joun, 1973, pp. II-111). The human environment was defined as the man-made environment consisting of economic, sociocultural, public service, spatial, health, and other environments. The natural environment was further categorized into biotic and abiotic components.

EPA (Environmental Protection Agency, 1973) Fellows conceptualized the environment similarly including the economic, political, physical, social and natural environments, and health. They used four criteria to generate this classification scheme and factor list for QOL. The list was to be comprehensive, be free of redundancies, deal with conditions that could be objectively and subjectively measured and contain single dimensional characteristics if possible. Imposition of the latter criterion seems unnecessary

particularly when it was apparently difficult to meet as shown by the number of multidimensional factors that appear in the final classification scheme which is summarized in Table 1. They found considerable similarity in the underlying structure common to several studies.

By and large, the majority of research endeavors since 1972 have concentrated on the well-being of individuals with some attempts at aggregation to formulate a quality of life index for a group or region. (For an example of the latter the reader is referred to Liu, 1974, 1975, and 1976.) Most of those who have laid the foundation for the development of perceptual indicators of well-being have necessarily adopted the individual as the unit of analysis (Dalkey & Rourke, 1973; Mitchell et al., 1973), and many have recognized the importance of the environment as an influencing factor in the experience of life quality of individuals (Andrews, 1974; Andrews & Withey, 1974, 1976; Campbell et al., 1976; Bubolz et al., in press).

On the individual level Land (1975) has proposed three measurement domains within the person's life space:

> (1) objective conditions (the external physical and social conditions of the individual's existence); (2) subjective value context (the individual's beliefs, expectations, and aspirations; and (3) subjective well-being (the individual's feelings, satisfactions, and frustrations concerning components of the two sets). (p. 27)

Specific measurement items within each domain should have an empirical referent and covary with other core items in the domain.

Within the context of measuring individual's psychological well-being as an indicator of life quality, Dalkey and Rourke (1973)

TABLE 1.--Classification Scheme and Factor List for QOL Developed by EPA Fellows

Economic Environment:
Work satisfaction
Income
Income distribution
Economic security
Political Environment:
Informed constituency
Civil liberties
Electoral participation
Non-electoral participation
Government responsibilities
Physical Environment:
Housing
Transportation
Material quality
Public services
Aesthetics
Social Environment:
Community
Social stability
Culture
Physical security
Family
Socialization
Recreation
Health:
Physical
Mental
Nourishment
Natural Environment:
Air quality
Water quality
Radiation
Solid waste
Toxicity
Noise

SOURCE: Environmental Protection Agency, The Quality of Life Concept (Environmental Protection Agency, Office of Research and Monitoring, Environmental Studies Division, 1973): I-47, exhibit A.

developed a psychologically oriented factor list using a Delphi procedure. The final list of thirteen QOL factors is shown in Table 2. One can see that these psychologically oriented factors are similar to the criteria as defined in Andrews' and Withey's domains-by-criteria matrix model. The list includes factors which would be expected to contribute to ill-being as well as to well-being.

Ziller (1974) focused on changes in the self-concept as an indicator of individual well-being:

> It is proposed here that changes in the personal system following an experience or event serves as an indicator of the meaning of the event from the person's point of view and is, thus, an indicator of the quality of life. Changes in the higher components of the personal system are assumed to indicate a more meaningful event. A more profound meaning is associated with a change in the self-concept as opposed to a change in attitude. (p. 308)

In an effort to overcome limitations of the survey approach to measurement of QOL (e.g., difficulty in checking the reliability of verbal reports and of relating verbal reports to behavior), Ziller developed nonverbal structured projective techniques for the determination of the meaning of life events as they contribute to the individual's perceptions of the quality of life. Changes in self-esteem as a result of social interaction of the self with significant others within a social environment were measured.

On an international level, the Organisation for Economic Co-operation and Development (1973), composed of twenty-three member nations including the United States, agreed upon the following list of fundamental (as opposed to instrumental) concerns of direct importance to human well-being and of present or potential interest

TABLE 2.--QOL Factors Developed by Dalkey and Rourke

1. Novelty, change, newness, variety, surprise; boredom; humorous, amusing, witty.

2. Peace of mind, emotional stability, lack of conflict; fear, anxiety; suffering, pain; humiliation, belittlement; escape, fantasy.

3. Social acceptance, popularity; needed, feeling of being wanted; loneliness, impersonality; flattering, positive feedback, reinforcement.

4. Comfort, economic well-being; relaxation, leisure; good health.

5. Dominance, superiority; dependence, impotence, helplessness; aggression, violence, hostility; power, control, independence.

6. Challenge, stimulation; competition, competitiveness; ambition; opportunity, social mobility, luck; educational, intellectually stimulating.

7. Self-respect, self-acceptance, self-satisfaction; self-confidence, egoism; security; stability, familiarity, sense of permanence; self-knowledge, self-awareness, growth.

8. Privacy.

9. Involvement, participation; concern, altruism, consideration.

10. Love, caring, affection; communication, interpersonal understanding; friendship, companionship; honesty, sincerity, truthfulness; tolerance, acceptance of others; faith, religious awareness.

11. Achievement, accomplishment, job satisfaction; success; failure, defeat, losing; money, acquisitiveness, material greed; status, reputation, recognition, prestige.

12. Individuality; conformity; spontaneity, impulsive, uninhibited; freedom.

13. Sex, sexual satisfaction, sexual pleasure.

SOURCE: Norman C. Dalkey and Daniel L. Rourke, "The Delphi Procedure and Rating Quality of Life Factors," in The Quality of Life Concept (Environmental Protection Agency, Office of Research and Monitoring, Environmental Studies Division, 1973): II-218, table 3.

to the member nations: health, individual development through learning, employment and quality of working life, time and leisure, command over goods and services, physical environment, personal safety and the administration of justice, and social opportunity and participation. This list combines conditions of the environment as well as individual growth and development.

Campbell (1972) wanted to use Maslow's hierarchy of human needs as a basis for evaluating individuals' aspirations, satisfactions, and achievements. In a later publication the difficulty of operationalizing an abstract needs hierarchy was acknowledged:

> It became apparent, however, that some of the abstractions of Maslow's theory, self-actualization for example, are difficult to convert directly into language which is suitable for a national survey; and we were forced to seek a medium which was closer to everyday experience. (Campbell et al., 1976, p. 12)

The model proposed by Campbell et al. (1976) suggests that people perceive attributes in their objective environment (which includes domains). The perceived attributes are evaluated against some internal standard of comparison, such as one's aspirations, expectations, equity levels, reference group levels, or personal needs and/or values. The result of this assessment contributes to satisfaction or dissatisfaction with the domain. One's general sense of well-being or perceived life quality is compounded in some way from the satisfactions and dissatisfactions of several specific domains. Their choice of domains was somewhat arbitrary but designed to cover a broad spectrum of life yet be of everyday concern to the majority of people in the population. "We were also guided to some degree in our choices by past studies that have

investigated, in a more open-ended way, where most people allocate their time, thought and emotional energy, as well as the way in which they tend to partition their roles and domains of experience" (Campbell et al., 1976, p. 62). The domains selected were: marriage, family life, health, neighborhood, friendships, housework, job, life in the United States, city, or county, nonwork, housing, usefulness of education, standard of living, amount of education, and savings.

As a result of a recent study of subjective well-being in northern Wisconsin, Wilkening and McGranahan (1978) concluded that the aspiration-achievement model of Campbell et al. does not explain all aspects of life satisfaction. They state that:

> . . . satisfaction is not entirely a process of realizing instrumental goals. It involves a feeling about being a part of social relationships providing the individual with the identity and the support as well as resources for living. . . . Satisfaction results from the discrepancy between the feeling of need for affection, acceptance and identification and its realization. (p. 231)

In addition to the contribution of integrative-expressive processes to subjective well-being, these authors also have proposed the inclusion of measures of the adaptive processes by which individuals overcome the disruptive effects of physical, social, and emotional crises (e.g., unemployment, divorce, death). These recommendations are compatible with the human ecological model previously explained since these processes involve interactions between the human environed unit and the human behavioral environment.

The model developed by Andrews and Withey has been explained at length in the first chapter of this study. Again no stringent criteria were enforced in the selection of life concerns (domains and criteria) for investigation. Three sources generated

a final list of 123 concerns which were subsequently investigated in one local and three national surveys: (1) unstructured questions in eight different surveys which focused on "substantive issues of high social, political, and/or psychological interest" (1976, p. 30); (2) structured interviews focusing on daily activities; and (3) published lists of values.

The inclusion of value criteria is not without theoretical precedent. Cantril (1965) said:

> As human beings, we seem to seek a quality of experience far different from that sought by any other type of organism we know. Man's capacity to experience value satisfactions propels him to learn and to devise new ways of behaving that will enable him both to extend the range and heighten the quality of value satisfactions and to insure the repeatability of these value satisfactions already experienced. (p. 10)

Changes in satisfaction with values, moreover, may be more indicative of long-term changes in the society (Inglehart, 1977) than of short-term changes.

Bunge's (1975) formal definition of a quality of life indicator has been previously given in Chapter I. His interpretation of this definition is consistent with definitions of QOL advanced by those who consider the QOL from the perspective of the individual in his/her environment.

> Well-being, or the quality of life, has a number of components--physical, biological, social, economic, cultural, etc. All of them pertain to the individual/environment interface, where the environment is in turn the aggregate of the physical and the social environments of the individual. (Bunge, 1975, p. 77)

Clothing as a Component of Quality of Life

If one accepts the notion of quality of life with reference to the well-being of individuals and the environments in which they

live, clothing most certainly is a potential component of quality of life. "The human body and its extension through clothing has been referred to as the subject and object of perception. As such it is part of our environment" (Compton, 1972, p. 10). From Figure 1, clothing can be classified as part of the human constructed environment primarily involving the sociophysical component. Using the terminology of Andrews and Withey, clothing constitutes a domain of life about which people have feelings. As such it deserves investigation as a potential QOL component. At the minimum, if one's car, housework, and organizations to which one belongs are included among the domains, clothing should also be included. But because of its physical, and perhaps psychological, proximity to the self, there is reason to believe that clothing may play a more significant role in one's sense of well-being or quality of life than some other components of the human constructed environment.

Clothing may have been omitted from previous studies because in the eyes of researchers it may not have met the criterion of being one of the "substantive issues of high social, political, and/or psychological interest" (Andrews & Withey, 1976, p. 30). In a publication of Rockefeller's Commission on Critical Choices for Americans, Campbell and Kahn (1976) comment:

> Defining national goals exclusively or primarily in terms of economic welfare was more suited to a past stage of American life than to the present or the future. True, millions of Americans are still "ill-housed, ill-clad, and ill-nourished"; their needs are apparent and urgent. But a larger proportion of the population now take almost for granted the fulfillment of their basic needs for food, clothing, and shelter. These people are concerned increasingly with "higher order" needs--for social recognition, community identification, achievement in work, self-actualization, and the like. A nation long

> fixated on goals which are basically economic is changing to include goals which are essentially psychological--changing from a concentration on being merely well-off to a concern with well-being. (p. 163)

With reference to clothing this remark requires a response on two levels--the physiological and the psychological.

Are the poor ill-clad? Michael Harrington (1962) remarks:

> Clothes make the poor invisible too: America has the best-dressed poverty the world has ever known. For a variety of reasons, the benefits of mass production have been spread much more evenly in this area than in many others. It is much easier in the United States to be decently dressed than it is to be decently housed, fed, or doctored. Even people with terribly depressed incomes can look prosperous.
>
> It is not a matter of planning, though it almost seems as if the affluent society had given out costumes to the poor so that they would not offend the rest of society with the sight of rags. (p. 5)

As an illustration of Harrington's concern, the writer of this dissertation can present a mini N = 1 case study.

Mr. X came to the university cafeteria daily for the evening meal, always purchasing the "Daily Dollar Deal" (about $1.00-$1.50) which generally consisted of a casserole, Italian dish, or meat loaf and vegetable. One wondered whether this was his only meal for the day. Extremely thin, Mr. X always seemed in good spirits yet ate alone every evening. A distinguishing characteristic was a large, gaping, ragged hole (not torn, just worn out) in the seat of his trousers revealing his underwear. Day after day, he wore the same trousers. The soles of his shoes had long lost their integrity as a unit. He tried to engage other cafeteria diners in conversation; but he embarrassed them, and only the bus girls would talk with him. One evening he remarked to a young college

woman dressed in white that his relatives were coming for a visit. The next week Mr. X reappeared clad in a new pair of inexpensive gabardine trousers and white tennis shoes which he was seen wearing every day from that time onward.

The development of objective indicators of clothing adequacy will not be easy. In fact the definition of clothing adequacy will be a substantial task. Clearly there are the ill-clad, but not quite so obvious are the poor who wear a few gifts or second-hand clothing. In the present study, one respondent explained her negative feelings about her clothing in the following way: "Because they have been worn by someone before me."

Some progress has been made by Winakor (1971a, 1971b) and the Family Economics Research Group, Agricultural Research Service (Britton, 1973, 1974a, 1974b) in the development of standard clothing budgets. Winakor (1971b) has explained the potential application of these budgets:

> A standard budget . . . is intended to serve as a model to which the spending practices of many families can be compared. It may be used to determine whether there is balance among expenditures for various goods and services or whether total money expenditures and, by implication, incomes of individual families or groups of families are adequate; it may be proposed as a long-term goal for improvement of the level of consumption of a group of families; or it may serve as a short-term guide to identify deficiencies or to establish how much aid is needed by families in temporary distress. (p. 256)

A comparison of family clothing expenditures with standard clothing budgets may be a good starting point for "objective" QOL indicator development.

There is additional evidence that clothing is instrumental in meeting higher-order needs, e.g., belongingness and esteem. Much research has been conducted on the relationship between adolescents' clothing and peer acceptance. For example, in a study of 231 high school sophomores Smucker and Creekmore (1972) found significant correlations between awareness of the clothing mode and peer acceptance and between conformity to the clothing mode and peer acceptance for both boys and girls when the effects of social class were controlled.

A four-year longitudinal sociometric analysis of one midwestern high school class showed that clothing and appearance were insufficient by themselves in explaining peer acceptance or exclusion. Social class was another important contributing factor (Kelley & Eicher, 1970).

Another study (Good & Kelley, 1971) investigated clothing influence and occupational aspirations of high school boys. They found that "regardless of their occupational aspirations, the majority of these teenagers recognized that not only is clothing used in the occupational world as a practical, functional item, but also it is manipulated to create an impression and influence other people" (p. 335).

There is a growing body of empirical evidence supporting the direct effect of dress cues on impression formation. Hamid (1972), manipulating the presence and absence of glasses and makeup on female "social objects," demonstrated the importance of dress cues (dress being more broadly defined than clothing) as a determinant

of a person's perceptions in social situations. However, he also demonstrated that subjects are not aware of the dress cues to which they respond. Whether this is true of clothing was not analyzed. His subjects were twenty-six male and twenty-six female students in an introductory psychology course. Thus his results should be interpreted with some caution.

In a pilot experiment designed to measure the extent to which person and costume, taken separately and together, affect initial impressions (Conner, Peters, & Nagasawa, 1975), each subject (240 college women) was exposed to one photographic stimulus of one of the possible combinations of "athletic," "social," and "intellectual" costumes and control smock. Costume was a significant and important (eta squared = .25) factor only for the formation of the social impression. There was also a significant interaction between person and costume for the social impression. In the formation of the athletic impression, person accounted for more of the variance (eta squared = .26) than did costume (eta squared = .05). Although costume was a significant factor in formation of the intellectual impression, eta squared was only .05. Thus, some impressions are based on clothing, some on person, and some on an interaction between the two factors.

Another related study by Johnson, Nagasawa, and Peters (1977) showed that differences in clothing style (in fashion and out of fashion) worn by a college woman did significantly influence male and female peers' impressions of sociability (eta squared = .51),

and the sex of the subject did not alter the impression. The subjects were sixty male and sixty female students enrolled in college English.

Buckley and Roach (1974) demonstrated the significance of clothing as a nonverbal communicator of one's social and political attitudes for one population segment. Attitudes toward stimulus photographs of male and female models wearing clothes of the counterculture and established culture were measured on bipolar scales as were attitudes toward political and social issues, such as the Pentagon and women's liberation. The findings indicate that the sample (ninety-six college women and men including members of the counterculture, the established culture, and a random sample of students) did consistently attribute social and political attitudes to wearers of the clothing in the photographs. In addition, the subjects within the counterculture group actually wore clothing more expressive of their social and political attitudes than did the establishment group.

To a sample of one hundred male conservative and "hippie" college students selected on the basis of their appearance, Kness and Densmore (1976) administered questionnaires with items pertaining to clothing attitudes and social-political beliefs. They found that by observing the dress styles of these male students, one could be correct in predicting their social-political beliefs (on a scale designed to discriminate between conservatives and radicals) 76 percent of the time.

Most of the studies reported above used nonrandomly selected college students as the subjects for their investigations. Thus

the generalizability of results is limited. Worthy of further study is the effect of the impressions formed in response to dress cues on the esteem accorded to the self by others and the resultant effect on self-esteem.

In a classic study of the relationship between clothing "values" and parallel general "values,"[1] Lapitsky (1961) used the Allport, Vernon, Lindzey (1960) instrument for the measurement of four general values (aesthetic, economic, political, and social) and developed a corresponding clothing value measure which reflected the implementation of the general values within the clothing domain. The five clothing values developed were: (1) aesthetic--"the desire for, appreciation of, or concern with beauty in clothing"; (2) economic--"the desire for comfort in clothing and for the conservation of time, energy, and money in relation to clothing usage or selection"; (3) political--"the desire for obtaining prestige, distinction, leadership, or influence through clothing usage"; (4) social I--"the expression of regard for fellow beings through clothing behavior"; and (5) social II--"the desire for obtaining social approval through clothing usage with conformity playing a prominent role" (pp. 3-4). Lapitsky administered these

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[1]Not all people would agree that the instruments used were actually measuring underlying values. The Allport, Vernon, Lindzey measure is subtitled as a measure of dominant interests, and the nature (forced-choice) and content of the items seem to suggest that interests rather than values are being measured. Lapitsky defines clothing values as "wishes, desires, interests, motives, or goals which an individual considers worthwhile and thus are major determinants of attitudes and behavior in relation to clothing choices and usage" (p. 3). For a distinction between values and interests, desires, goals, and preferences, the reader is referred to Kluckhohn (1959).

instruments to a group of eighty female teachers and eighty undergraduate women between the ages of eighteen and forty-five, all of whom were single. The strongest correlation for both groups occurred between the general political value and the corresponding desire for obtaining prestige, distinction, leadership, or influence through clothing usage ($r_{teachers} = .43$, $r_{students} = .40$, $p < .001$). The next highest significant correlation was between the teachers' aesthetic value and the corresponding desire, appreciation or concern for beauty in clothing ($r = .39$, $p < .001$). For students this relationship was a modest .27 ($p < .05$). Also for students but not for teachers, the relationship between the general social value and social I was moderate ($r = .31$, $p < .01$). To the extent that these interests and preferences do reflect underlying values, there is some evidence then for the implementation of one's general values within the clothing domain.

In the same study Lapitsky also found that socially secure teachers and students had significantly higher means on the aesthetic clothing value than did socially insecure teachers and students, whereas the latter had significantly higher means on the social II value than did the socially secure groups. Thus one's clothing interests, desires, and preferences may be indicators of the need state of the human organism. This study warrants methodological improvement and further testing on larger samples of both men and women of different ages.

In another oft-cited study of three hundred female college students, Creekmore (1963) studied the relationship between values and needs as reflected in clothing behaviors. The Allport, Vernon,

Lindzey measure of values was expanded to include the sensuous and the exploratory values. Maslow's hierarchy of seven needs (1954) was expanded by Creekmore to include an action need ["expressed as the desire to be active physically and mentally" (p. 8)]. Eight clothing behaviors developed by Creekmore and thought to be specific to value types included altruism, emphasis on appearance, experimentation, management of clothing, belief in and use of clothing as a status symbol, interest in the symbolic meaning and theoretic aspects of clothing, and emphasis on tactual aspects. Six general clothing behaviors developed were conformity, clothing construction, modesty, emphasis on fashion, tool use, and no concern. Appearance, status symbol, and management were the three most important clothing "behaviors" for this group.

As measured in this study Creekmore found stronger relationships between need striving and clothing behaviors than between values and clothing behaviors. Based on her findings she concluded that for this sample, symbolic meaning was related to the aesthetic value, modesty was related to the religious value, self-esteem striving was related to four clothing behaviors (experimentation, status symbol, fashion, and tool use), self-actualizing was related to tool use, and the need for belongingness was related to appearance. Some clothing behaviors were related to both needs and values, e.g., management was related to the economic value and to self-esteem, altruistic use was related to the exploratory value and to the striving for self-actualization, and clothing conformity was related to the social value and to low cognitive striving. This study

suggests that particular clothing behaviors may be one indicator of the level of need striving and of subscription to certain values.

Perceptual Indicators of Quality of Life

Whereas it has been shown that clothing meets the criteria for inclusion as a component of QOL and that it is legitimate to investigate the magnitude of its relationship to overall well-being, it must still be shown that the indicators used conform to the definition of QOL indicators. The perceptual indicators used are those developed by Andrews and Withey at the Institute for Social Research, University of Michigan. There is some reason to concentrate initially on perceptual indicators and to develop a series of objective indicators at a later time:

> Through the development of perceptual indicators . . . one can empirically determine the aspects of life that do, in fact, concern individuals, and how these aspects relate to their sense of well-being. . . . knowledge about perceptions of life quality can play a significant role in setting priorities for the development of "objective" social indicators. (Andrews, 1974, p. 284)

If clothing does not contribute to a significant amount of the variance in overall quality of life, then there is little need to develop objective indicators. If some of the criteria used to evaluate clothing are more significant than others in terms of general feelings about clothing, then priorities for development of objective indicators can be set.

To be a quality of life indicator, the items asked must first be reliable indicators of the state of the individual components of some human community, C. The reliability of the perceptual

indicators used by Andrews and Withey have been partially determined. The observed reliability of the global Life measures assessed with the D-T Scale in the three national surveys were: May 1972 data--.61; November 1972 Form 2 data--.71; April 1973 data--.68. The estimated reliability of the July 1973 Toledo data was .70 which falls within the range of the observed reliabilities (1976, pp. 188, 192). Reliabilities estimated in a similar manner from the July data were derived for some domains and criteria assessed by the D-T Scale by adding the square of the median method effect (based on three analyses) to the square of the validity coefficient. The estimated reliability coefficients obtained were: housing (.76), spare time activities (.55), national government (.83), standard of living (.70), and independence or freedom (.75).

All of the life concerns including clothing are components of some human community. Even Bunge admits that the second part of his definition of a QOL indicator is somewhat difficult to demonstrate due to the ambiguity of the term "well-being," i.e., "x is a quality of life indicator if and only if x is an indicator of the physical, psychical, social, or cultural well-being of the individual members of C." Fortunately, Levy and Guttman (1975) have done some further work to determine the "universe of well-being items."

Levy and Guttman limit their treatment to perceptual indicators of well-being. They begin with the assumption that the universe of well-being items is a subset of the universe of attitudinal items which has been formally defined by Guttman and reported by Gratch (1973):

> An item belongs to the universe of attitude items if and only if its domain asks about behavior in a [cognitive / affective / instrumental] modality toward an object, and its range is ordered from [very positive to very negative] towards that object. (p. 36)

The domain is the "question part" of the item, and the range consists of the possible answers to the items. The universe of well-being items then consists of attitudinal items that possess specified facets.

> An item belongs to the universe of wellbeing items if and only if its domain asks for [cognitive / affective / instrumental] assessments of the [level / treatment] of the state of a social group in some life area, and the range is ordered from "very satisfactory" to "very unsatisfactory" according to the normative criterion of the respondent for that area of life. (Levy & Guttman, 1975, p. 364)

The universe of items and the population studied constitute the universe of observations. The facets included are: (1) the subject whose well-being is being studied (i.e., an individual or group); (2) the area of life in which the well-being is assessed, e.g., health, economic prosperity; (3) the type of assessment; (4) the level or treatment.

It is easy to show that "How do you feel about your clothing?" is one of the universe of well-being items. Facet 1 is the individual, facet 2 is clothing, facet 3 is an affective evaluation, and facet 4 is implicitly level. The range on the Andrews and Withey D-T Scale goes from delighted to terrible rather than from very satisfactory to very unsatisfactory. However, it is assumed that Levy and Guttman meant these terms in a general rather than in a literal sense since the range of their items varied from very happy

to very unhappy, very good to not at all good, very satisfied to very unsatisfied, definitely sufficient to insufficient, and definitely no to definitely yes.

In their research on the Continuing Survey conducted in Israel, Levy and Guttman (1975) elaborated on the definition and developed the technique of the mapping sentence which incorporates both the universe of items and the population studied as well as a larger number of facets than in their definition of well-being items. The mapping sentence used in their research design is shown in Figure 6. Each question can be associated with a structuple which shows how each fits into the Cartesian set of six facets, ABCDEF. For example, the question "In general, how do you evaluate the current situation in the country with respect to work relations between employers and employees?" (very good . . . not at all good) is assigned the structuple, $a_1b_1c_3d_6e_1f_{11}$. The question "How do you feel about your clothing with respect to the fun it enables you to have?" would be assigned the structuple, $a_2b_1c_1d_3e_2f_{(14\ =\ \text{clothing})}$. Therefore the perceptual indicators used in this study meet the current definitional requirements of well-being items; and, in addition, they meet the requirements of a QOL indicator with the limitation that the reliability must be determined by replication in future studies.

Clothing in Past Quality of Life Research

Very few studies have included clothing or related concepts such as dress or personal appearance among the components of quality of life to be investigated. The few that have are discussed in this section.

The [A: a_1 cognitive / a_2 affective] assessment by respondent (x) of the

[B: b_1 state of / b_2 government's treatment for] the well being of his social (reference)

group [C: c_1 self / c_2 government / c_3 State / c_4 institution / c_5 new immigrants / c_6 poor / c_7 other individuals / c_8 on the whole] with respect to its

[D: d_1 primary internal / d_2 primary social / d_3 primary resource / d_4 neighborhood / d_5 town / d_6 State / d_7 World — secondary] environment, concerning a

[E: e_1 general / e_2 specific] aspect of life area [f_1 recreation / f_2 family / f_3 on the whole / f_4 security / f_5 health / f_6 economic / f_7 education / f_8 religion / f_9 society / f_{10} immigration / f_{11} work / f_{12} information / f_{13} communication]

according to his normative criterion for that life area ⟶

[very satisfactory to very unsatisfactory] in the sense of the element from facet B.

SOURCE: Shlomit Levy and Louis Guttman, "On the Multivariate Structure of Wellbeing," Social Indicators Research 2 (1975): 365.

Fig. 6. The mapping sentence of well-being items according to Levy and Guttman.

Scheer (1973) compared fifty-three objective indicators of the quality of life in Austria with that of the six countries of the European Economic Community, the latter including Italy, Luxembourg, Belgium, France, Holland, and Germany, between the years 1957 and 1973. Quality of life was defined as level of living, i.e., the actual living conditions of a people. Indicators were developed on the basis of a list of components of the level of living as previously defined by the United Nations in 1961.[1] Clothing was among the components, and the indicator used by Scheer was clothing expenditure as a percentage of personal consumption. Scheer plotted expenditure for clothing as a percentage of personal consumption against the independent variable, Gross National Product per head of population. Over different periods of time within this sixteen-year period, the GNP per head of population increased by 200 percent (from 4300 to 8500 German Marks) for five of the seven countries. As the GNP per head of population increased over this range, the clothing expenditure as a percentage of personal consumption decreased from about 14 percent to 13 percent for Austria, whereas it increased from 9.5 percent to 11 percent for Belgium, from

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[1]The list of twelve components included health, food and nutrition, education, conditions of work, employment situation, aggregate consumption and savings, transportation, housing, clothing, recreation and entertainment, social security, and human freedom. In a later revision of this list, the components were reduced to nine: health, food consumption and nutrition, education, employment and conditions of work, housing, social security, clothing, recreation, and human freedom. For the components of the level of living in the poverty budget, the following list of eight was proposed: food and beverages, housing, clothing, medical care, education, transportation and recreation, personal taxes, fees, dues, etc., and other goods and services (United Nations, 1969).

10 percent to about 13 percent for Germany, and from 11.5 percent to 13 percent for France. It remained fairly constant at 15.5 percent for Holland. Although not interpreted in terms of QOL by the authors, one could conclude that as the proportion of personal expenditures on clothing declined with increases in the GNP per capita, the level of living was increasing or reaching a saturation point with respect to clothing.

Gitter and Mostofsky (1973) proposed sixteen categories which were meant to be an exhaustive set of quality of life components containing "HEW" (refer to U.S. Dept. of HEW, 1969) and "non-HEW" aspects of life. Personal physical appearance was identified as a non-HEW aspect for which objective and subjective indicators of QOL could be developed. Personal physical appearance is broader than clothing since it includes one's body shape, posture, weight, height, complexion, and hair as well as any additions to the body such as clothing, cosmetics, and jewelry.

In three surveys the following question was asked by Andrews and Withey (1976): "How do you feel about the goods and services you can get when you buy in this area--things like food, appliances, clothes?" (p. 34). In the July 1973 Toledo survey this item clustered with an item to measure feelings about services one can get for the home such as repairs or painting. In the May 1972 survey this item grouped together on a map of perceptual structures of life concerns with schools, doctors, hospitals, and with "what you have to pay for basic necessities such as food, housing, and clothing" (p. 44). Only 12 percent felt mostly dissatisfied,

unhappy, or terrible about the goods and services they could buy, and 70 percent felt mostly satisfied, pleased, or delighted. For the November 1972 survey, the item was surrounded by "the respect other people have for your rights" and "nearby places you can use for recreation or sports." Placing clothing within the context of availability of goods likely taps only one dimension of people's feelings about clothing.

Applying the human ecological model described in Chapter I, Bubolz et al. (in press) investigated the quality of life of sixty-five long-time residents of three rural neighborhoods in Ontonagon County, Michigan in 1975. Clothing was included among twenty-one life concerns of the domain and criterion types whose importance and satisfaction were assessed using a five-step Self-Anchoring Ladder of Importance (SALI) Scale and a seven-step Self-Anchoring Ladder of Satisfaction (SALS) Scale. The responses of the D-T Scale were the "rungs" of the SALS ladder. On the importance scale clothing received the lowest mean score ($\bar{x}$ = 3.0, s.d. = .9), and respondents expressed a moderately high satisfaction with clothing ($\bar{x}$ = 5.3, s.d. = 1.0) with a rank of thirteen among twenty-one life concerns. Satisfaction with clothing was positively correlated with POQL ($r = .27$, $p < .05$). The median age of this sample was sixty-one. They were rural farm and rural nonfarm residents, and over half had incomes under $8,000. One would expect to obtain a stronger relationship of clothing to POQL with younger, urban residents of higher incomes for whom clothing may be more important to social mobility, job advancement, social acceptance, and, perhaps, to creative expression.

Thirteen follow-up case studies of the Bubolz et al. sample were conducted by Butler (1977) to determine the differences between "high" and "low" scorers on POQL with respect to four near environments: clothing, family, shelter, and community. Few differences in clothing evaluations were evident. An analysis of wardrobe inventories showed that both groups owned clothing similar in source, number, and age. In 1976, both groups rated clothing of "some importance" (high POQL group: $\bar{x}$ = 3.2, s.d. = .4; low POQL group: $\bar{x}$ = 3.0, s.d. = .6) and "mostly satisfied" (high POQL group: $\bar{x}$ = 5.7, s.d. = .8; low POQL group: $\bar{x}$ = 5.0, s.d. = 1.0). Both high and low POQL groups ranked clothing least important of all the life concerns included, whereas somewhat less satisfaction with clothing was expressed by members of the low POQL group than by the high POQL group. Butler suggested that the age of the respondents (range: 43-79) coupled with the rural setting in which everyone knew each other may result in the respondents' views of clothing as utilitarian rather than serving purposes of communication or status achievement. She concludes that "any differences between the high POQL group and the low POQL group occurred in perceptions of satisfaction with clothing rather than in perceptions of importance or in differences in their wardrobes" (pp. 165-66). The trend held for the four environments compared, i.e., perceptual measures of satisfaction with family, community, clothing, and shelter distinguished the two groups. The only objective indicator of significance was the frequency of communication between parents and children.

Domains-by-Criteria Matrix Model: Results of an Empirical Test

A discussion of the measurement of affective evaluations is presented first, followed by a report of the results obtained by Andrews and Withey from the implementation of the domains-by-criteria matrix model.

Measurement of Affective Evaluation of Life Quality

Andrews and Withey (1976) hypothesized that "a person's assessment of life quality involves both a cognitive evaluation and some degree of positive and/or negative feeling, i.e., 'affect'" (p. 18). The Delighted-Terrible (D-T) Scale (Figure 4) with seven on-scale categories was designed to measure affective evaluations by asking respondents to choose one of the categories that best represents their feelings about life concerns and life-as-a-whole. In addition, three off-scale categories (Neutral--neither satisfied nor dissatisfied, Never thought about it, and Does not apply to me) broaden the range of responses. These have been useful for evaluation of concerns that are irrelevant or difficult for respondents. A seven-point satisfaction scale developed by Campbell et al. (1976) produced highly positively skewed distributions of responses which pose problems in analysis. The development of the D-T Scale was an attempt to reduce the skew. Several methodological investigations were conducted to determine the validity of the D-T Scale. One of these, the degree to which covariation in affective evaluations is representative of perceptual structures of people's general feelings, is discussed in the next section of this chapter.

A factor analysis of twelve global measures of life quality was made. Three factors emerged from an input matrix of Pearson r's: cognitive evaluation (Factor I), negative affect (Factor II), and positive affect (Factor III). The latter two factors were readily interpretable; but the first, cognitive evaluation, was named such because of the authors' hypothesis that life assessments involve both cognitive and affective elements. Factor I was not totally independent of the other two factors. For Life 3, 91 percent of the variance was explained by the three factors with Factor I contributing to most of the variance (Factor I loading = .92, Factor II loading = .18, Factor III loading = .17).

An investigation of the construct validity of various global measures of well-being was made by Andrews and Withey (1976). Using the July 1973 Toledo data, a six-by-six multimethod-multitrait matrix (i.e., six different aspects of well-being assessed by six different methods) was used to assess construct validity. After imposing a set of theoretical assumptions, the validity of each of six "traits" assessed by six measures was determined. The median validity for the life concerns measured by the D-T Scale was .82 with the individual validity coefficients as follows: housing--.83, spare time activities--.69, national government--.87, standard of living--.79, freedom or independence--.82, life-as-a-whole--.79. Assessment of life concerns using the D-T Scale contains approximately 67 percent valid variance, 7 percent correlated error variance, and 25 percent residual variance. These results are comparable to those obtained for the two other high validity measures: Faces Scale (median validity = .82, median method effect = .27) and Circles Scale

(median validity = .80, median method effect = .30). The authors conclude that some perceptual measures have been shown to possess fairly substantial validities and, therefore, should not be disputed on grounds of low validity. Reliability has been reported in the first section of this review.

Results of a Test of the Matrix Model

A nonrandom sample of 222 respondents living in or near Toledo, Ohio were chosen by an informal quota system to test the domains-by-criteria matrix model in July 1973. On major demographic variables, such as sex, age, marital status, and employment status, the respondents were distributed similarly to a probability sample of Toledo residents and to 1970 U.S. Census figures for the nation, but the sample had slightly higher education and income levels than the average American.

The model has been defined and explained in the conceptual framework of this study. With the exception of clothing, the matrix tested by Andrews and Withey in 1973 is the same as that illustrated in Figure 5, i.e., six domains (housing, job, family life, neighborhood, spare time activities, national government) and eight criteria (standard of living, fun, independence or freedom, beauty and attractiveness, freedom from bother and annoyance, safety, accomplishing something, acceptance and inclusion by others). As stated in the assumptions, domain-by-criterion evaluations can be combined across columns to predict domain-level evaluations or down rows to predict criterion-level evaluations. Operationally, one need only ask, for example, "How would you feel about your house or

apartment if you considered only the fun it enables you to have?" Substituting each of the criteria in place of fun allows one to determine which criteria are the best predictors of feelings about housing in general, i.e., "How do you feel about your house or apartment?" But one need not also ask "How would you feel about the fun you have if you only considered your house or apartment?" in order to determine which domains are the best predictors of general feelings about a certain criterion, e.g., "How do you feel about how much fun you are having?" The single item "How do you feel about your house or apartment if you considered only the fun it enables you to have?" suffices for both types of combinations. Another assumption of the model is that either type of general concern-level evaluations (domains or criteria) can account for global evaluations of life-as-a-whole as suggested by the two linkages to life-as-a-whole on the right of Figure 5.

Sixty-three measures were used in the initial, partial implementation of the model with the July 1973 Toledo sample: one global measure (Life 3), fourteen concern-level measures (six domains, eight criteria), and forty-eight specific domain-by-criterion measures (six domains-by-eight criteria). Although models cannot be proven, certain patterns of bivariate relationships should hold if the model fits with reality. The requirements of the model and the results obtained are listed in Table 3. The bivariate relationships did support the validity of the model.

Multivariate relationships were also analyzed. A series of sixteen multiple regression analyses were performed to determine the

TABLE 3.--Bivariate Requirements of the Domains-by-Criteria Matrix Model and Results of an Empirical Test

Requirements	Results
A. Bivariate relationships:	
1. Relatively strong positive relationship of concern measures to global measure.	1. Fourteen correlations between the concern measures and the global measures ranged from .23 to .63 (mean r = .43).
2. Relatively strong positive relationship between concern measures and at least some of the cell measures relevant to that particular concern.	2. Forty-eight correlations involving domain measures (6 domains each correlated with 8 cell measures) ranged from .12 to .63 (mean r = .48); 48 correlations involving criterion measures (8 criteria each correlated with 6 cell measures) ranged from .06 to .56 (mean r = .37).
3. Positive relationships between the cell measures and the global measure.	3. Forty-eight correlations between cell measures and global measure ranged from .13 to .41 (mean r = .20).
B. Comparisons among bivariate relationships:	
4. Higher relationships should exist between each concern-level variable and cell variables that are assumed to influence it than between the concern-level variable and other "irrelevant" cell variables.	4. For domains, the average of 48 correlations with "relevant" cell variables was .48 (see #2 above) whereas the average of 240 correlations with "irrelevant" cell variables was .20. For criteria, 48 correlations with "relevant" cell variables averaged .37 (see #2 above) whereas the 320 correlations with "irrelevant" cell variables averaged .27.
5. Since concern-level measures intervene between cell measures and global measures, and since concern-level evaluations presumably contain input in addition to those cell measures included, one expects a stronger relationship between global measures and concern-level measures than between the global measure and cell measures.	5. Average relationship between global measure and concern measure was .43; average relationship between global measure and cell measures was .20.

SOURCE: Summarized from Frank M. Andrews and Stephen B. Withey, Social Indicators of Well-Being (New York: Plenum Press, 1976), pp. 235-36.

predictive ability of each cell variable with respect to its relevant domain and its relevant criterion as well as the predictive ability of the global measure from the concern-level domains and criteria. The results of these analyses (including standardized beta values and the adjusted percentage of variance explained) appear in Table 4.

The upper portion of the table reflects the ability of cell measures to predict domain-type concerns and of using criterion measures to predict Life 3. Prediction is made by combining data for criteria. For example, data for the second row show the prediction of affective evaluations of job by eight job-by-criterion items. Accomplishing something (beta = .57) is the best predictor followed by beauty and attractiveness (beta = .17). The negative beta for job-by-fun means that when all other predictors are held constant, the better one feels about his/her job with relation to the fun it enables one to have, the less positive are one's feelings about the job in general. Taken together the eight job-by-criterion items explained 43 percent of the variance in the general job evaluation.

For Life 3 a substantial 58 percent of the variance was explained by the eight general criterion evaluations. In the lower portion of the table, one sees that 43 percent of the variance in people's feelings about life-as-a-whole (Life 3) were explained by six domains with family life as the strongest predictor (beta = .35). The other columns show the prediction of general level criterion evaluations by domains-by-criterion items. For example, the family domain is the best predictor of feelings about standard of living

TABLE 4.--Results of Implementation of the Matrix Model by Andrews and Withey

Combining criteria to predict domains or Life 3 (prediction: across)

	Standard of Living	Fun	Independence/ Freedom	Beauty	Freedom from Bother	Safety	Accomplishing Something	Acceptance and Inclusion	Adj. R^2 x 100
Housing	.37	.16	-.05	.25	.06	-.14	.00	.10	41%
Job	.10	-.14	.02	.17	.04	.03	.57	.01	43%
Family Life	-.08	.28	.00	-.06	.08	-.18	.51	-.04	24%
Neighborhood	.23	.33	.03	.26	.31	.18	-.47	-.13	52%
Spare Time Act.	-.03	.27	.17	.01	.21	-.25	.24	-.13	27%
Natl. Govt.	.38	.06	.01	.02	.31	.22	-.05	-.26	38%
Life 3	.07	.30	.14	.05	.02	.01	.34	.11	58%

Combining domains to predict criteria or Life 3 (prediction: downward)

	Standard of Living	Fun	Independence/ Freedom	Beauty	Freedom from Bother	Safety	Accomplishing Something	Acceptance and Inclusion	Life 3
Housing	.16	-.06	.11	.11	.07	.22	.07	.04	.24
Job	.18	.25	.29	.31	.23	.40	.31	.29	.18
Family Life	.23	.28	.28	.16	.05	-.13	.10	.04	.35
Neighborhood	.20	.07	-.09	.03	.05	.31	-.31	-.20	-.03
Spare Time Act.	-.07	.24	.18	.08	.00	-.08	.26	.45	.29
Natl. Govt.	.04	.08	-.02	.00	.21	.09	.00	-.10	-.06
Adj. R^2 x 100	29%	41%	31%	22%	19%	44%	16%	23%	43%

SOURCE: Frank M. Andrews and Stephen B. Withey, Social Indicators of Well-Being (New York: Plenum Press, 1976), p. 237.

NOTE: Decimal figures are multiple regression betas. Percentage figures show % variance explained (pop. estimates). Data source: 222 July 1973 Toledo respondents.

(beta = .23), and spare time activities is the best predictor of feelings of being accepted and included by others (beta = .45). However, spare time activities do nothing to predict how people feel with regard to being free from bother and annoyance.

A final multivariate analysis lent considerable support to the model. For any domain, only eight cell measures should exert a direct causal influence. After removing the variance explained by direct causes, nonrelevant cell measures should be unable to explain the remaining variance, and thus the relationship between these cell measures and the domain measure should be close to zero. Four domains were analyzed in this fashion and the average explanatory power of the nonrelevant cell variables was .74 percent.

These bivariate and multivariate analyses provide considerable support for the validity of the model. Andrews and Withey conclude:

> Our several analyses . . . provided a variety of opportunities in which the model could be shown wrong, and this has not happened. On the contrary, a variety of expectations involving the size and direction of relationships, the relative magnitudes of relationships, situations in which combinations of variables should be able to predict a dependent variable, and situations in which variables should be unable to predict, have all been borne out. To the extent that the model has been testable against empirical data, it seems to accord well with reality. (1976, p. 239)

Changes in the prediction of Life 3 and the eight value criteria with the addition of the clothing domain is the focus of the present study. Although the results will not be directly comparable because of a different population, a comparison of the findings with the 1973 study should be of methodological interest.

Perceptual Structures of Well-Being

Analysis of the perceptual structures of individual well-being permits one to determine what patterns exist in the way people organize their feelings about life concerns. Knowledge of these dimensions should contribute to the development of theory and help identify the major components of quality of life and other domains and criteria with which they are related. In this section the radex theory of satisfaction with life is developed in a progression from the simple to the complex. Results of the mapping of perceptual structures for quality of life data obtained by two research groups at the University of Michigan are then presented and discussed.

The Radex Theory of Life Satisfaction

The development of the radex theory of life satisfaction has been largely accomplished by Guttman and Levy over the past three decades (Guttman, 1954; Levy & Guttman, 1975; Levy, 1976). A radex is "a set of variables whose intercorrelations conform to the general order pattern prescribed by the new theory. . . . [Radex] is a word designed to indicate a 'radial expansion of complexity'" (Guttman, 1954, p. 260). The radex is a doubly ordered system consisting of (1) a simplex (the word "simplex" designates a simple order of complexity) which is a set of variables which differ primarily in their degree of complexity and which can be ranked from least to most complex; and (2) a circumplex which is a set of variables which differ in kind (the word "circumplex" designates a "circular order of complexity").

Guttman's early work involved examples of mental ability tests which differ in kind (e.g., verbal and numerical reasoning). Each kind also varies by degree of complexity, e.g., numerical ability tests may contain addition, subtraction, multiplication, and division which differ largely by degree of complexity. The radex can be represented geometrically by a circular arrangement in a plane. Figure 7A illustrates a radex with five sectors, each sector representing a different content (circumplex) with four different levels of complexity (simplex) which gives 5 x 4 or twenty different elementary components. Figure 7B illustrates the profile for a hypothetical test which has four different kinds of content, each at different levels of complexity. A radex theory of satisfaction with life has been demonstrated by Levy (1976) and Levy and Guttman (1975) and is developed next.

In the first section of this review the notions of the universe of well-being items, facets, and the mapping sentence have been introduced and illustrated. A simplified mapping sentence was presented by Levy in order to compare results from two quality of life studies completed in 1971, one in the United States at the Survey Research Center, University of Michigan and one in Israel. The items included in these two surveys fit the following mapping sentence (Levy, 1976, p. 119): (See page 75.)

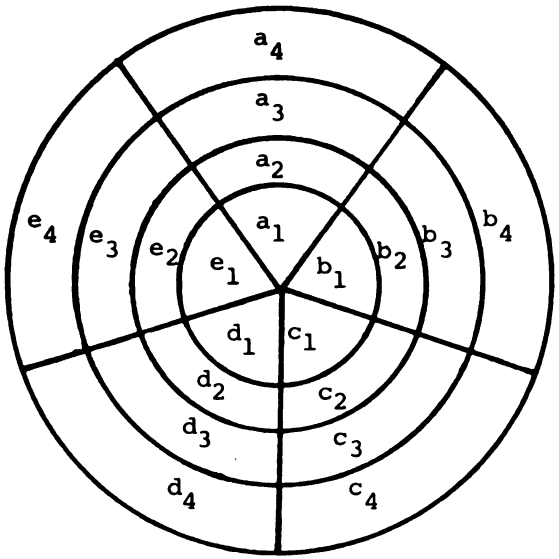


Figure 7-A
Twenty discernible elementary components

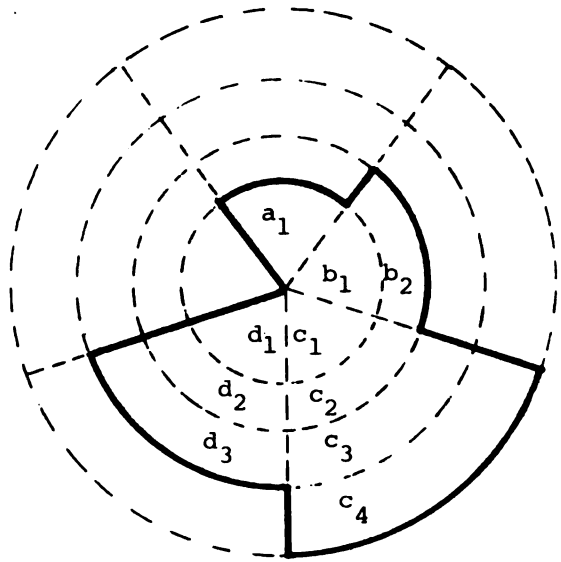


Figure 7-B
A hypothetical test

SOURCE: Louis Guttman, "A New Approach to Factor Analysis: The Radex," in Mathematical Thinking in the Social Sciences, ed. Paul F. Lazarsfeld (Glencoe, Ill.: The Free Press, 1954), p. 338.

Fig. 7. A schematic diagram of a radex.

The extent of satisfaction of respondent (x) with the

$$\begin{bmatrix} a_1 \\ a_2 \end{bmatrix}^{A} \begin{matrix} \text{state of} \\ \text{resources for} \end{matrix} \quad \text{his activities in area of life} \quad \begin{bmatrix} b_1 \\ b_2 \\ b_3 \\ b_4 \\ b_5 \\ b_6 \\ b_7 \\ b_8 \end{bmatrix}^{B} \begin{matrix} \text{education} \\ \text{economics} \\ \text{residence} \\ \text{spare time} \\ \text{family} \\ \text{health} \\ \text{work} \\ \text{general} \end{matrix}$$

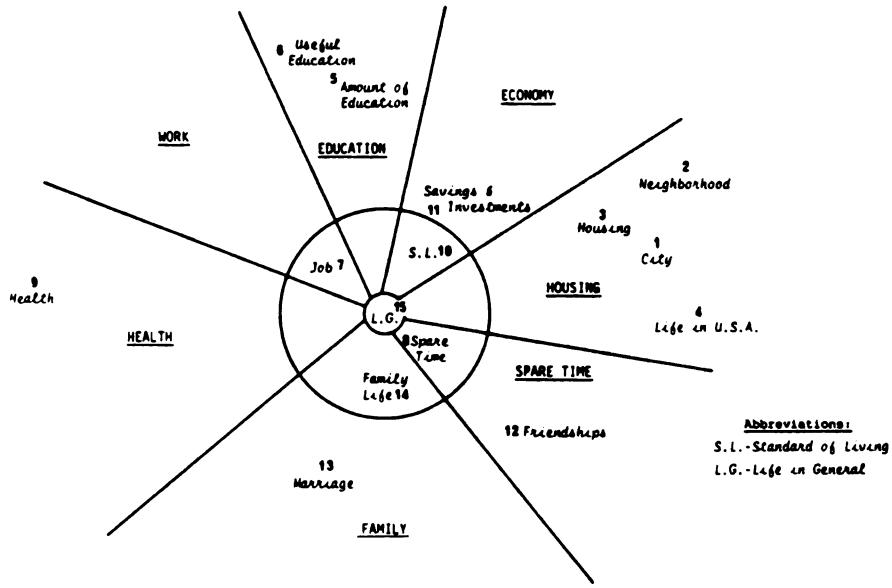
$$\longrightarrow \begin{bmatrix} \text{very positive} \\ \text{to} \\ \text{very negative} \end{bmatrix}^{R} \quad \text{satisfaction with life.}$$

The four facets of this sentence include: "X," the population of respondents; "A" and "B," the content of the items (together they define 2 x 8 = 16 varieties of satisfaction); and "R," the common range of the response categories. The mapping is represented by XAB $\longrightarrow$ R. The elementary structuples of the domain are xab, each of which has only one response in R.

Smallest Space Analysis (SSA), one of many nonmetric multidimensional scaling programs, was developed by Guttman (1968) and Lingoes (Lingoes, 1972; Lingoes & Roskam, 1973). This technique was used to locate the questionnaire items on a perceptual map and to detail the elements of the perceptual structure. Nonmetric multidimensional scaling analysis is more completely described in Chapter III. For the present, two items are placed close together on the map if their covariation is large and at more remote distances if they do not covary. Maximum distances on the maps approximate statistical independence; minimum distances correspond to moderately high correlations.

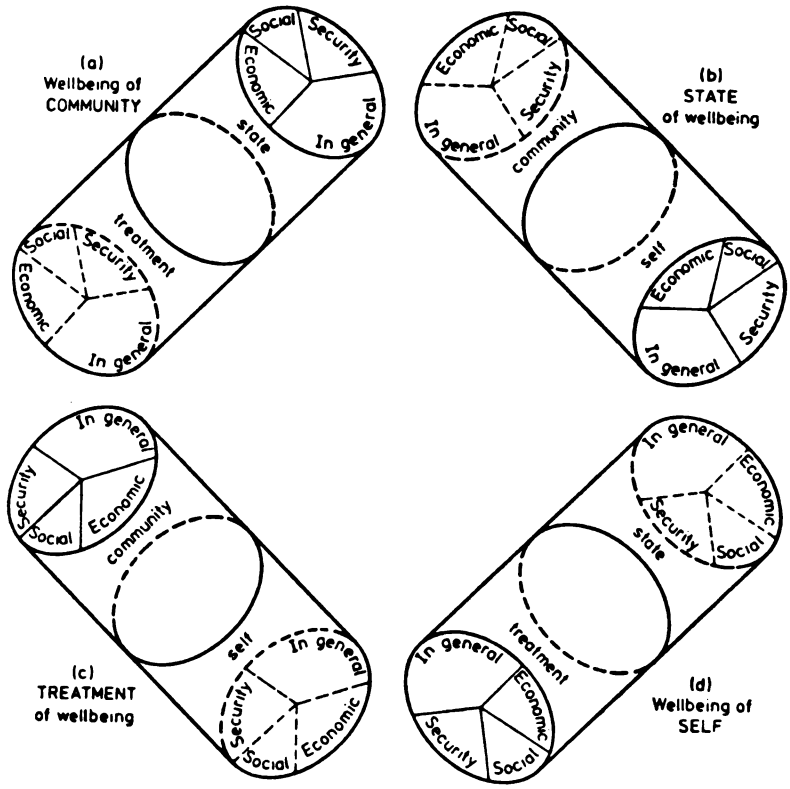
Levy's SSA produced a two-dimensional radex (Figure 8) with facet A ("state" versus "resources") serving as a modulating facet which corresponds to the distance from the origin in the SSA space (akin to the simplex). "The items closest to the origin, within the inner circle, assess the satisfaction with the state of activities, while the outer band of items assess satisfaction with resources for activities" (Levy, 1976, p. 123). Facet B (eight areas of life) was the polarizing facet with elements corresponding to regions in the SSA space emanating from the origin (akin to the circumplex). The circular ordering was the same in both the United States and the Israeli surveys. Levy concluded that evidence has thus been provided for a radex theory of satisfaction with life.

Using the mapping sentence previously described and illustrated in Figure 6, Levy and Guttman (1975) analyzed data from the Spring 1973 Continuing Survey in Israel and hypothesized that the correspondence between the well-being mapping sentence and the SSA is that of interpenetrating cylindrexes. A cylindrex is generated by the rotation of an axis orthogonal to a radex with the radex repeated at each segment of the axis. In addition to the two facet roles required for the radex, i.e., polarizing and modulating, a third facet role is needed for specifying order along the axis of the cylinder. Two axial facets were postulated: facet C, reference groups, with a dichotomy of self (and family) versus community (country-as-a-whole) and facet B, state versus treatment. The two axial facets of different content generate four cylindrexes which occupy four-dimensional space. The four cylindrexes appear in Figure 9.



SOURCE: Shlomit Levy, "Use of the Mapping Sentence for Coordinating Theory and Research: A Cross-Cultural Example," Quality and Quantity 10 (1976): 123.

Fig. 8. Interrelationships among fifteen variables of satisfaction with life areas in the United States. The outer band contains "resources," and the inner circle contains "state" of the respondents' activities.



SOURCE: Shlomit Levy and Louis Guttman, "On the Multivariate Structure of Wellbeing," Social Indicators Research 2 (1975): 379.

Fig. 9. The four intermeshing cylindrexes of well-being.

Empirically, the radex for the stratum of personal well-being, i.e., the upper portion of cylindrex "d" and the lower portion of cylindrex "b" took the following circular ordering of regions with facet F (areas of life) playing the polarizing role: recreation (f_1), family (f_2), general (f_3), health (f_5), economic (f_6), education (f_7), and back to recreation (f_1). Technically, if two points are at an equal distance from the origin but are in different regions, the correlation coefficients increase the closer together the regions are in circular order.

The modulating facet for the cylindrex of personal well-being was facet D, the environment of the respondent. This partitioned the radex into circular regions at varying distances from the origin. Variables (questionnaire items) corresponding to the primary internal environment, happiness and mood, were in the circle closest to the origin. Emanating outward were variables belonging to the primary social environment, family life and recreation, followed by those from the primary resource environment (i.e., health, income, education, and dwelling) and finally to the secondary environment.

Without elaborating on the other cylindrexes which are of less central concern to the present study, SSA in four dimensions did derive a distribution that supports the cylindrex hypothesis. Items were only asked that support three of the four cylindrexes; no questions were asked about treatment of self. It is significant that this SSA region was empty of points.

Americans' Perceptual Structure of Life Concerns

Campbell et al. (1976) used Smallest Space Analysis in three dimensions (Figure 10) to analyze relationships among life satisfaction data collected in a national survey of 2164 Americans.[1] The global Index of Well-Being was placed at the origin. Closest to the origin was satisfaction with nonwork activities which was followed by two economic items: satisfaction with standard of living and savings or investments. Next in order of distance from the origin were work; friendships; family life and marriage; physical environments including housing, neighborhood, and community; country-as-a-whole; and finally the amount and utility of education. Campbell et al. interpret the results as follows:

> Most of the large region on the left side of the diagram is occupied by domains involving the less personal or intimate features of the external environment, both physical in the residential sense, and the broader social environment, including secondary organizations and religious participation. Apart from health, which is a domain unto itself, the right side of the diagram is by contrast occupied by a set of domains which define the individual's relationships or transactions with the environment or social system. This region draws together status-related terms that are linked more or less directly with the individual's education, occupation, and income. Indeed, if we see the domain of leisure-time activities falling within this group, we are dealing with the facets of experience which are often summarized by sociologists as "life style." However, the spare time domain is appropriately enough, very much on the central region made up of the most intimate, microcosmic social environment: the "primary" groups of family, marriage, and friends. . . . In one sense, the radiation of the map . . . from a central core of the most intimate microcosm outward to increasingly impersonal features of the environment seems

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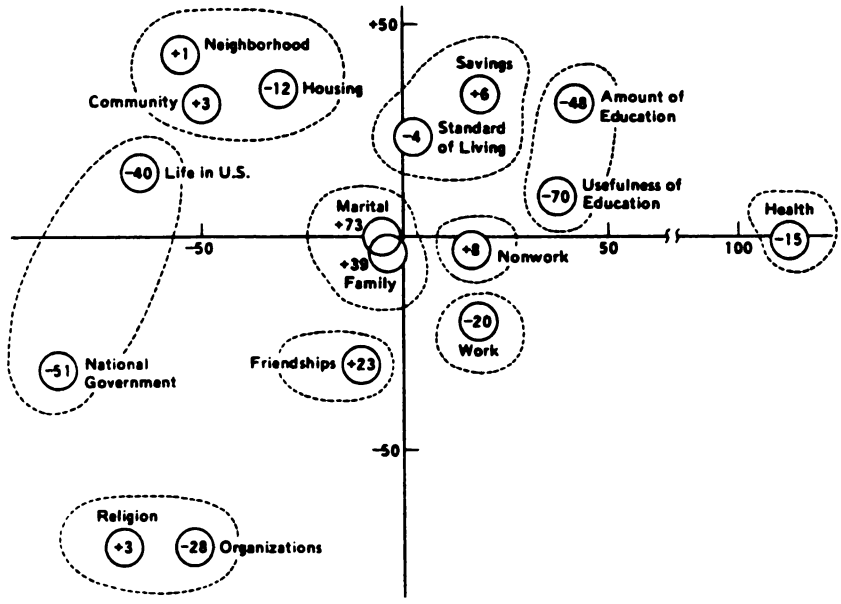
[1] It was their data which Levy (1976) compared to Israeli data using only a two-dimensional analysis. This resulted in a slightly different configuration of domains.



SOURCE: Angus Campbell, Philip E. Converse, and William L. Rodgers, The Quality of American Life (New York: Russell Sage Foundation, 1976), p. 70.

Fig. 10. Smallest Space Analysis of seventeen domain satisfaction scores, with the Index of Well-Being at the origin (in three dimensions). The third dimension is shown as positive or negative values in each domain's circle.

> so basic to the structure of human life that it is hard to imagine that it would not be characteristic of any segment of the population or, for that matter, populations outside the United States. (1976, pp. 71-72)

Differences in the structure of perceptions were contrasted for age, income, and occupation. Although there were some differences (particularly with regard to health, work, friendship, spare time activities, the residential environment, and national government), they concluded that the general structure of perceptions was relatively stable.

Also using SSA, Andrews and Withey (1976) determined the relationships among life concerns for the 222 respondents of the July 1973 Toledo survey. They, however, interpreted the results along rectilinear dimensions. The results of the three-dimensional solution were mapped and are shown in Figure 11. The researchers only labeled one dimension, the right to left dimension, which was called "psychological closeness."

> The right-left dimension begins with concerns about aspects of the self, which presumably seem psychologically "close" to oneself, and then proceeds in an orderly fashion to concerns that are progressively more remote: to one's relationships to other people, family members, and own health; then to one's job, money, and house; then to one's community and its various services and facilities; and finally to one's local and national governments, societal standards, media, weather, and taxes. Thus, psychological closeness, or perhaps degree of control by the individual varies systematically along the right-left dimension. This may be one of the underlying principles by which individuals organize their feelings about life concerns. (p. 42)

Other national probability samples elicited the same basic structure although fewer life concerns were mapped in each than in the July survey. Unfortunately clothing was not represented as a single concern among the mapped life concerns in any of the samples.

SOURCE: Frank M. Andrews and Stephen B. Withey, Social Indicators of Well-Being (New York: Plenum Press, 1976), pp. 38-39.

Fig. 11. Three-dimensional perceptual map based on affective evaluations of life concerns for Andrews' and Withey's survey of 222 Toledo respondents, July 1973.

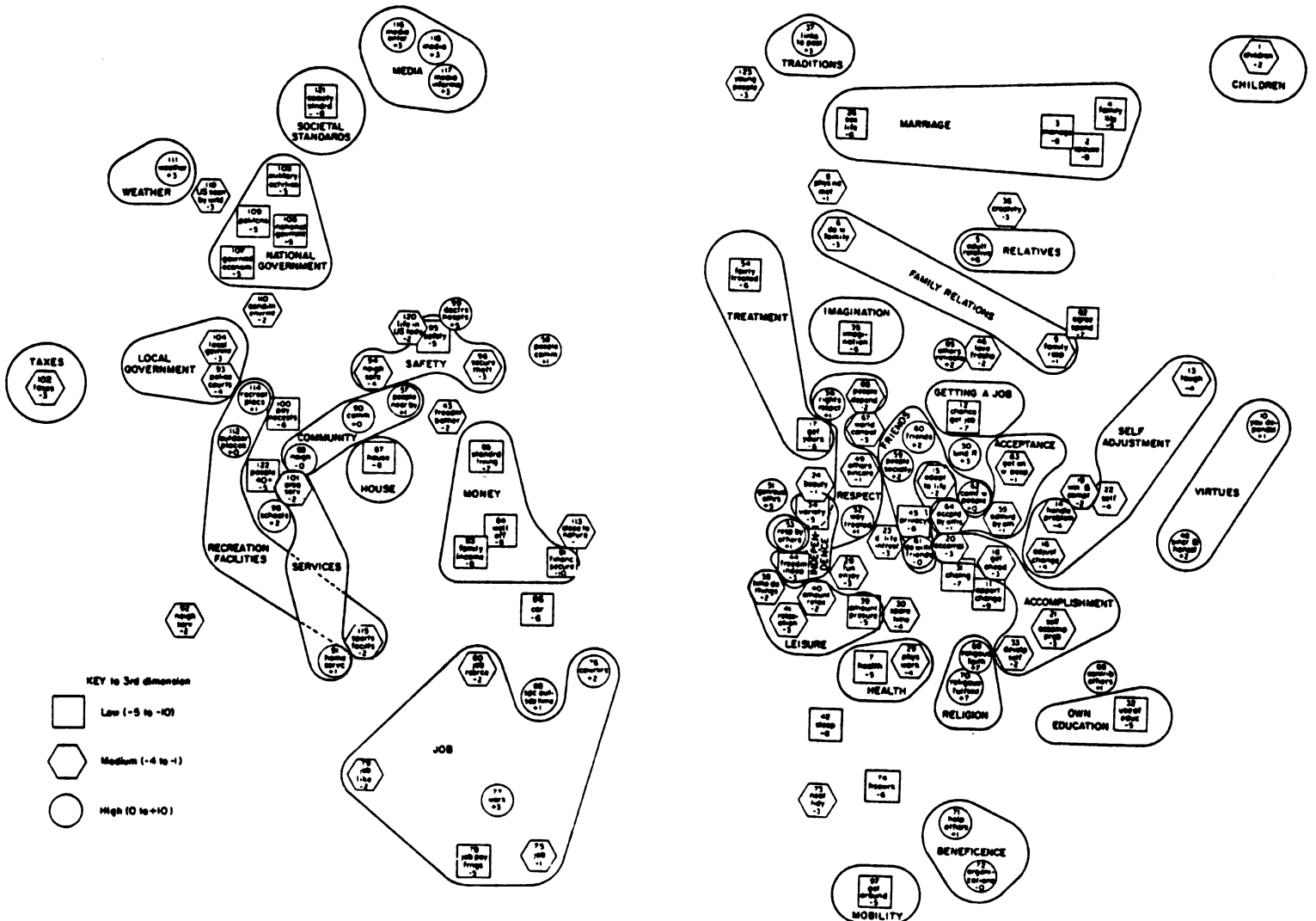

MEDIA
SOCIETAL STANDARDS
WEATHER
NATIONAL GOVERNMENT
TAXES
LOCAL GOVERNMENT
SAFETY
COMMUNITY
HOUSE
MONEY
RECREATION FACILITIES
SERVICES
JOB
KEY to 3rd dimension
Low (-5 to -10)
Medium (-4 to -1)
High (0 to +10)
TRADITIONS
CHILDREN
MARRIAGE
RELATIVES
FAMILY RELATIONS
TREATMENT
IMAGINATION
GETTING A JOB
FRIENDS
ACCEPTANCE
SELF ADJUSTMENT
VIRTUES
RESPECT
LEISURE
HEALTH
ACCOMPLISHMENT
RELIGION
OWN EDUCATION
BENEFICENCE
MOBILITY

Figure 11

In a methodological study designed to assess the correspondence between perceptual structures resulting from covariation in affective evaluations and those resulting from covariation in feelings, clothing was included in one analysis. Each of the Toledo respondents sorted thirty-five cards (each card naming a life concern) into piles according to their similarity of feelings about them. Similarity measures were computed and a map of their perceptual structure based on general feelings was generated.[1] Figure 12 shows that clothing was grouped with food, car, job, family income, standard of living, and house or apartment and not with yourself, what you are accomplishing, or fun. The map suggests that people do not perceive clothing to be as psychologically close to the self as some social psychologists and sociologists have suggested it is. However, people may be accustomed to hearing the three necessities (food, clothing, and shelter) mentioned as a group without consciously considering the more abstract functions of clothing. In addition, one may think it somewhat egocentric to acknowledge the importance of a proximal external environment to the self. Further analysis of the relationship between clothing and the self is made in the present study to determine whether the same results hold for sex differences and other more subtle indicators of the proximity of clothing to self.

This discussion of the perceptual structures of people's feelings, satisfactions, and affective evaluations of life has shown

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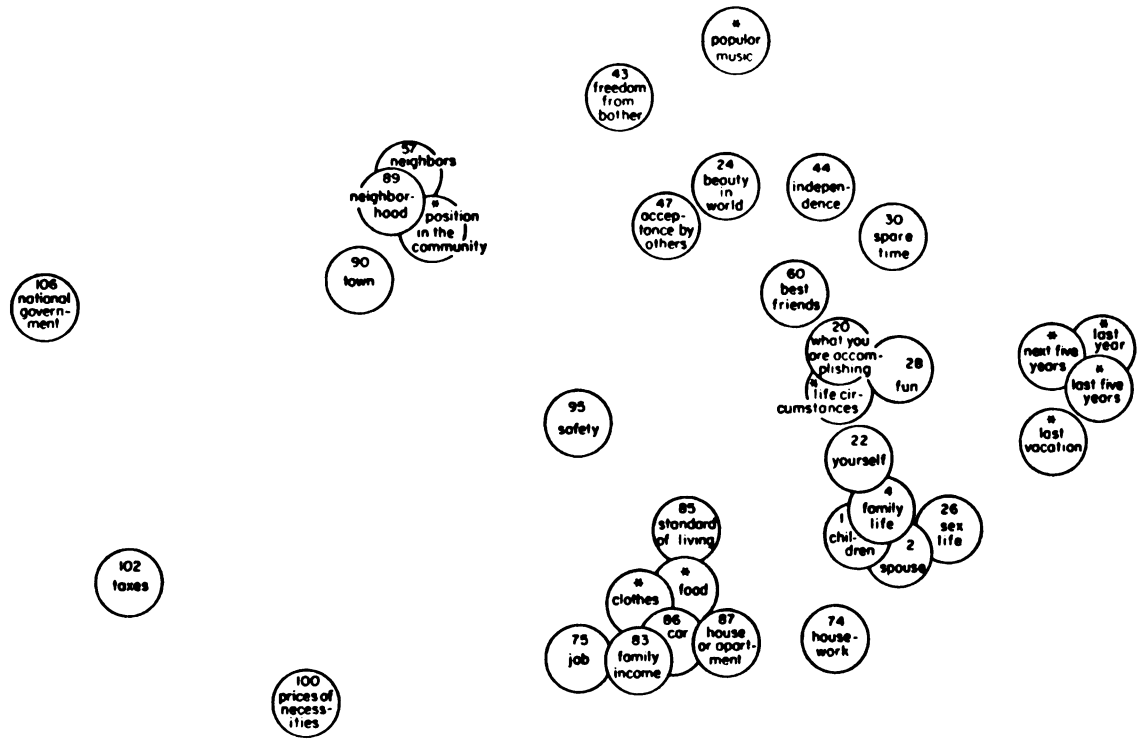
[1]Andrews and Withey concluded that the map based on affective evaluations and that based on general feelings were similar. They stated that "affective evaluations play a major role in governing the organization of people's perceptions about life concerns" (1976, p. 59).



SOURCE: Frank M. Andrews and Stephen B. Withey, Social Indicators of Well-Being (New York: Plenum Press, 1976), p. 58.

Fig. 12. Two-dimensional perceptual map based on similarity of feelings along dimensions individually chosen by each respondent in Andrews' and Withey's July 1973 Toledo survey.

that empirical support exists for both rectilinear interpretations of multidimensional scaling results and for a radex theory of life satisfaction in two-dimensional space. The hypothesis of intermeshing cylindrexes in four-dimensional space has been partially supported by empirical data. Because clothing has not been included among the lists of life concerns, its position in the perceptual structure is undetermined. Preliminary results suggest that people perceive it somewhat distal from the self and within the primary resource environment.

Clothing and the Self

The literature on the self and related constructs such as self-concept and self-esteem is immense, and no attempt has been made to review the entire literature here. Drawing primarily from the social psychological literature, classical works which attempt to clarify the self construct are reviewed particularly as they show the relationship of clothing to the self. Research in the clothing literature which attempts to empirically demonstrate these relationships is also reviewed.

The Self

Wells and Marwell (1976) have attempted to synthesize the various conceptions of the self found in the literature into a definition that is compatible with most theorists with the exception of some psychoanalytic theorists.

> "Self" is some specialized cognitive or behavioral subset of the personality. . . . the self represents that part of the personality which is phenomenal (i.e., perceptual or experiential) and, more specifically, reflexive--the

> perceiver and the perceived are the same organism. In this way, the person and her body are related to the self insofar as they may be experienced by the person herself, but it is the experiences which constitute the self, not the person or her body. The "self" involves only that portion of the personality which consists of reflexive or self-conscious cognitions and behaviors. (p. 39)

This definition of self builds on the historical works of James (1890), Cooley (1902), Mead (1913, 1934), and Rogers (1950, 1951).

As a conscious phenomenon, for James "a man's Self is the sum total of all that he CAN call his" (1890, p. 291). The three constituents of the self were conceived to be:

1. the material self--i.e., the person's body and material possessions (e.g., clothes, family, home) which contribute to a sense of unity with the person.

> The body is the innermost part of the material Self in each of us; and certain parts of the body seem more intimately ours than the rest. The clothes come next. The old saying that the human person is composed of three parts--soul, body and clothes--is more than a joke. We so appropriate our clothes and identify ourselves with them that there are few of us who, if asked to choose between having a beautiful body clad in raiment perpetually shabby and unclean, and having an ugly and blemished form always spotlessly attired, would not hesitate a moment before making a decisive reply. Next our immediate family is a part of ourselves. Our father and mother, our wife and babes, are bone of our bone and flesh of our flesh. When they die, a part of our very selves is gone. If they do anything wrong, it is our shame. If they are insulted, our anger flashes forth as readily as if we stood in their place. Our home comes next. Its scenes are part of our life; its aspects awaken the tenderest feelings of affection; and we do not easily forgive the stranger who, in visiting it, finds fault with its arrangements or treats it with contempt. All these different things are the objects of instinctive preferences coupled with the most important practical interests of life. We all have a blind impulse to watch over our body, to deck it with clothing of an ornamental sort, to cherish parents, wife and babes, and to find for ourselves a home of our own which we may live in and "improve." (James, 1890, pp. 292-93)

2. the social self--i.e., the recognition received from others with whom one interacts. "Properly speaking, a man has as many social selves as there are individuals who recognize him and carry an image of him in their mind" (James, 1890, p. 294). Thus the multiplicity of selves is emphasized in contrast to a unitary concept of the self.

3. the spiritual self--i.e., "a man's inner or subjective being, his psychic faculties or dispositions taken concretely. . . . the entire stream of our personal consciousness" (James, 1890, p. 296).

James perceives clothing as the most proximate external component of the material self. Implicit in the definition of social self, clothing may be part of the image of self carried by others. According to James one must not only understand the components of the self but also the feelings which arise from the self and the behaviors which the components prompt.

Cooley (1902) concentrated only on the social self as a reflected or "looking-glass self." Perceptions of others' attitudes to an individual determine the individual's conception of himself/herself.

> As we see our face, figure, and dress in the glass, and are interested in them because they are ours, and pleased or otherwise with them according as they do or do not answer to what we should like them to be; so in imagination we perceive in another's mind some thought of our appearance, manners, aims, deeds, character, friends, and so on, and are variously affected by it. A self-idea of this sort seems to have three principal elements: the imagination of our appearance to the other person; the imagination of his judgment of that appearance, and some sort of self-feeling, such as pride or mortification. (p. 152)

George Mead built on and further systematized James' notion of the I-Me dichotomy of the self, i.e., self as agent of experience (James' ego) and self as object of experience. For Mead the self is a structure acquired through social processes by which the individual "enters his own experience . . . by becoming an object to himself just as other individuals are objects to him or in his experience; and he becomes an object to himself within a social environment or context of experience and behavior in which both he and they are involved" (Mead, 1934, p. 138).

Mead (1913) proposed that the self is presented in discourse through the mechanism of sounds and gestures, especially vocal gestures. The reflective self observes and evaluates the presented self, and a new self may emerge in response of the reflective self to an "essential problem." Through symbolic communication (i.e., language and the conversation of gestures) a person takes on the role of another or group of others and internalizes the attitudes of the others into a "generalized other" such that the self is reflective of the behavior pattern of the social group to which he belongs.

> The "I" reacts to the self which arises through the taking of the attitudes of others. Through taking those attitudes we have introduced the "me" and we react to it as an "I." . . . I become a "me" in so far as I remember what I said. . . . It is because of the "I" that we say that we are never fully aware of what we are, that we surprise ourselves by our own action. . . . It is in memory that the "I" is constantly present in experience. . . . The "I" is the response of the organism to the attitudes of the others; the "me" is the organized set of attitudes of others which one himself assumes. (Mead, 1934, pp. 174-75)

Mead stresses the notion of self as predominantly a developmental process rather than structure. "The self is not so much a

substance as a process in which the conversation of gestures has been internalized within an organic form" (Mead, 1934, p. 178). And again, "It is the social process of influencing others in a social act and then taking the attitude of the others aroused by the stimulus and then reacting in turn to this response, which constitutes the self" (Mead, 1934, p. 171).

On the other end of the structure-process continuum, Rogers (1951), representing the clinical perspective, adopts a structural definition of the self:

> As a result of interaction with the environment, and particularly as a result of evaluational interaction with others, the structure of self is formed--an organized, fluid, but consistent conceptual pattern of perceptions of characteristics and relationships of the "I" or the "me," together with values attached to these concepts. (p. 498)

He further elaborates:

> The self-structure is an organized configuration of perceptions of the self which are admissible to awareness. It is composed of such elements as the perceptions of one's characteristics and abilities; the percepts and concepts of the self in relation to others and to the environment; the value qualities which are perceived as associated with experiences and objects; and the goals and ideals which are perceived as having positive or negative valence. (p. 501)

For Rogers there is an absence of a sharp demarcation between the self and the environment. An object or an experience may be regarded as part of the self to the extent that the self perceives its ability to exercise control over it.

There are several distinguishing characteristics of the structure-process dimension of the self which have been summarized by Wells and Marwell (1976):

> The <u>processual model</u> tends to be more social, stressing that the self is a property of a social act and has an emergent character--dependent on the social context of that act.

> Thus, the self is a manifest feature of ongoing behavior, and the content of the self is describable only in terms of its actual behavioral expression. . . . The structural model is generally psychological in operation, involving properties of cognitive structures which can be described without reference to specific social acts--the characteristics of the cognitive systems of individuals. Thus, the self is a latent element underlying or affecting actual behavior rather than being defined by it. Its content is not directly expressed in ongoing behavior, since there are numerous ways in which the structure can be manifested in social conduct. (Italics mine.) (p. 47)

Self-esteem may be considered the evaluative and/or affectional aspect(s) of the self-concept. Self-evaluation is an attitudinal process which involves cognitive comparisons with some standard. Rosenberg (1965) defines self-esteem as "the evaluation which the individual makes and customarily maintains with regard to himself: it expresses an attitude of approval or disapproval" (p. 5). Thus, one component of self-esteem is self-evaluation or self-regard. As an affective process, the emphasis is placed on the emotional (cathectic) and behavioral (conative) response to self-evaluation (Wells & Marwell, 1976). Rogers refers to these affective responses as "emotionalized attitudes and feelings directed toward the self" (1950, p. 375).

Proximity of Clothing to Self

Discussing the question of why dress is an effective medium of expression that permits one to differentiate oneself from as well as conform to the standards of the social group, Hurlock hypothesized this answer which seems congruent with James' notion of the material self and at the same time incorporates elements of the processual model:

> We are apt to think of clothes as we do of our bodies, and so to appropriate them that they become perhaps more than any of our other possessions, a part of ourselves. . . . In spite of the constant changes in clothing it is still impossible to disassociate ourselves from this intimate part of our material possessions. We appropriate the admiration our clothes call forth, and this tends to enhance our own self-esteem. (Hurlock, 1929, p. 44)

Stone (1965) has proposed a link between clothing and the development of the self by expanding Mead's concept of symbolic communication to include both discourse and appearance as ways in which meaning is established in social transactions. In the role-taking process, appearance is one phase of the social transaction--the identification of one another--and is communicated by nonverbal symbols such as clothing, grooming, and gestures. Stone postulates that when programs (responses made about the wearer by the wearer) and reviews (responses made about the wearer by others) coincide

> . . . the self of the one who appears [the one whose clothing elicited such responses] is validated or established; when such responses tend toward disparity, the self of the one who appears is challenged, and conduct may be expected to move in the direction of some redefinition of the challenged self. . . . The meaning of appearance . . . is the establishment of identity, value, mood and attitude for the one who appears by the coincident programs and review awakened by his appearance. (pp. 221-22)

He contends that the self is established and mobilized in appearances. "As the self is dressed, it is simultaneously addressed, for whenever we clothe ourselves, we dress 'toward' or address some audience whose validating responses are essential to the establishment of our self" (p. 230).

Reed (1973) further investigated the validity of clothing as an indicator of identity, attitudes, values, and moods. Two hundred twenty-one respondents (undergraduate women) to a mail

questionnaire were grouped as high-, low-, non-, and counter-fashion subjects. Findings indicated that wearers of four different clothing styles could be differentiated by identity, value, attitude, mood, and personality variables. The best set of fourteen discriminators which accounted for 89 percent of the discrimination attained among all groups was: formal-informal actual self-concept, fashion interest, conservative-liberal actual self-concept, Machiavellian cynicism, attraction to a counter-fashion clothing style, attractive-plain ideal self-concept, tough minded-tender minded actual self-concept, sophisticated-unsophisticated actual self-concept, sophisticated-unsophisticated ideal self-concept, fashionable-nonfashionable actual self-concept, social climber-social nonclimber actual self-concept, drug use to relieve or counteract anger or irritability, dogmatism, and age.

Body cathexis is one response to the material self. Secord and Jourard (1953) defined body cathexis as "the degree of feeling of satisfaction or dissatisfaction with the various parts or processes of the body" (p. 343). They empirically demonstrated that feelings about the body were positively correlated with feelings about the self for seventy college males ($r = .58$) and for fifty-six college females ($r = .66$). Likewise insecurity of the self was associated with negative feelings about the body (i.e., low cathexis). In a study of 521 high school students, Creekmore (1974) found that for girls body satisfaction was related to attention uses, interest in, and management of clothing. For boys body satisfaction was related to aesthetic and attention uses of

clothing. Body dissatisfaction was positively related to boys' interest in clothing and in their use of clothing to draw attention to themselves.

Compton (1964) has indicated that clothing can serve to reinforce body walls or entirely transform one's body image, i.e., the "individual's organized model of himself against which he measures many of his perceptions which influence his behavior and total adjustment" (p. 40). Clothing fabric and design preferences of thirty psychotic women were studied in relation to barrier and penetration aspects of body image. She found that women with weak body-image boundaries preferred highly saturated colors and strong figure-ground contrasts in clothing fabrics in an attempt to reinforce and define their body boundaries.

Several studies have related clothing and appearance to self-concept or self-esteem. In a study of 520 high school girls and boys, Humphrey, Klaasen, and Creekmore (1971) found that aesthetic and attention uses of clothing were positively and significantly related to self-esteem for boys ($r = .24$ and $.17$ respectively). The actual correlations were relatively low, however. For the girls aesthetic, attention, interest, and management uses were related to self-esteem ($r = .22$, $.16$, $.17$, and $.24$ respectively). Since the aesthetic and management scales did not have high reliability, one cannot put too much weight on the correlations. They concluded that boys and girls who had high self-esteem scores tended to use clothing to attract attention to themselves. Girls with high self-esteem were somewhat more interested in clothing and enjoyed experimentation with it than were girls of low self-esteem.

In another publication reporting additional results from the same study (Creekmore, 1974, previously cited), perceived peer self (i.e., the individual's estimate of peers' evaluations of himself/herself) was found to be positively related to the same clothing uses as for self-esteem with the addition of modesty for girls and interest and management uses for boys. Again the correlations were of low to somewhat moderate strength (e.g., the largest correlation existed between perceived peer self and the aesthetic use for girls: $r = .33$). From the results of a measure of instability of the self-concept, Creekmore concluded that both girls and boys with unstable self-concepts at one point in time were more concerned with the buying, use, and care of clothing than were those with stable self-concepts. Characteristics of the latter were not reported.

In another study of 191 high school girls and boys, Hambleton, Roach, and Ehle (1972) did not find strong relationships between concepts of personal appearance and display of preferred appearance. The latter relationship was positive and significant, however, for girls of high socioeconomic status.

Using a sample of full-time homemakers, Olstrum (1972) did not find a significant relationship between satisfaction with clothing and self-esteem nor between concern over weight and self-esteem. Significant positive relationships were found, however, between satisfaction with clothing and concern over weight and between self-esteem and participation in leisure time activities.

From the foregoing review of the social psychological and clothing literature, the proximity of clothing to the self may be

interpreted from five perspectives: (1) the structural model of the self, (2) the processual model of the self, (3) the evaluative process of self-esteem, (4) the affective process of self-esteem, and (5) body cathexis. Each of these are developed below with examples characteristic of each type as related to clothing. The examples were obtained from responses made by subjects in this study. Responses are enclosed in parentheses.

From the perspective of the structural model, clothing may be regarded as a component of the material self which contributes to a sense of unity with the person ("It fits my character." "I make most of my own clothes; try to make things that reflect my personality.") Clothing may be one aspect of the Rogerian notion of the self as an "organized picture existing in awareness" with both positive and negative values attached to it. ("My dress is me.")

From the perspective of the processual model as described by James (the social self), Mead, Cooley, and Stone, clothing may be viewed as proximal to the self in the sense that it is a facet of our appearance by which we perceive how we look to others and imagine how others judge us on the basis of our appearance and from which we develop a self-concept. ("I've always been very conscious of how I look to others. If people tell me I dress nice, I feel good." "Clothing is a first impression. I like it to be good.") Also, clothing is one aspect of appearance, a significant symbol by which we establish meaning in social transactions and from which the self as object of experience is formed and modified. Clothing

announces one's identity, shows one's value, expresses one's mood, and proposes an attitude. Clothing also facilitates role-taking, the essential process by which the "generalized other" is formed. ("Clothing is a disguise. I can be what I want to be when I want to." "I can now afford to dress for my mood instead of just having certain clothes for certain occasions.")

A person's self-esteem may be a result of a cognitive process by which the self is evaluated on the basis of its usefulness, competence, mastery of the environment, social adequacy, interpersonal competence, and desirability (Wells & Marwell, 1976). For some people clothing may facilitate the accomplishment of the above skills and be an expression of the regard which they hold for themselves. ("I believe your clothes give an idea of what you think of yourself." "They make me feel comfortable. They express the worldly success I feel.")

One's affective or emotional response to self-evaluation provides another perspective in which clothing may contribute to feelings about the self. These may also result in behavioral responses. ("When I look good, I feel good. And when I feel good, I'm a nice guy." "Clothing <u>is</u> important in my occupation. I feel I perform better when I am dressed well.")

Clothing may compensate for body dissatisfaction since it can conceal some physical problems, or body satisfactions and/or dissatisfactions may be translated to clothing and affect self-esteem. ("Only one reason--I am very heavy right now and I look awful in my clothes." "I am never satisfied with how I look--too fat.")

Proximity of clothing to self is thus conceived as the psychological closeness of clothing to the self measured by the extent to which clothing is perceived as a part of the self, as an aspect of appearance by which the self is established and validated, as a symbol of one's identity, mood, and/or attitude, as an expression of self-regard and/or the extent to which clothing is expressed as an element of an affective response to self-evaluation and/or body cathexis.

Clothing Satisfaction and Evaluative Criteria

This section primarily reviews selected studies of clothing satisfaction, particularly those which identify the components of adults' satisfaction with clothing related to the value criteria used in the matrix of this study.

In 1954 and 1955, 380 women living in four cities in the northeast region of the United States were interviewed as part of the Northeast Regional Study of buying practices and consumer satisfaction with women's blouses (Whitlock, Ayres, & Ryan, 1959). Fifty-six percent of the women were between the ages of twenty-five and forty-four. Almost two-thirds were members of families whose heads were in professional, business, or skilled worker groups. Women rated blouses they had recently purchased according to general satisfaction and a predetermined list of components of satisfaction.[1]

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[1]Components of satisfaction are defined as "constituent ingredients of satisfaction that depend upon the attitudes and preferences of the individual who is reacting to the garment. They depend upon subjective judgments and reflect the understandings and values of the wearer. Examples are: durability, ease-of-care, appearance, comfort, and becomingness" (Ryan, Ayres, Carpenter, Densmore, Swanson, & Whitlock, 1963, pp. 22-23).

The order of importance of the specific components of satisfaction to general satisfaction was: (1) comfort, (2) becomingness, (3) ease of care, (4) fit, (5) appearance, (6) receipt of compliments, (7) looks well with other garments, and (8) suitability for a variety of occasions. In general, individuals who rated their blouses high in general satisfaction also rated them high with respect to satisfaction with all the components.

Whereas attributes[1] of the blouse such as fiber, fabric, color, and style showed no relationship to general satisfaction, the price of the blouse was related to general satisfaction. Less expensive blouses were rated less satisfactory than more expensive blouses. There was, however, no significant relationship between socioeconomic level and general satisfaction.

Another Northeastern Regional Research study was conducted to investigate the interaction of general satisfaction, components of satisfaction, and attributes of garments that contribute to satisfaction with men's shirts and with women's slips and casual street dresses (Ryan et al., 1963). Three-fourths of the men and women (most of whom were spouses) were between the ages of twenty-five and fifty-five; one-fourth of the sample was over sixty-five years of age. Random samples were drawn from male college faculty populations and from lists of salesmen and male clerks in business

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[1]Attributes are defined as "those concrete or specific characteristics perceived as belonging to the garment itself and contributing to satisfaction or dissatisfaction with it. They are impersonal in that they are perceived as attributes of the garment independent of the wearer. Examples are: color, fiber, fabric, style, tailoring, and construction" (Ryan et al., 1963, p. 22).

offices. Interviews were conducted in four small cities. Through a series of open-ended questions, respondents were asked to evaluate a favorite garment, a least-liked garment, and a reference garment.

The components of satisfaction in order of decreasing importance to general satisfaction for the favorite garment of men and women aged fifty-four and under were:

Men's Shirts	Women's Slips	Women's Casual Street Dresses
comfort	comfort	fit
appearance	fit	appearance
fit	durability	comfort
durability	appearance	durability
ease of care	ease of care	becomingness
		ease of care

Most closely related to general satisfaction again in this study was comfort. Fit and appearance were also closely related to general satisfaction whereas ease of care and durability were least related. Other findings included:

1. High general satisfaction was associated with increased frequency of wear.

2. Higher satisfaction with shirts and dresses resulted when they were purchased by the wearer rather than by others. That is, satisfaction is related to source of acquisition.

3. The favorite garment was more expensive than the least-liked garment. That is, satisfaction is related to expenditure.

4. In general, favorite shirts and dresses were newer than least-liked shirts and dresses. That is, satisfaction is related to age of garment.

5. Formal education was not significantly related to satisfaction.

6. Socioeconomic differences were not of importance for most of the variables studied.

7. Working and nonworking women differed more in buying, use, and care practices than in ratings of general satisfaction and ratings of components of satisfaction.

8. Relationships between general satisfaction and components of satisfaction varied with the age of respondents.

9. Values and motives identified by respondents as influencing their liking or not liking to wear garments were:[1] social acceptability (women and men), dress expectations (men), conformity (men), neatness and attractiveness (women and men), impression formation (men), appropriateness (women and men), effect on morale (women), and physical comfort (women and men). However, no significant relationships were found between these values and motives and general satisfaction as measured by the differences in satisfaction with the favorite and least-liked garment.

The findings in "9" above have implications for the present study since some of the criteria in the matrix, e.g., acceptance and inclusion by others, independence or freedom, beauty and attractiveness, closely parallel some of the values and motives investigated in the 1963 study. One may expect that women may have greater

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[1]The respondents' sex according to frequency of expression is in parentheses.

satisfaction with clothing with respect to independence or freedom than do men, that no differences may exist between men and women for evaluations of clothing with respect to acceptance and inclusion by others and to beauty and attractiveness.

One objective of a study by Slocum (1975) was the examination of the relationship between components of satisfaction and general satisfaction with one inventory item, shoes. For a group of female college students aged nineteen to twenty-two, comfort and appearance correlated more highly with general satisfaction with shoes in inventory ($r = .69$ and $.64$ respectively) than did ease of care ($r = .38$), durability ($r = .50$), and versatility ($r = .50$), with comfort somewhat more important than appearance. With respect to discarded shoes, similar relationships held except that comfort was more highly correlated with general satisfaction ($r = .74$) than was appearance ($r = .38$). Durability ($r = .36$) took on significance similar to appearance.

Kundel (1976) asked male blue-collar workers to rate the importance of various work clothing features on the scale: 3 = very important, 2 = important, and 1 = little or no importance. Comfort ($\bar{x} = 2.7$), fit ($\bar{x} = 2.5$), and price ($\bar{x} = 2.5$) were the three highest in importance. Durability, easy care, and safety were also considered important ($\bar{x} = 2.4$, 2.3, and 2.0 respectively). Four characteristics identified by the wives as most important were fit, comfort, price, and liking it. The two least important characteristics for both women and men were latest style garment and clothing similar to what friends or other women/men wear.

In a study designed to identify the determinants of consumers' (women eighteen and over living in Columbus, Ohio) clothing performance satisfaction, Wall, Dickey, and Talarzyk (1976) assessed the relative importance of demographic characteristics, lifestyle characteristics, and textile knowledge as predictors. Stepwise regression and discriminant analyses showed that product performance problems were most effective in predicting consumer satisfaction and discriminating between satisfied and dissatisfied consumers. Higher levels of satisfaction were related to low social class, older age, and lower income. High levels of education and textile knowledge were not significant discriminators between satisfied and dissatisfied consumers. However, self-perception of knowledge and experience, relative to other variables, was a significant discriminator and predictor of clothing satisfaction.

Using factor analysis, Jenkins and Dickey (1976) isolated six clothing-related factors based on evaluative criteria[1] underlying clothing decisions of mothers of preschool children. The factors were: quality conscious, appearance-brand conscious, economy conscious, approval conscious, care-performance conscious, and refinement conscious. A two-factor solution was chosen as a basis for benefit segmentation of clothing consumers. Factor I, appearance orientation, contained items indicative of seeking

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[1]Evaluative criteria are "the specification or standards used by consumers in comparing and assessing alternatives and play a prominent role in the decision process. . . . [They are] concrete manifestations of the consumer's underlying values and attitudes, stored information and experience, and various psychological, sociological and economic influences" (Jenkins & Dickey, 1976, p. 151).

benefits in clothing related to fashion, style, and appearance. Factor II, practicality orientation, was composed of items indicative of seeking benefits in clothing related to ease of care, comfort, versatility, economy, construction details, performance, and durability.

Four clothing consumer types were proposed on the basis of high or low appearance orientation and high or low practicality orientation: (1) "Fashion Advocates" (+ appearance; - practicality), (2) "Quality Seekers" (- appearance; - practicality), (3) "Frugal Aesthetes" (+ appearance; + practicality), and (4) "Concerned Pragmatics" (- appearance; + practicality). The six aforementioned clothing-related factors together with one personality factor (pessimism) and one information-related factor (knowledgeable information transmitter) were significant in discriminating among the four consumer types. Lifestyle profiles of each of the four types employing the eight variables were developed. Significant demographic variables were social class and education. Lower social class groups were more likely to be members of segments 3 (Frugal Aesthetes) and 4 (Concerned Pragmatics) than of segments 1 (Fashion Advocates) and 2 (Quality Seekers).

In summary, comfort, fit, and appearance have repeatedly been found to be components of general satisfaction with clothing for adult women and men. Clothing satisfaction studies have been oriented primarily to consumer issues rather than related to satisfaction with life in general. Values and motives have been related to clothing satisfaction, and the results of the studies reviewed

in this section supported the use of several of the value criteria included in the present study. The results of Wall et al. reflect the inverse relationships that have been found to exist between demographic variables (particularly income and education) and satisfaction with other domains of life (Campbell et al., 1976).

CHAPTER III

METHODOLOGY

This chapter describes the survey research design used to test the research hypotheses of this study. Independent and dependent variables are clarified. Pretest procedures, results, and subsequent modifications of the questionnaire are discussed. The basic elements of sampling design are outlined, and the sample and pertinent field procedures are described. Post data collection coding schemes including a value criteria coding frame and Proximity of Clothing to Self Scale developed for analysis of responses to the open-ended clothing question are presented. Data analysis procedures and some of the less widely used test statistics are explained.

Research Design and Instrument

This study was designed as one component within the broader objectives of two cooperative research projects developed and directed by members of two departments within the College of Human Ecology at Michigan State University. Project number 1249, "Clothing Use and Quality of Life in Rural and Urban Communities," is directed by Dr. Ann C. Slocum, Department of Human Environment and Design.

Project number 3151, "Families in Evolving Rural Communities," is directed by Dr. Margaret M. Bubolz, Department of Family and Child Sciences. Both studies focused on the development and measurement of objective and subjective indicators of the perceived quality of life with emphasis on clothing and family indicators. The Michigan Agricultural Experiment Station provides the major financial support for the projects. Additional funds were obtained in a reciprocal agreement with the Minnesota Agricultural Experiment Station.

A survey research design was employed by developing a questionnaire which was self-administered by wives and husbands living in Oakland County, Michigan who had school-age children (five through eighteen years old) living at home at the time of the study. The data were collected during a four-month period extending from November 15, 1977 to March 10, 1978 including the holidays of Thanksgiving, Christmas, and New Years.

Since the questionnaire was designed to encompass the goals of an interdisciplinary family ecological research team, several sections of the questionnaire are not pertinent to the study reported here. The final form of those sections of the questionnaire used in this study is presented in Appendix A.

The items used to implement the matrix model (with the exception of the clothing items developed by this researcher) were used with the written permission of Dr. Frank Andrews and Dr. Stephen Withey of the University of Michigan. The items were obtained from the codebook (Andrews & Withey, 1975) made available by the Inter-University Consortium for Political and Social Research of which Michigan State University is a member. Other general life concern

items were obtained from those used in previous quality of life studies (Andrews & Withey, 1976; Bubolz et al., in press) and were used with the permission of the authors. Still other general life concern items were developed by the research team. Measures of demographic variables were developed by the research team and, whenever possible, corresponded closely with those recommended by the Social Science Research Council (1975).

The measures and associated questionnaire item numbers used to test the hypotheses as well as other variables used to complete the matrix information and descriptive variables used to explain the findings are summarized in Table 5. In some cases a composite score was developed from the combination of several items. The derivation of these scores is described in the next section of this chapter.

In October 1977 the research design was submitted to and approved by the Michigan State University Committee on Research Involving Human Subjects, which is responsible for reviewing research proposals within this University to determine whether the rights of human subjects are adequately protected.

Description of Variables

Matrix Variables

As the matrix (Figures 3 and 5) illustrates, the fifteen general affective evaluations of life concerns are independent variables with respect to the dependent variable, general evaluation of life-as-a-whole (perceived overall quality of life); but they are

TABLE 5.--Summary of Questionnaire Measures Used to Test Hypotheses and of Other Descriptive Measures

Questionnaire Measures	Questionnaire Item Numbers	Hypotheses
General evaluation of life-as-a-whole[a]	1.1, 9.2	1, 2, 8
General affective evaluations of seven domains included in the matrix	1.3a, 1.7, 1.10, 1.12, 1.14, 1.15a, 1.16	2, 8
General affective evaluations of eight criteria included in the matrix	1.2, 1.4-1.6, 1.8, 1.9, 1.11, 1.13	4, 8
General affective evaluation of clothing only[b]	1.15a	1, 3, 5, 6
General affective evaluations of other life concerns	1.17-1.26	8
Specific affective evaluations of the clothing domain with respect to eight criteria[b]	2.2a-2.2h	3, 4, 7
Proximity of clothing to self[b]	1.15b	8
Demographic characteristics:		
Sex	13.1	1-8
Age	13.2a, 13.2b (check on 13.2a)	1, 5
Total family income	13.11a	1, 5
Occupational prestige[a]	13.9a-13.9d, 13.9g	1, 5
Education	13.7a	1, 5
Family size	15.1b	1, 5
Specific affective evaluations of six domains (excluding clothing) with respect to eight criteria	2.1a-2.1h, 2.3a-2.7h	Not applicable
Self-esteem[a, c]	3.1-3.10	Not applicable
Index of Personal Competence[a, d]	4.1-4.4	Not applicable
Occupation	13.9b-13.9d	Not applicable
Clothing importance (direct measure)[b]	14.14	Not applicable

[a]Composite scores derived from questionnaire item numbers listed.

[b]Developed by this researcher.

[c]Morris Rosenberg's Self Esteem Scale was used and reprinted by permission of Princeton University Press. SOURCE: Morris Rosenberg, Society and the Adolescent Self-Image (Princeton, N.J.: Princeton University Press, 1965), Scale D-1 in Appendix D.

[d]Used with verbal permission obtained from Dr. Angus Campbell, Survey Research Center, Institute for Social Research, University of Michigan, Ann Arbor.

also dependent variables with respect to the fifty-six independent variables, the specific evaluations of domains with respect to criteria.

General evaluation of life-as-a-whole. Life 3 is the simple average of the responses (using the D-T Scale) to the same question, "How do you feel about your life as a whole?" asked at two different points in the questionnaire and separated by approximately thirty minutes in response time. Life 1 is the first item in the questionnaire (item 1.1), and Life 2 is the response to the same question asked again after people have had an opportunity to evaluate their lives (item 9.2). The correlation between Life 1 and Life 2 can be regarded as a short-term test-retest reliability coefficient. If a respondent answered on scale to one of the "Life" items but off scale to the other, Life 3 was assigned the on-scale response. This assumes that people are not normally neutral to life in general, that most have thought about it, and that the question applies to everyone. Whenever the term "perceived overall quality of life" (POQL) is used in this study it refers to the value of the variable, Life 3, and is the global evaluation of well-being.

General affective evaluations of fifteen life concerns. Each of the fifteen life concern variables are measured by the person's response on the D-T Scale to a question in the form similar to "How do you feel about $E_{i.}$ (or $E_{.j}$)?" Each of these concern-level variables are predictors of the global-level variable, Life 3. In addition, specific evaluations of each domain with respect to each

criterion are predictors of the fifteen concern-level variables. The fifteen domain and criterion concern-level variables are:

Domains ($E_{i.}$)		Criteria ($E_{.j}$)	
$E_{1.}$	Housing	$E_{.1}$	Standard of living
$E_{2.}$	Clothing	$E_{.2}$	Fun
$E_{3.}$	Job	$E_{.3}$	Independence or freedom
$E_{4.}$	Family life	$E_{.4}$	Beauty and attractiveness
$E_{5.}$	Neighborhood	$E_{.5}$	Freedom from bother and annoyance
$E_{6.}$	Spare time activities	$E_{.6}$	Safety
$E_{7.}$	National government	$E_{.7}$	Accomplishing something
		$E_{.8}$	Acceptance and inclusion by others

For example, "How do you feel about your clothing?" is the general concern-level variable developed by this researcher for the clothing domain.

Specific affective evaluations of domains of life with respect to criteria. Fifty-six elementary domain-by-criterion variables are generated by a person's response on the D-T Scale to questions in the form of "How would you feel about your $E_{i.}$ if you considered only its effect on your $E_{.j}$?" These variables are represented by the E_{ij}'s in the matrix. These should serve as predictors of general affective evaluations of the fifteen life concerns and, in turn, of the general evaluation of life-as-a-whole. One example of the eight clothing-by-criterion items developed by this researcher is $E_{2,8}$: "How would you feel about your clothing if you considered only its effect on your acceptance and inclusion by other people?" The other items conform to a similar format.

General Affective Evaluations of Other Life Concerns

Ten additional life concern variables are included, which together with the fifteen concern-level variables and global evaluation of well-being included in the matrix, are mapped to show the position of perceptions of clothing in relation to other life concerns, to POQL, and especially to the self. The additional concern-level variables include the affective evaluations (using the D-T Scale) of:

Domains	Criteria
self	financial security
changes in family's lifestyle to conserve energy	interesting day-to-day life
health	extent to which physical needs are met
total family income	extent to which social and emotional needs are met
	creativity and expressiveness
	learning and exposure to new ideas

Additional Clothing Variables

One coding frame and a scale were developed by this researcher to analyze the content of responses to item 1.15b: "What are some of the most important reasons why you feel as you do about your clothing?" The coding frame was developed to determine value criteria (including and in addition to the eight matrix criteria) that respondents use to evaluate the clothing domain. A Proximity of Clothing to Self Scale was developed to assess the psychological closeness of clothing to the self. On the basis of scores on this scale respondents were divided into groups, and the perceptual structure of their life concerns was determined by nonmetric multidimensional scaling and cluster analyses. The development of the

value criteria coding frame and the Proximity of Clothing to Self Scale is described in separate portions of this chapter.

Contextual Variables

Contextual variables used in this study included demographic variables and self-attitudinal variables. The demographic variables were derived and/or defined as follows:

Age. The age in years of the respondent.

Total Family Money Income. Categorical estimate of 1977 money income from all sources before taxes received by the respondent and all family members living in the household. This amount included income from wages, property, stocks, interest, welfare, Aid to Families with Dependent Children, child support from a previous marriage, and other money income.

When a discrepancy occurred between wives' and husbands' reported family income, the decision was made to code the higher of the two income categories. This decision was based in part on an examination of the working status of the wife and husband. In most instances in which the wife was not employed, the husband reported a family income larger than the wife's estimate and at least one income category greater than his personal income. The assumption was made that the employed member would know the family income with greater accuracy than the unemployed member. In cases in which both wife and husband were working, a comparison of the personal incomes of both wife and husband with the total family income reports generally indicated that the higher of the two estimates was more

realistic than the lower one. In several cases, husbands tended to underestimate total family income when the wife was employed.

Total family income was recoded as a factor with four levels for the analysis of Hypotheses 1 and 5.

Occupational Prestige. Occupational prestige, defined as the differential societal ranking of occupations according to their social standing (Featherman & Hauser, 1973), has been proposed as a summary measure of family social status within the context of contemporary society (Otto, 1975). However, a problem is posed by the dual career family. Whose occupational prestige is indicative of the family's social position?

In a paper presented at the 1977 annual meeting of the American Sociological Association, Philliber and Hiller reported findings from a study of the effect of working wives' occupational prestige (using Hodge, Siegel, and Rossi prestige scores) on husbands' subjective class identifications (i.e., perceptions of belonging to working class or middle class). Data were obtained from three General Social Surveys conducted in 1973, 1974, and 1975. Multiple regression analyses indicated that husbands' subjective class identification was unaffected by wives' occupational prestige but was predicted by his occupational prestige and family income. Results from a previous study reported in the same paper suggest, however, that working wives' subjective class identifications are influenced by both their own and their husbands' occupational prestige as well as by family income. They conclude that since subjective components

of class differ between wives and husbands,[1] individual status may be a more useful concept than family status.

However, one may also look at family status as a result of societal evaluations. But until research shows how the occupational statuses of wife and husband are combined or whose occupational status takes prominence in family social status, assigning status scores to families on the basis of one or the other's occupational prestige (or some combination of the two) is arbitrary at best.[2] In the present study occupational prestige was thus used as an individual-level rather than family-level variable.

Occupations were classified according to the three-digit code assigned by the U.S. Bureau of the Census (1971). Associated with each occupational classification is a two-digit occupational prestige score generated in a study by Hodge, Siegel, and Rossi and reported by the Social Science Research Council (1975). The occupational prestige rankings take on integer values ranging from nine to seventy-eight for the U.S. Census occupational classification. Occupational prestige was treated as an interval-level variable in this study.

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[1]Actual wife-husband pairs were not studied. The samples which were used were composed of working women who were married and men who were married to working women, but the working "wives" were not married to the "husbands of working wives." The authors recognized this as a limitation in their design.

[2]For a more thorough review of the complexity of this issue, the reader is referred to a paper published by Carter (1973).

Hodge, Siegel, and Rossi (1966) list some of the determinants of occupational prestige:

> The prestige position of an occupation is apparently a characteristic of that occupation, generated by the way in which it is articulated into the division of labor, by the amount of power and influence implied in the activities of the occupation, by the characteristics of incumbents, and by the amount of resources society places at the disposal of incumbents. (p. 322)

Given the focus of the present study, evaluations of clothing may be influenced by an individual's occupational prestige and/or by family social status. By incorporating family income, education, and occupational prestige as variables in the relevant hypotheses, it was planned that the effects of both individual status and some components of family status would be controlled.

Education. The highest categorical level of formal education achieved by the respondent. For purposes of analysis of Hypotheses 1 and 5, item 13.7 was recoded as a factor with five levels.

Family Size. The total number of persons living in the household as reported by the wife. This included children, relatives, and other persons living in the household at the time of the study.

The self-attitudinal variables, although not used directly to test hypotheses but only to clarify the results of the tests, were derived as follows:

Self-Esteem. Subjects' responses to the ten-item Rosenberg Self-Esteem Scale (Rosenberg, 1965) were scored by the procedures developed by Rosenberg. Scores ranged from zero to six. The scoring procedure was altered, however, so that a low numerical score corresponds to low self-esteem and a high numerical score corresponds

to high self-esteem. In this study the rank order correlation (Kendall's tau) of self-esteem with POQL was .36 for women and .38 for men, somewhat lower than expected. This may be due to the measure of self-esteem used.

Index of Personal Competence. Subjects' responses to four forced-choice statements (items 4.1 to 4.4, Appendix A) were scored by summing the number of responses that represent internal control. The resultant Index of Personal Competence ranges in integer values from zero (external control or low subjective personal competence) to four (internal control or high subjective personal competence). The rank order correlation (Kendall's tau) of the Index of Personal Competence with POQL in this study was .24 for women and .45 for men. The rank order correlation (Kendall's tau) of the Index of Personal Competence with self-esteem was .35 for women and .33 for men.

Pretest

A pretest of the complete questionnaire was conducted in October 1977. One rural area and two suburban areas in Ingham County, Michigan and one suburban area in Oakland County, Michigan served as the pretest areas. Streets were randomly selected from the designated areas, and households were contacted by five graduate students working individually. Twenty households composed of wife-husband pairs who met the criteria of (1) being married, (2) living together, and (3) having at least one child between the ages of five through eighteen living with them agreed to complete the questionnaires.

Written informed consent (refer to Appendix B) was obtained from at least one spouse at the time of placement. Two questionnaires placed in separate marked folders were left with the family, one to be completed by the husband and one by the wife. The questionnaires were identical with the exception of household composition which was included in the wife's questionnaire only. Parents were asked to complete the questionnaires independently without consultation with the spouse. Completed sets of questionnaires were obtained from eighteen of the twenty families. One wife-husband pair decided not to participate after placement, and one husband refused to participate. In the latter case, the wife was the only person home at time of placement.

Respondents were not informed that they were participating in a pretest. A short evaluation of the instrument was administered orally by the interviewer at pick up. Each family that completed a set of questionnaires received a check for ten dollars for their participation.

Modifications made in the instrument as a result of the pretest which had impact for this study were:

1. Because some spouses gave frank responses to personal questions that potentially could hurt the other spouse's feelings and have odious repercussions, a decision was made to include a manila envelope with each questionnaire with the specific written instruction to seal the questionnaire in the envelope upon completion.

2. As a result of a female artist's criticisms, two life concerns were added to section one: "How do you feel about how

creative and expressive you can be?" and "How do you feel about the chance you have to learn new things or be exposed to new ideas?" These do not alter the matrix variables.

3. The position of the general concern-level clothing item in section 1 was randomly placed within the list of the fifteen matrix life concerns (items 1.2-1.16).

4. The eight clothing-by-criterion measures were moved from first position to second position in order to provide the respondents with a domain with which they could easily identify (i.e., housing).

5. Domains and criteria were underlined in each item of section 2 for emphasis.

6. The phrasing of the clothing-by-standard of living item was modified to increase its clarity. The final form of the question was "How would you feel about your clothing if you considered only its effect on your standard of living?"

7. Section 14, "Importance of Life Concerns," was added. This included a direct measure of clothing importance, the degree of which was acknowledged by respondents on a five-point Likert scale ranging from strongly disagree to strongly agree.

Sampling Design and Sample Selection

Three separate samples were drawn to meet the goals of the major projects. This study reports results for only one of the three samples. Eleven townships, excluding the city of Pontiac and one census tract in Royal Oak Township, were chosen as the sampling

area for this study because of their urban/suburban character. All were within the Detroit Standard Metropolitan Statistical Area. Within the sampling area, 99 of 141 census tracts were purposely selected based on an imposed criterion of a 1970 median family income greater than or equal to $12,000. This criterion was imposed as a rough indicator of an adequate educational level deemed necessary because of the verbal level of the questionnaire. Following this selection of census tracts, a two-stage systematic random sampling procedure with clustering was implemented. First, thirty-seven sampling points were systematically selected from the accumulated list of occupied dwelling units with probability proportionate to household count. Second, the original sample design required that a randomly designated household be chosen and every fourth household from it was to be contacted for eligibility until four households were selected in each cluster.

The eligibility criteria required that the household consist of (1) a wife and husband (2) presently living together (3) with at least one child between the ages of five through eighteen living in the same household. Three callbacks were to be made on the first household after which if no contact was made or the household did not meet eligibility requirements, substitution of the house to the right of the designated household was made. If no contact was made at that household or if the household did not meet eligibility requirements, substitution was made to the left of the designated household. The skip pattern was followed in serpentine fashion through the cluster area.

A nationally known market research agency, which was hired to draw the samples and conduct the field procedures, informed the research project staff midway through the data collection that the following alterations in household selection were made because the eligibility criteria greatly reduced the number of households that could fall in the sample:

> "At first designated household, if contact is made with an adult, interviewer may ask which houses in the group of 19-20 included in the originally defined sampling cluster (allowing for designated and substitute households) have both children 5-18 and husband/wife living together. This includes, of course, asking about this first designated household.
>
> "If only four households of the 20 qualify then these four become the designated households. If eight qualify, every-other-one becomes the designated household. If 12 qualify, then every third one (OBJECTIVE: Chose [sic] a random sample of households in the originally chosen area which fit the eligibility requirements).
>
> "If the first designated household at which inquiry is made is eligible, an interview is to be completed there.
>
> "If no contact is made on the first call at the first designated household, the interviewer may proceed immediately to the right substitute household to try to reach someone who can answer whether the originally designated household meets the eligibility requirement. If it does, three callbacks will be required on it. However, if it does not, interviewers can proceed immediately at the substitute household, using the respondents there as source of information on other households.
>
> "If in any sampling point cluster block there are not four eligible households, the interviewer adds additional households beyond the first 20, including proceeding to another block according to the original sampling instructions.
>
> "If information on households in the block cannot be obtained at the first contacted household, proceed with the skip interval as originally planned and ask for such information at second designated household."[1]

---

[1]Written communication received from the senior statistician of the market research agency, December 12, 1977.

This modification in sampling procedure preserved the original choice of geographic sampling point-by-probability method and preserved the random selection of households but changed the random selection of all households to random selection of those which met eligibility criteria.

At the termination of the data collection period by the research project staff, 125 of the 148 sets of wife-husband questionnaires were completed and met eligibility criteria. One set was immediately dropped from the sample because both husband's and wife's questionnaires were identical in response throughout. This brought the initial sample size to 124 wives and 124 husbands.

Unknown to the research staff at the date of termination of data collection procedures, no attempt had been made by the market research agency to place questionnaires in one of the thirty-seven clusters (four wife-husband pairs). Information was not obtained for the status of another cluster of four households in a different township. Several attempts to place the remaining questionnaires were unsuccessful, and in a few cases refusals were obtained after placement.

As a result of the modifications and deviation from agreed upon sampling procedures, one must assume that household informants have accurate knowledge of the family composition of other households on the block(s). In addition, one must assume that the clusters in which questionnaires were not placed were omitted as a result of a random process and not as a result of any systematic selection process. These assumptions are required to make

inferences to the population of wife-husband families with school-age children living at home within census tracts meeting the 1970 census median family income criterion of $12,000 or more.

Field Procedures

Before field work began, two-hour training sessions for interviewers were conducted by the field supervisor from the market research agency, this researcher, and the project directors. Sampling procedures and interview instructions were reviewed. The purpose of each section of the questionnaire was explained, and editing suggestions were made.

Included in Appendix B are the following forms: (1) interviewer instructions, (2) interviewer flow chart, (3) letter of introduction of interviewer to family, and (4) consent form. The first form was developed by the field supervisor, and the other forms were developed by this researcher and were reviewed, revised, and approved by the project directors and other graduate students on the research staff.

Eight trained interviewers (seven women and one man) screened households in this sample for eligibility criteria previously outlined. Written informed consent was obtained from one or both spouses at time of placement. If only one spouse was home, his or her consent was obtained; and the consent form was left for the other spouse to sign before pickup. If both wife and husband completed the questionnaires, the family received a check for ten dollars from the research project and a summary of the findings in appreciation for their participation in the study. Families were

assured verbally and in writing of anonymity.[1] Questionnaires were left with the spouses to be self-administered and were picked up several days later by the interviewer.

A tendency to give socially desirable responses on the part of some subjects was considered to be minimized in this study by the use of a self-administered questionnaire rather than a lengthy direct contact interview. The written request to seal the questionnaire (but not the signed consent form) in the envelope provided and the guarantee of anonymity by the project directors should have further diminished this tendency.

Interviewers were instructed to keep a call record which would give a history of the contacts and attempted contacts made. This was done with variable accuracy, and the information presented in Table 6 should be interpreted as a rough estimate of the contacts made and disposition of households. Over five hundred attempted contacts were made to obtain 124 completed sets of questionnaires. Following the termination of field work, it was concluded that in the future to ensure the sample size desired, one should overplace and expect a refusal rate after placement. Obtaining completed questionnaires from more than one family member is difficult, and the ten dollar incentive payment and promise of feedback of findings proved to be an asset.

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[1]Anonymity was maintained by separating the consent forms and call records from the questionnaires prior to coding. Consent forms and call records were kept in a separate locked file in the research office. The importance of anonymity was stressed in the interviewer training sessions.

TABLE 6.--Dispositions of Households Contacted in the Sample Selection Process

Disposition	Frequency
Eligible and placement	139[a]
Eligible but refusal before placement	58
Not eligible	182
Refusal before eligibility determined	11
No answer	138
Vacant residence	3
Interviewer terminated (e.g., language barrier)	5
Other (e.g., parents not home)	3
Missing information for a contact or attempted contact	20

[a]Of this total, fifteen households refused to complete questionnaires after placement, and a second placement was made subsequent to the refusal.

Description of the Sample

Criteria for determining the extent of collaboration between wife and husband in the completion of the questionnaires were developed by one research project director and this researcher. Five levels of collaboration were determined for sections 1, 2, and 14 based on percentages of response similarities and the presence or absence of other evidence of collaboration such as similar handwriting or identical responses to open-ended questions. Wife-husband pairs were assigned a score of zero if no collaboration was suspected or scores of one to five based on the strength of evidence for collaboration. An overall indicator of questionable sets was also developed based on evidence throughout the entire questionnaire that suggested possible collaboration. Cases were dropped from the sample after a second examination if (1) the collaboration score was greater than zero in sections 1, 2, or 14 and/or (2) handwriting was the same in the demographic section and in other sections of the questionnaire. Individual judgments were made in cases in which the overall indicator suggested possible collaboration. Eight wife-husband pairs were dropped from the sample for suspected collaboration bringing the final sample size to 116 wives and 116 husbands.

The sample is comprised of predominantly white (97 percent), middle age, middle-income, fairly well-educated wives and husbands who hold a variety of occupations and have on the average 2.6 children living at home.

A categorical age distribution is given in Table 7.

TABLE 7.--Age Distribution of Sample

Age (years)	Women		Men	
	N	%	N	%
Under 35	42	36.2	34	29.3
35-44	48	41.4	50	43.1
45 and over	25	21.5	32	27.6
Missing data	1	.9	-	-
Total	116	100.0	116	100.0

TABLE 8.--Family Income Distribution of Sample

1977 Total Family Income Before Taxes	N	%
Under $20,000	29	25.0
$20,000 - $29,000	41	35.3
$30,000 - $34,999	19	16.4
$35,000 and over	26	22.4
Missing data	1	.9
Total	116	100.0

The women range in age from 25 to 55 with an average age of 38.2. The men range in age from 25 to 58 with an average age of 40.2.

Table 8 shows the relative affluence characteristic of the sample. Only one-fourth of the sample had incomes under $20,000, and only nine families had incomes under $10,000. Thirty-eight percent had incomes greater than $30,000, and seven families exceeded $50,000 in total family income.

Men in general were more highly educated than women. Forty-one percent of the men were college graduates or had completed work beyond college compared to 22 percent of the women. Forty-three percent of the women were high school graduates, but another 15 percent had not completed high school. About an equal proportion (20 percent) of men and women had some college education but not a college degree.

A crosstabulation of wives' education and husbands' education in Table 9 shows that the women with a college background or advanced degrees tend to be married to men of comparable or higher educational levels than themselves. Men who had not completed high school were generally married to women who had completed high school or even had some college background. Men who were high school graduates or who had some college tended to be married to women at or below the same education level. Men who were college graduates or who had completed advanced degrees or post college course work were married to women at all educational levels. In general, the sample was well educated.

The types of occupations held by the women and men in this sample are summarized in Table 10. Sixty-one percent of the women

TABLE 9.--Crosstabulation of Wives' and Husbands' Highest Level of Formal Education

Husbands' Educational Level	Wives' Educational Level: Less Than 12 Years	High School Graduate	1-3 Years College	College Graduate	Post Bachelor's Work/Degree	Row Total (%)
Less Than 12 Years	3	8	2	0	0	13 (11.3)
High School Graduate	10	19	1	2	0	32 (27.8)
1-3 Years College	1	13	8	1	0	23 (20.0)
College Graduate	0	3	5	4	2	14 (12.2)
Post-Bachelor's Work/ Degree	3	6	8	4	12	33 (28.7)
Column Total (%)	17 (14.8)	49 (42.6)	24 (20.9)	11 (9.6)	14 (12.2)	115[a] (100.0)

[a]Missing data for one family.

TABLE 10.--Comparison of Types of Occupations Held by Women and Men in the Sample

Occupational Classification[a]	Women		Men	
	N	%	N	%
Professional, technical, and kindred workers	14	12.1	23	19.8
Managers and administrators, except farm	-	-	37	31.9
Sales workers	7	6.0	7	6.0
Clerical and kindred workers	11	9.5	7	6.0
Craftsmen and kindred workers	-	-	24	20.7
Operatives, except transport	1	.9	8	6.9
Transport equipment operatives	2	1.7	3	2.6
Laborers, except farm	1	.9	-	-
Service workers, except private household	5	4.3	5	4.3
Private household workers	3	2.6	-	-
Not employed for remuneration	71	61.2	2	1.7
Missing data	1	.9	-	-
Total	116	100.1[b]	116	99.9[b]

[a]1970 U.S. Census occupational classification (U.S. Bureau of the Census, 1971).

[b]Percentages do not sum to 100.0 due to rounding.

were not employed in remunerative occupations at the time of the study. This figure is somewhat atypical in comparison with the national trend (Weitzman, 1978). Of those women who were employed, about one-third were engaged in professional and technical positions of which the majority were teachers. The next most frequent occupation for women was clerical work. In contrast, the men predominantly occupied a wide variety of professional and technical positions (such as lawyers, engineers, computer analysts, teachers), and 32 percent were in managerial and administrative positions, often middle-management level jobs. The twenty-four craftsmen were frequently employed by the auto industry.

Occupational prestige ranged from seventeen to seventy-eight for women ($\bar{x}$ = 42) and from twenty-two to seventy-eight for men ($\bar{x}$ = 48). Categorical distributions are summarized in Table 11. The men's scores reflect the high proportion of managers, administrators, and professional and technical workers in the sample. The greater proportion of women among the low prestige levels reflect their participation in sales, clerical, and service occupations.

There were forty-three households (37.1 percent) in which both spouses were employed. In ten of these cases (23.2 percent), the wife's occupational prestige was greater than her husband's. In eight cases (18.6 percent), both the wife and husband had the same occupational prestige. In the remaining twenty-five of the forty-three dual-career families (58.1 percent), the wife's occupational prestige was less than that of her husband.

At this point it became apparent that the influence of wives' occupational prestige on affective evaluations of clothing

TABLE 11.--Distribution of Occupational Prestige Scores

Range of Occupational Prestige Scores	Women			Men		
	N	%	Adjusted %	N	%	Adjusted %
10 - 19	2	1.7	4.5	-	-	-
20 - 29	9	7.8	20.5	8	6.9	7.0
30 - 39	14	12.1	31.8	16	13.8	14.0
40 - 49	7	6.0	15.9	32	27.6	28.1
50 - 59	1	.9	2.3	35	30.2	30.7
60 - 69	9	7.8	20.5	14	12.1	12.3
70 - 78	2	1.7	4.5	9	7.8	7.9
Missing data	1	.9	-	-	-	-
Not applicable	71	61.2	-	2	1.7	-
Total	116	100.1[a]	100.0	116	100.1[a]	100.0

[a]Percentages do not sum to 100.0 because of rounding.

could not be analyzed because of the relatively small proportion of all wives who were gainfully employed. Occupational prestige was dropped as a variable in the analysis of Hypotheses 1 and 5 for women but was maintained for men.

Determination of Value Criteria Used by the Sample

In order to determine whether respondents used the same and/or other value criteria to evaluate the clothing domain than the eight included in the matrix, a coding frame was developed to determine the value content of responses to the question, "What are some of the most important reasons why you feel as you do about your clothing?" Responses to this item may help explain the proportion of variance in affective evaluations of clothing unaccounted for by the eight criteria of the matrix.

The coding frame was developed empirically from the responses of the subjects. Approximately one-third of the responses to item 1.15b was transferred to cards. These were sorted and grouped according to implicit positive value criteria expressed by the respondent. By "implicit positive" is meant that expressed feelings of satisfaction or dissatisfaction with clothing for various reasons were interpreted to mean that a particular value criterion was held by the respondent. For example the comments, "I believe your clothing gives an idea of what you think of yourself," "Have to save up much too long in order to pay cash and avoid debt," and "Only one reason--I am very heavy right now and look awful in my clothes" were judged to imply values of self-expression, economy,

and beauty and attractiveness respectively. Thus, responses were coded as to what respondents feel should be rather than what is, i.e., coded according to normative value criteria.

Sixteen major categories of value criteria were derived from the responses. Each major category was further subdivided into additional subcategories. The coding frame was reviewed by one values expert and by one textiles and clothing expert. Revisions were made on the basis of their suggestions, and the final set of sixteen value criteria with subcategories plus a miscellaneous category into which value neutral responses could be placed is found in Appendix C.

A response could be coded for up to four distinct subcategories of value criteria. A judgment was made by the coders as to the number of distinct value criteria being expressed in the response. An effort was made to evaluate the major ideas expressed rather than to code key words. Two trained coders (the researcher and one textiles and clothing graduate student) coded the first ten responses together. The next one hundred responses were coded by the researcher and independently check coded by the textiles and clothing graduate student. This was done to establish a satisfactory level of consistency between the two coders. Thereafter, the researcher coded the remaining responses for the three samples defined in the overall project. Every fifth response (20 percent) was check coded by the graduate student and whenever there was uncertainty regarding a particular category. When differences occurred between the two coders which could not be resolved upon discussion, the response was submitted to an arbiter (the values expert) for a decision.

An index of inter-coder agreement, π, for the three samples was .744 based on the formula reported by Scott (1955):

$$\pi = (P_o - P_e)/(1 - P_e)$$

where:

P_o = observed agreement (proportion of judgments on which the two coders agree when coding the same data independently).

P_e = proportion of agreements to be expected on the basis of chance alone.

$$= \sum_{i=1}^{k} p_i^2$$

where:

k = total number of categories which could be used and p_i is the proportion of the entire sample that falls in the ith category.

Pi (π), which can take on values between 0 and 1, is the ratio of the actual difference between obtained and chance agreement to the maximum difference between obtained and chance agreement. The index corrects for the number of categories in the code and for the frequency with which each category is used.

For the final analysis, subcategories of the sixteen value criteria were collapsed and subsumed under their major category headings.

Proximity of Clothing to Self (PCS) Scale

Development of the PCS Scale

A Proximity of Clothing to Self (PCS) Scale was also developed to classify subjects' responses to item 1.15b, "What are some of the most important reasons why you feel as you do about your clothing?" The PCS Scale was developed for the purpose of clarifying some of the relationships among the general life concerns. Specifically it was meant to determine whether people who verbalize a relationship between the self and clothing actually have a different perceptual structure of life concerns. One would hypothesize that high scorers on this scale would show a closer relationship between affective evaluations of clothing and the self than would low scorers or people whose responses showed no connection between clothing and the self.

On the basis of the social psychological literature previously reviewed, a three-point scale was developed. Each point on the scale varies in the degree to which clothing is:

1. perceived as one with the self or as a component of the self (structural model);

2. recognized as an aspect of appearance by which the self is established and validated (processual model);

3. recognized as a significant symbol of one's identity, mood, and attitude (processual model);

4. clearly perceived as an expression of self-regard, self-worth, or self-concept (evaluative process of self-esteem);

5. recognized as an element of an affective response to self-evaluation (affective process of self-esteem);

6. related to body cathexis (the physical self).

The scale criteria which represent operationalization of self theory and self-esteem theory were critiqued by the head of the dissertation committee and revised twice. The final form was reviewed by the textiles and clothing expert. The scale with illustrative examples of responses obtained from subjects in this survey is presented in Figure 13.

Some responses could not be coded on this scale because they did not meet any of the criteria. A few examples of nonscalable responses are:

> "The clothes I like I can't afford. The quality of 'affordable' clothes is substandard. Women's clothes on the whole are overpriced."
>
> "I can have most anything I want and my needs and desires are not excessive. Clothing is not an extremely important factor to me."
>
> "Have to save up much too long in order to pay cash and avoid debt."

The same two coders who previously coded the responses for value criteria also coded the responses for this scale.

In order to establish consistency in coding, the first thirty responses were coded by the two coders working together until ten responses were coded on scale. Thereafter, the two coders worked independently and coded the remaining responses. Differences which were not resolved by discussion between the two coders were submitted to an arbiter for a decisive third opinion. Several

Scale Criteria: Level 1	Illustrative Examples from Survey Responses
A. Clothing is viewed as having little or no relation to the self.	Clothing does not make the person. (A)
B. Denial of impact of one's clothing on the impressions and judgments of others; no perceived consequence for self.	Clothes do not make the man. It's not what you wear, it's who you are. (A)
C. Denial of the function of clothing as a significant symbol of one's identity, mood, or attitudes.	Clothing does not appreciate. I don't have to impress anyone; I am myself. Style doesn't affect me. I buy what I need. (B)
D. Denial of any effect of clothing on self-regard, self-worth, or self-concept.	I dress to please myself and if others don't like it they can just lump it. (B)
E. Clothing is viewed as having no relation to feelings about the self.	They don't make me feel overdressed or underdressed and comfort I feel within because they don't make me any more or less a person. (A & D)
F. Body cathexis expressed without further mention of appearance, other aspects of self, or any affective evaluation.	10 pounds too much. (F) My shape--overweight. (F)

Fig. 13. Proximity of Clothing to Self Scale with illustrative examples from survey responses. (Continued on next two pages.)

Scale Criteria: Level 2	Illustrative Examples from Survey Responses
A. Clothing is viewed in relation to some characteristic of self (e.g., femininity, sophistication, modernity).	I don't like most of the styles lately. Not feminine enough like the newer, softer lines coming out now. (A)
B. Some awareness of the impact of one's clothing on the impressions and judgments of others and its subsequent effect on self.	I feel presentable and in style. (A & B) My wife picks it out and she has great taste. Clothing is not all that important to me--just that I look presentable. (B)
C. Indirect expressions of symbolic value of clothing in relation to identity, mood, or attitude.	I feel pressure to wear better, more expensive clothes than I personally need or desire. (B)
D. Indirect evaluation of clothing in relation to self-regard, self-worth, or self-concept. Ambiguity of feelings with respect to the effect of clothing on self-regard.	They are clean, pressed. I have the freedom to be sloppy some days and neat and attractive other days. (C) I think it is important to have clean and decent clothing for your own personal self-worth. But I also believe clothing doesn't make the person. (D)
E. An affective expression about clothing and/or appearance with implicit evaluation of self.	I dress to look nice. I dress with the current styles. (A & D) I like them. They are things I feel I look good in. (E) I have what I need. Pleased about how I look in it. (E)
F. Some relationship expressed between body cathexis and clothing or appearance.	I'm overweight and it is almost impossible to find nice clothes when you are fat. (F)

Figure 13. Continued

Scale Criteria: Level 3	Illustrative Examples from Survey Responses
A. Clothing is viewed as one with the self or as a component of an organized picture of self.	My dress is me. (A) It fits my character. (A) I make most of my own clothes; try to make things that reflect my personality. (A)
B. Explicit recognition of the impact of one's clothing on the impressions and judgments of others and its subsequent effect on self.	I don't always have what I would like to wear yet I feel what I have is an expression of what I am and want to look like. (A) I've always been very conscious of how I look to others. If people tell me I dress nice, I feel good. (B) Clothing is a first impression. I like it to be good. (B)
C. Perception of clothing as a significant symbol of one's identity, mood, or attitude.	They help express the real me. Wearing what I like makes me feel better. (C) Clothing is a disguise. I can be whatever I want to be when I want to. (C)
D. Clothing perceived as an expression of self-regard, self-worth, or self-concept (self-evaluation).	I believe your clothes give an idea of what you think of yourself. (D) They make me feel comfortable. They express the worldly success I feel. (D)
E. Clothing as an element of an explicit affective response to self-evaluation. Clothing acts to enhance feelings about the self.	I like to look good. When I look good, I feel good. My clothes are not expensive but I do keep them nice. (E)
F. Direct relationship expressed between body cathexis and clothing with some expression of self-feeling.	I have lost 56 lbs. and I am getting thinner yet and finally I look and feel better. Going from a 20½ to a 14 is a real good feeling. (F)

Figure 13. Continued

responses were also submitted to the arbiter for a third opinion whenever there was agreement between the two coders but some uncertainty. In four such cases, the arbiter did not concur with the coders, and the coders deferred to the judgment of the arbiter.

Reliability of the PCS Scale

Two different methods for determining the reliability of the PCS Scale were required since some responses could not be coded for the construct defined by the scale. The first measure of reliability determined the extent of agreement among judges (coders and arbiter) of the dichotomous choice of coding the response on scale or off scale. A second method was used to determine the extent of agreement between the two coders when both coded a response on scale.

The first measure is that reported by Schutz (1952). The method assumes that (1) a judgment is made between two exhaustive possibilities which amounts to making the dichotomous decision whether the response possesses the property defined by the scale or not; (2) the sample of responses being classified is representative along the dimensions of the population to which the results are being inferred; and (3) the judges are from the same population of competence, i.e., possess the same knowledge for deciding whether a response possesses the property described by the scale. First, the empirical percent agreement is calculated which is defined as

$$\text{Empirical percent agreement} = \left(\sum_{i=1}^{n} s_i / \sum_{i=1}^{n} t_i \right) \times 100$$

where:

s_i = number of judges agreeing with the correct classification (i.e., on scale or off scale) for the ith response.[1]

t_i = total number of judgments made for the ith response.

The correct classification was defined as the one which was finally coded. The empirical agreement was 94 percent for the PCS Scale. Schutz next introduced a statistic which gives the probability that all the judges are using the scale criterion and not chance factors in making their decision. The statistic takes into account the part of the empirical percent agreement due to chance and the total number of judgments made. The empirical percent agreement level achieved was compared with that which would need to be achieved or exceeded in order to be reasonably certain that the judges were using the scale criterion in the same way 90 percent of the time at the .95 level of confidence. This requirement was met for the PCS Scale. Thus one may conclude that the judges were using the proximity of clothing to self criterion in the same way 90 percent of the time.

To determine the intercoder reliability for responses which both coders judged on scale, the statistic, the sample proportion ($\bar{p}$), was used (Neter, Wasserman, & Whitmore, 1966). The sample

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[1]If two or three judges decided a response should be coded on scale but differed in the place on the scale, this was considered an agreement for this method since it measures only the reliability of coding the response on scale or off scale.

proportion is defined as the proportion of responses coded on scale in which agreement was reached by the two coders. The null hypothesis was that the population proportion (p) was less than or equal to the preset reliability criterion of .80. The test statistic was calculated as follows:

$$t^* = (\bar{p} - p)/[p(1 - p)/n]^{\frac{1}{2}}$$

where:

$\bar{p}$ = sample proportion

p = population proportion

n = number of responses coded on scale

The test statistic was compared with a Student's t distribution at the .95 level of confidence. The sample proportion was .889 for the PCS Scale. The null hypothesis was thus rejected. Confidence limits for the reliability of the PCS Scale for responses coded on scale are $.81 \leq p \leq .97$.

Data Analysis Procedures

Both parametric and nonparametric statistics were used depending on the nature of the data and the assumptions made. All analyses were conducted separately for wives and husbands because one could not assume that their responses would be independent of each other even if there was no evidence of collaboration. For example, a wife's evaluation of her family life would not be expected to be entirely independent of her husband's evaluation of his family life.

The probability of a Type I error, i.e., rejecting the null hypothesis when it is true, was set at .05 for all hypotheses unless otherwise indicated.

The data analysis procedures are presented in some detail for several reasons: (1) this aspect of the research process was the particular strength of the researcher and of most interest to her; and (2) some of the analytical procedures are not widely known, and it seemed desirable to explain them to the reader. This researcher worked closely with a statistical consultant at the University for the regression and covariance analyses, but the actual data analysis was carried out by the researcher using the Michigan State University CDC 6500 computer.

Statistical Models and Assumptions

Pearson product moment correlations were computed between affective evaluations of clothing and POQL (Hypothesis 1). Partial correlations were then computed controlling for age, total family income, education, family size, and occupational prestige (men only).

Matched-pair t-tests (between wives and husbands) were used to test Hypotheses 6 and 7.

Multiple regression. Multiple regression was used to evaluate the strength of prediction of (1) perceived overall quality of life by affective evaluations of seven selected domains (Hypothesis 2), (2) affective evaluations of clothing by eight criteria (Hypothesis 3), and (3) affective evaluations of each of the eight criteria by domain-by-criterion evaluations (Hypothesis 4).

A formal statement (Neter & Wasserman, 1974) of the first-order multiple regression model is:

$$Y_i = \beta_o + \sum_{k=1}^{p-1} \beta_k X_{ik} + \varepsilon_i$$

where:

Y_i = the value of the response variable (dependent variable) in the ith trial;

$\beta_o, \beta_1, \ldots, \beta_{p-1}$ are parameters; β_o is the Y intercept[1] and β_k represents the change in the mean response E(Y) with a unit increase in the independent variable X_k when all other independent variables included in the model are held constant, i.e., $\beta_k = \partial E(Y)/\partial X_k$

$X_{i1}, \ldots, X_{i,p-1}$ are the values of the independent variables in the ith trial

ε_i = random error terms which are assumed to be independent (i.e., uncorrelated) and normally distributed with mean $E(\varepsilon_i) = 0$ and $\sigma^2(\varepsilon_i) = \sigma^2$. $\varepsilon_i = Y_i - E(Y_i)$

$i = 1, \ldots, n$

---

[1] β_o is identified in the multiple regression tables as (Constant).

In addition to the assumptions of independence, normality and constant variance of the error terms, the first-order model implies that the X_k are independent and additive.

The appropriateness of the model for the present research design was evaluated by an examination of residuals (e_i) which are the differences between the observed value and the fitted value of the response variable (i.e., $e_i = Y_i - \hat{Y}$) and which are regarded as the observed error. It is assumed that the errors are uncorrelated since separate analyses were performed for husbands and wives. A Chi-square goodness of fit test was used to evaluate departures of the residuals from a normal distribution. This test was performed on the residuals of four equations for two hypotheses: Hypothesis 2, full model, women and men separately, and Hypothesis 3, women and men separately. The goodness of fit tests failed to reject the assumption of normality at the .05 level of significance.

Plots of the residuals against the fitted values ($\hat{Y}_i$) for these same four equations failed to reveal any serious departures from the assumption of constancy of the error variance. Departure of the regression function from linearity is difficult to determine in the multiple regression situation. The value of R^2, the proportion of variance accounted for by a linear relation between the independent variables and the dependent variable, may be an indication of the fit of the variables to a linear model. High values of R^2 indicate a good fit provided the mean square error is relatively small; however, the reverse may not be true. Low values of R^2 may simply reflect a poor choice of independent variables or a high error variance.

When the independent variables are intercorrelated among themselves[1] (a condition which exists among many of the variables in this study), the regression coefficient of any independent variable depends on the particular set of independent variables included in the model. "Thus, a regression coefficient does not reflect any inherent effect of the particular independent variable on the dependent variable but only a marginal or partial effect, given whatever other correlated independent variables are included in the model" (Neter & Wasserman, 1974, p. 252). Any results must then be viewed as nonunique and must be considered within the context of the variables included.

To test the hypothesis that the regression coefficient for the clothing domain, β_2, equals zero (Hypothesis 2), an F statistic was derived from the mean squares of the full and reduced models. Seven domains, including clothing, were incorporated in the regression equation for the full model; and six domains, excluding clothing, were incorporated in the reduced model. The full model may be represented by:

$$Y_i = \beta_o + \beta_1 X_{i1} + \ldots + \beta_{p-1} X_{i,p-1} + \varepsilon_i \qquad \text{Full Model}$$

The reduced model is given by:

$$Y_i = \beta_o + \beta_1 X_{i1} + \ldots + \beta_{q-1} X_{i,q-1} + \varepsilon_i \qquad \text{Reduced Model}$$

---

[1]This condition is sometimes referred to as multicollinearity, a term which is often reserved, however, for situations in which the intercorrelations are very high or nearly perfect.

There are p-1 independent variables in the full model and q-1 independent variables in the reduced model.[1] A standard form of regression analysis was used in which all variables were entered into the regression equation in a single step and were not required to meet any statistical criteria to enter. An analysis of variance of the sums of squares due to linear regression and the sums of squares due to error was computed for both the full model and the reduced model.

The F statistic appropriate for the test of the null hypothesis that beta for the clothing domain equals zero (i.e., $\beta_2 = 0$) is (Neter & Wasserman, 1974, p. 264):

$$F^{*2} = \{[SSE(R) - SSE(F)]/(p - q)\} / \{[SSE(F)]/(n - p)\}$$

where:

SSE(R) = sum of squares due to error in the reduced model

SSE(F) = sum of squares due to error in the full model

p = number of parameters to be estimated in the full model

q = number of parameters to be estimated in the reduced model

n = number of cases

---

[1]For Hypothesis 2, p - 1 = 7 and q - 1 = 6. For Hypothesis 4, p - 1 = 8 and q - 1 = 7 for men; p - 1 = 7 and q - 1 = 6 for women.

[2]"F*" is used in place of "F" since the actual F ratio for the test of the hypothesis is computed by using results from the full and reduced model regression analyses and not the individual F ratios.

This value was compared with a tabled value of F at $\alpha = .05$ with $p - q$ degrees of freedom in the numerator and $n - p$ degrees of freedom in the denominator. If F^* exceeded $F_{(1-\alpha;\ p-q,\ n-p)}$, the null hypothesis was rejected. If rejected, one may conclude that the regression coefficient of the independent variable omitted in the reduced model is greater than zero, and the best estimate of β_2 is the observed regression coefficient. When the null hypothesis is rejected, one may also conclude that the increase in R^2 resulting from the addition of the independent variable to the model is significant.

The full and reduced regression models were also used to test Hypothesis 4. In this case one tests the null hypothesis that the beta coefficient for each clothing-by-criterion measure is equal to zero and, therefore, not predictive of affective evaluations of each of the eight criteria. Failure to reject the null hypothesis would also indicate that inclusion of clothing-by-criterion measures does not result in a significant increase in R^2.

To test whether there is a relation between the dependent variable, affective evaluations of clothing, and the set of independent variables, affective evaluations of clothing by eight criteria (Hypothesis 3), the F statistic (Neter & Wasserman, 1974, p. 228),

$$F = MSR/MSE$$

where:

MSR = mean square variation due to regression

MSE = mean square variation due to error

was used. This tests the null hypothesis that the entire set of eight beta coefficients (one for each of the eight criteria) equals zero. This hypothesis is rejected if $F > F_{(1-\alpha;p-1,n-p)}$.

Accompanying the analysis of variance tables for Hypotheses 2, 3, and 4 are the following:

Multiple R^2 = SSR/SSTO, the coefficient of multiple determination, i.e., the proportionate reduction of total variation in the dependent variable associated with the use of the set of independent variables

where:

SSR = sum of squares due to regression

SSTO = total sum of squares

Adjusted $R^2 = 1 - [(n - 1)/(n - p)][(SSE/SSTO)]$, the coefficient of multiple determination adjusted for the number of independent variables in the model.[1]

Multiple $R = (R^2)^{\frac{1}{2}}$, the coefficient of multiple correlation

---

[1]This coefficient is particularly appropriate for interpretation of the results of this study since full and reduced models were used. Neter and Wasserman (1974) state:

"Adding more independent variables to the model can only increase R^2 and never reduce it, because SSE can never become larger with more independent variables and SSTO is always the same for a given set of responses. Since R^2 often can be made large by including a large number of independent

Accompanying the multiple regression tables are (1) the unstandardized regression coefficients which are estimates of the population parameters, β_k; (2) the standard error of the regression coefficient from which confidence intervals for β_k may be developed; (3) the computed F statistic; (4) the probability that the sample was drawn from a population with $\beta_k = 0$; and (5) the standardized regression coefficients which are termed beta weights. The latter have been computed on standardized values of the independent and dependent variables.

The coefficient of partial determination, which measures the marginal contribution of one independent variable when all other independent variables are already included in the model, is computed for the results of Hypotheses 2 and 4 only. For the first-order multiple regression model with two independent variables, it is defined as:

$$r^2_{Y1\cdot 2} = [SSE(X_2) - SSE(X_1,X_2)]/SSE(X_2)$$

Neter and Wasserman (1974) state:

> Here, $r^2_{Y1\cdot 2}$ is the coefficient of partial determination between Y and X_1, given that X_2 is in the model. It measures the proportionate reduction in the variation of Y remaining after X_2 is included in the model which is gained by also including X_1 in the model. (p. 265)

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variables, it is sometimes suggested that a modified measure be used which recognizes the number of independent variables in the model. . . . This adjusted coefficient of multiple determination may actually become smaller when another independent variable is introduced into the model, because the decrease in SSE may be more than offset by the loss of a degree of freedom in the denominator n - p." (p. 229)

This is easily extended to more than two independent variables. For example, the coefficient of partial determination between perceived overall quality of life and affective evaluations of the clothing domain given that the other six domains are in the model is given by:

$$r^2_{Y2\cdot 1,3-7} = [SSE(R) - SSE(F)]/SSE(R)$$

where:

SSE(R) = sum of squares due to error in the reduced model

SSE(F) = sum of squares due to error in the full model

The simple difference between the two R^2 values in the full and reduced models is the proportion of variation due to regression explained by the addition of another independent variable. If the set of variables in the reduced model already explains a substantial amount of the variance, one would not expect an additional variable to increase R^2 much further. The coefficient of partial determination, by contrast, is based on the residual variation unexplained by the set of independent variables in the reduced model which is reduced by the addition of another independent variable.

Treatment of off-scale responses. Because of the sample respondents' frequent use of off-scale responses in the domains-by-criteria evaluations, these cases could not under ordinary means be incorporated into the regression analysis. Thus, a significant

drop in the number of valid (i.e., on-scale) cases occurred with the use of the preferred method of listwise deletion of "missing data."[1] Because of the sound statistical reasons for listwise deletion of missing data, this method was used in the computations. However, the resultant N for many of the regression equations reported was reduced substantially, and one must interpret the results of any equation with N < 100 with considerable caution.

In an effort to incorporate valid off-scale responses, indicator variables (sometimes referred to as dummy variables) were created for the three off-scale responses, i.e., "Neutral--neither satisfied nor dissatisfied," "Never thought about it," and "Does not apply to me." Indicator variables quantify the classes of a qualitative variable (Neter & Wasserman, 1974). Regression equations incorporating the on-scale variable and the off-scale indicator variables were computed for Hypothesis 3 only.

Essentially the model used represents a combination of the factor approach of the analysis of variance and the multiple

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[1]Strictly speaking, off-scale responses are not missing data; but since they cannot be included in the calculation of a correlation coefficient, they are treated as missing data. Under listwise deletion of missing data, if a case has a missing value for any of the variables in a given regression model, the case is not included in the computation of the equation. Pairwise deletion, the deletion of a case from calculations involving only that variable, is not recommended whenever some variables have many missing values because of computational inaccuracies and estimations which were not judged to be suitable for these data. With listwise deletion, all computations are based on the same universe of data (Nie, Hull, Jenkins, Steinbrenner, & Bent, 1975; statistical consultation and assistance obtained from Frank Pont, Department of Statistics, Michigan State University).

regression approach.[1] An off-scale indicator variable took on values of 1 or 0: 1 if the respondent used a particular off-scale category, 0 if the respondent used an on-scale or another off-scale category. The on-scale quantitative variable took on the value of the on-scale category if the respondent answered on scale or zero if the respondent answered off-scale. In the regression analysis, the term for the on-scale variable (since it equals zero for those answering off scale) does not enter into the prediction of the mean for the dependent variable for the group who answered with a particular off-scale category.

The strength of this approach is that off-scale responses are treated as valid responses [an apparent assumption made by Andrews and Withey (1976) in the development of the D-T Scale] and as predictive of the dependent variable. A weakness of the approach as applied to these data is that a large number of variables enter the regression equation (potentially one on-scale variable and three off-scale indicator variables for each item acting as an independent variable) without being balanced by a larger sample size than was available in this study. In view of this limitation, results of the analyses which employ these indicator variables reported in Chapter IV should be interpreted as demonstrative of the potential importance of off-scale responses rather than as conclusive predictive results.

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[1]The author acknowledges the assistance of Frank Pont, Department of Statistics, Michigan State University with the derivation and application of this model.

Analysis of covariance. An analysis of covariance, which permits the analysis of the effects of metric independent variables (called covariates or concomitant variables) in conjunction with nonmetric factors on a given dependent variable, was used to test Hypothesis 5. The effects of the covariates [i.e., age, occupational prestige (men only) and family size] were examined concurrently with the effects of the factors (education and family income) since both factor and covariate effects were of equal interest.

An example of the model for two factors and one covariate is given by Neter and Wasserman (1974):

$$Y_{ijk} = \mu + \alpha_i + \beta_j + (\alpha\beta)_{ij} + \gamma X_{ijk} + \varepsilon_{ijk}$$

where:

Y_{ijk} = the dependent or response variable

μ = the Y intercept

α_i = the main effect of factor A at level i

β_j = the main effect of factor B at level j

$(\alpha\beta)_{ij}$ = the interaction effect when factor A is at level i and factor B is at level j

γ = the regression coefficient for the relation between Y and X

X_{ijk} = the values of the covariates

ε_{ijk} = independent N $(0, \sigma^2)$ random error terms

$i = 1, \ldots, a;\ j = 1, \ldots, b;\ k = 1, \ldots, n$

In this study factor A was education with five levels, and factor B was total family income with four levels. Results show the interaction of the two factors. In addition, two factor-covariate interaction terms were added to the model: education with occupational prestige (men only) and total family income with age. From preliminary analyses, these two variable pairs were known to correlate moderately. The assumptions of the analysis of covariance model used in this study are: (1) normality and independence of error terms, (2) equality of error variances for different factors, and (3) linearity of regression. The overall alpha level for testing the main effects and interaction was .05.

Accompanying the analysis of covariance results is a multiple classification analysis (MCA) which is used to examine the pattern of changes in the factors as covariates are introduced as controls. Eta squared represents the proportionate reduction of the variation in the dependent variable, affective evaluations of clothing, explained by one factor, e.g., education or family income. Beta is analogous to a standardized partial regression coefficient. The relative importance of a factor as a predictor of the dependent variable after the effects of other factors and covariates have been removed is indicated by the rank order of the betas. Unlike normal regression coefficients, no sign is attached to these betas

(Andrews, Morgan, Sonquist, & Klem, 1973). Multiple R^2 is the proportion of variance in the affective evaluations of clothing explained by the additive effects of all factors and covariates.

Nonmetric Multidimensional Scaling Analysis

The general purpose of multidimensional scaling methods is to reduce a complex matrix of proximity relations (e.g., correlations, similarities, distances) between objects (variables) to a simple geometrical representation of the pattern or structure underlying the relationships. The objects are represented by points in an m-dimensional spatial model. Generally the lowest possible dimensionality is sought while at the same time accommodating the complex relations in the data. Substantive interpretation of the axes may show what properties gave rise to the relations in the data (Shepard, 1972).

Nonmetric multidimensional scaling (NMDS) methods begin with a rank order of the n(n-1)/2 possible interobject proximities for n objects. Given an arbitrary or rational initial arrangement of n coordinate points in a space of some trial number of dimensions, the n(n-1)/2 interpoint distances between the coordinate points are computed and the distances are ranked. The stress index, which is a measure of the degree of correspondence between the rank order of the computed distances and the rank order of the input proximities, is then computed. Close agreement between the two orderings is signalled by low stress values, whereas high stress values indicate a poor correspondence and lack of a good fit.

Through an iterative process known as the "method of gradients," the configuration of points is rearranged until the stress index is minimized. The final configuration of points gives the best representation of the original proximity relations. Stress can always be minimized further by increasing the number of dimensions because there is more freedom in the location of points which results in closer agreement between the two rank orderings. However, one generally sacrifices interpretability as one increases the number of dimensions. Therefore, a trade-off is made between accepting some stress for ease of interpretation (Subkoviak, 1975).

More formally, stress is the departure from desired monotonicity between the input proximity data s_{ij} and the distances d_{ij}. Shepard (1972) summarizes:

> Most of the functions that have been adopted as a measure of departure from monotonicity resemble Kruskal's "stress" measure in that they are based, in one way or another, upon the sum of squared discrepancies between the actually reconstructed distances d_{ij} and corresponding numbers $\hat{d}_{ij}$ that minimize this sum subject to the constraint that they are monotonic with the corresponding s_{ij} in the sense that
>
> $\hat{d}_{ij} \leq \hat{d}_{kl}$ whenever $s_{ij} < s_{kl}$. (p. 8)

In this study the proximity values were input as a square matrix of Pearson correlations of the affective evaluations of general life concerns of section 1 of the questionnaire and of perceived overall quality of life, Life 3. For men the total number of life concerns mapped was twenty-six whereas for women, the number was twenty-five. "How do you feel about your job?" was deleted from the women's analysis since a large number of women

answered "C--Does not apply to me." Thus the structure of perceptions of life concerns cannot be directly compared for women and men.

KYST, named for Kruskal, Young, Shepard, and Torgerson, was the NMDS program used at Michigan State University (Kruskal, Young, & Seery, 1973). A rational starting configuration was generated to avoid the problem of entrapment in local minima sometimes reached when the initial configuration has been randomly generated. The KYST program also rotates the final configuration for each dimensionality to principal components. The program supplies the coordinate projection of each life concern on each axis.

The life concerns (including Life 3) were mapped for all the women and all the men separately. Women and men were then separated into two groups each: one group consisted of those who were assigned a score of two or three on the PCS Scale and the other group consisted of those who left item 1.15b blank or whose responses were coded off the PCS Scale or who were assigned a score of one on the PCS Scale.

To determine whether entrapment in local minima had occurred, analyses were repeated using random start configurations. If the stress index obtained with a random start is substantially less than that obtained with a rational start, one would suspect that entrapment in a local minimum had occurred. Table 12 gives the Kruskal stress indices obtained for three-dimensional solutions beginning with rational and random start configurations for the six analyses.

TABLE 12.--Kruskal Stress Indices Obtained for Three-Dimensional Solutions of Six Nonmetric Multidimensional Scaling Analyses Beginning with Rational and Random Configurations

Analysis Group	Kruskal's Stress Index	
	Rational Start	Random Start
All women	.153	.153
High-scoring women	.145	.152
Low-scoring women	.164	.164
All men	.138	.139
High-scoring men	.139	.136
Low-scoring men	.133	.145

In all but one analysis (high-scoring men), rational start configurations resulted in stress indices equal to or lower than those obtained with random start configurations. The slightly lower value obtained with the random start (stress = .136) for the one group was not judged to be substantially different from the stress index obtained with the rational start (stress = .139). Thus, one can be reasonably confident that absolute minima were reached. Results are thus reported for three-dimensional solutions using rational start configurations.

Schultz and Hubert (1976) have published a nonparametric test of the null hypothesis that there are no comparable patternings between two proximity matrices which include the same set of variables. The criterion, gamma (Γ) was used to assess the relationship between the two square matrices, S_1 and S_2.

$$\Gamma = \sum_{j=1}^{n} \sum_{i=1}^{n} s_{ij}^{(1)} s_{ij}^{(2)}$$

where:

$s_{ij}^{(1)}$ = the entries in the ith row and jth column of S_1

$s_{ij}^{(2)}$ = the entries in the ith row and jth column of S_2

n = the number of variables in each matrix.

> Given the actual values of the entries in the two matrices S_1 and S_2, Γ can be interpreted as an unnormalized correlation coefficient between the elements of S_1 and S_2 where larger values of Γ denote greater degrees of correspondence between the two matrices. The index Γ measures the amount of common patterning of high and low entries across S_1 and S_2, and in particular, will be relatively large if the higher entries from S_1 and S_2 tend to be in the same matrix positions. (Schultz & Hubert, 1976, p. 61)

Equations are also presented for computing the exact randomization mean and variance of Γ and the normalized statistic $[\Gamma - E(\Gamma)]/[Var(\Gamma)]^{\frac{1}{2}}$ which is compared with the Cantelli inequality: $P\{\Gamma - E(\Gamma) \geq k\,[Var(\Gamma)]^{\frac{1}{2}}\} \leq 1/(1 + k^2)$. If this probability is less than the alpha level for the test, the null hypothesis is rejected, and one would conclude that the two proximity matrices reflect a comparable patterning of high and low entries. Proximity matrices in a form suitable for this test ($1 - r_{ij}$, where r_{ij} are the Pearson correlations) were computed for each of the groups who differed with respect to their scores on the PCS Scale. Tests were performed separately for women and men. Results of the NMDS procedures and for Γ are presented and discussed in Chapter IV.

Cluster Analysis

To increase (or perhaps decrease) one's confidence in the NMDS results, the results of cluster analysis are frequently embedded within the results of NMDS. If the clustering of objects closely matches the groupings of objects in the m-dimensional space, then one can be reasonably sure that there is an underlying structure to the data that is being revealed and validated by the two techniques.

Hubert and Baker (1976) have summarized the basic principles of clustering as follows:

> Most of these [clustering] techniques deal with the same problem of constructing an "optimal" sequence of partitions of a basic object set. Specifically, each partition in the sequence is defined by a grouping of the objects into mutually exclusive and exhaustive subclasses, where supposedly objects that are similar are placed together. In addition, the notion of a "sequence" implies a successive reduction in the number of subclasses in the classification scheme as a function of the criterion used to construct each of the individual groupings. Thus, the first partition can be defined by a trivial decomposition consisting of as many subclasses as there are objects, the second partition is composed of one less subclass, and so on until the last partition merely places all objects together within a single class. The general purpose of such a procedure is to generate a progression of partitions that mirror the underlying structure of the objects, and at the same time, provide some control over the "coarseness" of the grouping criterion. Since a complete sequence of partitions, i.e., a hierarchy, is produced, the researcher is free to choose particular partitions within the hierarchy for a further substantive analysis. (p. 88)

Complete-link hierarchial clustering was used in this study. The admission criterion for a variable or subset of variables to join a cluster is as follows:

> Assume the level k partition has been obtained; the level k + 1 partition is constructed by uniting those two subsets from level k that produce a subclass of the smallest

> diameter. Within this context, a diameter is defined as the largest proximity value among all the pairs of objects constituting a subset within a partition. (p. 93)

Program STRUCTR developed from the HICLUS program written at Bell Laboratories was used in this study. The absolute values of the Pearson correlations of affective evaluations of general life concerns and global well-being as described in the previous sections of this chapter served as the input similarity matrices to STRUCTR since the program does not accept negative values. Substantive decisions are made by the researcher for the level of optimal partitioning.

In this study, optimal partitioning was judged to have occurred at maximum diameter values ranging from .47 to .60 for the six analysis groups. In all but one instance this partitioning permitted the clustering of the clothing domain with at least one other life concern. This partition level also made the most substantive sense in the clustering of other life concerns.

Results of the cluster analyses were embedded within the NMDS solutions. Successive partition levels rather than only final partition levels are shown in a manner analagous to that proposed by Napior (1972).

CHAPTER IV

RESULTS AND DISCUSSION

In this chapter descriptive data pertaining to the major variables are presented, and the results of the tests of hypotheses are given and discussed.

Descriptive Data for the Major Variables

Perceived Overall Quality of Life

Consistent with findings reported in other quality of life studies (Bubolz et al., in press; Andrews & Withey, 1976; Campbell et al., 1976), this sample also tended to evaluate life positively. The mean POQL (Life 3) score for women was 5.3 (s.d. = .8), and the mean for men was also 5.3 (s.d. = .9).

A crosstabulation of wives' and husbands' perceived overall quality of life in Table 13 rather dramatically illustrates that few respondents used the low end of the D-T Scale. In a methodological study of the meaning of the D-T Scale categories, Andrews and Withey (1976) found that people who responded at level 4 (Mixed) generally tended to find life no better than tolerable, whereas people who responded at level 6 (Pleased) found life highly satisfying.

TABLE 13.--Crosstabulation of Wives' and Husbands' Perceived Overall Quality of Life

Husbands	Wives: Terrible	Unhappy	Mostly Dissatisfied	Mixed	Mostly Satisfied	Pleased	Delighted	Row Total (%)
Terrible	0	1	0	0	0	0	0	1 (.9)
Unhappy	0	0	0	0	0	0	0	0 (0)
Mostly Dissatisfied	0	0	0	2	1	0	0	3 (2.6)
Mixed	0	0	0	4	8	6	0	18 (15.5)
Mostly Satisfied	0	0	1	13	28	18	0	60 (51.7)
Pleased	0	0	0	3	14	10	1	28 (24.1)
Delighted	0	0	0	0	2	3	1	6 (5.2)
Column Total (%)	0 (0)	1 (.9)	1 (.9)	22 (19.0)	53 (45.7)	37 (31.9)	2 (1.7)	116 (100.0)

NOTE: Fractional values formed by averaging Life 1 and Life 2 are rounded down. For example, a value of 4.5 on Life 3 appears in this table under "Mixed."

Nineteen percent of the men and 21 percent of the women in this study had POQL scores of 4.5 or lower, certainly not an insignificant proportion; but the positive outlook on life predominates for the group as a whole. Thirty-seven percent of the wives and husbands had virtually identical evaluations of life quality as shown on the main diagonal, and another 52 percent differed only by one scale point. The direction of this difference was equally shared by wives and husbands. Thirty wives evaluated life slightly below (one point) their husbands, and thirty husbands found life slightly less satisfying than their wives.

Whereas somewhat over one-third of the sample had highly congruent perceptions of life quality, slightly under two-thirds of the wife-husband pairs differed in their evaluations. Given the interpretations of the scale descriptors, these differences may be larger than is immediately apparent. At any rate, neither sex (in this study) bears the burden of dissatisfaction exclusively.

Reliability of Global Evaluations of Life-as-a-Whole

The Pearson correlation between Life 1 and Life 2 was .61 for women and .70 for men. These are values within the same reliability range as those obtained by Andrews and Withey (1976) in four surveys (r = .61 to .71).

Crosstabulations of the two variables for both women and men are given in Tables 14 and 15. The majority of women (54 percent) and men (58 percent) gave identical responses to the same question asked twice in the questionnaire. Seventeen percent of the women and 15 percent of the men lowered their evaluation by one scale

TABLE 14.--Crosstabulation of Women's First and Second Global Evaluation of Well-Being

Life 1	Life 2: Terrible	Unhappy	Mostly Dissatisfied	Mixed	Mostly Satisfied	Pleased	Delighted	Row Total (%)
Terrible	0	0	0	0	0	0	0	0 (0)
Unhappy	0	0	0	0	0	0	0	0 (0)
Mostly Dissatisfied	0	0	0	0	0	0	0	0 (0)
Mixed	0	0	1	8	7	1	0	17 (15.2)
Mostly Satisfied	0	0	0	6	25	14	0	45 (40.2)
Pleased	0	0	0	2	10	28	5	45 (40.2)
Delighted	0	0	0	0	0	3	2	5 (4.5)
Column Total (%)	0 (0)	0 (0)	1 (.9)	16 (14.3)	42 (37.5)	46 (41.1)	7 (6.3)	112[a] (100.0)

NOTE: Pearson correlation = .61. Women with identical responses to both evaluations: 63 (54 percent of all women). Women with adjacent responses to the two evaluations: 46 (40 percent of all women).

[a]Four women answered off scale or gave no answer to one evaluation.

TABLE 15.--Crosstabulation of Men's First and Second Global Evaluation of Well-Being

Life 1	Life 2: Terrible	Unhappy	Mostly Dissatisfied	Mixed	Mostly Satisfied	Pleased	Delighted	Row Total (%)
Terrible	0	0	0	0	0	0	0	0 (0)
Unhappy	1	0	0	0	0	0	0	1 (.9)
Mostly Dissatisfied	0	0	2	0	1	0	0	3 (2.6)
Mixed	0	0	1	8	4	2	0	15 (13.0)
Mostly Satisfied	0	0	0	4	31	17	2	54 (47.0)
Pleased	0	0	0	1	9	20	4	34 (29.6)
Delighted	0	0	0	0	0	2	6	8 (7.0)
Column Total (%)	1 (.9)	0 (0)	3 (2.6)	13 (11.3)	45 (39.1)	41 (35.7)	12 (10.4)	115[a] (100.0)

NOTE: Pearson correlation = .70. Men with identical responses to both evaluations: 67 (58 percent of all men). Men with adjacent responses to the two evaluations: 42 (36 percent of all men).

[a]One man answered off scale to one evaluation.

point, whereas 22 percent of the women and 22 percent of the men raised their evaluations of life quality by one point after reviewing many life concerns. Only three women and six men changed their evaluations of life-as-a-whole by two scale points. The fact that 94 percent (109) of the women and 94 percent of the men used the identical or adjacent response to both global evaluations of life-as-a-whole explains the relatively strong association of Life 1 and Life 2.

Matrix Life Concerns

Tables D-1 and D-2 that detail the frequencies with which women and men used the D-T Scale categories to evaluate the seven domains and eight value criteria (general life concerns) may be found in Appendix D. Examination of these tables shows the tendency of some respondents to use both the on-scale and off-scale responses of the D-T Scale. This gives some evidence of their ability to discriminate between two potentially difficult categories, that is, "Mixed--about equally satisfied and dissatisfied" and "Neutral--neither satisfied nor dissatisfied." The former has the connotation of ambivalent feelings whereas the latter implies no feelings. The most frequent use (N = 10) of the "Neutral" category was for evaluations of clothing by men. Most respondents did, however, use the on-scale responses for evaluations of general life concerns.

The frequency data are summarized in Table 16 which gives the mean and standard deviation of each of the general life concerns as well as of the global evaluations of well-being. Both women and men evaluated family life higher than any of the other domains

TABLE 16.--Means and Standard Deviations of Women's and Men's Affective Evaluations of Life-as-a-Whole and of Matrix Life Concerns

	Women			Men		
	Mean	Standard Deviation	N	Mean	Standard Deviation	N
Life 1	5.3	.8	113	5.2	.9	116
Life 2	5.3	.9	115	5.4	1.0	115
POQL (Life 3)	5.3	.8	116	5.3	.9	116
Housing	5.3	1.2	115	5.4	1.2	115
Clothing	4.8	1.1	107	5.1	.9	100
Job	5.1	1.2	78	5.0	1.4	113
Family Life	5.6	1.0	114	5.9	.9	116
Neighborhood	5.4	1.0	113	5.4	1.2	116
Spare Time Activities	4.8	1.1	114	5.0	1.1	114
National Government	4.0	1.0	107	3.8	1.2	114
Standard of Living	5.4	1.0	115	5.3	1.1	115
Fun	4.9	1.1	111	4.7	1.1	115
Independence or Freedom	5.1	1.2	113	5.0	1.2	114
Beauty & Attractiveness	5.0	.8	104	4.7	1.2	109
Freedom from Bother	4.8	1.2	102	5.1	1.1	109
Safety	5.0	1.0	106	5.0	1.1	107
Accomplishing Something	4.9	1.1	112	5.0	1.2	113
Acceptance & Inclusion	5.4	.9	109	5.4	.9	108

and criteria. Men in particular were pleased with family life ($\bar{x}$ = 5.9) whereas women were somewhat less so ($\bar{x}$ = 5.6) but still quite high in comparison to other life concerns. In general women and men were mostly satisfied with their housing, neighborhood, standard of living, and acceptance and inclusion by others. Evaluations of job, independence or freedom, safety, and accomplishing something were somewhat less positive but still within the category of "Mostly satisfied." Women tended to express less positive feelings about clothing ($\bar{x}$ = 4.8) than did men ($\bar{x}$ = 5.1). The same imbalance held for spare time activities ($\bar{x}_{women}$ = 4.8; $\bar{x}_{men}$ = 5.0) and for freedom from bother and annoyance ($\bar{x}_{women}$ = 4.8; $\bar{x}_{men}$ = 5.1). Men, however, tended to express less positive evaluations of the fun they were having ($\bar{x}_{women}$ = 4.9; $\bar{x}_{men}$ = 4.7) and of the beauty and attractiveness in their world ($\bar{x}_{women}$ = 5.0; $\bar{x}_{men}$ = 4.7). Evaluated least positively of all was national government with a mean of 4.0 for women and 3.8 for men.

The specific domain-by-criterion evaluations should help explain some of the above findings. These are discussed within the context of results of the multiple regression analyses in a later section of this chapter.

Since the emphasis in this study is on the clothing domain, a crosstabulation of wives' and husbands' affective evaluations of clothing is presented in Table 17. Both on-scale and off-scale responses are included and are clearly delineated from each other by the horizontal and vertical dashed lines within the table. Working first with the column and row totals which summarize the

TABLE 17.--Crosstabulation of Wives' and Husbands' Affective Evaluations of Clothing

Husbands	Wives: Terrible	Unhappy	Mostly Dissatisfied	Mixed	Mostly Satisfied	Pleased	Delighted	Neutral	Never Thought About It	Does Not Apply To Me	Row Total (%)
Terrible	0	0	0	0	1	0	0	0	0	0	1 (.9)
Unhappy	0	0	0	0	0	0	0	0	0	0	0 (0)
Mostly Dissatisfied	0	0	0	0	1	1	0	0	0	0	2 (1.7)
Mixed	0	0	2	6	6	2	1	2	0	0	19 (16.5)
Mostly Satisfied	1	2	3	9	19	10	0	0	1	0	45 (39.1)
Pleased	0	1	1	5	10	8	2	1	2	0	30 (26.1)
Delighted	0	0	0	0	0	1	1	0	1	0	3 (2.6)
Neutral	0	0	1	2	4	1	0	1	1	0	10 (8.7)
Never Thought About It	0	0	0	1	3	1	0	0	0	0	5 (4.3)
Does Not Apply To Me	0	0	0	0	0	0	0	0	0	0	0 (0)
Column Total (%)	1 (.9)	3 (2.6)	7 (6.1)	23 (20.0)	44 (38.3)	24 (20.9)	4 (3.5)	4 (3.5)	5 (4.3)	0 (0)	115[a] (100.0)

[a]No response was given by one husband. Wife's response = 5 (Mostly Satisfied).

distribution of the responses for women and men, only about one-fifth (19 percent) of the men but 30 percent of the women expressed mixed or negative feelings about their clothing. The modal response for both sexes was mostly satisfied. A few more men than women (six) were pleased with their clothing. Only a few of both sexes were delighted. Fifteen men and nine women replied with one of the off-scale responses. Nine percent of all the men and 4 percent of all women felt neutral about their clothing. Another 4 percent of the men and women said they never thought about it. Appropriately, no one replied with "Does not apply to me."

Thirty percent of the wives and husbands gave identical evaluations of their clothing (values along the main diagonal). Of the ninety-three wife-husband pairs answering on scale, thirty-five wives felt worse about their clothing than did their husbands. Thirteen of these wives differed by two or more scale points from the evaluations given by their husbands. Of the twenty-three husbands who responded more negatively than their wives, only five differed by more than two scale points from their wife's evaluation.

Finally, and perhaps most important, those individuals who have low evaluations of their clothing (i.e., mixed, mostly dis-satisfied, unhappy, or terrible) tend to be married to spouses who are mostly satisfied, pleased, or delighted with their clothing. This raises some interesting questions. Are resources for clothing inequitably distributed within the family, or does one spouse tend to use different criteria to evaluate clothing than the other and weight such criteria differently? Objective indicators of resource

use for clothing could help answer the first question. Findings from this study should provide clues to the latter.

Tests and Discussion of Hypotheses

A detailed description of the statistical models, procedures, and test statistics for the hypotheses has already been given in Chapter III. In this section each research hypothesis is stated within the context of the research objective, and the tabular results of the statistical test(s) for each hypothesis are given and discussed.

Hypothesis 1: Affective Evaluations of Clothing and Perceived Overall Quality of Life

To determine the relationship between affective evaluations of clothing and perceived overall quality of life for women and men while controlling for several demographic characteristics, the following null hypothesis was formulated and tested:

> H_1: There is no relationship between affective evaluations of clothing and perceived overall quality of life for women and men controlling for (1) age, (2) total family income, (3) education, (4) family size, and (5) occupational prestige.

Results of Hypothesis 1. As indicated in Chapter III, occupational prestige was dropped as one of the control variables for women since many were not engaged in remunerative occupations. The zero-, first-, and fourth-order partial correlations for women

and the zero-, first-, and fifth-order partial correlations for men are given in Table 18.[1]

Immediately evident in the zero-order matrices is the much stronger correlation of men's affective evaluations of clothing with POQL (r = .45) than that of women (r = .25). This is one of the most unexpected findings in the study perhaps because of the stereotype of the greater importance of clothing and fashion to women's well-being than to men's well-being. Although a direct causal relationship is not proposed by a correlation, the size of the difference between the correlations for women and men is rather impressive. Possibly women may have higher levels of aspiration for achievement within the clothing domain than do men.

Also evident in the zero-order matrices are the low correlations of the control variables with clothing and with POQL. Not surprisingly then, the effect on the relationship between affective evaluations of clothing and POQL when controlling for these variables was quite small. For both women and men, the correlation increased by an insignificant amount (.03) when controlling for all variables simultaneously.

Although the control variables proved to be ineffective in modifying the clothing-POQL relationship, the actual correlations

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[1]Zero-order correlations are the simple uncontrolled correlations among all the variables. First-order partial correlations represent the correlations between clothing and POQL while controlling for each of the control variables separately. The higher-order partial correlations represent the degree of association between clothing and POQL while simultaneously controlling for the effects of the other variables.

TABLE 18.--Zero- and Higher-Order Pearson Partial Correlation Coefficients of Women's and Men's Perceived Overall Quality of Life with Affective Evaluations of Clothing Controlling for Age, Family Income, Education, Family Size and Occupational Prestige[a]

Women

Zero-Order Correlation Matrix:[b]

	POQL (Life 3)	Clothing	Age	Family Income	Education
Clothing	.25				
Age	-.05	.02			
Family Income	-.13	.18	.23		
Education	-.08	.02	.03	.16	
Family Size	-.04	.02	.16	.10	-.17

First-Order Partial Correlations Controlling for:

Age	.26
Family Income	.28
Education	.26
Family Size	.26

Fourth-Order Partial Correlation Controlling for:

Age, Family Income, Education and Family Size	.28*

Men

Zero-Order Correlation Matrix:[c]

	POQL (Life 3)	Clothing	Age	Family Income	Education	Family Size
Clothing	.45					
Age	-.04	.18				
Family Income	-.06	.07	.34			
Education	.02	.06	-.06	.15		
Family Size	.04	.06	.17	.10	-.15	
Occupational Prestige	.11	.03	.10	.33	.62	-.04

First-Order Partial Correlations Controlling for:

Age	.46
Family Income	.45
Education	.45
Family Size	.45
Occupational Prestige	.45

Fifth-Order Partial Correlation Controlling for:

Age, Family Income, Education, Family Size and Occupational Prestige	.48**

[a]Occupational prestige included in the analysis for men only. See Chapter III for a discussion of this variable.

[b]For women, N = 105.

[c]For men, N = 96.

*Significant for women at $\alpha = .05$ ($p = .004$). This was the only correlation of the above tested for significance for women.

**Significant for men at $\alpha = .05$ ($p = .001$). This was the only correlation of the above tested for significance for men.

between these two variables (r_{women} = .28; r_{men} = .48), however, were significant. Whereas for women only 8 percent of the variance has been accounted for by a linear relationship between POQL and affective evaluations of clothing, the coefficient of determination (r^2) for men is .23. The 95 percent confidence intervals for the population parameter, ρ, were computed. For women $.09 \leq \rho \leq .45$; for men $.30 \leq \rho \leq .62$.

The highest correlation for men with feelings about clothing was with age (r = .18) initially suggesting that there is a slight tendency for feelings about clothing to increase positively with age. For women this correlation was close to zero, but family income had a comparable association (r = .18) with feelings about clothing for women that age had for men. Thus at first glance there seems to be a slight tendency for women with high family incomes to evaluate clothing positively. As a later analysis (Hypothesis 6) will show, however, the age and income correlations with clothing are influenced by each other and by other variables. The directions of the effect of these variables change as these and other variables are controlled.

Hypotheses 2, 3, and 4: Analyses of Matrix Variables

The second research objective was to determine the predictive ability of the clothing variables in the domains-by-criteria matrix model. Three major hypotheses were generated. Each null hypothesis is presented separately and discussed.

Hypothesis 2: Prediction of POQL by Affective Evaluations of Clothing. The null hypothesis is:

H_2: Affective evaluations of the clothing domain by women and men do not explain perceived overall quality of life when the clothing domain is added to other selected domains.

Results of Hypothesis 2. The results of the multiple regression analyses for the reduced and full models are given in Table 19 for women and Table 20 for men. In order to maintain a relatively large sample size, a dichotomous job status indicator variable (the value determined by whether the wife was employed or not) was substituted for the women's job variable as measured by the D-T Scale response to the question "How do you feel about your job?"

For women the hypothesis is not rejected. The addition of the clothing domain to the model does not significantly increase the explanation of POQL. The increase in the adjusted R^2 was only .011, and the coefficient of partial determination was .034. In the full model, however, the standardized beta for clothing (.142) was second only in magnitude to that for family life (.607), and the probability that the regression coefficient for the clothing domain equals zero is relatively small ($p = .077$) in comparison to those for the remaining domains.

For the men, however, clothing is a significant predictor of POQL. The null hypothesis was rejected; and a 95 percent confidence interval for the population parameter, β_2, was computed to be $.048 \leq \beta_2 \leq .360$. The interval does not include zero, and

TABLE 19.--Multiple Regression Analyses of the Prediction of Women's Perceived Overall Quality of Life by Domains with Dichotomous Job Status Substituted as an Indicator Variable for the Job Domain: Reduced and Full Models

Analysis of Variance					Multiple Regression					
Source of Variation	Sum of Squares	df	Mean Square	F (Probability)	Domain	Unstandardized Regression Coefficient (Estimated Beta)	Standard Error of Regression Coefficient	F	Probability	Standardized Regression Coefficient
Reduced Model (Without Clothing):										
					Housing	.122	.060	4.13	.045	.167
Regression	29.72	6	4.95	17.59	Job: Yes or No	.086	.116	.54	.463	.055
				(.000)	Family Life	.472	.061	59.41	.000	.592
Residual	25.91	92	.28		Neighborhood	.044	.060	.53	.468	.060
					Spare Time Act.	.124	.059	4.38	.039	.161
Total	55.63	98			Natl. Govt.	.022	.060	.13	.717	.027
					(Constant)	1.056	.504	4.39	.039	
Multiple R = .731										
Multiple R^2 = .534										
Adjusted R^2 = .504										
Full Model (With Clothing):										
					Housing	.083	.063	1.76	.187	.114
Regression	30.60	7	4.37	15.89	Clothing	.095	.053	3.19	.077	.142
				(0)	Job: Yes or No	.074	.115	.42	.520	.048
Residual	25.03	91	.28		Family Life	.484	.061	63.16	0	.607
					Neighborhood	.050	.059	.72	.399	.069
Total	55.63	98			Spare Time Act.	.094	.061	2.39	.125	.122
					Natl. Govt.	.024	.059	.17	.679	.030
Multiple R = .742					(Constant)	.842	.512	2.70	.104	
Multiple R^2 = .550										
Adjusted R^2 = .515										

NOTE: F* test statistic = 3.20; tabled $F_{(.95;\ 1,91)} \cong 4.00$; $r^2_{Y2 \cdot 1,\ 3-7} = .034$.

TABLE 20.--Multiple Regression Analyses of the Prediction of Men's Perceived Overall Quality of Life by Domains: Reduced and Full Models

Analysis of Variance					Multiple Regression					
Source of Variation	Sum of Squares	df	Mean Square	F (Probability)	Domain	Unstandardized Regression Coefficient (Estimated Beta)	Standard Error of Regression Coefficient	F	Probability	Standardized Regression Coefficient
Reduced Model (Without Clothing):										
					Housing	.134	.059	5.12	.026	.188
Regression	41.20	6	6.87	18.54	Job	.202	.050	16.15	.000	.316
				(.000)	Family Life	.410	.078	27.28	.000	.411
Residual	32.58	88	.37		Neighborhood	-.010	.067	.02	.878	-.013
					Spare Time Act.	.142	.067	4.49	.037	.175
Total	73.78	94			Natl. Govt.	.061	.055	1.23	.270	.083
					(Constant)	.250	.528	.22	.637	
Multiple R_c = .747										
Multiple R^2 = .558										
Adjusted R^2 = .528										
Full Model (With Clothing):										
					Housing	.137	.058	5.66	.019	.192
Regression	43.54	7	6.22	17.89	Clothing	.204	.078	6.72**	.011	.209
				(0)	Job	.165	.051	10.57	.002	.258
Residual	30.24	87	.35		Family Life	.410	.076	28.98	0	.410
					Neighborhood	-.051	.067	.57	.450	-.065
Total	73.78	94			Spare Time Act.	.107	.066	2.61	.110	.132
					Natl. Govt.	.051	.053	.92	.341	.070
Multiple R_c = .768					(Constant)	-.183	.538	.12	.735	
Multiple R^2 = .590										
Adjusted R^2 = .557										

NOTE: F* test statistic = 6.73; tabled $F_{(.95;\ 1,\ 87)} \cong 4.00$; $r^2_{Y2\cdot1,\ 3-7} = .072$.

**Significant at $\alpha = .05$.

one concludes that the beta value for prediction of men's POQL by clothing is significantly different from zero. There is a high probability (.95) that the confidence interval covers the true value of beta. The best estimate of beta is .204 (unstandardized). The standardized regression coefficient is .209. This value ranks third in magnitude with that for family life (beta = .410, p = 0) and job (beta = .258, p = .002) exceeding it. The coefficient of partial determination (.072) reflects a substantial reduction in residual variance, and the increase in adjusted R^2 (.029) is significant.

These analyses demonstrate the contribution of the clothing domain to married men's perceptions of life quality relative to the contribution of the other domains included in the model. Relative to these same domains, one cannot conclude that clothing evaluations add significantly to the prediction of POQL for the married women of the underlying population in this study. But the F* test statistic is large enough to warrant the suspension of judgment for the present. The remaining hypotheses should help clarify these findings.

Hypothesis 3: Prediction of Affective Evaluations of Clothing by Eight Value Criteria. The null hypothesis is:

H_3: Affective evaluations of clothing with respect to the eight value criteria do not explain affective evaluations of clothing for women and men.

First, descriptive frequency data are presented and possible explanations for the relatively high frequency of off-scale responses

to clothing-by-criterion items are discussed. Additional value criteria used by respondents are presented. Next the results of the test of Hypothesis 3 and the results of additional analyses using indicator variables for off-scale responses are given.

Descriptive frequency data and off-scale responses. Table 21 gives the frequencies and relative frequencies of women's and men's affective evaluations of clothing with respect to the eight matrix criteria. From this table the frequent use of off-scale responses is immediately apparent.

The most prolific use of off-scale responses occurred for the clothing-by-safety evaluations, in which 44.9 percent of the men and 40.4 percent of the women answered off scale. The least severe use of off-scale responses occurred with clothing-by-standard of living for men (19.9 percent) and clothing-by-beauty and attractiveness for women (16.4 percent). This suggests that the latter two are some of the more applicable criteria by which clothing is evaluated. The persistent use of off-scale responses, particularly the category "Never thought about it," by over 15 percent of the sample posed methodological problems, the solution of which has been discussed in Chapter III.

From Table 22 which gives the means and number of respondents answering on scale for each of the seven domains with respect to eight criteria, one can see that, with the exception of the job domain for women which has already been discussed, the use of off-scale responses was more frequent throughout the clothing domain than for any other domain. Occurrences of fewer than one hundred

TABLE 21.--Frequencies and Relative Frequencies of Women's and Men's Affective Evaluations of the Clothing Domain by Eight Criteria

Clothing by:	Terrible		Unhappy		Mostly Dissatisfied		Mixed		Mostly Satisfied		Pleased		Delighted		Neutral		Never Thought		Does Not Apply		No Answer	
	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
Standard of Living																						
Women	1	(.9)	4	(3.4)	9	(7.8)	25	(21.6)	31	(26.7)	24	(20.7)		-	7	(6.0)	15	(12.9)		-		-
Men		-	3	(2.6)	7	(6.0)	13	(11.2)	40	(34.5)	23	(19.8)	7	(6.0)	6	(5.2)	16	(13.8)		-	1	(.9)
Fun																						
Women	1	(.9)	1	(.9)	9	(7.8)	17	(14.7)	41	(35.3)	24	(20.7)	1	(.9)	7	(6.0)	13	(11.2)	2	(1.7)		-
Men		-	1	(.9)	4	(3.4)	13	(11.2)	35	(30.2)	20	(17.2)	10	(8.6)	7	(6.0)	22	(19.0)	3	(2.6)	1	(.9)
Independence/Freedom																						
Women	1	(.9)	2	(1.7)	9	(7.8)	9	(7.8)	31	(26.7)	25	(21.6)	4	(3.4)	8	(6.9)	25	(21.6)	2	(1.7)		-
Men		-		-	5	(4.3)	16	(13.8)	28	(24.1)	23	(19.8)	7	(6.0)	7	(6.0)	26	(22.4)	3	(2.6)	1	(.9)
Beauty																						
Women	1	(.9)	5	(4.3)	12	(10.3)	22	(19.0)	31	(26.7)	23	(19.8)	3	(2.6)	7	(6.0)	11	(9.5)	1	(.9)		-
Men		-	2	(1.7)	7	(6.0)	16	(13.8)	33	(28.4)	25	(21.6)	4	(3.4)	6	(5.2)	20	(17.2)	2	(1.7)	1	(.9)
Freedom from Bother																						
Women		-	3	(2.6)	8	(6.9)	19	(16.4)	28	(24.1)	23	(19.8)	6	(5.2)	4	(3.4)	23	(19.8)	2	(1.7)		-
Men		-	1	(.9)	4	(3.4)	16	(13.8)	26	(22.4)	22	(19.0)	6	(5.2)	10	(8.6)	28	(24.1)	2	(1.7)	1	(.9)
Safety																						
Women	3	(2.6)		-	1	(.9)	11	(9.5)	27	(23.3)	22	(19.0)	5	(4.3)	7	(6.0)	36	(31.0)	4	(3.4)		-
Men		-		-	1	(.9)	13	(11.2)	25	(21.6)	18	(15.5)	7	(6.0)	11	(9.5)	36	(31.0)	4	(3.4)	1	(.9)
Accomplishing Something																						
Women	1	(.9)	1	(.9)	11	(9.5)	18	(15.5)	33	(28.4)	22	(19.0)	4	(3.4)	7	(6.0)	15	(12.9)	4	(3.4)		-
Men		-	1	(.9)	1	(.9)	9	(7.8)	36	(31.0)	27	(23.3)	10	(8.6)	7	(6.0)	21	(18.1)	3	(2.6)	1	(.9)
Acceptance and Inclusion																						
Women	2	(1.7)	8	(6.9)	6	(5.2)	19	(16.4)	31	(26.7)	26	(22.4)	4	(3.4)	4	(3.4)	14	(12.1)	1	(.9)	1	(.9)
Men	1	(.9)	2	(1.7)	4	(3.4)	17	(14.7)	35	(30.2)	29	(25.0)	4	(3.4)	5	(4.3)	14	(12.1)	4	(3.4)	1	(.9)

NOTE: Total N across all columns for each row = 116 (100.0%).

TABLE 22.--Means of Women's and Men's Affective Evaluations of Seven Domains by Eight Criteria

Criterion	Domain													
	Housing		Clothing		Job		Family Life		Neighborhood		Spare Time Activities		National Government	
	$\bar{x}_{1j}$	(N)	$\bar{x}_{2j}$	(N)	$\bar{x}_{3j}$	(N)	$\bar{x}_{4j}$	(N)	$\bar{x}_{5j}$	(N)	$\bar{x}_{6j}$	(N)	$\bar{x}_{7j}$	(N)
Standard of Living														
Women	5.0	(106)	4.6	(94)	4.4	(29)	5.1	(111)	5.2	(114)	4.7	(97)	4.0	(110)
Men	5.2	(104)	5.0	(93)	4.9	(108)	5.3	(104)	5.2	(110)	4.8	(95)	3.8	(111)
Fun														
Women	4.8	(104)	4.8	(94)	4.8	(30)	5.1	(111)	4.7	(108)	4.8	(111)	4.4	(83)
Men	5.0	(107)	5.2	(83)	4.6	(105)	5.3	(113)	4.9	(108)	4.9	(106)	4.3	(96)
Independence/Freedom														
Women	4.8	(106)	5.0	(81)	5.0	(30)	4.7	(112)	5.2	(108)	4.9	(111)	5.2	(108)
Men	5.2	(109)	5.1	(79)	4.9	(107)	5.0	(109)	5.3	(104)	5.1	(109)	4.8	(110)
Beauty														
Women	4.9	(106)	4.6	(97)	4.3	(24)	5.4	(101)	5.1	(112)	5.1	(98)	4.9	(99)
Men	5.1	(110)	5.0	(87)	4.2	(94)	5.5	(99)	5.1	(112)	4.8	(99)	4.6	(100)
Freedom from Bother														
Women	4.6	(108)	4.9	(87)	4.1	(28)	4.5	(102)	4.9	(110)	4.9	(108)	4.4	(106)
Men	5.0	(108)	5.1	(75)	4.2	(101)	4.8	(106)	5.2	(112)	5.1	(99)	4.5	(109)
Safety														
Women	5.1	(110)	5.1	(69)	4.5	(26)	5.4	(91)	5.3	(112)	5.2	(90)	4.2	(111)
Men	5.2	(109)	5.3	(64)	4.9	(104)	5.4	(87)	5.4	(109)	5.3	(90)	4.2	(109)
Accomplishing Something														
Women	4.7	(104)	4.8	(90)	4.9	(29)	5.0	(108)	5.2	(91)	4.9	(110)	4.5	(94)
Men	5.2	(94)	5.4	(84)	5.0	(110)	5.2	(105)	5.1	(93)	4.9	(107)	4.4	(98)
Acceptance and Inclusion														
Women	4.8	(99)	4.7	(96)	5.2	(29)	5.3	(100)	5.0	(105)	5.1	(98)	4.7	(57)
Men	5.0	(91)	5.0	(92)	5.1	(99)	5.6	(103)	5.1	(98)	5.1	(96)	4.6	(62)

NOTE: Pooled estimates of the population variance of domain-by-criteria responses within each domain for women and men respectively are: Housing (1.47, 1.23), Clothing (1.47, 1.13), Job (2.02, 1.85), Family Life (1.38, 1.27), Neighborhood (1.31, 1.26), Spare Time Activities (1.28, 1.56), and National Government (1.37, 1.85).

on-scale responses occur in all domains, however, particularly with the domain-by-acceptance and inclusion evaluations.

Several explanations seem plausible. First, the use of off-scale categories occurred more frequently for specific domain-by-criteria evaluations than for evaluations of general life concerns. Other measures for determining the value criteria by which domains are evaluated may be more appropriate than the repetitive domain-by-criterion evaluations used in this and other studies. These are discussed in the final chapter.

Second, adults may simply not be cognizant of the instrumental and expressive functions of clothing; or, if they are, the questions may not be phrased with enough clarity to be meaningful to the respondent. Modification of the statement of domain-by-criterion items to more closely reflect the manner of expression of the respondents (as determined in responses to the open-ended item 1.15b) may result in greater use of on-scale responses.

Third, the criteria included in the matrix may not be the major criteria by which adults evaluate their clothing.

Value criteria stated by respondents. There is some empirical evidence for the explanations proposed above which is obtained from the coded responses to the open-ended question "What are some of the most important reasons why you feel as you do about your clothing?" Table 23 lists the value criteria content of the sample's responses to this item.

TABLE 23.--Frequencies and Relative Frequencies of Value Criteria Used by Women and Men to Evaluate Clothing

	Women		Men	
	Number of Coded Criteria[a]	%	Number of Coded Criteria[a]	%
Standard of Living	49	22.3	39	20.4
Fun	1	.4	-	-
Independence or Freedom	7	3.2	9	4.7
Beauty & Attractiveness	54	24.5	31	16.2
Freedom from Bother	1	.4	4	2.1
Safety	-	-	-	-
Accomplishing Something	5	2.3	3	1.6
Acceptance & Inclusion by Others	14	6.4	11	5.8
Self Regard	7	3.2	8	4.2
Self Expression	5	2.3	7	3.7
Fashion	9	4.1	13	6.8
Variety	3	1.4	5	2.6
Creativity	4	1.8	-	-
Functionality	12	5.4	21	11.0
Economy	18	8.2	9	4.7
Sexuality	2	.9	-	-
Miscellaneous	29	13.2	31	16.2
Total	220	100.0	191	100.0

[a]Each subject's response could be coded for multiple criteria up to a maximum of four.

For women 59.5 percent of the value criteria evoked by this item refer to the eight matrix criteria. A somewhat smaller percentage (50.8 percent) does so for men.

Standard of living, beauty and attractiveness, and acceptance and inclusion by others were the most frequent matrix criteria mentioned by respondents. These were also the clothing-by-criteria evaluations which had the largest number of on-scale responses for both women and men. Safety was never mentioned as an important criterion which is consistent with the high frequency of off-scale responses to this item.

With respect to the criteria included in the matrix, many respondents, both women and men, expressed the desire to have more and better quality clothing than what they now have or can afford (standard of living). Many recognized that others form impressions of a person on the basis of one's clothing and appearance (acceptance and inclusion). The achievement of a socially acceptable or presentable appearance (acceptance and inclusion) and the desire to dress the way they want without social pressure to conform (independence or freedom) were other expressed criteria. The latter two were sometimes mentioned together indicating ambivalent feelings with respect to conformity and freedom.

More women than men expressed dissatisfaction with their body image, frequently mentioning weight problems, and at the same time expressing a desire for a becoming appearance (beauty and attractiveness). Men more frequently mentioned the desire for a

clean, neat appearance (beauty and attractiveness), sometimes praising their wives for doing a good job of keeping them neat and clean.

Additional criteria not included in the matrix but of importance to married men are functionality, fashion, economy, self-regard, self-expression, and variety. For women the decreasing order of frequency is economy, functionality, fashion, self-regard, self-expression, creativity, variety, and sexuality. A few women expressed two criteria not mentioned by men: creativity and sexuality. If one combines self-regard and self-expression, these criteria take on added importance for both women and men.

Many respondents expressed dissatisfaction with the high cost of clothing and the desire for more reasonable prices (economy), the desire for both physiological and psychological comfort in clothing (functionality), the wish to be up-to-date and have new clothing (fashion), the desire to express one's personality through clothing (self-expression), and the recognition that a good appearance gives them a feeling of worth as an individual (self-regard).

The types of responses given do suggest a recognition of the instrumental and expressive functions of clothing. But the specification of the matrix value criteria in the clothing-by-criterion items may have been too global or too abstract for some respondents. This could lead one to question the validity of the test of the hypothesis since the constituent items (independent variables) may lack construct validity.

Results of Hypothesis 3. The results of the statistical tests of Hypothesis 3 using the standard multiple regression model presented in Chapter III are given in Table 24. The null hypothesis was rejected for women but not for men.

Since the multiple regression analysis failed to reject the null hypothesis that all beta coefficients for men were equal to zero, this set of eight matrix criteria was not a good predictor of men's feelings about clothing. Adjusted R^2 for men was only 12.4 percent. Of the eight criteria, beauty and attractiveness and accomplishing something had the largest regression coefficients; but the probability is also high that the true beta values for the population are no different from zero. Thus the eight matrix value criteria have not accounted for men's evaluations of clothing and provide us with little information about the explanation of the significance of clothing to men's POQL.

For women the null hypothesis is rejected. The entire set of eight matrix criteria accounted for a substantial 64 percent of the variance in women's affective evaluations of clothing.

One concludes that for women not all of the beta coefficients equal zero. Five have probability values ranging from $.000 \leq p \leq .029$. These include standard of living, fun, independence or freedom, safety, and accomplishing something. The largest positive standardized beta coefficient (.522) was obtained for clothing-by-independence or freedom followed by clothing-by-standard of living (beta = .506) and clothing-by-accomplishing something (beta = .464). The negative regression coefficients (-.543 and -.304) for

TABLE 24.--Multiple Regression Analyses of the Prediction of Affective Evaluations of Clothing by Eight Criteria

Analysis of Variance					Multiple Regression					
Source of Variation	Sum of Squares	df	Mean Square	F (Probability)	Variable	Unstandardized Regression Coefficient (Estimated Beta)	Standard Error of Regression Coefficient	F	Probability	Standardized Regression Coefficient
Women										
					Standard of Living	.503	.193	6.77	.013	.506
Regression	49.49	8	6.19	11.67*	Fun	-.590	.214	7.61	.009	-.543
				(.000)	Independence or Freedom	.491	.129	14.53	.000	.522
Residual	21.20	40	.53		Beauty	.095	.143	.44	.511	.105
					Freedom from Bother	.146	.150	.96	.334	.133
Total	70.69	48			Safety	-.408	.180	5.14	.029	-.304
					Accomplishing Something	.512	.189	7.31	.010	.464
Multiple R = .837					Acceptance and Inclusion	-.106	.168	.40	.533	-.125
Multiple R^2 = .700					(Constant)	1.791	.714	6.28	.016	
Adjusted R^2 = .640										
Men										
					Standard of Living	-.179	.246	.53	.472	-.218
Regression	12.24	8	1.53	1.79	Fun	.165	.286	.34	.566	.205
				(.110)	Independence or Freedom	-.098	.359	.08	.785	-.114
Residual	31.58	37	.85		Beauty	.347	.317	1.20	.280	.426
					Freedom from Bother	-.031	.251	.02	.902	-.035
Total	43.82	45			Safety	.070	.261	.07	.790	.072
					Accomplishing Something	.278	.199	1.95	.170	.302
Multiple R = .528					Acceptance and Inclusion	-.054	.300	.03	.855	-.072
Multiple R^2 = .279					(Constant)	2.577	.831	9.62	.004	
Adjusted R^2 = .124										

NOTE: For women, tabled $F_{(.95;\ 8,\ 40)} = 2.18$; for men, tabled $F_{(.95;\ 8,\ 37)} \cong 2.27$.

*Significant at $\alpha = .05$.

clothing-by-fun and clothing-by-safety respectively mean that the more positive these evaluations, the lower is the general evaluation of the clothing domain when other predictors are held constant.

Bonferroni joint confidence intervals (Neter & Wasserman, 1974, p. 231) were computed around the estimated beta values of the five criteria named in the preceding paragraph. The probability that all of the following confidence intervals are valid is .95: clothing-by-standard of living ($-.019 \leq \beta_1 \leq 1.025$), clothing-by-fun ($-1.169 \leq \beta_2 \leq -.011$), clothing-by-independence or freedom ($.142 \leq \beta_3 \leq .840$), clothing-by-safety ($-.895 \leq \beta_6 \leq .079$), clothing-by-accomplishing something ($.001 \leq \beta_7 \leq 1.023$). Zero is not included in the confidence intervals for clothing-by-fun, independence or freedom, and accomplishing something. Thus, there is considerable evidence that the population beta does not equal zero for these three criteria used by women to evaluate the clothing domain. The meaning of the latter two criteria for women will be clarified in the results of Hypothesis 8.

Somewhat difficult to interpret is the negative sign of the regression coefficient for fun. More information is required to determine what people consider when they think about clothing and fun. Perhaps the type of clothing one wears to have fun (as fun is defined by the respondent) is different from the type of clothing or evaluated dimensions of clothing that elicited more negative evaluations when asked about clothing in general. The present study provides no evidence to clarify this result.

Additional analyses using indicator variables for off-scale responses. If one looks at the ANOVA results accompanying the regression analyses (Table 24), it becomes apparent from the total degrees of freedom that these results are based on a subset of the total sample. For women, N = 49 and for men, N = 46.[1] The results presented in Table 24 are based on those respondents who answered on scale to every clothing-by-criterion item and to the general clothing concern item.

To determine whether this subset of the sample differed from that portion of the sample who made one or more off-scale responses to the eight clothing-by-criterion items, independent t-tests and median tests for differences on important demographic and contextual variables were made.

There were no differences between groups for POQL or for general affective evaluations of clothing. However, women and men who answered one or more items off scale were more highly educated but did not differ in age or family income from those who answered all eight items on scale. Women answering some items off scale had significantly higher occupational prestige ($\bar{x}$ = 47.2) than did women who exclusively answered on scale ($\bar{x}$ = 35.7). The same trend, although not significant, was true for men ($\bar{x}_{\text{off scale}}$ = 50.0;

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[1]This occurred because the multiple regression program used drops an entire case whenever one variable takes on an off-scale value. Reasons for this have been previously discussed in Chapter III.

$\bar{x}_{\text{on scale}}$ = 46.1). Thus the subset of the sample for whom the hypothesis was tested differs from the rest of the sample on some important status variables.

Since the off-scale responses are valid responses and not simply "missing data," an effort was made to perform the regression analyses on the entire sample with the inclusion of off-scale categories as indicator variables, an analytical technique described in Chapter III. The results are significant again for women but not for men and are reported in Tables 25 and 26 respectively.[1]

In this analysis the adjusted R^2 (.297) is substantially lower than in the preceding analysis for women (adjusted R^2 = .640). This decline is partially a result of the increase in the number of variables in the equation and the resulting loss of degrees of freedom.

An inspection of the standardized regression coefficients and probabilities shows that some different variables take on importance compared with the previous analysis. Using the notation in the table, these are Fun-ON (beta = -.655, p = .064), Fun-B (beta = -.649, p = .017), Beauty-A (beta = .338, p = .052), Beauty-B (beta = .320, p = .099), Freedom from Bother-B (beta = .522, p = .058), Accomplishing Something-B (beta = .512, p = .069), and Accomplishing Something-C (beta = .407, p = .071).

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[1]Not all off-scale indicator variables entered the regression equation. For some clothing-by-criterion items (e.g., clothing-by-standard of living for women) no respondent used a particular off-scale category (e.g., Does not apply to me). Therefore, the variable is essentially a constant with a value equal to zero.

TABLE 25.--Multiple Regression Analysis of the Prediction of Women's Affective Evaluations of Clothing by Eight Criteria with Indicator Variables for Off-Scale Responses

Analysis of Variance					Multiple Regression					
Source of Variation	Sum of Squares	df	Mean Square	F (Probability)	Variable[a]	Unstandardized Regression Coefficient (Estimated Beta)	Standard Error of Regression Coefficient	F	Probability	Standardized Regression Coefficient
Regression	118.93	31	3.84	2.55* (.000)	Standard of Living--ON	.318	.222	2.05	.156	.457
					Standard of Living--A	2.166	1.382	2.45	.121	.356
Residual	124.84	83	1.50		Standard of Living--B	.835	1.032	.65	.421	.193
					Fun--ON	-.449	.239	3.53	.064	-.655
Total	243.77	114			Fun--A	-.809	1.635	.24	.622	-.133
					Fun--B	-2.983	1.225	5.93	.017	-.649
Multiple R = .698					Fun--C	.138	2.267	.00	.952	.012
Multiple R^2 = .488					Independence/Freedom--ON	.265	.176	2.27	.136	.454
Adjusted R^2 = .297					Independence/Freedom--A	1.954	1.268	2.37	.127	.341
					Independence/Freedom--B	1.374	.945	2.11	.150	.389
					Independence/Freedom--C	-.911	2.012	.20	.652	-.082
					Beauty--ON	.262	.168	2.42	.123	.372
					Beauty--A	2.055	1.045	3.87	.052	.338
					Beauty--B	1.585	.951	2.78	.099	.320
					Beauty--C	.309	2.328	.02	.895	.020
					Freedom from Bother--ON	.258	.182	2.02	.159	.420
					Freedom from Bother--A	.079	1.485	.00	.958	.010
					Freedom from Bother--B	1.901	.989	3.70	.058	.522
					Freedom from Bother--C	1.208	1.818	.44	.508	.108
					Safety--ON	-.239	.158	2.28	.135	-.439
					Safety--A	-1.142	1.300	.77	.382	-.188
					Safety--B	-1.423	.890	2.56	.114	-.450
					Safety--C	-1.682	1.466	1.32	.255	-.212
					Accomp. Something--ON	.339	.206	2.69	.105	.520
					Accomp. Something--A	.316	1.832	.03	.864	.052
					Accomp. Something--B	2.279	1.237	3.39	.069	.512
					Accomp. Something--C	3.231	1.764	3.36	.071	.407
					Acceptance & Inclusion--ON	-.183	.208	.77	.381	-.270
					Acceptance & Inclusion--A	-.913	1.262	.52	.472	-.115
					Acceptance & Inclusion--B	-.260	1.179	.05	.826	-.058
					Acceptance & Inclusion--C	-3.460	2.493	1.92	.169	-.221
					(Constant)	2.290	.857	7.13	.009	

NOTE: Tabled $F_{(.95;\ 31,\ 83)} \cong 1.65$

[a]Key:

Criterion--ON = On-scale response to clothing-by-criterion evaluation
Criterion--A = Off-scale response to clothing-by-criterion evaluation; Neutral--neither satisfied nor dissatisfied
Criterion--B = Off-scale response to clothing-by-criterion evaluation; Never thought about it
Criterion--C = Off-scale response to clothing-by-criterion evaluation; Does not apply to me

One indicator variable was not placed in the equation because it was a constant.

*Significant at α = .05.

TABLE 26.--Multiple Regression Analysis of the Prediction of Men's Affective Evaluations of Clothing by Eight Criteria with Indicator Variables for Off-Scale Responses

Analysis of Variance					Multiple Regression					
Source of Variation	Sum of Squares	df	Mean Square	F (Probability)	Variable[a]	Unstandardized Regression Coefficient (Estimated Beta)	Standard Error of Regression Coefficient	F	Probability	Standardized Regression Coefficient
Regression	55.37	31	1.79	.90 (.622)	Standard of Living--ON	-.121	.197	.38	.542	-.194
					Standard of Living--A	.430	1.248	.12	.731	.069
Residual	163.12	82	1.99		Standard of Living--B	.360	1.144	.10	.754	.090
					Fun--ON	.168	.294	.32	.570	.304
Total	218.49	113			Fun--A	1.424	1.914	.55	.459	.247
					Fun--B	1.412	1.546	.83	.364	.402
Multiple R = .503					Fun--C	.284	2.234	.02	.899	.033
Multiple R^2 = .253					Independence/Freedom--ON	.150	.323	.21	.644	.274
Adjusted R^2 = -.029					Independence/Freedom--A	-.985	1.975	.25	.619	-.171
					Independence/Freedom--B	.180	1.650	.01	.913	.055
					Independence/Freedom--C	-.795	2.174	.13	.716	-.092
					Beauty--ON	.306	.323	.89	.348	.517
					Beauty--A	.370	1.833	.04	.841	.060
					Beauty--B	1.776	1.684	1.11	.295	.488
					Beauty--C	1.020	3.170	.10	.748	.097
					Freedom from Bother--ON	-.315	.264	1.42	.236	-.587
					Freedom from Bother--A	-.364	1.481	.06	.806	-.074
					Freedom from Bother--B	-1.017	1.409	.52	.472	-.316
					Freedom from Bother--C	-3.795	2.365	2.57	.112	-.360
					Safety--ON	.094	.296	.10	.751	.184
					Safety--A	.858	1.660	.27	.606	.183
					Safety--B	.234	1.607	.02	.885	.078
					Safety--C	2.855	2.464	1.34	.250	.379
					Accomp. Something--ON	.051	.250	.04	.838	.093
					Accomp. Something--A	.871	1.765	.24	.623	.140
					Accomp. Something--B	-.487	1.433	.12	.735	-.136
					Accomp. Something--C	-2.312	2.961	.61	.437	-.267
					Acceptance & Inclusion--ON	.104	.292	.13	.723	.168
					Acceptance & Inclusion--A	.588	1.605	.13	.715	.087
					Acceptance & Inclusion--B	.724	1.500	.23	.630	.172
					Acceptance & Inclusion--C	2.787	2.249	1.54	.219	.370
					(Constant)	3.058	1.156	7.00	.010	

NOTE: Tabled $F_{(.95;\ 31,\ 82)} \cong 1.65$.

[a]Key:

Criterion--ON = On-scale response to clothing by criterion evaluation
Criterion--A = Off-scale response to clothing by criterion evaluation; Neutral--neither satisfied nor dissatisfied
Criterion--B = Off-scale response to clothing by criterion evaluation; Never thought about it
Criterion--C = Off-scale response to clothing by criterion evaluation; Does not apply to me

One indicator variable was not placed in the equation because it was a constant.

From these results it appears that feeling neutral about a clothing-by-criterion inquiry or having never thought about it may be as explanatory of general evaluations of clothing as are on-scale responses. Whether the same is true for other domains was not determined in this study, but further investigation of the meaning and use of off-scale responses is warranted since they constitute a valid and frequently used option on the D-T Scale for specific domain-by-criterion evaluations. These results suggest that clothing-by-criterion items may lack construct validity.

From Table 26, the inclusion of off-scale indicator variables increased the number of men represented but decreased the F value. Adjusted R^2 is essentially zero. Thus when the entire sample of men is taken into account, the set of eight criteria (including off-scale indicator variables) has done very poorly in explaining affective evaluations of clothing.

Hypothesis 4: Prediction of Value Criteria by Clothing-by-Criteria Evaluations.

According to the assumptions of the matrix model, not only may clothing-by-criterion evaluations predict general evaluations of clothing but also general evaluations of the criteria. This assumption led to the formulation of the following null hypothesis:

> H_4: Affective evaluations of clothing with respect to each of the eight value criteria by women and men do not explain general affective evaluations of the eight matrix value criteria when clothing-by-criterion evaluations are added to other selected domains-by-criterion evaluations.

Results of Hypothesis 4. Reduced and full model multiple regression analyses employed in Hypothesis 2 were again used to determine whether the addition of a clothing-by-criterion evaluation significantly increased the proportion of variance accounted for in the affective evaluations of each of the eight matrix criteria. Job-by-criteria evaluations were omitted from the analyses for women because of the small number of women who responded to these items due to the job screen which preceded the items (refer to Appendix A).

The next sixteen tables, eight for women (Tables 27-34) and eight for men (Tables 35-42) demonstrate the overall failure to reject the null hypothesis. When added to the other five (for women) or six (for men) domains-by-criterion evaluations, clothing-by-criterion evaluations did not result in beta values significantly different from zero. Thus one may not conclude that implementation of value criteria in the clothing domain significantly increases the proportion of variance accounted for in general evaluations of the value criteria.

In most instances the beta weights for the clothing-by-criteria evaluations were low, often less than .10, and the associated probabilities that the beta values are equal to zero are relatively high. However, in one instance, the results approached significance for women with the prediction of the acceptance and inclusion by others criterion. The F* test statistic (3.92) approached the tabled F value (4.17). The clothing-by-acceptance and inclusion beta value was .485 ($p = .056$), the largest positive

TABLE 27.--Multiple Regression Analyses of the Prediction of Women's Affective Evaluations of Standard of Living by Implementation in Domains: Reduced and Full Models

Analysis of Variance					Multiple Regression					
Source of Variation	Sum of Squares	df	Mean Square	F (Probability)	Variable	Unstandardized Regression Coefficient (Estimated Beta)	Standard Error of Regression Coefficient	F	Probability	Standardized Regression Coefficient
Reduced Model (Without Clothing-by-Criterion Evaluation):					Housing-by-S.O.L.[a]	.346	.108	10.32	.002	.535
					Family Life-by-S.O.L.	-.079	.105	.56	.455	-.104
Regression	16.05	5	3.21	5.31	Neighborhood-by-S.O.L.	.120	.131	.84	.361	.146
				(.000)	Spare Time Act.-by-S.O.L.	-.071	.098	.53	.470	-.094
Residual	39.89	66	.60		Natl. Govt.-by-S.O.L.	-.038	.094	.16	.689	-.042
					(Constant)	4.051	.616	43.31	.000	
Total	55.94	71								
Multiple R = .536										
Multiple R^2 = .287										
Adjusted R^2 = .233										
Full Model (With Clothing-by-Criterion Evaluation):					Housing-by-S.O.L.	.318	.118	7.30	.009	.492
					Clothing-by-S.O.L.	.068	.115	.35	.558	.082
Regression	16.26	6	2.71	4.44	Family Life-by-S.O.L.	-.088	.107	.68	.412	-.116
				(.001)	Neighborhood-by-S.O.L.	.141	.136	1.07	.304	.171
Residual	39.68	65	.61		Spare Time Act.-by-S.O.L.	-.086	.101	.71	.401	-.114
					Natl. Govt.-by-S.O.L.	-.058	.101	.33	.567	-.065
Total	55.94	71			(Constant)	3.955	.640	38.19	0	
Multiple R = .539										
Multiple R^2 = .291										
Adjusted R^2 = .225										

NOTE: F^* test statistic = .34; tabled $F_{(.95;\ 1,\ 65)} \cong 4.00$; $r^2_{Y2\cdot1,\ 4\text{-}7} = .005$.

[a]S.O.L. = Standard of Living

TABLE 28.--Multiple Regression Analyses of the Prediction of Women's Affective Evaluations of Fun by Implementation in Domains: Reduced and Full Models

Analysis of Variance					Multiple Regression					
Source of Variation	Sum of Squares	df	Mean Square	F (Probability)	Variable	Unstandardized Regression Coefficient (Estimated Beta)	Standard Error of Regression Coefficient	F	Probability	Standardized Regression Coefficient
Reduced Model (Without Clothing-by-Criterion Evaluation):										
					Housing-by-Fun	-.020	.099	.04	.836	-.023
					Family Life-by-Fun	.527	.121	18.88	.000	.519
Regression	32.66	5	6.53	8.96 (.000)	Neighborhood-by-Fun	-.037	.104	.12	.724	-.042
					Spare Time Act.-by-Fun	.230	.118	3.80	.056	.254
Residual	41.56	57	.73		Natl. Govt.-by-Fun	-.076	.083	.84	.362	-.094
					(Constant)	1.788	.673	7.06	.010	
Total	74.22	62								
Multiple R = .663										
Multiple R^2 = .440										
Adjusted R^2 = .391										
Full Model (With Clothing-by-Criterion Evaluation):										
					Housing-by-Fun	-.025	.101	.06	.804	-.028
					Clothing-by-Fun	.039	.120	.10	.747	.037
Regression	32.74	6	5.46	7.37 (.000)	Family Life-by-Fun	.532	.123	18.65	.000	.524
					Neighborhood-by-Fun	-.040	.106	.14	.704	-.046
Residual	41.48	56	.74		Spare Time Act.-by-Fun	.217	.125	3.01	.088	.240
					Natl. Govt.-by-Fun	-.080	.084	.90	.348	-.098
Total	74.22	62			(Constant)	1.688	.746	5.12	.028	
Multiple R = .664										
Multiple R^2 = .441										
Adjusted R^2 = .381										

NOTE: F* test statistic = .11; tabled $F_{(.95;\ 1,\ 56)} \cong 4.08$; $r^2_{Y2\cdot1,\ 4\text{-}7} = .002$.

TABLE 29.--Multiple Regression Analyses of the Prediction of Women's Affective Evaluations of Independence or Freedom by Implementation in Domains: Reduced and Full Models

Analysis of Variance					Multiple Regression					
Source of Variation	Sum of Squares	df	Mean Square	F (Probability)	Variable	Unstandardized Regression Coefficient (Estimated Beta)	Standard Error of Regression Coefficient	F	Probability	Standardized Regression Coefficient
Reduced Model (Without Clothing-by-Criterion Evaluation):										
					Housing-by-I/F[a]	-.007	.135	.00	.960	-.006
					Family Life-by-I/F	.480	.121	15.62	.000	.476
Regression	40.57	5	8.11	8.03	Neighborhood-by-I/F	.100	.154	.42	.519	.084
				(.000)	Spare Time Act.-by-I/F	.177	.123	2.07	.156	.174
Residual	62.65	62	1.01		Natl. Govt.-by-I/F	.099	.130	.58	.448	.080
					(Constant)	1.003	.938	1.14	.289	
Total	103.22	67								
Multiple R = .627										
Multiple R^2 = .393										
Adjusted R^2 = .344										
Full Model (With Clothing-by-Criterion Evaluation):										
					Housing-by-I/F	.009	.136	.00	.946	.008
Regression	41.28	6	6.88	6.78	Clothing-by-I/F	.104	.124	.70	.406	.099
				(.000)	Family Life-by-I/F	.452	.126	12.86	.001	.449
Residual	61.94	61	1.02		Neighborhood-by-I/F	.101	.154	.43	.515	.085
					Spare Time Act.-by-I/F	.138	.132	1.10	.298	.136
Total	103.22	67			Natl. Govt.-by-I/F	.087	.131	.44	.509	.070
					(Constant)	.778	.978	.63	.429	
Multiple R = .632										
Multiple R^2 = .400										
Adjusted R^2 = .341										

NOTE: F^* test statistic = .70; tabled $F_{(.95;\ 1,\ 61)} \cong 4.00$; $r^2_{Y2 \cdot 1,\ 4\text{-}7} = .011$.

[a] I/F = Independence or Freedom

TABLE 30.--Multiple Regression Analyses of the Prediction of Women's Affective Evaluations of Beauty and Attractiveness by Implementation in Domains: Reduced and Full Models

Analysis of Variance					Multiple Regression					
Source of Variation	Sum of Squares	df	Mean Square	F (Probability)	Variable	Unstandardized Regression Coefficient (Estimated Beta)	Standard Error of Regression Coefficient	F	Probability	Standardized Regression Coefficient
Reduced Model (Without Clothing-by-Criterion Evaluation):										
					Housing-by-B/A[a]	.173	.102	2.89	.095	.254
					Family Life-by-B/A	.135	.106	1.62	.208	.174
Regression	8.75	5	1.75	3.40 (.009)	Neighborhood-by-B/A	.106	.106	1.02	.317	.157
					Spare Time Act.-by-B/A	.215	.106	.04	.841	.028
Residual	29.86	58	.51		Natl. Govt.-by-B/A	-.038	.098	.15	.700	-.047
					(Constant)	2.954	.713	17.18	.000	
Total	38.61	63								
Multiple R = .476										
Multiple R^2 = .227										
Adjusted R^2 = .160										
Full Model (With Clothing-by-Criterion Evaluation):										
					Housing-by-B/A	.137	.107	1.65	.204	.201
					Clothing-by-B/A	.091	.080	1.31	.257	.146
Regression	9.42	6	1.57	3.07 (.011)	Family Life-by-B/A	.124	.106	1.36	.248	.160
					Neighborhood-by-B/A	.127	.107	1.41	.240	.187
Residual	29.19	57	.51		Spare Time Act.-by-B/A	-.003	.108	.00	.975	-.004
					Natl. Govt.-by-B/A	-.022	.099	.05	.828	-.027
Total	38.61	63			(Constant)	2.702	.744	13.19	.001	
Multiple R = .494										
Multiple R^2 = .244										
Adjusted R^2 = .164										

NOTE: F^* test statistic = 1.31; tabled $F_{(.95;\ 1,\ 57)} \cong 4.08$; $r^2_{Y2\cdot1,\ 4\text{-}7} = .022$.

[a]B/A = Beauty and Attractiveness

TABLE 31.--Multiple Regression Analyses of the Prediction of Women's Affective Evaluations of Freedom from Bother and Annoyance by Implementation in Domains: Reduced and Full Models

Analysis of Variance					Multiple Regression					
Source of Variation	Sum of Squares	df	Mean Square	F (Probability)	Variable	Unstandardized Regression Coefficient (Estimated Beta)	Standard Error of Regression Coefficient	F	Probability	Standardized Regression Coefficient
Reduced Model (Without Clothing-by-Criterion Evaluation):										
					Housing-by-Bother[a]	-.084	.176	.23	.632	-.079
					Family Life-by-Bother	.322	.137	5.51	.022	.319
Regression	16.34	5	3.27	2.58 (.036)	Neighborhood-by-Bother	.210	.130	2.61	.111	.233
					Spare Time Act.-by-Bother	.149	.179	.70	.407	.106
Residual	73.41	58	1.26		Natl. Govt.-by-Bother	-.011	.121	.01	.928	-.012
					(Constant)	2.004	1.022	3.84	.055	
Total	89.75	63								
Multiple R = .427										
Multiple R^2 = .182										
Adjusted R^2 = .112										
Full Model (With Clothing-by-Criterion Evaluation):										
					Housing-by-Bother	-.087	.176	.24	.624	-.081
					Clothing-by-Bother	-.105	.129	.67	.418	-.111
Regression	17.18	6	2.86	2.25 (.051)	Family Life-by-Bother	.329	.138	5.70	.020	.326
					Neighborhood-by-Bother	.243	.136	3.17	.080	.269
Residual	72.57	57	1.27		Spare Time Act.-by-Bother	.173	.182	.91	.344	.122
					Natl. Govt.-by-Bother	.010	.124	.01	.937	.010
Total	89.75	63			(Constant)	2.132	1.037	4.22	.044	
Multiple R = .438										
Multiple R^2 = .191										
Adjusted R^2 = .106										

NOTE: F^* test statistic = .66; tabled $F_{(.95;\ 1,\ 57)} \cong 4.08$; $r^2_{Y2\cdot1,\ 4\text{-}7} = .011$.

[a]Bother = Freedom from Bother and Annoyance

TABLE 32.--Multiple Regression Analyses of the Prediction of Women's Affective Evaluations of Safety by Implementation in Domains: Reduced and Full Models

Analysis of Variance					Multiple Regression					
Source of Variation	Sum of Squares	df	Mean Square	F (Probability)	Variable	Unstandardized Regression Coefficient (Estimated Beta)	Standard Error of Regression Coefficient	F	Probability	Standardized Regression Coefficient
Reduced Model (Without Clothing-by-Criterion Evaluation):										
					Housing-by-Safety	.237	.157	2.28	.138	.240
					Family Life-by-Safety	.288	.168	2.93	.094	.272
Regression	15.10	5	3.02	3.62	Neighborhood-by-Safety	-.068	.164	.17	.681	-.060
				(.008)	Spare Time Act.-by-Safety	-.032	.240	.02	.895	-.022
Residual	37.53	45	.83		Natl. Govt.-by-Safety	.208	.094	4.89	.032	.300
					(Constant)	2.055	1.185	3.00	.090	
Total	52.63	50								
Multiple R = .536										
Multiple R^2 = .287										
Adjusted R^2 = .208										
Full Model (With Clothing-by-Criterion Evaluation):										
					Housing-by-Safety	.235	.158	2.20	.145	.238
					Clothing-by-Safety	.047	.137	.12	.735	.062
Regression	15.20	6	2.53	2.98	Family Life-by-Safety	.262	.187	1.95	.170	.246
				(.016)	Neighborhood-by-Safety	-.086	.174	.24	.625	-.076
Residual	37.43	44	.85		Spare Time Act.-by-Safety	-.056	.252	.05	.826	-.038
					Natl. Govt.-by-Safety	.207	.095	4.76	.035	.299
Total	52.63	50			(Constant)	2.203	1.273	2.99	.091	
Multiple R = .537										
Multiple R^2 = .289										
Adjusted R^2 = .192										

NOTE: F* test statistic = .12; tabled $F_{(.95;\ 1,\ 44)} \cong 4.08$; $r^2_{Y2 \cdot 1,\ 4\text{-}7} = .003$.

TABLE 33.--Multiple Regression Analyses of the Prediction of Women's Affective Evaluations of Accomplishing Something by Implementation in Domains: Reduced and Full Models

Analysis of Variance					Multiple Regression					
Source of Variation	Sum of Squares	df	Mean Square	F (Probability)	Variable	Unstandardized Regression Coefficient (Estimated Beta)	Standard Error of Regression Coefficient	F	Probability	Standardized Regression Coefficient
Reduced Model (Without Clothing-by-Criterion Evaluation):					Housing-by-Accomp.[a]	-.059	.097	.38	.543	-.083
					Family Life-by-Accomp.	.158	.138	1.32	.255	.160
Regression	7.62	5	1.52	1.78	Neighborhood-by-Accomp.	.009	.137	.00	.948	.009
				(.133)	Spare Time Act.-by-Accomp.	.128	.108	1.39	.244	.169
Residual	44.53	52	.86		Natl. Govt.-by-Accomp.	.174	.108	2.57	.115	.216
					(Constant)	3.147	.938	11.24	.001	
Total	52.15	57								
Multiple R = .382										
Multiple R^2 = .146										
Adjusted R^2 = .064										
Full Model (With Clothing-by-Criterion Evaluation):					Housing-by-Accomp.	-.085	.101	.71	.404	-.118
					Clothing-by-Accomp.	.133	.146	.84	.365	.142
Regression	8.34	6	1.39	1.62	Family Life-by-Accomp.	.135	.140	.93	.339	.136
				(.161)	Neighborhood-by-Accomp.	-.040	.147	.07	.788	-.041
Residual	43.81	51	.86		Spare Time Act.-by-Accomp.	.125	.108	1.33	.254	.166
					Natl. Govt.-by-Accomp.	.166	.109	2.32	.134	.206
Total	52.15	57			(Constant)	3.025	.949	10.15	.002	
Multiple R = .400										
Multiple R^2 = .160										
Adjusted R^2 = .061										

NOTE: F^* test statistic = .84; tabled $F_{(.95;\ 1,\ 51)} \cong 4.08$; $r^2_{Y2 \cdot 1,\ 4-7} = .016$.

[a]Accomp. = Accomplishing Something

TABLE 34.--Multiple Regression Analyses of the Prediction of Women's Affective Evaluations of Acceptance and Inclusion by Others by Implementation in Domains: Reduced and Full Models

Analysis of Variance					Multiple Regression					
Source of Variation	Sum of Squares	df	Mean Square	F (Probability)	Variable	Unstandardized Regression Coefficient (Estimated Beta)	Standard Error of Regression Coefficient	F	Probability	Standardized Regression Coefficient
Reduced Model (Without Clothing-by-Criterion Evaluation):										
					Housing-by-Accept.[a]	-.177	.097	3.32	.077	-.337
					Family Life-by-Accept.	-.081	.157	.27	.608	-.141
Regression	3.67	5	.73	1.40 (.250)	Neighborhood-by-Accept.	.228	.130	3.07	.089	.351
					Spare Time Act.-by-Accept.	.160	.199	.64	.428	.202
Residual	17.30	33	.52		Natl. Govt.-by-Accept.	.070	.139	.26	.615	.098
					(Constant)	4.562	.807	31.94	.000	
Total	20.97	38								
Multiple R = .418										
Multiple R^2 = .175										
Adjusted R^2 = .050										
Full Model (With Clothing-by-Criterion Evaluation):										
					Housing-by-Accept.	-.300	.112	7.20	.011	-.570
					Clothing-by-Accept.	.281	.142	3.94	.056	.485
Regression	5.57	6	.93	1.93 (.107)	Family Life-by-Accept.	-.055	.151	.13	.717	-.096
					Neighborhood-by-Accept.	.239	.125	3.66	.065	.367
Residual	15.41	32	.48		Spare Time Act.-by-Accept.	-.048	.218	.05	.827	-.060
					Natl. Govt.-by-Accept.	.065	.133	.24	.626	.091
Total	20.98	38			(Constant)	4.738	.778	37.04	.000	
Multiple R = .515										
Multiple R^2 = .265										
Adjusted R^2 = .128										

NOTE: F* test statistic = 3.92; tabled $F_{(.95;\ 1,\ 32)} \cong 4.17$; $r^2_{Y2\cdot1,\ 4\text{-}7} = .109$.

[a]Accept. = Acceptance and Inclusion by Others

TABLE 35.--Multiple Regression Analyses of the Prediction of Men's Affective Evaluations of Standard of Living by Implementation in Domains: Reduced and Full Models

Analysis of Variance					Multiple Regression					
Source of Variation	Sum of Squares	df	Mean Square	F (Probability)	Variable	Unstandardized Regression Coefficient (Estimated Beta)	Standard Error of Regression Coefficient	F	Probability	Standardized Regression Coefficient
Reduced Model (Without Clothing-by-Criterion Evaluation):										
					Housing-by-S.O.L.[a]	.018	.094	.04	.846	.020
					Job-by-S.O.L.	.262	.090	8.50	.005	.313
Regression	46.64	6	7.77	16.82	Family Life-by-S.O.L.	.158	.103	2.33	.132	.147
				(.000)	Neighborhood-by-S.O.L.	.229	.096	5.67	.021	.262
Residual	26.81	58	.46		Spare Time Act.-by-S.O.L.	.200	.087	5.29	.025	.241
					Natl. Govt.-by-S.O.L.	.056	.089	.39	.536	.063
Total	73.45	64			(Constant)	.654	.525	1.56	.217	
Multiple R = .797										
Multiple R^2 = .635										
Adjusted R^2 = .597										
Full Model (With Clothing-by-Criterion Evaluation):										
					Housing-by-S.O.L.	-.019	.105	.03	.855	-.021
					Clothing-by-S.O.L.	.081	.102	.64	.428	.084
Regression	46.93	7	6.70	14.41	Job-by-S.O.L.	.268	.090	8.80	.004	.320
				(0)	Family Life-by-S.O.L.	.157	.104	2.30	.135	.147
Residual	26.51	57	.46		Neighborhood-by-S.O.L.	.226	.096	5.50	.022	.259
					Spare Time Act.-by-S.O.L.	.171	.095	3.27	.076	.206
Total	73.44	64			Natl. Govt.-by-S.O.L.	.075	.093	.66	.421	.086
					(Constant)	.490	.565	.75	.389	
Multiple R = .799										
Multiple R^2 = .639										
Adjusted R^2 = .595										

NOTE: F^* test statistic = .64; tabled $F_{(.95;\ 1,\ 57)} \cong 4.08$; $r^2_{Y2 \cdot 1,\ 3-7} = .011$.

[a]S.O.L. = Standard of Living

TABLE 36.--Multiple Regression Analyses of the Prediction of Men's Affective Evaluations of Fun by Implementation in Domains: Reduced and Full Models

Analysis of Variance					Multiple Regression					
Source of Variation	Sum of Squares	df	Mean Square	F (Probability)	Variable	Unstandardized Regression Coefficient (Estimated Beta)	Standard Error of Regression Coefficient	F	Probability	Standardized Regression Coefficient
Reduced Model (Without Clothing-by-Criterion Evaluation):										
					Housing-by-Fun	.187	.133	1.98	.165	.192
					Job-by-Fun	-.111	.119	.88	.353	-.134
Regression	30.98	6	5.16	6.58	Family Life-by-Fun	.257	.176	2.13	.150	.235
				(.000)	Neighborhood-by-Fun	.108	.132	.67	.417	.126
Residual	44.75	57	.78		Spare Time Act.-by-Fun	.327	.137	5.74	.020	.363
					Natl. Govt.-by-Fun	-.025	.108	.05	.821	-.030
Total	75.73	63			(Constant)	.918	.724	1.61	.210	
Multiple R = .640										
Multiple R^2 = .409										
Adjusted R^2 = .347										
Full Model (With Clothing-by-Criterion Evaluation):										
					Housing-by-Fun	.186	.138	1.81	.183	.192
					Clothing-by-Fun	.002	.124	.00	.988	.002
Regression	30.98	7	4.43	5.54	Job-by-Fun	-.112	.121	.85	.361	-.134
				(.000)	Family Life-by-Fun	.257	.179	2.06	.156	.235
Residual	44.75	56	.80		Neighborhood-by-Fun	.108	.137	.62	.434	.125
					Spare Time Act.-by-Fun	.327	.140	5.47	.023	.362
Total	75.73	63			Natl. Govt.-by-Fun	-.024	.110	.05	.826	-.030
					(Constant)	.913	.795	1.32	.256	
Multiple R = .640										
Multiple R^2 = .409										
Adjusted R^2 = .335										

NOTE: F^* test statistic = 0; tabled $F_{(.95;\ 1,\ 56)} \cong 4.08$; $r^2_{Y2 \cdot 1,\ 3\text{-}7} = 0$.

TABLE 37.--Multiple Regression Analyses of the Prediction of Men's Affective Evaluations of Independence or Freedom by Implementation in Domains: Reduced and Full Models

Analysis of Variance					Multiple Regression					
Source of Variation	Sum of Squares	df	Mean Square	F (Probability)	Variable	Unstandardized Regression Coefficient (Estimated Beta)	Standard Error of Regression Coefficient	F	Probability	Standardized Regression Coefficient
Reduced Model (Without Clothing-by-Criterion Evaluation):										
					Housing-by-I/F[a]	-.182	.150	1.48	.230	-.154
					Job-by-I/F	.194	.118	2.71	.105	.236
Regression	35.42	6	5.90	6.34	Family Life-by-I/F	.361	.146	6.16	.016	.322
				(.000)	Neighborhood-by-I/F	-.012	.162	.00	.939	-.011
Residual	51.17	55	.93		Spare Time Act.-by-I/F	.290	.143	4.12	.047	.301
					Natl. Govt.-by-I/F	.033	.106	.10	.757	.038
Total	86.59	61			(Constant)	1.676	.830	4.07	.048	
Multiple R = .640										
Multiple R^2 = .409										
Adjusted R^2 = .344										
Full Model (With Clothing-by-Criterion Evaluation):										
					Housing-by-I/F	-.127	.163	.60	.440	-.107
					Clothing-by-I/F	-.129	.154	.71	.404	-.108
Regression	36.08	7	5.15	5.51	Job-by-I/F	.210	.120	3.07	.085	.255
				(.000)	Family Life-by-I/F	.374	.147	6.49	.014	.333
Residual	50.51	54	.94		Neighborhood-by-I/F	-.003	.162	.00	.986	-.002
					Spare Time Act.-by-I/F	.297	.144	4.28	.043	.308
Total	86.59	61			Natl. Govt.-by-I/F	-.107	.118	.01	.929	-.012
					(Constant)	2.046	.942	4.72	.034	
Multiple R = .646										
Multiple R^2 = .417										
Adjusted R^2 = .341										

NOTE: F^* test statistic = .70; tabled $F_{(.95;\ 1,\ 54)} \cong 4.08$; $r^2_{Y2 \cdot 1,\ 3-7} = .013$.

[a] I/F = Independence or Freedom.

TABLE 38.--Multiple Regression Analyses of the Prediction of Men's Affective Evaluations of Beauty and Attractiveness by Implementation in Domains: Reduced and Full Models

Analysis of Variance					Multiple Regression					
Source of Variation	Sum of Squares	df	Mean Square	F (Probability)	Variable	Unstandardized Regression Coefficient (Estimated Beta)	Standard Error of Regression Coefficient	F	Probability	Standardized Regression Coefficient
Reduced Model (Without Clothing-by-Criterion Evaluation):										
					Housing-by-B/A[a]	-.159	.140	1.29	.262	-.150
					Job-by-B/A	.296	.107	7.59	.008	.343
Regression	29.80	6	4.97	5.38	Family Life-by-B/A	.127	.168	.57	.454	.107
				(.000)	Neighborhood-by-B/A	.322	.160	4.06	.049	.292
Residual	46.13	50	.92		Spare Time Act.-by-B/A	.148	.181	.66	.419	.141
					Natl. Govt.-by-B/A	.085	.137	.38	.540	.086
Total	75.93	56			(Constant)	.627	.903	.48	.491	
Multiple $R_{}$ = .626										
Multiple R^2 = .392										
Adjusted R^2 = .320										
Full Model (With Clothing-by-Criterion Evaluation):										
					Housing-by-B/A	-.190	.147	1.67	.202	-.180
					Clothing-by-B/A	.140	.189	.54	.464	.124
Regression	30.31	7	4.33	4.65	Job-by-B/A	.265	.115	5.30	.026	.308
				(.000)	Family Life-by-B/A	.102	.172	.36	.554	.086
Residual	45.62	49	.93		Neighborhood-by-B/A	.280	.170	2.70	.107	.254
					Spare Time Act.-by-B/A	.115	.187	.38	.541	.110
Total	75.93	56			Natl. Govt.-by-B/A	.118	.145	.66	.419	.120
					(Constant)					
Multiple $R_{}$ = .632										
Multiple R^2 = .399										
Adjusted R^2 = .313										

NOTE: F^* test statistic = .55; tabled $F_{(.95;\ 1,\ 49)} \cong 4.08$; $r^2_{Y2\cdot1,\ 3-7} = .011$.

[a]B/A = Beauty and Attractiveness

TABLE 39.--Multiple Regression Analyses of the Prediction of Men's Affective Evaluations of Freedom from Bother and Annoyance by Implementation in Domains: Reduced and Full Models

Analysis of Variance					Multiple Regression					
Source of Variation	Sum of Squares	df	Mean Square	F (Probability)	Variable	Unstandardized Regression Coefficient (Estimated Beta)	Standard Error of Regression Coefficient	F	Probability	Standardized Regression Coefficient
Reduced Model (Without Clothing-by-Criterion Evaluation):										
					Housing-by-Bother[a]	-.126	.170	.55	.462	-.133
					Job-by-Bother	.164	.115	2.02	.161	.195
Regression	21.88	6	3.65	3.48	Family Life-by-Bother	.138	.173	.64	.429	.129
				(.006)	Neighborhood-by-Bother	.295	.194	2.31	.135	.267
Residual	53.50	51	1.05		Spare Time Act.-by-Bother	.141	.189	.55	.460	.125
					Natl. Govt.-by-Bother	.109	.119	.85	.362	.138
Total	75.38	57			(Constant)	1.578	.836	3.56	.065	
Multiple $R_{}$ = .539										
Multiple R^2 = .290										
Adjusted R^2 = .207										
Full Model (With Clothing-by-Criterion Evaluation):										
					Housing-by-Bother	-.122	.171	.51	.479	-.129
					Clothing-by-Bother	-.072	.135	.28	.598	-.068
Regression	22.18	7	3.17	2.98	Job-by-Bother	.176	.118	2.22	.143	.209
				(.011)	Family Life-by-Bother	.144	.175	.68	.412	.136
Residual	53.20	50	1.06		Neighborhood-by-Bother	.304	.196	2.40	.127	.276
					Spare Time Act.-by-Bother	.146	.191	.58	.448	.130
Total	75.38	57			Natl. Govt.-by-Bother	.101	.120	.70	.407	.127
					(Constant)	1.807	.946	3.64	.062	
Multiple $R_{}$ = .542										
Multiple R^2 = .294										
Adjusted R^2 = .195										

NOTE: F^* test statistic = .28; tabled $F_{(.95;\ 1,\ 50)} \cong 4.08$; $r^2_{Y2\cdot1,\ 3\text{-}7} = .006$.

[a]Bother = Freedom from Bother and Annoyance

TABLE 40.--Multiple Regression Analyses of the Prediction of Men's Affective Evaluations of Safety by Implementation in Domains: Reduced and Full Models

Analysis of Variance					Multiple Regression					
Source of Variation	Sum of Squares	df	Mean Square	F (Probability)	Variable	Unstandardized Regression Coefficient (Estimated Beta)	Standard Error of Regression Coefficient	F	Probability	Standardized Regression Coefficient
Reduced Model (Without Clothing-by-Criterion Evaluation):										
					Housing-by-Safety	.234	.201	1.35	.251	.188
					Job-by-Safety	-.053	.126	.18	.673	-.060
Regression	28.13	6	4.69	5.72	Family Life-by-Safety	.016	.202	.00	.939	.014
				(.000)	Neighborhood-by-Safety	.099	.192	.26	.611	.082
Residual	32.81	40	.82		Spare Time Act.-by-Safety	.119	.175	.46	.501	.110
					Natl. Govt.-by-Safety	.387	.109	12.67	.001	.507
Total	60.94	46			(Constant)	1.354	.908	2.22	.144	
Multiple R = .679										
Multiple R^2 = .462										
Adjusted R^2 = .381										
Full Model (With Clothing-by-Criterion Evaluation):										
					Housing-by-Safety	.242	.202	1.43	.238	.194
					Clothing-by-Safety	-.157	.185	.72	.401	-.128
Regression	28.72	7	4.10	4.97	Job-by-Safety	-.018	.133	.02	.894	-.020
				(.000)	Family Life-by-Safety	.033	.204	.02	.873	.028
Residual	32.21	39	.83		Neighborhood-by-Safety	.094	.193	.23	.631	.077
					Spare Time Act.-by-Safety	.175	.188	.87	.357	.162
Total	60.93	46			Natl. Govt.-by-Safety	.371	.111	11.22	.002	.486
					(Constant)	1.675	.986	2.88	.097	
Multiple R = .686										
Multiple R^2 = .471										
Adjusted R^2 = .376										

NOTE: F^* test statistic = .73; tabled $F_{(.95;\ 1,\ 39)} \cong 4.17$; $r^2_{Y2\cdot 1,\ 3\text{-}7} = .018$.

TABLE 41.--Multiple Regression Analyses of the Prediction of Men's Affective Evaluations of Accomplishing Something by Implementation in Domains: Reduced and Full Models

Analysis of Variance					Multiple Regression					
Source of Variation	Sum of Squares	df	Mean Square	F (Probability)	Variable	Unstandardized Regression Coefficient (Estimated Beta)	Standard Error of Regression Coefficient	F	Probability	Standardized Regression Coefficient
Reduced Model (Without Clothing-by-Criterion Evaluation):										
					Housing-by-Accomp.[a]	-.092	.152	.36	.550	-.077
					Job-by-Accomp.	.270	.104	6.75	.012	.308
Regression	31.98	6	5.33	7.23	Family Life-by-Accomp.	.167	.141	1.40	.243	.159
				(.000)	Neighborhood-by-Accomp.	.442	.170	6.78	.012	.382
Residual	36.14	49	.74		Spare Time Act.-by-Accomp.	.057	.104	.30	.587	.067
					Natl. Govt.-by-Accomp.	.034	.120	.08	.782	.036
Total	68.12	55			(Constant)	.602	.800	.57	.455	
Multiple R_y = .685										
Multiple R^2 = .469										
Adjusted R^2 = .404										
Full Model (With Clothing-by-Criterion Evaluation):										
					Housing-by-Accomp.	-.148	.160	.86	.359	-.124
					Clothing-by-Accomp.	.161	.142	1.27	.265	.135
Regression	32.92	7	4.70	6.41	Job-by-Accomp.	.264	.104	6.47	.014	.300
				(.000)	Family Life-by-Accomp.	.155	.141	1.21	.276	.148
Residual	35.21	48	.73		Neighborhood-by-Accomp.	.407	.172	5.62	.022	.352
					Spare Time Act.-by-Accomp.	.068	.105	.42	.521	.080
Total	68.13	55			Natl. Govt.-by-Accomp.	.060	.122	.24	.627	.063
					(Constant)	.117	.906	.02	.898	
Multiple R_y = .695										
Multiple R^2 = .483										
Adjusted R^2 = .408										

NOTE: F^* test statistic = 1.27; tabled $F_{(.95;\ 1,\ 48)} \cong 4.08$; $r^2_{Y2 \cdot 1,\ 3-7} = .026$.

[a]Accomp. = Accomplishing Something

TABLE 42.--Multiple Regression Analyses of the Prediction of Men's Affective Evaluations of Acceptance and Inclusion by Others by Implementation in Domains: Reduced and Full Models

Analysis of Variance					Multiple Regression					
Source of Variation	Sum of Squares	df	Mean Square	F (Probability)	Variable	Unstandardized Regression Coefficient (Estimated Beta)	Standard Error of Regression Coefficient	F	Probability	Standardized Regression Coefficient
Reduced Model (Without Clothing-by-Criterion Evaluation):										
					Housing-by-Accept.[a]	-.182	.141	1.65	.207	-.203
					Job-by-Accept.	.169	.125	1.82	.184	.219
Regression	10.49	6	1.75	2.75	Family Life-by-Accept.	.234	.169	1.92	.174	.259
				(.025)	Neighborhood-by-Accept.	-.282	.210	1.79	.189	-.314
Residual	24.82	39	.64		Spare Time Act.-by-Accept.	.327	.149	4.80	.035	.406
					Natl. Govt.-by-Accept.	.184	.142	1.69	.201	.205
Total	35.31	45			(Constant)	3.066	.869	12.45	.001	
Multiple R = .545										
Multiple R^2 = .297										
Adjusted R^2 = .189										
Full Model (With Clothing-by-Criterion Evaluation):										
					Housing-by-Accept.	-.203	.144	1.97	.168	-.226
					Clothing-by-Accept.	.166	.206	.65	.425	.181
Regression	10.90	7	1.56	2.43	Job-by-Accept.	.131	.134	.95	.335	.169
				(.037)	Family Life-by-Accept.	.216	.171	1.59	.215	.239
Residual	24.40	38	.64		Neighborhood-by-Accept.	-.346	.226	2.34	.134	-.385
					Spare Time Act.-by-Accept.	.297	.154	3.71	.062	.369
Total	35.30	45			Natl. Govt.-by-Accept.	.207	.145	2.03	.162	.231
					(Constant)	2.989	.878	11.59	.002	
Multiple R = .556										
Multiple R^2 = .309										
Adjusted R^2 = .182										

NOTE: F* test statistic = .65; tabled $F_{(.95;\ 1,\ 38)} \cong 4.17$; $r^2_{Y2 \cdot 1,\ 3\text{-}7} = .017$.

[a]Accept. = Acceptance and Inclusion by Others

beta for the group of seven domain-by-criterion evaluations. The coefficient of partial determination for clothing-by-acceptance and inclusion was .109, and the difference between the adjusted R^2 for the full and reduced models was a sizable 7.8 percent.

Although not statistically significant, there is some support for the hypothesis that the extent to which women feel that clothing affects their acceptance by others is predictive of their general feelings about this value criterion. This finding makes considerable theoretical sense because clothing is a portable environment which acts as a source of information about the self in social interaction. A larger sample size would contribute to a more valid test of the hypothesis.

Whereas none of the other analyses approached significance to the extent that the above did, it should be recognized that the probabilities for other domain-by-criterion betas were also quite high. Usually there were only one or two domains for a given criterion that had low probability values that $\beta_k = 0$, and in some cases all probabilities were high. For example, for women housing-by-standard of living was the best predictor of standard of living evaluations (beta = .492, p = .009). Family life-by-fun (beta = .524, p = .000) and spare time activities-by-fun (beta = .240, p = .088) were the best predictors of fun, and family life-by-independence or freedom (beta = .449, p = .001) was the only good predictor of independence or freedom. Clothing (beta = .146, p = .257) does almost as well as housing (beta = .201, p = .204),

family life (beta = .160, p = .248), and neighborhood (beta = .187, p = .240) as a predictor of feelings about beauty and attractiveness for women.

Prediction of value criteria by other domains-by-criterion evaluations. Since there were few differences between the full and reduced models, the following discussion will focus on the full model.

Family life is of significance for women's feelings about being free from bother and annoyance (beta = .326, p = .020). National government was the domain which best accounted for women's feelings about safety in general (beta = .299, p = .035). None of the domains did well to account for a sense of accomplishment among women.

For men, job (beta = .320, p = .004) and neighborhood (beta = .259, p = .022) were the domains most predictive of general feelings about standard of living. That men evaluate standard of living from the reference point of a job makes considerable sense because the job provides the income which makes it possible to acquire goods and services and achieve a desired lifestyle.

Implementation of fun in the spare time domain best accounts for men's feelings about fun in general (beta = .362, p = .023). Independence or freedom is best realized within the family (beta = .333, p = .014) and in spare time activities (beta = .308, p = .043).

Surprisingly, men's feelings about beauty and attractiveness were best accounted for within the job domain (beta = .308, p = .026). Their mean response for beauty and attractiveness in general

was 4.7, and for job-by-beauty and attractiveness the mean was 4.2. The attractiveness of the working environment apparently is of some importance to men, but their relatively low evaluations suggest that those conditions may be somewhat unattractive.

Men's neighborhood is the domain which best accounts for their feelings about freedom from bother and annoyance (beta = .276, p = .127). As was true for women, feelings about safety are best accounted for by the national government (beta = .486, p = .002).

Accomplishing something is best implemented within the job domain (beta = .300, p = .014) and in the neighborhood (beta = .352, p = .022). Neighborhood is also the domain which best explains men's feelings of acceptance and inclusion by others.

As can be seen from the tables, clothing does not appear to be a domain considered to be important for the realization or implementation of the value criteria included in this study with the possible exception of acceptance and inclusion by others for women. This finding warrants additional analysis.

As was true for the previous hypothesis, the sample size for many of these analyses falls substantially below one hundred. The results should be interpreted with this limitation in mind.

Summary of Multiple Regression Analyses of Matrix Variables

Although the prediction of POQL by the eight matrix criteria and the prediction of the other six matrix domains by the eight criteria were not formal hypotheses in this study, the analyses were conducted for the sake of completion.

Prediction of POQL by eight matrix criteria. The results of the prediction of POQL by the eight matrix value criteria are presented in Table 43.

For women, freedom from bother and annoyance (beta = .519, p = .000), fun (beta = .337, p = .003), and safety (beta = -.198, p = .028) were the most important predictors of POQL in the set of eight criteria. For men, accomplishing something (beta = .435, p = .000) and fun (beta = .362, p = .000) were the two most important predictors of POQL.

The fact that fun is an important criterion for both sexes speaks to the increasing value placed on recreation and leisure in the American culture. Accomplishing something, as a value for assessing one's life quality, addresses the work ethic and its historical primary importance for the American male particularly if he is the major family breadwinner at a time of greatest family economic need.

Freedom from bother and annoyance, as a value by which women assess their life quality, is subject to several interpretations. Over one-third (39 percent) of the women were employed for pay and at the same time claimed to be housewives.[1] The time demands on women with such dual roles have been well documented (Robinson, 1977; Walker & Woods, 1976), and it is conceivable that being free from bother and annoyance is essential to accomplishing the two jobs and/or to reducing stress. For the unemployed wife who has

---

[1]Ten working men (8.6 percent) also identified themselves as househusbands. This identification may show a growing responsibility in the management of the home for such men.

TABLE 43.--Multiple Regression Analyses of the Prediction of Perceived Overall Quality of Life by Eight Criteria

Analysis of Variance					Multiple Regression					
Source of Variation	Sum of Squares	df	Mean Square	F (Probability)	Variable	Unstandardized Regression Coefficient (Estimated Beta)	Standard Error of Regression Coefficient	F	Probability	Standardized Regression Coefficient
Women					Standard of Living	-.034	.078	.19	.663	-.048
					Fun	.241	.077	9.66	.003	.337
Regression	21.82	8	2.73	9.64	Independence or Freedom	-.084	.067	1.60	.210	-.146
				(.000)	Beauty	.046	.088	.28	.601	.053
Residual	21.78	77	.28		Freedom from Bother	.313	.064	24.29	.000	.519
					Safety	-.147	.066	5.01	.028	-.198
Total	43.60	85			Accomplishing Something	.095	.073	1.72	.193	.134
					Acceptance and Inclusion	.091	.082	1.25	.267	.102
Multiple R = .707					(Constant)	2.848	.516	30.53	0	
Multiple R^2 = .500										
Adjusted R^2 = .448										
Men										
					Standard of Living	-.008	.082	.01	.923	-.008
Regression	47.67	8	5.96	14.31	Fun	.325	.087	13.89	.000	.362
				(.000)	Independence or Freedom	.001	.085	.00	.991	.001
Residual	33.73	81	.42		Beauty	.033	.077	.19	.667	.038
					Freedom from Bother	.054	.077	.49	.484	.062
Total	81.40	89			Safety	.006	.074	.01	.936	.006
					Accomplishing Something	.367	.085	18.50	.000	.435
Multiple R = .765					Acceptance and Inclusion	.075	.090	.70	.406	.073
Multiple R^2 = .586					(Constant)	1.042	.624	2.78	.099	
Adjusted R^2 = .545										

children of school age, the number of demands, service responsibilities, and interruptions during the day may lead one to place a high value on being free from bother and annoyance.

The set of eight criteria accounted for 54.5 percent of the variance for men and 44.8 percent of the variance for women, fairly substantial amounts.

Prediction of seven domains and POQL by eight criteria. The multiple regression tables for the prediction of the other six domains by eight criteria for women and men are presented in Appendix E. The beta values and adjusted R^2 values for the prediction of the seven domains and POQL by eight criteria are summarized in Table 44. The results for POQL and clothing have already been discussed. It should be kept in mind that no attempt was made to test the statistical significance of results for other than the clothing domain. The results discussed should be considered descriptive only. Within the discussion to follow, only those variables with relatively low probabilities for beta will be highlighted.

As an example of how to read Table 44, the domain of housing will be used. The set of eight criteria listed across the top of the table explain 50 percent of the variance in women's general evaluation of housing with beauty (beta = .42), standard of living (beta = .39), and freedom from bother (beta = .30) as the most important predictors of this general evaluation. For men also, freedom from bother (beta = .31), beauty (beta = .30), and standard of living (beta = .30) were the most important explanatory value

TABLE 44.--Summary of Multiple Regression Analyses of the Domains-by-Criteria Matrix Model: Prediction of Domains by Domain-by-Criteria Evaluations and Prediction of Perceived Overall Quality of Life (POQL) by Criteria[a]

Domain	Standard of Living	Fun	Independence or Freedom	Beauty	Freedom from Bother	Safety	Accomplishing Something	Acceptance and Inclusion	Adjusted $R^2 \times 100$[b]	N
Women (Prediction Across)										
Housing	.39	-.19	.06	.42	.30	-.03	.03	-.19	50%	79
Clothing*	.51	-.54	.52	.10	.13	-.30	.46	-.12	64%	49
Job	c	c	c	c	c	c	c	c	c	c
Family Life	.19	.27	-.08	.20	.28	-.04	.28	-.36	41%	70
Neighborhood	-.04	.10	.08	.27	-.06	.08	.13	.12	24%	77
Spare Time Act.	.03	.44	.14	-.16	.10	.14	-.01	.08	28%	71
Natl. Govt.	.37	.18	-.22	.20	.01	.37	.22	-.15	66%	42
POQL (Life 3)	-.05	.34	-.14	.05	.52	-.20	.13	.10	45%	86
Men (Prediction Across)										
Housing	.30	.06	-.24	.30	.31	.03	.09	.01	40%	75
Clothing	-.22	.20	-.11	.42	-.04	.07	.30	-.07	12%	46
Job	.10	.32	.20	.07	.09	.05	.21	-.03	60%	80
Family Life	.09	.22	.24	.30	.02	.08	.10	-.23	50%	70
Neighborhood	.20	.34	.01	.17	.03	.08	-.12	-.01	30%	78
Spare Time Act.	.38	.66	.11	-.57	.36	-.05	.03	-.04	64%	65
Natl. Govt.	.34	-.16	.17	.02	-.12	.31	.10	.08	31%	57
POQL (Life 3)	-.01	.36	.00	.04	.06	.01	.43	.07	54%	90

NOTE: Only the prediction of clothing by the set of eight criteria for women and men was tested for statistical significance under formal hypotheses. The other relationships presented are descriptive only and are presented for the sake of completeness of the model.

[a]Values reported are standardized multiple regression coefficients (beta weights) rounded to two decimal places.

[b]Adjusted $R^2 \times 100$ is the coefficient of multiple determination adjusted for the number of independent variables in the model and converted to a percentage.

[c]Number of women responding on scale to all eight of the job-by-criterion items was too few (N=30) for calculation of the regression equation.

*Set of eight criteria was significantly predictive of affective evaluations of clothing for women at $\alpha = .05$.

criteria for their evaluations of housing, but only 40 percent of the variance in the latter have been explained by the set of eight criteria. These results are based on a sample size (N) of seventy-nine women and seventy-five men.

This set of eight criteria do fairly well in explaining women's evaluations of four domains (housing, clothing, family life, and national government) and POQL (adjusted R^2 values range from 41 percent to 66 percent) and men's evaluations of four domains (housing, job, family life, and spare time activities) and POQL (adjusted R^2 values range from 40 percent to 64 percent). Additional important value criteria must be used by women to evaluate neighborhood and spare time activities and by men to evaluate clothing, neighborhood, and national government. The open-ended item which gives people a chance to express their value criteria in terms that are meaningful to them proved helpful in suggesting additional possibilities for future research on the clothing domain.

For men, having fun, accomplishing something, and being independent were relevant criteria for evaluation of the job domain.

For the domain of family life, women with positive feelings about being accepted by others tend to have less positive feelings about family life when other predictors of family life are held constant. Positive predictors are accomplishing something, being free from bother, and having fun. Freedom from bother was not a relevant criterion for men. Instead beauty and attractiveness was the best predictor of men's feelings about family life.

With respect to neighborhood, its beauty and attractiveness was important for women, whereas fun was a more relevant evaluative criterion for men.

Having fun was also the most important criterion for both men and women with regard to spare time activities. Freedom from bother and the effect of spare time activities on standard of living were additionally relevant criteria for men. The large negative beta for beauty and attractiveness suggests that these married men do not engage in spare time activities for the beauty and attractiveness they are able to enjoy.

National government, the domain with which most quality of life studies report considerable dissatisfaction (and the present study is no exception), was evaluated most strongly by its effect on standard of living and safety by both women and men.

Although there are patterns of similarity between women and men in the value criteria they employ to evaluate domains, there appears to be many differences as well. The actual differences between wives and husbands with respect to the value criteria within the clothing domain will be explored in Hypothesis 7.

Prediction of value criteria by implementation in domains and prediction of POQL by domains. Table 45 summarizes the full and reduced model regression analyses for the prediction of value criteria by domains-by-criteria evaluations and POQL by domains. These relationships have already been discussed within the context of Hypotheses 2 and 4. Of additional significance in this table is the large proportion of variance in POQL accounted for by the

TABLE 45.--Summary of Multiple Regression Analyses of the Domains-by-Criteria Matrix Model: Prediction of Criteria by Domains-by-Criterion Evaluations and Prediction of Perceived Overall Quality of Life (POQL) by Domains: Full and Reduced Models[a]

Domain	Women: Standard of Living	Women: Fun	Women: Independence or Freedom	Women: Beauty	Women: Freedom from Bother	Women: Safety	Women: Accomplishing Something	Women: Acceptance and Inclusion	Women: POQL (Life 3)	Men: Standard of Living	Men: Fun	Men: Independence or Freedom	Men: Beauty	Men: Freedom from Bother	Men: Safety	Men: Accomplishing Something	Men: Acceptance and Inclusion	Men: POQL (Life 3)
Full Model (Prediction Downward)																		
Housing	.49	-.03	.01	.20	-.08	.24	-.12	-.57	.11	-.02	.19	-.11	-.18	-.13	.19	-.12	-.23	.19
Clothing	.08	.04	.10	.15	-.11	.06	.14	.48	.14	.08	.00	-.11	.12	-.07	-.13	.14	.18	.21*
Job	b	b	b	b	b	b	b	b	.05[c]	.32	-.13	.25	.31	.21	-.02	.30	.17	.26
Family Life	-.12	.52	.45	.16	.33	.25	.14	-.10	.61	.15	.24	.33	.09	.14	.03	.15	.24	.41
Neighborhood	.17	-.05	.08	.19	.27	-.08	-.04	.37	.07	.26	.12	-.00	.25	.28	.08	.35	-.38	-.06
Spare Time Act.	-.11	.24	.14	-.00	.12	-.04	.17	-.06	.12	.20	.36	.31	.11	.13	.16	.08	.37	.13
Natl. Govt.	-.06	-.10	.07	-.03	.01	.30	.20	.09	.03	.09	-.03	-.01	.12	.13	.49	.06	.23	.07
Adjusted $R^2 \times 100$[d]	22%	38%	34%	16%	11%	19%	6%	13%	52%	59%	34%	34%	31%	20%	38%	41%	18%	56%
N	72	63	68	64	64	51	58	39	99	65	64	62	57	58	47	56	46	95
Reduced Model (Prediction Downward)																		
Housing	.53	-.02	-.00	.25	-.08	.24	-.08	-.34	.17	.02	.19	-.15	-.15	-.13	.19	-.08	-.20	.19
Job	b	b	b	b	b	b	b	b	.06[c]	.31	-.13	.24	.34	.19	-.06	.31	.22	.32
Family Life	-.10	.52	.48	.17	.32	.27	.16	-.14	.59	.15	.23	.32	.11	.13	.01	.16	.26	.41
Neighborhood	.15	-.04	.08	.16	.23	-.06	.01	.35	.06	.26	.13	-.01	.29	.27	.08	.38	-.31	-.01
Spare Time Act.	-.09	.25	.17	.03	.10	-.02	.17	.20	.16	.24	.36	.30	.14	.12	.11	.07	.40	.18
Natl. Govt.	-.04	-.09	.08	-.05	-.01	.30	.22	.10	.03	.06	-.03	.04	.08	.14	.51	.04	.20	.08
Adjusted $R^2 \times 100$[d]	23%	39%	34%	16%	11%	21%	6%	5%	50%	60%	35%	34%	32%	21%	38%	40%	19%	53%
N	72	63	68	64	64	51	58	39	99	65	64	62	57	58	47	56	46	95

NOTE: Eighteen statistical tests (each at α=.05) were performed on the above set of 36 equations. The test of the null hypothesis that the clothing regression coefficient equals zero employed regression results of the full and reduced models. The reader is referred to the accompanying text and to Neter and Wasserman (1974) for a thorough description. The null hypothesis was rejected in only one of the 18 tests.

[a]Values reported are standardized multiple regression coefficients (beta weights) rounded to two decimal places.

[b]Since only 30 women responded to job-by-criterion items due to the job screen preceding the items, these variables were deleted from the analysis in order to preserve a sizable N.

[c]The results for women are based on the dichotomous job status indicator variable created because many women without paid employment did not respond on scale to the question, "How do you feel about your job?"

[d]Adjusted $R^2 \times 100$ is the coefficient of multiple determination adjusted for the number of independent variables in the model and converted to a percentage.

*Significant at α = .05.

domains included (52 percent for women and 56 percent for men). The overriding importance of the family to POQL especially for women but also of substantial import for men can be partially explained by the dependence on it for the realization of values which are relevant to adult married women and men.

The reader is invited to make additional comparisons within and between the two summary tables keeping in mind, however, that the probabilities associated with the beta values in many cases are quite high. There is also little information on the job domain for women due to the small number of women (thirty) who responded to the job-by-criterion items. The lower proportion of variance in several value criteria (e.g., adjusted R^2 = .06 for accomplishing something) accounted for by the domains for women when compared with that for men suggests that the job (or household work) domain may provide substantial information which unfortunately was not obtained for enough women in this study to make the analysis meaningful.

In general, the lower proportion of variance in value criteria accounted for by domains-by-criteria evaluations, in contrast to the variance in domains accounted for by the same specific evaluations, suggests that the implementation of values is spread over a wide variety of domains. By comparison a few value criteria are sufficient to account for a large proportion of variance in domain evaluations.

Comparison of findings with 1973 Toledo study. The Andrews and Withey (1976) study of 222 Toledo respondents in 1973 grouped

the results for women and men together even though some were from the same household. In addition, a greater proportion of black respondents and a substantial percentage of adults younger and older than the respondents in the present study were included in the Toledo sample. The Toledo study was not limited to married respondents. Approximately one-third of the respondents were never married, widowed, divorced, or separated. Thus the results of the two studies are not directly comparable.

However, by comparing the values for adjusted R^2 in Table 4 with those in Tables 44 and 45, one can see that the value criteria did not do quite as well in the present study to explain the variance in POQL (Life 3) as they did in the Toledo study (Toledo study: adjusted R^2 = 58 percent; this study: adjusted R^2 = 54 percent for men and 45 percent for women). The present study, however, accounted for a greater proportion of the variance in the prediction of POQL by domains (with clothing: adjusted R^2 = 52 percent for women and 56 percent for men; without clothing: adjusted R^2 = 50 percent for women and 53 percent for men) than did the 1973 Toledo study (adjusted R^2 = 43 percent).

A few differences between the studies stand out in sharp contrast. For the men in this study 60 percent of the variance in general evaluations of standard of living and 40 percent of the variance for accomplishing something were explained by the implementation of these values in six domains (reduced model) compared with 29 percent and 16 percent respectively in the Toledo study.

For the prediction of domains by criteria, this study accounted for more of the variance in the job domain for men [adjusted R^2 = 60 percent (this study) and 43 percent (Toledo study)], in the family domain for women and men [adjusted R^2 = 41 percent for women, 50 percent for men (this study) and 24 percent (Toledo study)], in the spare time activities domain for men [adjusted R^2 = 64 percent (this study) and 27 percent (Toledo study)], and in the national government domain for women [adjusted R^2 = 66 percent (this study) and 38 percent (Toledo study)].

The purpose of the Toledo study was to conduct a test of the model, not to arrive at group differences. The present study does, however, demonstrate the importance of analyzing groups which are homogeneous on some variables (for example, marital status) and making comparisons between groups on other variables (for example, sex). The present study shows that women and men do not yet constitute a unisex in values and the sources of perceived life quality.

Hypothesis 5: Affective Evaluations of Clothing with Respect to Demographic Characteristics

To determine whether women and men differ in their general evaluations of clothing according to differences in selected demographic characteristics, the following null hypothesis was formulated:

H_5: There is no difference in the affective evaluations of clothing for women and men with respect to (1) age, (2) total family income, (3) education, (4) family size, and (5) occupational prestige.

Results of Hypothesis 5. The analysis of covariance results for women and men are presented in Tables 46 and 47 respectively. For both women and men the analyses failed to reject the null hypothesis both for the main effects of factors (education and family income) and covariates [age, family size, and occupational prestige (men only)] and for interactions of factors and factor-covariates at the overall Type 1 error rate of .05 for each sex.

Factor effects in general. Eta squared for education was .025 for women but .068 for men. This means that education explained 2.5 percent and 6.8 percent of the total variation in general affective evaluations of clothing for women and men respectively.

Eta squared for family income was .044 for women and .006 for men. The beta values associated with each of the two factors show that family income is a more important predictor of affective evaluations of clothing than is education for both women and men.

An examination of the adjusted deviations of affective evaluations from the grand mean for education and family income does, however, reveal some trends which are noteworthy and not without some precedent in the subjective quality of life literature. These deviations from the grand mean have been converted to values on the D-T Scale and are plotted for the five educational levels and four family income levels in Figure 14 for women and men.

Factor effect: Education. For education, one sees the familiar negatively tilted "W" for men, a pattern which has been reported by Campbell et al. (1976) as characteristic of the

TABLE 46.--Analysis of Covariance and Multiple Classification Analysis of the Effects of Selected Demographic Variables on Women's Affective Evaluations of Clothing

Analysis of Covariance

Source of Variation	Sum of Squares	df	Mean Square	F
Main Effects	9.47	9	1.05	.84
Education	4.13	4	1.03	.83
Family Income	3.14	3	1.05	.84
Age (Covariate)	2.00	1	2.00	1.60
Family Size (Covariate)	.04	1	.04	.03
Interactions	19.42	13	1.49	1.20
Education x Family Income	17.40	12	1.45	1.17
Family Income x Age	2.02	1	2.02	1.62
Explained	28.89	22	1.31	1.06
Residual	102.02	82	1.24	
Total	130.91	104	1.26	

Multiple Classification Analysis

Variable and Category	N	Unadjusted Deviation[a]	Unadjusted Eta	Adjusted for Independents and Covariates Deviation[a]	Adjusted for Independents and Covariates Beta
Education					
11 Years and Under	13	-.14		-.19	
High School Graduate	43	-.08		-.02	
1-3 Years College	24	.30		.29	
College Graduate	11	.08		.10	
Post-College Work/ Degrees	14	-.19		-.34	
			.16		.18
Family Income					
Under $20,000	22	-.10		.98	
$20,000-$29,999	39	-.24		.09	
$30,000-$34,999	19	.17		-.23	
$35,000 and Over	25	.33		-.83	
			.21		.55

Covariates and Factor-Covariate Interaction	Regression Coefficient Adjusted for Factors and All Other Covariates and Factor-Covariate Interaction
Age	-.05
Family Size	.02
Family Income x Age	.02

Multiple R^2 = .088
Multiple R = .296

NOTE: Main Effects: tabled $F_{(.975;\ 9,\ 82)} \cong 2.33$; Interactions: tabled $F_{(.975;\ 13,\ 82)} \cong 2.17$.

[a]Deviation from the grand mean for affective evaluations of clothing; Grand mean = 4.83.

TABLE 47.--Analysis of Covariance and Multiple Classification Analysis of the Effects of Selected Demographic Variables on Men's Affective Evaluations of Clothing

Analysis of Covariance

Source of Variation	Sum of Squares	df	Mean Square	F
Main Effects	7.86	10	.79	.99
Education	4.69	4	1.17	1.48
Family Income	1.68	3	.56	.71
Age (Covariate)	.46	1	.46	.57
Family Size (Covariate)	.22	1	.22	.27
Occup. Prestige (Covariate)	.34	1	.34	.43
Interactions	13.55	14	.97	1.22
Education x Family Income	11.70	12	.98	1.23
Family Income x Age	1.72	1	1.72	2.17
Education x Occup. Prestige	.13	1	.13	.16
Explained	21.41	24	.89	1.12
Residual	56.33	71	.79	
Total	77.74	95	.82	

Multiple Classification Analysis

Variable and Category	N	Unadjusted Deviation[a]	Unadjusted Eta	Adjusted for Independents and Covariates Deviation[a]	Adjusted for Independents and Covariates Beta
Education					
11 Years and Under	10	.29		.52	
High School Graduate	26	-.11		-.21	
1-3 Years College	19	.20		.19	
College Graduate	14	-.19		-.24	
Post-College Work/ Degrees	27	.14		.01	
			.26		.26
Family Income					
Under $20,000	23	-.07		.82	
$20,000-$29,999	32	-.05		.32	
$30,000-$34,999	16	.07		-.18	
$35,000 and Over	25	.09		-1.05	
			.08		.78

Covariates and Factor-Covariate Interactions	Regression Coefficient Adjusted for Factors and All Other Covariates and Factor-Covariate Interactions
Age	-.02
Family Size	.05
Occup. Prestige	-.02
Family Income x Age	.02
Education x Occup. Prestige	.00

Multiple R^2 = .125
Multiple R = .353

NOTE: Main Effects: tabled $F_{(.975;\ 10,\ 71)} \cong 2.27$; Interactions: tabled $F_{(.975;\ 14,\ 71)} \cong 2.17$.

[a]Deviation from the grand mean for affective evaluations of clothing; Grand mean = 5.11.

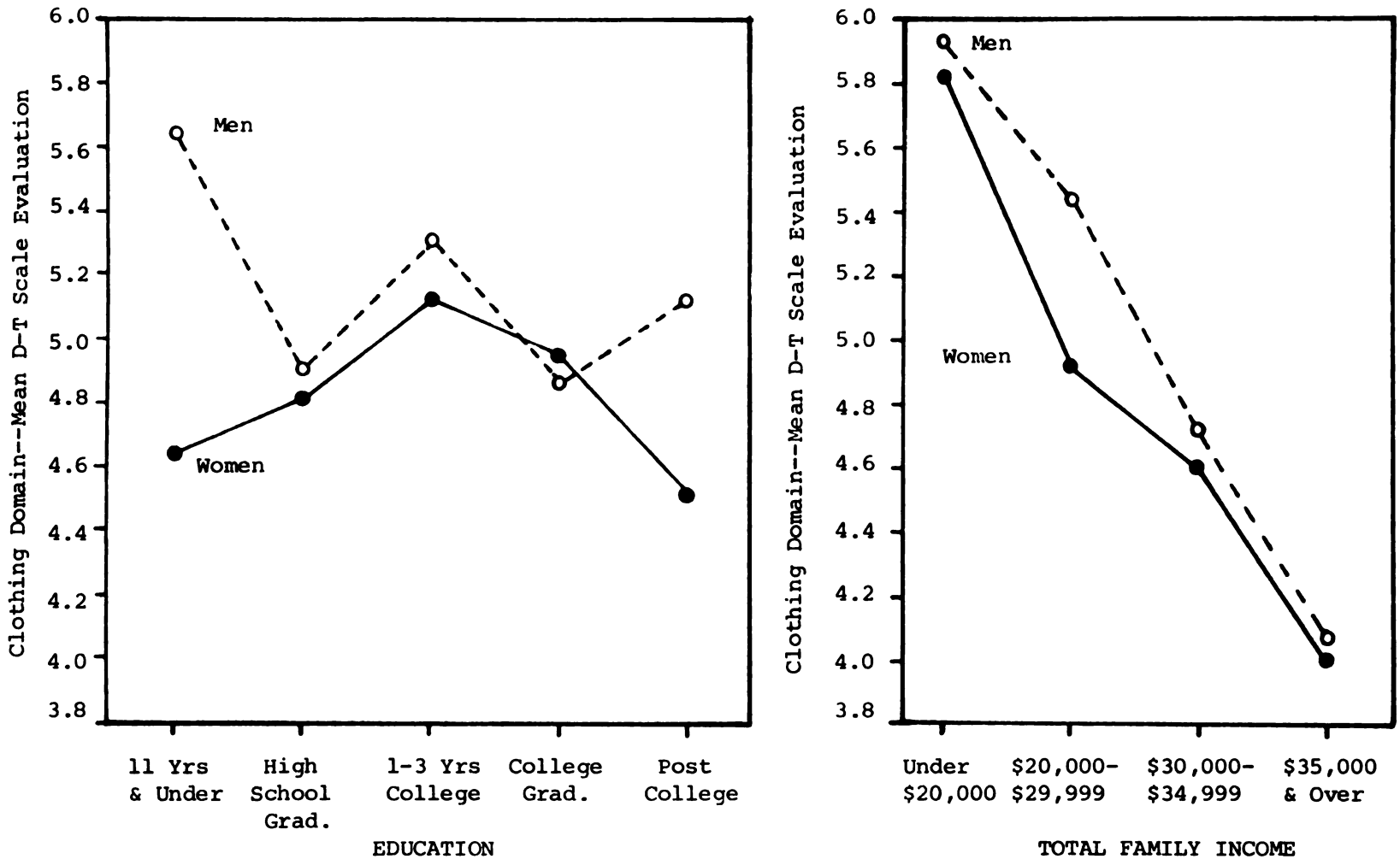

Fig. 14. Affective evaluations of clothing domain (adjusted), by education and total family income.

relation of education to domain satisfaction. Campbell and his colleagues proposed two mechanisms to account for this pattern.

One explanation is that the second low point in their results corresponded to those who had not completed a college degree. Termination of their education prior to its completion for whatever reasons tends to result in lower satisfaction with domains, perhaps because of "bruised expectations and quirks of social comparison" (Campbell et al., 1976, p. 137). However, in the present study, the two low points come at levels of education where a terminal degree was earned. Whether the same pattern holds across other domains was not examined in this study.

The comparatively high evaluations of two groups of less educated men may, however, be explained by the second mechanism proposed by Campbell et al. That is, people with higher education generally have a broadened perspective on the possibilities of life and tend to be more aware of many alternatives to the present situation. Therefore, expectations rise, and people become more critical of their situation than those who have been exposed to fewer alternatives. This may hold in part for clothing because the less educated may not be as sensitive to the nuances of quality differences or as aware of the status differential in brand names or couture designs. Clothing has not been widely advertised on television, although this has begun to change in recent years with commercials by nationally known department store chains.

This same argument, however, does not seem to hold for women. The least well educated and the most well educated have lower feelings about their clothing than do the middle groups.

The inverted U-shaped curve for women is in direct contrast to the W-shaped curve for men. Women also are more dissatisfied with their clothing than men at all but the college graduate level. The reasons given in the preceding paragraphs may explain the dissatisfaction of the highly educated women, but new explanations are required for the group which did not finish high school. An examination of the reasons these two groups of women gave for their feelings about clothing sheds additional light on their evaluations.

In the low education group, the lowest evaluations were given by women who expressed dissatisfaction with their weight ("10 pounds too much!") or appearance in the current fashions. A few women were dissatisfied with the quantity ("I don't have all that much!") and the durability ("It doesn't last as long as it should for the money it costs.") of their clothing. Some women in this group seemed to attach low importance to clothing ("I don't worry about having a lot of clothing--just basics are all I need.") but always in the context of quantity or fashion. Comments like the latter were characteristic of some of the women in the high education group as well, but they characterized their wants as "not extravagant" or "not excessive." (One woman did, however, wish she could have an unlimited budget for clothing so she could update her wardrobe often.) Only one woman in this group expressed dissatisfaction with her physical size, whereas more women in this group placed a value on economy ("The clothes I like I can't afford. The quality of 'affordable' clothes is substandard. Women's clothes on the whole are overpriced.").

Notably absent from the range of concerns of both groups is a value placed on clothing as a manifestation of self-regard or as a means of self-expression. Little emphasis is also placed on the use of clothing to gain acceptance and inclusion by others or to accomplish things (such as, the facilitation of role performance). No woman in either group mentioned other competing family needs or clothing needs of other family members.

The size of each group is relatively small so conclusions need to be made with caution. Both groups seem to attach lower importance to clothing and do not verbalize the symbolic character of clothing. The more highly educated women seem to be concerned with management of the clothing budget and the control of their wants. Lower educated women are concerned with weight problems, their appearance in today's styles, and the quality and quantity of clothing in their wardrobes. The low education group thus seems to have a resource accession problem and a concern with their physical appearance.

Factor effect: Family income. The decline in affective evaluations of clothing with increasing family income for both women and men is a surprising finding. Although the differences among groups were not found to be significant, the trend is obvious. One might have expected the reverse given the high cost of clothing. However, the mechanism of rising expectations with rising incomes may be operative here. In addition, as incomes increase, social obligations and pressures for greater variety and quality in clothing may also be contributing factors.

Since these results have been controlled for family size, the negative relationship between income and clothing evaluations is most likely not a result of a strain on economic resources to meet the needs of a large family even though family income is positively associated with family size ($r = .10$). Further investigation of the relationship between objective and subjective clothing adequacy is warranted on the basis of these findings.

Covariate effects. Although it appears that the regression coefficients for the covariates of occupational prestige (men only), age, and family size are close to zero for both women and men, the model sums the effects of these covariates after the regression coefficient (γ) is multiplied by the value of the covariate. Thus, the contribution of covariates to the prediction of the affective evaluation of clothing of a forty-year-old husband with an occupational prestige of forty-eight and a family size of four is: $-.02\ (40)\ -.02\ (48) + .05\ (4) = -.80 - .96 + .20 = -1.56$.

The effects of age and occupational prestige on affective evaluations of clothing are not small. Together with the effects of the covariates, the effects of education, family income, the interaction effects, and the error estimate $[(MSE)^{\frac{1}{2}}]$ are added to the grand mean to predict the value of the dependent variable, affective evaluations of clothing. Age has a greater effect on women's affective evaluations of clothing ($\gamma = -.05$) than it does on men's ($\gamma = -.02$), and in both cases the effect is negative.

For clothing researchers the negative relationships of age and occupational prestige with general evaluations of clothing requires further study.

With respect to age, is there increasing dissatisfaction with physical appearance in clothing due to physiological changes? Are other family needs more pressing as children (and parents) get older requiring delay of fulfillment of clothing needs?

With respect to occupational prestige, is the clothing required of prestigious occupations uncomfortable to wear and/or inconsistent with the current trend toward informality in dress, or do people in more prestigious positions have higher aspiration levels than those in less prestigious positions?

The factor-covariate interaction of family income with age is more explanatory than the interaction of education with occupational prestige. Although the trends reported here are of considerable theoretical interest, one must bear in mind that they are not statistically significant; and, overall, the factors, covariates, and interactions accounted for only 8.8 percent of the variance in women's evaluations of clothing and 12.5 percent of the variance in men's evaluations.

Hypotheses 6 and 7: Wife-Husband Differences in Affective Evaluations of Clothing

Since data were gathered from wife-husband pairs, two hypotheses were formulated to assess differences between wives and husbands with respect to clothing domain evaluations. The null hypotheses are:

H_6: There is no difference between wives and husbands in their general affective evaluations of clothing.

H_7: There is no difference between wives and husbands in their affective evaluations of clothing with respect to each of the eight value criteria.

Results of Hypothesis 6. Table 48 shows that whereas wives in general evaluated their clothing less positively than did their husbands, the difference was not significant. Table 17, presented earlier in this chapter, showed the actual distribution of responses which was discussed at that point.

TABLE 48.--Results of Matched Pair T-Test for Differences between Husbands' and Wives' Affective Evaluations of Clothing

Husbands' Mean	Wives' Mean	Difference Mean	Standard Deviation	Standard Error	t	Pearson r
5.06	4.84	.22	1.37	.14	1.59[a]	.14

NOTE: N = 93; tabled $t_{(.95;\ 92)} \cong 2.00$.

[a]p = .115.

The phenomenon that was observed (that is, that persons with low evaluations of clothing tended to be married to those with relatively high evaluations) apparently does not occur with enough frequency (30.2 percent) or with enough difference within pairs to make it a significant finding. However, it does clarify and enrich the interpretations of the mean evaluations.

Results of Hypothesis 7: General. Significant differences are found when wives' and husbands' specific affective evaluations

of clothing-by-criteria are contrasted. Six of the eight contrasts were found to be significant, and Table 49 displays these results. A 95 percent confidence interval for the difference mean was calculated for each significant result.

In all cases husbands' specific evaluations were higher than their wives. Only in the case of clothing-by-freedom from bother and annoyance and clothing-by-safety were the differences not significant. Each specific contrast is discussed below in the order of appearance in the matrix.

Clothing-by-Standard of Living. Why are wives less pleased than husbands with the effect of clothing on their level of living? Whereas an almost equal number of responses were coded for women and men with respect to standards of clothing quantity, quality, and adequacy, more women than men mentioned the desirability of being able to have, provide, or buy what they need, want, or like. No attempt has been made in this study to determine the characteristics of those who mentioned needs versus those who mentioned wants or likes.

Another explanation may be that wives are more aware of the cost of clothing and its effect on money available for other family needs. Many more responses regarding clothing financial management were given by women than men. Some wives attempted to reduce clothing expenditures by making clothes. Some mentioned spending a great deal of time shopping around to "get the most from the dollar." Many women, particularly those who were employed, expressed concern that they did not have enough time

TABLE 49.--Results of Matched Pair T-Tests for Differences in Means of Husbands' and Wives' Affective Evaluations of Clothing with Respect to Eight Criteria

Affective Evaluation of Clothing By	Valid Cases (N)	Husbands' Mean ($\bar{x}_h$)	Wives' Mean ($\bar{x}_w$)	Difference Mean ($\bar{x}_d$)	Standard Deviation	Standard Error	Test Statistic (t)	Tabled $t_{(.95;\ N-1)}$	Two-tailed Probability	95% Confidence Interval	Pearson r
Standard of Living	75	5.03	4.68	.35	1.49	.17	2.01*	2.00	.048	$.01 \leq \mu_d \leq .69$	.192
Fun	67	5.25	4.77	.48	1.40	.17	2.80*	2.00	.007	$.14 \leq \mu_d \leq .82$	.144
Independence or Freedom	54	5.39	4.96	.43	1.24	.17	2.53*	2.02	.014	$.09 \leq \mu_d \leq .77$	.381
Beauty and Attractiveness	71	5.07	4.63	.44	1.48	.18	2.48*	2.00	.015	$.08 \leq \mu_d \leq .80$	.174
Freedom from Bother and Annoyance	58	5.09	4.93	.16	1.65	.22	.72	2.02	.477	Not Applicable	.053
Safety	44	5.34	5.18	.16	1.40	.21	.76	2.02	.454	Not Applicable	-.044
Accomplishing Something	68	5.48	4.82	.66	1.43	.17	3.81*	2.00	.000	$.32 \leq \mu_d \leq 1.00$	.154
Acceptance and Inclusion by Others	80	5.09	4.65	.44	1.56	.17	2.51*	2.00	.014	$.10 \leq \mu_d \leq .78$	.218

*Significant at $\alpha = .05$.

to sew and shop for sale items. Both women and men expressed dissatisfaction with the high cost of clothing.

Clothing-by-Fun. There are virtually no clues to the difference in husbands' more positive views than wives' about clothing with respect to the fun it enables them to have. Only one open-ended response from a woman who enjoyed socializing with others addressed this value. Without knowing what constitutes fun in clothing, it is difficult to account for the difference.

Clothing-by-Independence or Freedom. Only a few more responses from men than women addressed the desire or condition of being free from social pressure or the dictates of the fashion industry with regard to their clothing habits. It is generally believed that women have a greater variety in selection and freedom in the types of apparel to be worn than do men. Men often must meet their employer's or occupation's dress standards. (As women become employed, this will be true for them as well.) In addition, they do not have the option in this culture of wearing both skirts and slacks as women do. Thus, the lower evaluation of clothing-by-independence or freedom by women is difficult to explain. Perhaps women feel social status pressures more so than do men or they may not feel free to be able to purchase what they would like. Clarification of the components of wives' evaluation of clothing-by-independence or freedom is warranted because of its high predictive power for overall clothing evaluations (beta = .52) for some women.

Clothing-by-Beauty and Attractiveness. In comparison to other clothing-by-criterion evaluations, husbands are less satisfied with clothing with respect to beauty and attractiveness than with most others (with the exception of standard of living), and wives are least satisfied with the beauty and attractiveness they enjoy in their clothing.

More verbal responses by women addressed this criterion than the others; and, for men, this value elicited responses second only to standard of living.

The reason for the difference in evaluations is most likely due to wives' dissatisfaction with their weight and their view that the current fashions are unbecoming. Husbands' reasons tended to be more positive particularly with respect to the neat appearance they can achieve. Some men expressed dissatisfaction with weight (much fewer than women) and also with the fit of their clothing.

What constitutes the American adult man's and woman's present ideal of beauty? Apparently, whatever it is, women find it more difficult to achieve than do men; or they are more dissatisfied than men when they don't achieve it. Further, women may have higher aspirations with respect to beauty and attractiveness than do men because of social conditioning processes and large amounts of fashion advertising to which they are continually exposed. When responding on satisfaction scales, they are thus more likely to use the low end. One may hypothesize, however, on the basis of this dissatisfaction and potentially higher achievement motivation that women's ratings on objective indicators of clothing with

respect to beauty may be higher than men's. Finally beauty and attractiveness are words with feminine connotations and may have been interpreted quite differently by women and men.

Clothing-by-Freedom from Bother and Annoyance. Although there is no significant difference between the somewhat higher evaluation of clothing with respect to freedom from bother by husbands than wives, some husbands mentioned the shopping and cleaning services provided by the wife. Although clothing care is still predominantly a female activity as pretest results suggested, the ease of clothing care provided by equipment and man-made fibers may indeed free the wife from bother and annoyance.

Clothing-by-Safety. Apparently both wives and husbands are fairly satisfied with the safety offered by their clothing. Occupational clothing hazards may not be relevant for this group of people as it would be for firefighters, construction workers, and those working with radioactive materials, for example. Clothing flammability issues are only beginning to be directed toward adults by government.

Clothing-by-Accomplishing Something. By far the greatest difference occurred for clothing-by-accomplishing something. Given this result and the importance of this value criterion as a predictor of the subsample of women's general evaluations of clothing (beta = .46), one may speculate that wives may not have the clothing required to carry on the activities which will facilitate the realization of this value. One wife, in response to the open-ended

clothing question (item 1.15b), commented "I am in-between careers--going from full-time mother to part-time teaching." Her general evaluation of clothing was 4 = Mixed on the D-T Scale.

Clothing-by-Acceptance and Inclusion by Others. Very close to beauty and attractiveness are the evaluations of clothing's effect on acceptance and inclusion by others ($\bar{x}_{wives}$ = 4.65; $\bar{x}_{husbands}$ = 5.09). This criterion's importance for the prediction of women's feelings about acceptance and inclusion in general is great (beta = .48).

In responses elicited from the spouses, several mentioned the requirement of presenting a socially acceptable appearance at the basic minimum ("My wife picks it out and she has great taste. Clothing is not all that important to me--just that I look presentable.") Some are more emphatic: "I think clothing is a very important part which people use to judge you." Perhaps wives have higher standards of what constitutes an acceptable and presentable appearance than do their husbands. Or, perhaps, women are engaged in more contacts with strangers (e.g., school administrators and teachers, sales and service personnel, physicians) than are their husbands and thus are more conscious of judgments. One could, however, suggest that employed men may come in contact with new clients, other business persons, and so on.

Is this lower evaluation by wives characteristic of a more pervasive concern for acceptance than is so for men? The two betas for the prediction of perceived overall quality of life by acceptance and inclusion would not lend much affirmative support

to this question (women's beta = .10, p = .267; men's beta = .07, p = .406). Once again the results of this study show where more thorough investigation is needed to clarify the relationships and differences found.

Substantive questions. The general pattern of higher affective evaluations of clothing-by-criteria by husbands than by wives prompts one to speculate as to the cause(s). Are husbands more successful than their wives in the implementation of these value criteria in the clothing domain because of the distribution of clothing resources? Are the wife-husband differences reported here reflective of situations which occur within families and/or of sexual differences in the perceptions of and attitudes toward clothing? Perhaps women have a wider gap between their aspirations and what they are able to achieve in the clothing domain than do men. Such an explanation would be consistent with the aspiration-achievement theory proposed by Campbell et al. (1976).

Does the overall evaluation of clothing (or perhaps any domain) color all domain-by-criterion evaluations in the same way? One methodological observation should be noted here. The manner in which domain-by-criterion questions are asked is tedious and boringly repetitive for respondents. Some respondents either could not make the fine discriminations required by these items or they developed a response set using the same scale response within a given domain. This tendency did not predominate for the majority of the sample, but it did occur with enough frequency to cause some concern about the validity of the items.

Hypothesis 8: Perceptual Structures of Life Concerns and Proximity of Clothing to Self

First, the perceptual structures of the entire sample of women and men are presented separately and interpreted. Following this the sample is divided on the basis of their scores on the Proximity of Clothing to Self Scale, and the changes in the perceptual structures are analyzed. The Pearson correlation matrices for the six analysis groups are found in Appendix F. The gamma statistic defined in Chapter III, in conjunction with an inspection of multidimensional scaling and cluster results, was used to test the following hypothesis:

H_8: On a map of the perceptual structure of life concerns, clothing is in closer proximity to the self for high scorers on the Proximity of Clothing to Self Scale than for low scorers.[1]

Representation of dimensional scaling results. The three-dimensional solutions were chosen for representation of the multidimensional scaling results for two reasons: (1) stress indices were substantially lower than those obtained with two-dimensional solutions, and (2) cluster results fit as well and in some cases better in three- than in two-dimensional solutions.

In the figures, the coordinate of the third dimension is represented by the positive or negative value within the circle of

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[1]High scorers include those who were assigned scores of two or three on the PCS Scale on the basis of their response to item 1.15b. Low scorers include those with scores of one on the PCS Scale, those who gave no response to item 1.15b, and those whose response did not meet the scale criteria.

each domain and criterion. One can visualize the third dimension as projecting above and below the plane of the paper passing through the origin. Coordinates in all three dimensions were translated so as to position POQL (life-as-a-whole) at the origin.

The most interpretable dimensions have been chosen for representation in the plane of the figure along the abscissa and ordinate. Very thorough study and comparison of the arrangement of life concerns in space among the analysis groups have governed the selection of the dimensions to represent. In some cases, axes have been reflected 180 degrees and/or rotated 90 degrees to facilitate comparison among groups. No conclusive interpretation of the ordering of concerns along the third dimension could be made.

Perceptual structure of life concerns for all women. The dimensional scaling and cluster results for all women are represented in Figure 15. The history of the cluster partitioning is shown by successively embedded curves.[1]

The fact that clothing clusters with the domain of the self ($r = .49$) and with accomplishing something, fun, an interesting day-to-day life, and the extent to which social and emotional needs are met provides evidence that clothing is not perceived as similar to housing.[2] This result is in contrast to that obtained by a

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[1]The innermost closed curve contains life concerns which joined first at a smaller diameter than did those within successive outwardly progressing curves.

[2]The dashed curve which joins clothing to the cluster which contains the self, accomplishing something, fun, an interesting life, and the extent to which social and emotional needs are met

Fig. 15. Nonmetric multidimensional scaling configuration for life-as-a-whole (POQL) and twenty-four life concerns for all women.

LEGEND: Hierarchical clustering solution is embedded in three-dimensional scaling solution. Value for the third dimension is given in the circle for each life concern. POQL is at the origin. Kruskal stress index = .153. Pearson correlation matrix is given in Table F-2.

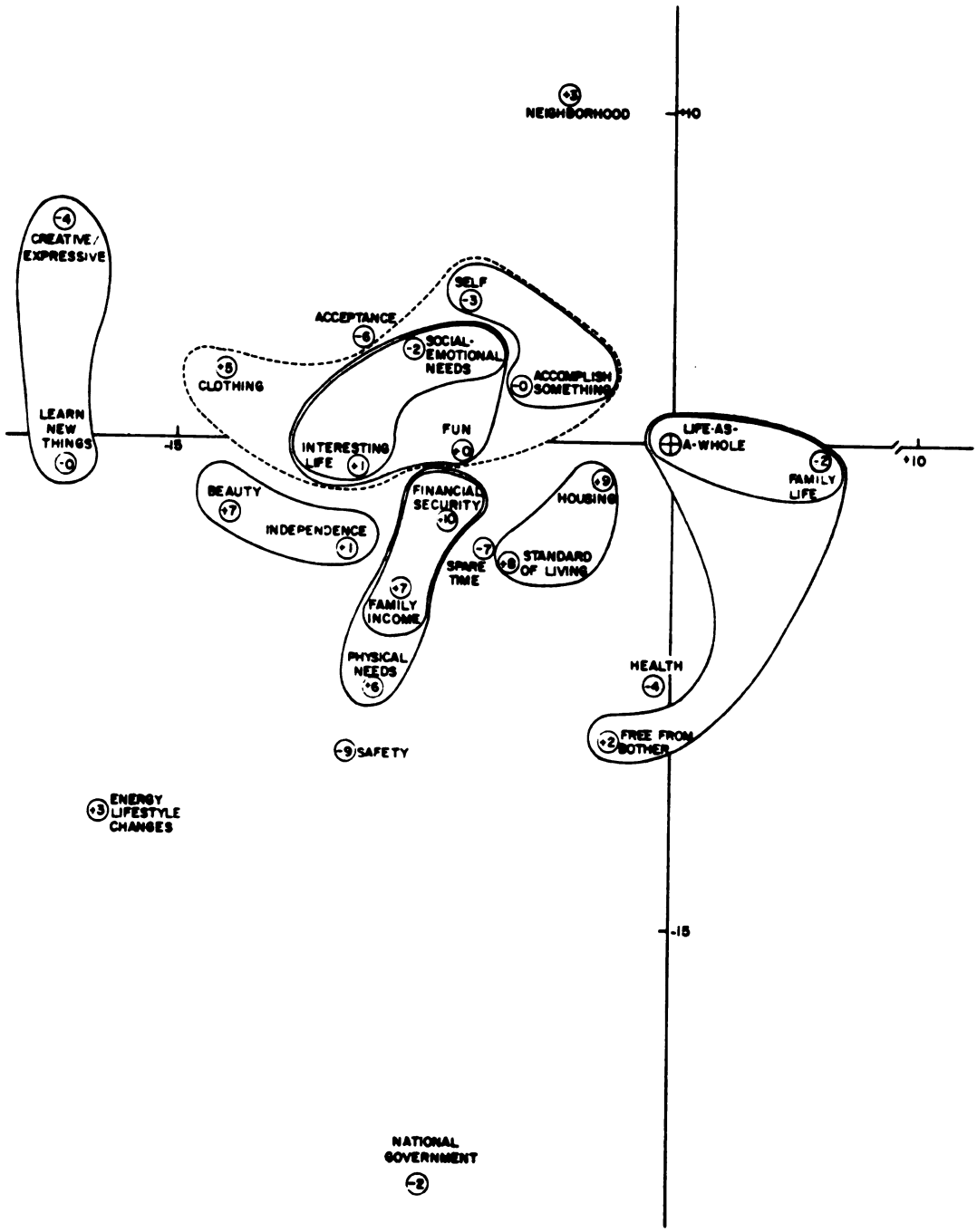
NEIGHBORHOOD
+10
CREATIVE/ EXPRESSIVE
SELF
ACCEPTANCE
SOCIAL-EMOTIONAL NEEDS
CLOTHING
ACCOMPLISH SOMETHING
LEARN NEW THINGS
-15
INTERESTING LIFE
FUN
LIFE-AS-A-WHOLE
+10
FAMILY LIFE
BEAUTY
FINANCIAL SECURITY
HOUSING
INDEPENDENCE
SPARE TIME
STANDARD OF LIVING
FAMILY INCOME
PHYSICAL NEEDS
HEALTH
FREE FROM BOTHER
SAFETY
ENERGY LIFESTYLE CHANGES
-15
NATIONAL GOVERNMENT

Figure 15

sorting experiment conducted by Andrews and Withey (1976) and shown previously in Figure 12.

Although not linked immediately with the self, clothing is, however, apparently perceived by women as a domain in which one can have fun (r = .41) and maintain an interesting life (r = .50) at the same time as having one's social and emotional needs met (r = .49) and accomplishing things (r = .35). Although not in the cluster but near to clothing in the multidimensional space is acceptance and inclusion by others (r = .30), a value criterion which was realized by implementation within the clothing domain.

Other clusters follow logically from the multiple regression results. Joining with feelings about life-as-a-whole are family life (r = .63) and freedom from bother and annoyance (r = .40), the domain and criterion found to be the best predictors of POQL for women.

Housing and standard of living cluster together (r = .65). This suggests that the residential environment is a visual manifestation of one's level of living, and one's level of living is also frequently constrained by housing costs. Financial security is obtained from family income which women perceive as meeting their physical needs.

The organization of concerns along the horizontal axis (i.e., the order of their occurrence as one goes from right to left) may represent penetration of the self into a broadening environment

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indicates that clothing joined this cluster at a larger diameter (.64) than the criterion diameter values (.47 to .60) specified in Chapter III.

or, perhaps, organization of self in the environment. In view of this label for the horizontal dimension, the cluster of beauty and attractiveness with independence or freedom (r = .48) is an interesting union. Women who have positive feelings about being independent and free may rely on a beautiful and attractive appearance for psychological support for achievement of independence; or, alternatively, those who are surrounded by a beautiful and attractive environment (for example, housing, neighborhood, community, clothing) may have a greater opportunity or the resources to be independent and free.

The degree to which women feel they can be creative and expressive is coupled closely with the opportunity they have to learn new things or be exposed to new ideas (r = .51). Somewhat on the periphery are neighborhood, national government, and changes in lifestyle due to energy conservation.

Summarizing the horizontal dimension from right to left, the concerns of family life, freedom from bother, housing, and neighborhood constitute aspects of private life within which women have traditionally held responsibility. Feelings about the self, accomplishing things, and having an interesting life are not linked closely with family life and neighborhood. Rather these concerns seem to straddle a boundary between family life and housing and a more independent existence that provides social and educational opportunities. The link may be spare time activities which stands as a separate domain closely centered along this dimension. This structure may portray the changes occurring with the position of

women in society today. Thus, although family life is the most significant predictor of perceived life quality, the woman's self is perceived as extending beyond this domain.

The identification of structure taking the life concerns in order from top to bottom along the ordinate (vertical axis) is somewhat ambiguous. With the exception of the position of neighborhood, one would be tempted to identify the dimension as psychological closeness. The self is surrounded by internal value criteria and needs for self-definition, expression, acceptance, and accomplishments. Clothing is the first external environment of the individual followed by family life and housing. Feelings of financial security are derived from the resource of family income. Safety, energy lifestyle changes, and finally national government constitute more remote aspects of the environment. But because of the position of neighborhood (which one would have expected to be positioned around housing or safety), no conclusive identification of this dimension as psychological closeness can be made with confidence.[1]

Perceptual structure of life concerns for all men. The men present quite a different structure of perceptions. The results for the entire sample of men are illustrated in Figure 16. Central

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[1]One professional colleague, Kathryn Rettig, has suggested that neighborhood may indeed be psychologically close to the self for women, particularly those who are not employed for pay. The neighborhood may be a source of friends and companions who contribute information and supportive resources. Thus, neighborhood may be both a primary social and primary resource environment for women, whereas for men it may be a secondary environment.

Fig. 16. Nonmetric multidimensional scaling configuration for life-as-a-whole (POQL) and twenty-five life concerns for all men.

LEGEND: Hierarchical clustering solution is embedded in three-dimensional scaling solution. Value for the third dimension is given in the circle for each life concern. POQL is at the origin. Kruskal stress index = .138. Pearson correlation matrix is given in Table F-5.

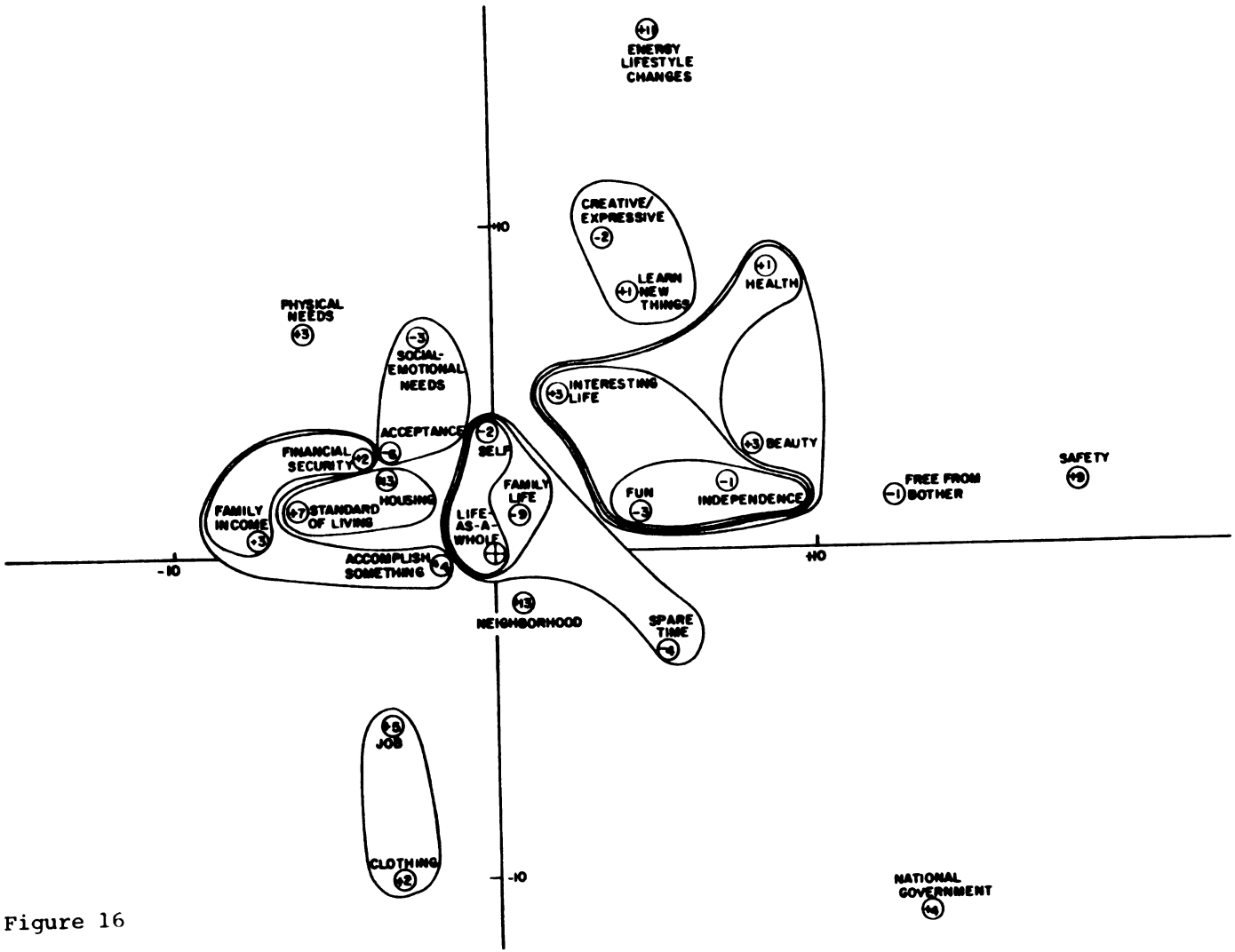

+11
ENERGY LIFESTYLE CHANGES
CREATIVE/ EXPRESSIVE
-2
+1
LEARN NEW THINGS
+1
HEALTH
+10
PHYSICAL NEEDS
+3
-3
SOCIAL-EMOTIONAL NEEDS
+3
INTERESTING LIFE
ACCEPTANCE
-2
SELF
+3
BEAUTY
FINANCIAL SECURITY
+2
+3
HOUSING
FAMILY LIFE
-9
FUN
-3
-1
INDEPENDENCE
SAFETY
+8
-1
FREE FROM BOTHER
FAMILY INCOME
+3
+7
STANDARD OF LIVING
LIFE-AS-A-WHOLE
-10
+10
ACCOMPLISH SOMETHING
-4
+13
NEIGHBORHOOD
SPARE TIME
-4
+8
JOB
CLOTHING
+2
-10
NATIONAL GOVERNMENT
+4

Figure 16

to their perception of life quality are feelings about the self (r = .67) and then family life (r = .60). Somewhat more distant is spare time activities (r = .52). Whereas women's feelings about family life were not closely associated with feelings about spare time activities (r = .26), for men the association is more direct (r = .42).

Clothing clusters with feelings about the job (r = .42) which provides some basis for understanding the potential importance of accomplishing something as a criterion for the evaluation of clothing by some men (beta = .30; p = .170). The image which men present and perhaps the comfort clothing provides may facilitate the achievement of their goals.

The clusters on the left side of the figure seem to address the concepts of public roles, responsibility, and resource acquisition. The clusters on the right suggest private or personal roles, relaxation, and self-development. Having fun is closely linked with having independence and an interesting life. Although not within the cluster, being free from bother is relatively close to independence (r = .55). One could again label the <u>horizontal dimension</u> as organization of the self in the environment, but the organization seems to be in terms of personal or private, familial, and public roles as one proceeds from right to left.

The alternative label which is almost as convincing is degree of responsibility. Provision of family income is closely linked with feelings of financial security (r = .71), and both are very close in perception to achieving their standard of living particularly through housing. The fact that social-emotional needs

and acceptance by others are closely related in space to these domains suggests the social pressures on men to achieve in the job and provide the financial resources for the family. As one proceeds to the right, responsibilities decrease, and life becomes fun and interesting. One should note that men's perceptions about their job are not very closely related to their feelings about what constitutes an interesting day-to-day life ($r = .39$). Since the job domain was not included in the women's analysis, this relationship is not mapped for women.

If the vertical dimension is psychological closeness, clothing is definitely not psychologically close to the self. In fact, it would be almost as psychologically distant as national government. On the men's map, neighborhood is in a better position to support this label than it is on the women's map. But the position of changes in the family's lifestyle due to energy conservation seems inconsistent with this label.

Domains are oriented in the lower half of the figure, whereas criteria predominate in the upper half. Perhaps this axis represents values and needs versus resources, or criteria versus domains. This interpretation is not true for women since needs and values are more closely integrated with the domains on this axis.

Results of Hypothesis 8. The next step in the analysis was to divide the women and men into two groups each, based on their scores on the Proximity of Clothing to Self Scale as previously described. A crosstabulation of wives' and husbands' scores on

the PCS Scale is given in Table 50. Half of the sample of wives' responses (N = 58) were assigned scores on the scale; that is, the content of their responses to "What are some of the most important reasons why you feel as you do about your clothing?" included some reference to the proximity of clothing to self as defined by the scale criteria. The content of the responses of fifty-six wives did not meet the scale criteria and were coded off scale. Only two did not respond to the question. Of the husbands, forty-four (37.9 percent) gave a response which met the scale criteria. Slightly over half (50.9 percent) did not, and thirteen (11.2 percent) men did not respond to the question. As the table shows, there were few wife-husband pairs who viewed clothing similarly in terms of its relationship to self.

Figure 17 illustrates the perceptual structure of wives who were assigned scores of 2 or 3 on the PCS Scale (high scorers: N = 49). Figure 18 gives the perceptual structure of women who scored 1 on the PCS Scale, who were not assigned an on-scale score or who gave no answer to item 1.15b (low scorers: N = 67).

Amazingly strong is the correlation between clothing and the self for the high-scoring women ($r = .71$, $p = .001$), the close proximity of these two life concerns in space, and their immediate clustering. In contrast, low scorers do not perceive clothing as close to the self ($r = .25$, $p = .058$) as they do to housing ($r = .49$, $p = .001$) and standard of living ($r = .57$, $p = .001$). These results provide considerable evidence for the construct validity of the PCS Scale.

TABLE 50.--Crosstabulation of Wives' and Husbands' Scores for the Proximity of Clothing to Self Scale

Husbands	Wives: 1	2	3	Off-Scale	No Answer	Row Total (%)
1	0	1	0	3	0	4 (3.4)
2	2	4	2	17	0	25 (21.6)
3	1	4	2	8	0	15 (12.9)
Off-Scale	6	14	14	24	1	59 (50.9)
No Answer	0	4	4	4	1	13 (11.2)
Column Total (%)	9 (7.8)	27 (23.3)	22 (19.0)	56 (48.3)	2 (1.7)	116 (100.0)

NOTE: A score of 1 corresponds essentially to denial of proximity of clothing to self; a score of 3 corresponds to a relatively strong recognition of the proximity of clothing to self. Responses were coded off scale if the content of the response did not meet the criteria of the scale.

Fig. 17. Nonmetric multidimensional scaling configuration for life-as-a-whole (POQL) and twenty-four life concerns for women with high scores on the Proximity of Clothing to Self Scale.

LEGEND: Hierarchical clustering solution is embedded in three-dimensional scaling solution. Value for the third dimension is given in the circle for each life concern. POQL is at the origin. Kruskal stress index = .145. Pearson correlation matrix is given in Table F-3.

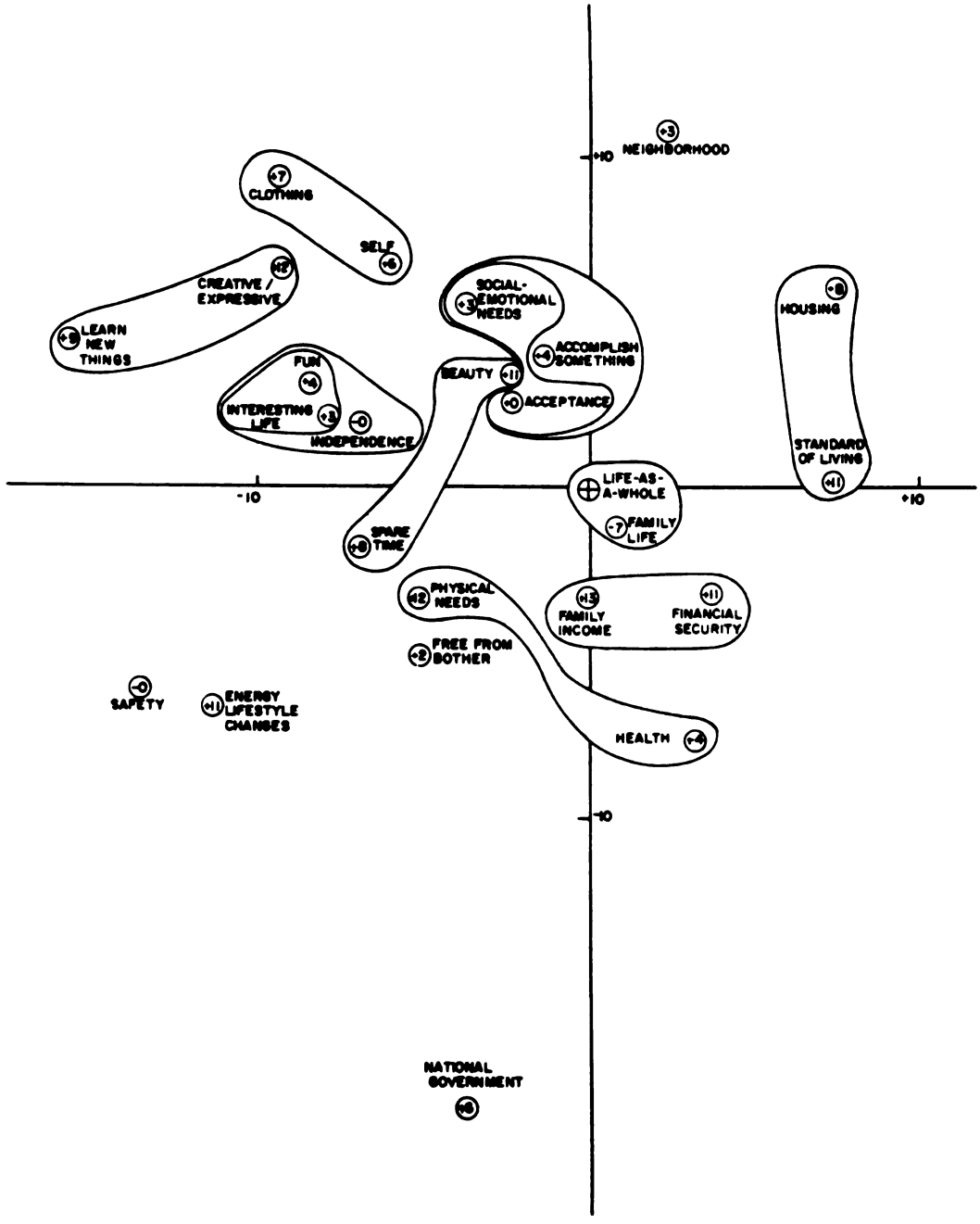

+10
NEIGHBORHOOD
CLOTHING
SELF
CREATIVE / EXPRESSIVE
LEARN NEW THINGS
SOCIAL-EMOTIONAL NEEDS
ACCOMPLISH SOMETHING
HOUSING
FUN
BEAUTY
ACCEPTANCE
INTERESTING LIFE
INDEPENDENCE
STANDARD OF LIVING
-10
+10
LIFE-AS-A-WHOLE
FAMILY LIFE
SPARE TIME
PHYSICAL NEEDS
FAMILY INCOME
FINANCIAL SECURITY
FREE FROM BOTHER
SAFETY
ENERGY LIFESTYLE CHANGES
HEALTH
-10
NATIONAL GOVERNMENT

Figure 17

Fig. 18. Nonmetric multidimensional scaling configuration for life-as-a-whole (POQL) and twenty-four life concerns for women with low scores on the Proximity of Clothing to Self Scale.

LEGEND: Hierarchical clustering solution is embedded in three-dimensional scaling solution. Value for the third dimension is given in the circle for each life concern. POQL is at the origin. Kruskal stress index = .164. Pearson correlation matrix is given in Table F-4.

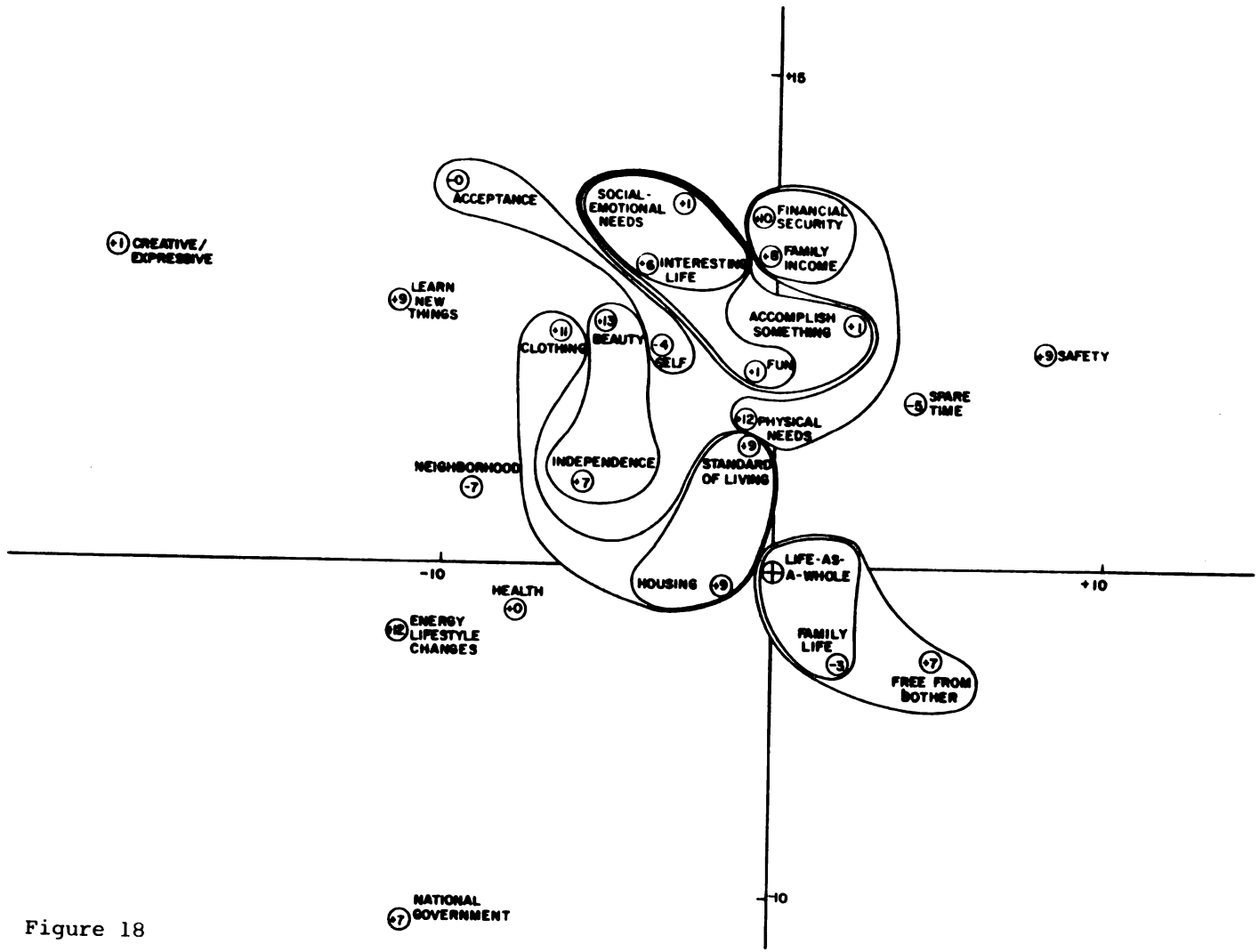

+15
-10
+10
-10
ACCEPTANCE
-0
SOCIAL-EMOTIONAL NEEDS
+1
FINANCIAL SECURITY
+10
FAMILY INCOME
+8
INTERESTING LIFE
+6
CREATIVE/EXPRESSIVE
+1
LEARN NEW THINGS
+9
ACCOMPLISH SOMETHING
+1
CLOTHING
+11
BEAUTY
+13
SELF
-4
FUN
+1
SAFETY
+9
SPARE TIME
-5
PHYSICAL NEEDS
+12
STANDARD OF LIVING
+9
NEIGHBORHOOD
-7
INDEPENDENCE
+7
LIFE-AS-A-WHOLE
HOUSING
+9
HEALTH
+0
ENERGY LIFESTYLE CHANGES
+12
FAMILY LIFE
-3
FREE FROM BOTHER
+7
NATIONAL GOVERNMENT
+7

Figure 18

Being creative and expressive is more closely linked with clothing ($r = .46$) and the self ($r = .59$) for the high scorers whereas for the low scorers, these relationships are close to zero ($r = .04$ and $.06$ respectively). For the low scorers feelings about self are linked with acceptance and inclusion by others ($r = .46$). For the high scorers, the correlations between clothing and fun ($r = .50$), clothing and beauty ($r = .45$), and clothing and the extent to which social and emotional needs are met ($r = .36$) are all higher than for low scorers. The values of these correlations for the latter are .40, .37, and .04 respectively.

For wives the value of Γ under the null hypothesis was 3.59 standard deviation units above its mean. Using the Cantelli inequality, the probability that Γ under the null hypothesis is more than 3.59 standard deviation units above its mean is less than or equal to .072. Whereas this leads one to question the validity of the null hypothesis, the null hypothesis is not rejected. One may conclude that the two matrices have somewhat different patternings of high and low entries. This result, together with the results of multidimensional scaling and cluster analyses, lend support to Hypothesis 8 that perceptually clothing is in closer proximity to the self for women who have high scores on the PCS Scale than for those with low scores.

The same result was found to be true for men. The value of Γ was 3.58 standard deviation units above its mean. Again using the Cantelli inequality, the probability that Γ under the null hypothesis is greater than 3.58 standard deviation units

above its mean is less than or equal to .072. The same conclusion was reached with regard to the null hypothesis for men as was for women.

The perceptual structures for the male high and low scorers are illustrated in Figures 19 and 20 respectively. Unlike high-scoring women, however, clothing clusters first with fun ($r = .59$) and then with beauty and attractiveness ($r = .65$), an interesting life ($r = .57$), and independence ($r = .54$) for high-scoring men.

Clothing is less strongly related to feelings about the self ($r = .44$, $p = .004$) for high-scoring men than for high-scoring women ($r = .71$). However, the dramatic shift of the clothing domain for high-scoring men (in comparison to all men) does bring it substantially closer to the self than for low-scoring men ($r = .26$, $p = .048$). For the latter, clothing remains close to feelings about the job ($r = .40$, $p = .002$), the pattern that predominated for the entire sample of men. A stronger association exists between clothing and accomplishing something for high scorers ($r = .57$, $p = .001$) than for low scorers ($r = .31$, $p = .017$).

Whereas low-scoring men's social and emotional needs and feelings of acceptance and inclusion are closely aligned with the family, this does not appear to be true for high-scoring men. Rather the latter perceive fulfillment of these needs at some distance from the family, perhaps with one's neighbors or occupational cohorts. Family life is more intimately linked with spare time ($r = .60$) for these men (high scorers).

Fig. 19. Nonmetric multidimensional scaling configuration for life-as-a-whole (POQL) and twenty-five life concerns for men with high scores on the Proximity of Clothing to Self Scale.

LEGEND: Hierarchical clustering solution is embedded in three-dimensional scaling solution. Value for the third dimension is given in the circle for each life concern. POQL is at the origin. Kruskal stress index = .139. Pearson correlation matrix is given in Table F-6.

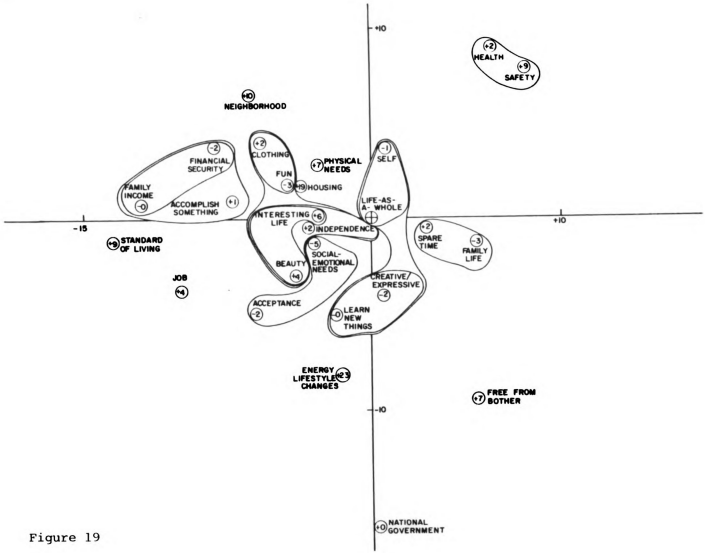

+10
-10
-15
+10
(+2) HEALTH
(+9) SAFETY
(+0) NEIGHBORHOOD
(-2) FINANCIAL SECURITY
(+2) CLOTHING
(+7) PHYSICAL NEEDS
(-1) SELF
FAMILY INCOME
(-0)
ACCOMPLISH SOMETHING
(+1)
FUN
(-3)
(+0) HOUSING
INTERESTING LIFE
(+6)
LIFE-AS-A-WHOLE
(+2) INDEPENDENCE
(+2) SPARE TIME
(-3) FAMILY LIFE
(+0) STANDARD OF LIVING
(-5) SOCIAL-EMOTIONAL NEEDS
BEAUTY
(+4)
JOB
(-4)
CREATIVE/ EXPRESSIVE
(-2)
ACCEPTANCE
(-2)
(-1) LEARN NEW THINGS
ENERGY LIFESTYLE CHANGES
(-3)
(+7) FREE FROM BOTHER
(-0) NATIONAL GOVERNMENT

Figure 19

Fig. 20. Nonmetric multidimensional scaling configuration for life-as-a-whole (POQL) and twenty-five life concerns for men with low scores on the Proximity of Clothing to Self Scale.

LEGEND: Hierarchical clustering solution is embedded in three-dimensional scaling solution. Value for the third dimension is given in the circle for each life concern. POQL is at the origin. Kruskal stress index = .133. Pearson correlation matrix is given in Table F-7.

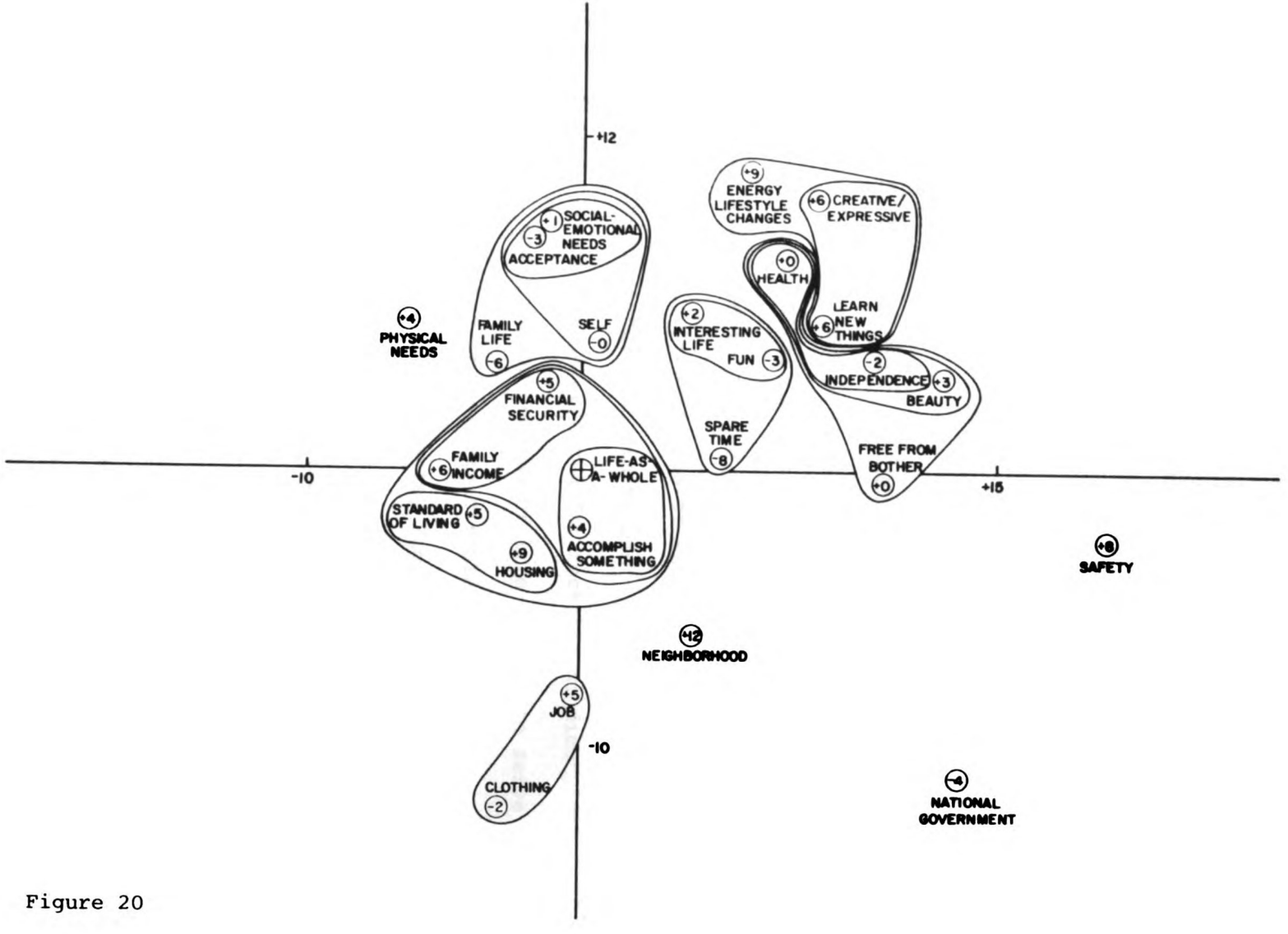

+12
-10
+15
-10
+1
SOCIAL-EMOTIONAL NEEDS
-3
ACCEPTANCE
FAMILY LIFE
-6
SELF
-0
+4
PHYSICAL NEEDS
+5
FINANCIAL SECURITY
+6
FAMILY INCOME
STANDARD OF LIVING
+5
+9
HOUSING
LIFE-AS-A-WHOLE
+4
ACCOMPLISH SOMETHING
+5
JOB
CLOTHING
-2
+12
NEIGHBORHOOD
+9
ENERGY LIFESTYLE CHANGES
+6
CREATIVE/ EXPRESSIVE
+0
HEALTH
+2
INTERESTING LIFE
FUN
-3
+6
LEARN NEW THINGS
-2
INDEPENDENCE
+3
BEAUTY
SPARE TIME
-8
FREE FROM BOTHER
+0
+8
SAFETY
-4
NATIONAL GOVERNMENT

Figure 20

The concept of organization of self in the environment according to social roles seems to be a more accurate label of the horizontal dimension for the high-scoring men than is degree of responsibility particularly with the shift of family life to the far right. Interestingly enough, however, for low scorers family life shifted to the far left, the side of high responsibility as previously described.

The radex interpretation of scaling results. Levy and Guttman (1975) have proposed a circular interpretation of multidimensional scaling results. The radex theory of life satisfaction has been fully described in Chapter II. Shepard (1974) has suggested that a circular interpretation of such results is as inviting as interpretation of rectilinear dimensions. From an inspection of the figures previously interpreted for rectilinear dimensions, one can see that the areas or domains of life do seem to serve as a polarizing facet if one proceeds in circular fashion around life-as-a-whole at the origin. For example, Figure 20 for low-scoring husbands shows this progression clearly. Beginning with the area of the family and proceeding clockwise, the areas of self, life-style, health, education, spare time, government, neighborhood, job, clothing, housing, and economy follow in succession around the circle until one returns again to the family.

One modulating facet which may govern the distance from the origin outward along a particular radius may be the environment: primary (internal, social, and resource) and secondary. For the dimensions represented in the six figures of this study, however,

this interpretation is clearly not without ambiguity. Further analysis of the patterns of correlations among the life concerns and comparisons of the axes in two-dimensional solutions for the six analysis groups is warranted before further conclusions about the fit of Guttman's radex theory of well-being to these data can be made. For example, some dimension of values may serve as a modulating facet or, perhaps, different modulating facets may be operative in various life areas.

Additional contrasts for high and low scorers on the PCS Scale. Since the structure of perceptions differed for both women and men according to their scores on the PCS Scale, additional contrasts of the groups were made. Although the two groups of women did not differ in median family income, 59 percent of the high-scoring men had incomes above the median family income category ($25,000-$29,999) compared to only 28.9 percent of the low-scoring men.

There were no differences in the median education levels (high school graduates) of the two groups of women, but high-scoring men were more highly educated than low-scoring men. Fifty-five percent of the high-scoring men had college degrees or better compared to only one-third of the low-scoring men.

Of the high-scoring women 32.6 percent said clothing was of high or very high importance to them, whereas only 16.9 percent of the low-scoring women said this. The respective proportions for the two groups of men were 35.0 and 24.0 percent. Thus,

high scorers tended to acknowledge that clothing was highly important to them to a greater degree than did low scorers.

On the Index of Personal Competence, a somewhat larger proportion of low-scoring women (28.3 percent) were internally controlled (Index = 4) than was true for high-scoring women (16.3 percent). The differences do not seem substantial. For men, there was virtually no difference between groups on this variable. The respective proportions were 24.3 and 28.2 percent.

Table 51 further summarizes differences and similarities between the two groups. Immediately striking is the higher average POQL rating for both women and men who perceive the proximity of clothing to self. An independent t-test for differences between the two groups on this variable showed that the difference in POQL was significant for women ($p = .04$) but not for men ($p = .25$). The correlations between POQL and clothing are also higher for people who perceive clothing in close relation to the self. For high scorers, the correlation (r) is .36 for women ($p = .014$) and .45 for men ($p = .004$). For low scorers the correlation is .16 for women ($p = .218$) and .34 for men ($p = .007$).

High-scoring men were employed in occupations with higher prestige ($\bar{x} = 52.6$) than were low-scoring men ($\bar{x} = 46.2$). The difference was not as large for the two groups of women. Both groups of women and of men did not vary widely in their feelings about themselves. Thus, although clothing is perceived closer to the self by the high scorers, the effect on self-feeling does not appear to be great.

TABLE 51.--Means and Standard Deviations of Selected Variables Descriptive of Differences and Similarities between Groups Classified by Scores on the Proximity of Clothing to Self (PCS) Scale

Variable	Women				Men			
	High PCS		Low PCS		High PCS		Low PCS	
	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
Life-as-a-whole (POQL)	5.5	.7	5.2	.8	5.4	.8	5.2	.9
Self-Esteem	5.0	1.2	5.0	1.2	5.3	1.0	5.1	1.1
Age	38.3	7.2	38.1	7.2	40.0	8.0	40.3	7.9
Occupational Prestige	42.6[a]	13.6	40.8[a]	17.4	52.6	11.5	46.2	11.6
General Life Concerns:								
Self	5.1	1.1	5.0	.9	5.3	.9	5.2	1.2
Clothing	4.9	1.2	4.8	1.0	5.3	.8	5.0	1.0
Family Life	5.7	.9	5.6	1.1	5.9	.8	5.9	.9
Job	5.2[b]	1.0	5.0[b]	1.3	5.2	1.4	4.9	1.3
Family Income	4.9	1.2	4.8	1.3	5.0	1.1	4.8	1.3
Standard of Living	5.4	.9	5.3	1.1	5.4	1.0	5.2	1.1
Fun	5.0	1.0	4.8	1.2	4.7	1.0	4.8	1.2
Beauty	4.9	.7	5.0	.9	4.7	1.2	4.8	1.2
Accomplishing Something	5.1	1.1	4.7	1.0	5.2	.9	4.8	1.3
Acceptance and Inclusion	5.5	.9	5.4	.9	5.4	1.0	5.4	.8
Creative/Expressive	5.1	1.2	5.2	1.1	5.2	1.2	5.1	1.3
Social and Emotional Needs Met	5.4	1.0	5.2	1.1	5.2	.9	5.2	1.0
Physical Needs Met	5.6	.8	5.6	1.2	5.7	.7	5.5	.8
Clothing by:								
Standard of Living	4.6	1.2	4.6	1.2	5.3	1.0	4.8	1.1
Fun	4.6	1.2	5.0	.9	5.2	1.2	5.2	1.0
Independence/Freedom	4.8	1.2	5.0	1.3	5.2	1.1	5.1	1.0
Beauty	4.5	1.3	4.7	1.2	5.2	1.1	4.8	1.1
Freedom from Bother	4.7	1.2	5.0	1.2	5.0	1.1	5.2	1.1
Safety	4.7	1.3	5.4	1.0	5.3	.8	5.3	1.0
Accomplishing Something	4.6	1.0	5.0	1.2	5.6	.8	5.2	1.0
Acceptance and Inclusion	4.6	1.2	4.7	1.5	5.1	1.0	4.9	1.2

NOTE: N based on 49 high PCS women, 67 low PCS women, 40 high PCS men, and 76 low PCS men unless otherwise noted.

[a]For high PCS women, N = 22; for low PCS women, N = 22.

[b]For high PCS women, N = 33; for low PCS women, N = 45.

Positive feelings about clothing are not substantially higher for women with a high PCS score, but the difference is more substantial for men. High-scoring men feel more positively about their clothing than do low-scoring men. They are also more satisfied with their job and tend to be somewhat more satisfied with their family income and standard of living. The same is true for high-scoring women although the differences are not as large.

Another important finding of differences between the groups is their feeling of accomplishment. Both women and men who perceive clothing close to the self have a more positive feeling of self-accomplishment than those who do not. Acceptance and inclusion by others, creativity and expressiveness, and beauty are not distinguishing life concerns.

One rather unusual finding is the consistently lower feelings expressed by high-scoring women for most of the eight clothing-by-criterion items. Perhaps because they view clothing in close relation to the self, they tend to be more critical of specific clothing evaluations than do low scorers. However, the reverse direction is observed for men.

It is apparent from these results and the results of Hypotheses 2, 3, and 4 that married men must view clothing differently than married women. This difference is expressed in the criteria by which clothing is evaluated and by its relationship to social status variables such as education, income, and occupational prestige.

For both groups, however, who do perceive clothing in close proximity to the self, perceived overall quality of life is evaluated

more positively than by those who do not. Given the low correlations of education, family income, and occupational prestige to POQL (refer to Table 18), the higher POQL with high proximity of clothing to self scores is not likely the result of a spurious relationship which might be expected if these variables correlated more positively with POQL, and clothing correlated less positively with POQL.

Summary of the Findings

The findings are summarized by achievement of each research objective.

Research Objective 1:

To determine the relationship between affective evaluations of clothing and perceived overall quality of life for women and men while controlling for several demographic characteristics.

There was a significant correlation between affective evaluations of clothing and POQL for both women ($r = .28$) and men ($r = .48$) with the effects of occupational prestige (men only), age, family income, education, and family size controlled. The control variables did not substantially affect the original correlations. The change in the Pearson correlation coefficients with the control of the combined effects of the above variables was only .03 for both women and men. Thus, the proportion of variance in POQL accounted for by a linear relationship with affective evaluations of clothing was 8 percent for women and 23 percent for men. After controlling for the demographic variables, one can state that the probability is .95 that the population correlation coefficient

between affective evaluations of clothing and POQL is covered by the interval (.09, .45) for women and (.30, .62) for men.

Research Objective 2:

To determine whether the affective evaluation of clothing is a significant predictor of perceived overall quality of life and whether the extent to which eight value criteria are implemented in the clothing domain is a significant predictor of (1) general affective evaluations of clothing, and (2) general affective evaluations of the eight value criteria.

The results of the multiple regression analyses were summarized in Tables 44 and 45. Affective evaluation of the clothing domain was a significant predictor of men's POQL (beta = .21) but not of women's POQL (beta = .14). Reduced and full model multiple regression analyses show that when clothing is added to other selected domains (housing, job, family life, neighborhood, spare time activities, and national government), the significant increase in the adjusted coefficient of multiple determination for men was .029. The corresponding reduction in residual variance as measured by the coefficient of partial determination was .072. The standardized beta weight for clothing for men was third in magnitude exceeded by that for family life and job. Although the results were not significant for women, the standardized beta weight for clothing was second in magnitude to that for family life which was the most important predictor of women's POQL.

The set of eight matrix value criteria was not significantly predictive of men's affective evaluations of clothing accounting for only 12.4 percent of the variance in feelings about the clothing domain. From their responses to an open-ended question, additional

value criteria by which men evaluate their clothing emerge: functionality, fashion, economy, self-regard, self-expression, and variety.

The set of eight matrix value criteria was significantly predictive of women's affective evaluations of clothing accounting for 64 percent of the variance in feelings about the clothing domain. Of the eight criteria, independence or freedom and accomplishing something had large positive beta weights and fun had a large negative beta weight significantly different from zero.

The additional value criteria mentioned by women were the same as those for men with the addition of two, creativity and sexuality. The relative decreasing frequency with which women mentioned these additional criteria was: economy, functionality, fashion, self-regard, self-expression, creativity, variety, and sexuality. Thus, many value criteria are used to evaluate the clothing domain, and the importance of these as predictors of general affective evaluations of clothing differ for women and men.

The regression results for Hypothesis 3 are based on a relatively small (about 40 percent) subset of the sample who answered on scale to all eight clothing-by-criterion items and to the general evaluation of clothing. Descriptive analyses showed this group was less highly educated and tended to have lower occupational prestige scores than those not included in the analyses because they responded off scale to one or more of these items. Multiple regression analyses were repeated with the inclusion of off-scale responses as indicator variables. Results indicate that off-scale responses are potentially important predictors of general evaluations of clothing.

Affective evaluations of clothing with respect to each of the eight matrix criteria did not significantly increase the prediction of general affective evaluations of the eight criteria when included with other selected domains-by-criterion evaluations. This was true for both women and men. Clothing-by-acceptance and inclusion by others did approach significance as a predictor of women's affective evaluations of acceptance and inclusion by others with a 7.8 percent increase in the adjusted R^2 and a 10.9 percent reduction in the residual variance.

Finally, the prediction of the other six matrix domains by criteria and the prediction of POQL by the eight matrix criteria were determined. In the prediction of women's POQL, freedom from bother and annoyance, fun, and safety were the most influential value criteria. For men, accomplishing something and fun were the two most important criteria. Women and men tended to weight the value criteria differently in the evaluation of domains. The reader is referred to Table 44 for a summary of these relationships. In general the seven domains accounted for 52 percent and 56 percent of the variance in POQL for women and men respectively. The eight value criteria accounted for 45 percent and 54 percent of the variance in POQL for women and men respectively.

Research Objective 3:

To determine whether women and men differ in their affective evaluations of clothing with respect to selected demographic characteristics.

Analyses of covariance failed to reject the null hypotheses of no difference in affective evaluations of clothing for women and men with respect to occupational prestige (men only), age, total family income, education, and family size. These factors, covariates, and interactions accounted for only 8.8 percent and 12.5 percent of the variance respectively in women's and men's affective evaluations of clothing. Occupational prestige (men only) and age, although not significant, did show negative effects on affective evaluations of clothing. The effects of the two factors, education and total family income, were graphed. The effect of education differed for women and men, but the inverse effect of family income on affective evaluations of clothing was the same for both sexes. Results were discussed in terms of exposure to alternatives, rising expectations, clothing importance, and appearance satisfaction.

Research Objective 4:

To determine whether wives and husbands differ in their (1) affective evaluations of clothing and (2) affective evaluations of clothing with respect to each of the eight value criteria.

Wives tended to evaluate the clothing domain less positively than did their husbands, but the difference was not significant. Of the eight specific clothing-by-criterion evaluations, husbands gave significantly more positive evaluations to six: clothing-by-(1) standard of living, (2) fun, (3) independence or freedom, (4) beauty and attractiveness, (5) accomplishing something, and (6) acceptance and inclusion by others. Explanatory reasons for

these differences were postulated on the basis of responses to item 1.15b (Appendix A).

Research Objective 5:

To identify the proximity of clothing to the self in the structure of perceptions of life concerns for women and men.

One dimension along which women tend to structure their life concerns was tentatively identified as penetration into a larger environment or perhaps organization of self within the environment. Clothing clustered as the domain which may facilitate this penetration into the larger environment since the cluster encompasses, in addition to the self, the value criteria of accomplishing something, having fun and an interesting day-to-day life, and the extent to which social and emotional needs are met. For men clothing was closely linked in space with the job domain along a dimension tentatively labeled as organization of self within the environment according to private, familial, and public roles or alternatively degree of responsibility.

When women and men were divided on the basis of their scores on the Proximity of Clothing to Self Scale, clothing became more proximal to the self for high scorers than for low scorers. This conclusion was based on the test for similar patternings between high and low entries of two proximity matrices and by an examination of the multidimensional scaling and cluster results. High scorers who perceived the proximity of clothing to the self tended to have higher POQL scores, higher correlations between

POQL and clothing, and higher scores on a direct measure of clothing importance than did low scorers. Social status characteristics differentiated the two groups of men but not the women. Feelings about the self did not vary widely between the high- and low-scoring groups, but both high-scoring women and men had more positive feelings of self-accomplishment than did the low-scoring groups. High-scoring women made somewhat less positive clothing-by-criterion evaluations than did low-scoring women. The reverse was generally true for men.

The limitations of this study, conclusions derived from the above results, and implications for future research are discussed in the next chapter.

CHAPTER V

LIMITATIONS, CONCLUSIONS, AND IMPLICATIONS

This chapter outlines the major limitations of the study, conclusions, and implications of the findings for future research.

Limitations

The limitations of the study arise primarily from the research design, measures used, and field procedures.

1. The validity and reliability of the nine perceptual clothing indicators assessed on the D-T Scale are not known. The validity of the general concern-level clothing indicator is likely close to .8 given Andrews and Withey's (1976) careful methodological analysis of six aspects of well-being which were spread widely over the perceptual structure. On the basis of their results they inferred that "single item measures using the D-T, Faces, or Circles Scales to assess any of a wide range of different aspects of perceived well-being contain approximately 65 percent valid variance" (p. 189). The validity of the eight specific clothing-by-criterion cell measures is likely not as high given the relatively large number of respondents who answered off scale and the tendency for some respondents to develop a response set (not only in the clothing

domain but in other domains as well) because of the repetitive nature of the items. The reliability of the perceptual clothing indicators will need to be determined in another study by the inclusion of parallel forms of clothing indicators or by restating the same item(s) at a later point in the interview or questionnaire.

2. The use of off-scale responses by subjects in domains-by-criteria evaluations substantially reduced the sample size on which the test of Hypotheses 3, 4, and 7 are based. This reduced the power of the statistical tests of the hypotheses which may have resulted in failure to reject the null hypotheses when they were false.

3. By contracting a research agency to select one's sample and conduct the field work, one loses some control over the quality and accuracy of the data collection procedures no matter how careful one has been to anticipate problems, to train interviewers, to provide explanatory materials, and to work as closely as one can with the field supervisors. Although not considered a very serious limitation, changes in sampling procedure and failure to place some questionnaire sets may affect the sampling error. Lack of careful editing by the interviewers at pickup increased the occurrence of missed or skipped items. Finally one sacrifices a certain familiarity with the respondents' feelings, attitudes, living conditions, and reactions which most likely would enrich one's understanding and interpretation of their quality of life.

Conclusions

The results of this study have been discussed and summarized in the preceding chapter. Conclusions based on the findings are limited to the population of married women and men from which this sample was drawn.

1. There is a stronger positive association between affective evaluations of clothing and perceived life quality for men than for women, and the control variables of occupational prestige (men only), age, family income, education, and family size do not substantially alter the strength of association for either sex. There is some evidence, however, that having a job outside the home may account for the higher correlation of clothing with POQL for men than for women. Close to two-thirds of the women were not employed for pay.

2. Affective evaluation of clothing, which was found to be a significant predictor of married men's perceived overall quality of life, has been left substantially unexplained by the value criteria included in this study. One can pose three potential reasons: (1) men use value criteria not included in the matrix of this study to evaluate clothing; (2) the questionable validity of the clothing-by-criterion items did not give an accurate measure of the importance of the value criteria included in this study; or (3) men's evaluation of clothing involves a more complex assessment, perhaps not a function of linear and additive combinations of clothing-by-value criteria assessments. Evidence exists to support the first explanation. The fact that the criteria did account for 64 percent of

the variance in women's evaluations make the second and third reasons less likely. However, only further research can clarify which of the above is operative.

3. Affective evaluation of clothing approached significance as a predictor of women's perceived life quality. With the exception of family life, the clothing domain did better as a predictor of POQL than did any other domain. For this population of married women with school-age children, of all the domains included in the matrix family life is by far the most important predictor of POQL. The set of eight clothing-by-criterion items did substantially well in explaining the general clothing evaluation. But further research needs to be conducted to ascertain the specific meanings attached to evaluations of clothing with respect to independence or freedom, accomplishing something, and fun--the three most important predictors.

4. Implementation of value criteria within the clothing domain as measured in this study did not add significantly to the prediction of affective evaluations of the value criteria. There is some support, however, for the importance of clothing for women's general feelings of being accepted and included by others. This finding is consistent with the approval conscious factor underlying clothing decisions of mothers of preschool children identified by Jenkins and Dickey (1976).

This finding also suggests that specially designed clothing for handicapped individuals should conform closely to the current styles of the reference group. Although ease of dressing and comfort

are important considerations for handicapped individuals, the consequences of being perceived differently from one's peers on the basis of clothing differences may have serious ramifications for the self-concept of one who is already dealing with a physical or mental abnormality.

5. Occupational prestige (men only), age, family income, education, and family size are not significantly influential factors in one's feelings about clothing although certain trends do warrant further investigation. Family income, age, and occupational prestige tend to have inverse effects on men's clothing evaluations as do family income and age for women. Education tends to affect clothing evaluations to a lesser degree than family income, and the effect is not linear.

6. Wives tended to evaluate clothing less positively than did husbands, but these differences were significant only for six specific clothing-by-criterion evaluations and not for general clothing evaluations. Explanatory responses given by subjects suggest that wives may have higher levels of aspirations for acquisition than do husbands, feel greater social pressures for achieving the cultural norm of beauty, and rely more on clothing than on other domains for being accepted and included by others than do husbands.

7. Both married women and men tend to organize their life concerns along a dimension which may be called organization of self in the environment. For women, the self is perceived to be distinct from the family and penetrating into the larger social system. Clothing eventually joined the partition including the self and

other value criteria which suggests that it may be important as a domain which facilitates this penetration. For men, clothing was viewed as being closer in their perceptual structure to their job. Taken together with other results of this study, clothing may be of importance to men with respect to its instrumental function particularly with respect to accomplishment of or achievement in public roles.

8. The Proximity of Clothing to Self Scale was found to have substantial construct validity on the basis of the perceptual maps obtained when the sample was divided according to their scores on this scale. Affective evaluations of clothing were more strongly correlated with affective evaluations of the self for both high-scoring women ($r = .71$) and men ($r = .44$) than for low-scoring women ($r = .25$) and men ($r = .26$), and these correlations were reflected in the multidimensional scaling and cluster results. Results of the statistical test of the hypothesis of no comparable patternings between two proximity matrices and dimensional scaling and cluster results provided evidence that high scorers on the PCS Scale have a somewhat different perceptual structure of life concerns than do low scorers. Further contrasts showed that high scorers tend to evaluate life more positively and have more positive views of what they are able to accomplish in life than do low scorers. But general feelings about the self did not distinguish the two groups. High-scoring men did, however, tend to have somewhat higher self-esteem as measured by the Rosenberg Self-Esteem

Scale as well as higher socioeconomic status than did low scorers. Status characteristics did not differentiate the two groups of women.

In general, the results of the study provide some empirical evidence to support the inclusion of clothing among the components of quality of life. The evidence is stronger for adult men than for adult women; but relative to other life concerns, clothing does very well as a predictor even for women. However, there is only limited and nonsignificant (i.e., statistical) evidence that clothing is a domain upon which people rely for the implementation of the values included in this study. The study has also demonstrated that some people perceive clothing in psychological proximity to the self with the concomitant occurrence of increased satisfaction with life-as-a-whole. For men this result was related to increased self-esteem and level of living suggesting that psychological proximity of clothing to self may be able to occur at higher need states or levels of existence (Graves, 1970).

Implications for Research

If those involved in the support of quality of life research are at all convinced by this study of the relative importance of clothing as a predictor of perceived life quality, the next step would be the determination of the validity and reliability of the clothing indicators used in this study and the development of additional, improved perceptual clothing indicators. The development of objective indicators of clothing adequacy would require the concerted efforts of those who have worked closely with the

development of standard clothing budgets based on actual inventories of families' clothing and on clothing expenditures. Minimal levels of clothing adequacy could be established and the relationship between objective and subjective clothing adequacy determined for different groups. Objective and perceptual indicators may be able to be developed for source of acquisition, frequency of wear, and length of time in active inventory. Obviously before objective indicators are developed, the uses to which they will be put and the potential effects on families and individuals in a variety of environmental settings should be assessed.

Alternative methods should be derived to measure the implementation of values in the various domains. Present measures used in this study have dubious validity and are subject to response set. Measurement techniques such as the semantic differential or Q-sort methodology may provide additional insights from which efficient, valid, and reliable measures could eventually be developed.

This study has shown that additional value criteria stated by the respondent would most likely improve the prediction of general clothing evaluations, particularly for men. Attention should be given to explicating the relationship between clothing and job for men and women. Further research is also needed for the determination of the meaning of independence or freedom, fun, and accomplishing something with reference to the clothing domain since these were important criteria by which married women evaluated their clothing.

For those with interests in the family, the discrepancy between husbands' and wives' evaluations of their clothing would be worthy of further research to answer the question of whether there are some family situations which contribute to this gap or whether there is a more pervasive sexual difference in aspiration levels that transcends the boundaries of the family.

Since the Proximity of Clothing to Self Scale proved to be a good discriminator with demonstrated construct validity, this researcher plans to conduct further methodological analyses on it with the intent of devising items which can be scored for the construct and administered efficiently to large groups of adults. Further study of the relationships between proximity of clothing to the self, POQL, self-esteem, and internal-external locus of control is also warranted on the basis of this study's results. Since theory would suggest that self-esteem and self-concept may change on the basis of others' evaluations of the self, one could hypothesize that those who perceive clothing to be psychologically close to the self may be able to use clothing to accomplish their roles and achieve status and prestige with a resultant positive effect on self-esteem. One could see how this could result in increases in perceived life quality.

A circular interpretation of the multidimensional scaling results reported in this study warrants further analysis. It is recommended that the data from this study be analyzed in two dimensions to identify the fit of the radex theory to the results even though the stress index may be higher than is normally desirable.

In future quality of life studies it is recommended that the life concern, "at-home work" be added. This would give women and men the opportunity to evaluate the work they perform in the home.

The Andrews and Withey model once again seemed to provide a good fit to reality as indicated by the substantial proportion of variance accounted for in the dependent variables by the sets of independent variables. But if one considers quality of life to be a measure of need fulfillment, then one should devise measures for need assessment. As discussed earlier, a value may stand in the service of several needs. Determining what one values may not always identify the need state of the individual or in what manner that need can be met by a particular domain such as clothing. Theoretical clarification of the relation of needs and values to quality of life seems appropriate at this point in indicator development.

Because clothing is the most proximate constructed and visible environment of the individual, it has been the purpose of this study to examine its potential contribution as an indicator of the quality of life. By no means has it been suggested that clothing is more important than family life, the integrity of the self, or one's relationships with people. Rather the omission of clothing--a component of the human constructed environment which emphasizes the diversity of individuals, families, and cultures and which serves instrumental and expressive functions for the individual--from quality of life studies has been considered a potentially serious deficit in the measurement of quality of life.

If one is to assess the quality of life of human environed units, one needs to determine which components of the environment are important to well-being. The findings of this study lend moderate support to the importance of clothing as a constructed environment with meaning for the individual.

APPENDICES

APPENDIX A

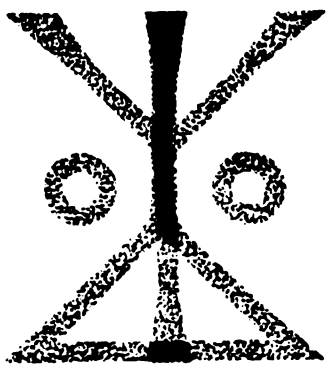
PORTION OF QUALITY OF LIFE QUESTIONNAIRE

USED IN THIS STUDY

APPENDIX A

PORTION OF QUALITY OF LIFE QUESTIONNAIRE

USED IN THIS STUDY



QUALITY OF LIFE

Department of Family and Child Sciences
Department of Human Environment and Design

College of Human Ecology
Michigan State University

Agricultural Experiment Station
Project numbers, 3151 and 1249 Fall 1977

MICHIGAN STATE UNIVERSITY

COLLEGE OF HUMAN ECOLOGY EAST LANSING · MICHIGAN · 48824

Fall 1977

Dear Friend:

Most of us are aware of the rapid changes taking place in our society today. As we face energy shortages and resulting changes in the material products we use, changes in the patterns of family activities and in the roles of men and women, it becomes essential to plan for change that will contribute to one's sense of well being and satisfaction with life.

The College of Human Ecology at Michigan State University is concerned with the quality of life of families in the state of Michigan. Two departments within the college, Family and Child Sciences and Human Environment and Design, have undertaken the task of determining what components of life are important to the quality of life of Michigan families and to what degree they are satisfied with those aspects of their lives. You will find questions about various aspects of your life such as your spare time activities and your neighborhood, and many questions which focus on your family life, your clothing and your job.

Your participation in this study is very important. You will provide us with information necessary to understand the feelings people now have about their quality of life, and this will suggest possible ways to improve satisfaction with life in our changing society.

This is a questionnaire on how you feel about your life. It is rather long, and it will take some time to fill it out. Most of the questions should be interesting, some may be dull and tiring, many will be easy because it is about your life, but some questions will require more thought. Answer them all as well as you can. There are no "right" or "wrong" answers. It is your experiences and opinions that are most important.

By signing the consent form you agree to complete the entire questionnaire to the best of your ability. Our signatures guarantee you anonymity. When both of you complete separate questionnaires, we will send your family a check for $10 shortly after the interviewer picks up the two questionnaires.

We sincerely appreciate your participation in this study and thank you in advance for your time, effort and interest. A summary of research findings will be sent to you when the study has been completed. If you have any questions about the study, please call 517-353-5389 or 517-355-1895.

Sincerely,

Margaret M. Bubolz

Dr. Margaret M. Bubolz, Professor
Family and Child Sciences

Ann C. Slocum

Dr. Ann C. Slocum, Assistant Professor
Human Environment and Design

GENERAL DIRECTIONS

Please read the directions at the beginning of each section before answering the questions. It is very important that you answer each question as carefully and as accurately as you can. Be sure to respond to all the questions on both front and back of each page. Both you and your spouse are asked to complete separate questionnaires. Please do not discuss your answers before both of you have finished the entire questionnaire. When you have completed the questionnaire, return it to the manila envelope provided and seal the envelope.

YOUR FEELINGS ABOUT LIFE CONCERNS

In this section of the questionnaire, we want to find out how you feel about various parts of your life, and life in this country as you see it. Please include the feelings you have now--taking into account what has happened in the last year and what you expect in the near future.

All of the items can be answered by simply writing on the line to the left of each question one of the following numbers OR letters to indicate how you feel. For example write in "1" for terrible, "4" if you have mixed feelings about some question (that is, you are about equally satisfied and dissatisfied with some part of your life), and so forth on to "7" if you feel delighted about it. If you have no feelings at all on the question, write in "A." If you have never thought about something, write in "B." If some question doesn't apply to you, write in "C."

For two of the questions we also ask you to write in some important reasons for why you feel as you do. Please finish this section before going on to the next section.

I feel:

1	2	3	4	5	6	7
Terrible	Unhappy	Mostly dissatisfied	Mixed (about equally satisfied and dissatisfied)	Mostly satisfied	Pleased	Delighted

[A] Neutral--neither satisfied nor dissatisfied

[B] Never thought about it

[C] Does not apply to me

_____ 1.1 How do you feel about your life as a whole?

_____ 1.2 How do you feel about the freedom you have from being bothered and annoyed?

I feel:

1	2	3	4	5	6	7
Terrible	Unhappy	Mostly dissatisfied	Mixed (about equally satisfied and dissatisfied)	Mostly satisfied	Pleased	Delighted

[A] Neutral--neither satisfied nor dissatisfied

[B] Never thought about it

[C] Does not apply to me

_____ 1.3a How do you feel about your own family life--your husband or wife, your marriage, and, your children, if any?

1.3b What are some of the most important reasons for <u>why</u> you feel as you do about your family?

_____

_____

_____

_____ 1.4 How do you feel about the amount of beauty and attractiveness in your day to day life?

_____ 1.5 How do you feel about your independence or freedom--the chance you have to do what you want?

_____ 1.6 How do you feel about how much you are accepted and included by others?

_____ 1.7 How do you feel about your job?

_____ 1.8 How do you feel about your standard of living--the things you have like housing, car, furniture, recreation, and the like?

_____ 1.9 How do you feel about your safety?

_____ 1.10 How do you feel about what our national government is doing?

_____ 1.11 How do you feel about how much fun you are having?

_____ 1.12 How do you feel about your house or apartment?

_____ 1.13 How do you feel about what you are accomplishing in your life?

_____ 1.14 How do you feel about your particular neighborhood as a place to live?

I feel:

1	2	3	4	5	6	7
Terrible	Unhappy	Mostly dissatisfied	Mixed (about equally satisfied and dissatisfied)	Mostly satisfied	Pleased	Delighted

A Neutral--neither satisfied nor dissatisfied

B Never thought about it

C Does not apply to me

_____ 1.15a How do you feel about your clothing?

1.15b What are some of the most important reasons why you feel as you do about your clothing?

_____

_____

_____

_____ 1.16 How do you feel about the way you spend your spare time, your non-working activities?

_____ 1.17 How do you feel about yourself?

_____ 1.18 How do you feel about changes in your family's lifestyle you have made or may need to make in order to conserve energy?

_____ 1.19 How do you feel about how secure you are financially?

_____ 1.20 How do you feel about how interesting your day to day life is?

_____ 1.21 How do you feel about the extent to which your physical needs (for example, food, sleep, shelter and clothing) are met?

_____ 1.22 How do you feel about the extent to which your social and emotional needs (for example, friends, acceptance by others, belonging and affection) are met?

_____ 1.23 How do you feel about your own health?

_____ 1.24 How do you feel about your total family income, the way it enables you and your family to live as comfortably as you would like?

_____ 1.25 How do you feel about how creative and expressive you can be?

_____ 1.26 How do you feel about the chance you have to learn new things or be exposed to new ideas?

Now we shall ask you to try to "take apart" your feelings and to give us your reactions when you think about some things and disregard others.

The questions on this page ask you to give your reactions to how you would feel about your house or apartment.

Each item should be answered by writing one of the following numbers OR letters on the line to the left of each question.

About my HOUSE OR APARTMENT I would feel:

1	2	3	4	5	6	7
Terrible	Unhappy	Mostly dissatisfied	Mixed (about equally satisfied and dissatisfied)	Mostly satisfied	Pleased	Delighted

[A] Neutral--neither satisfied nor dissatisfied

[B] Never thought about it

[C] Does not apply to me

_____ 2.1a How would you feel about your house or apartment if you considered only the standard of living it enables you to have?

_____ 2.1b How would you feel about your house or apartment if you considered only the fun it enables you to have?

_____ 2.1c How would you feel about your house or apartment if you considered only the independence or freedom--the chance you have to do what you want--it enables you to have?

_____ 2.1d How would you feel about your house or apartment if you considered only the beauty and attractiveness it enables you to enjoy?

_____ 2.1e How would you feel about your house or apartment if you considered only the freedom from bother and annoyance it enables you to have?

_____ 2.1f How would you feel about your house or apartment if you considered only the safety it enables you to have?

_____ 2.1g How would you feel about your house or apartment if you considered only how it enables you to accomplish what you want?

_____ 2.1h How would you feel about your house or apartment if you considered only its effect on your acceptance and inclusion by other people?

The questions on this page ask you to give your reactions to how you would feel about your clothing.

About my CLOTHING I would feel:

1	2	3	4	5	6	7
Terrible	Unhappy	Mostly dissatisfied	Mixed (about equally satisfied and dissatisfied)	Mostly satisfied	Pleased	Delighted

A Neutral--neither satisfied nor dissatisfied

B Never thought about it

C Does not apply to me

_____ 2.2a How would you feel about your clothing if you considered only its effect on your standard of living?

_____ 2.2b How would you feel about your clothing if you considered only the fun it enables you to have?

_____ 2.2c How would you feel about your clothing if you considered only the independence or freedom--the chance you have to do what you want--it enables you to have?

_____ 2.2d How would you feel about your clothing if you considered only the beauty and attractiveness it enables you to enjoy?

_____ 2.2e How would you feel about your clothing if you considered only the freedom from bother and annoyance it enables you to have?

_____ 2.2f How would you feel about your clothing if you considered only the safety it enables you to have?

_____ 2.2g How would you feel about your clothing if you considered only how it enables you to accomplish what you want?

_____ 2.2h How would you feel about your clothing if you considered only its effect on your acceptance and inclusion by other people?

The questions on this page ask you to give your reactions to how you would feel about your job.

Do you have work or a job from which you receive income and at which you usually work at least 20 hours per week? CHECK ONE [✓].

[ ] NO ⟶ GO TO QUESTION 2.4a ON THE NEXT PAGE.

[ ] YES ⟶ GO TO QUESTION 2.3a BELOW.

About my JOB I would feel:

1	2	3	4	5	6	7
Terrible	Unhappy	Mostly dissatisfied	Mixed (about equally satisfied and dissatisfied)	Mostly satisfied	Pleased	Delighted

[A] Neutral--neither satisfied nor dissatisfied

[B] Never thought about it

[C] Does not apply to me

_____ 2.3a How would you feel about your job if you considered only the standard of living it enables you to have?

_____ 2.3b How would you feel about your job if you considered only the fun you have?

_____ 2.3c How would you feel about your job if you considered only its effect on your independence or freedom--the chance you have to do what you want?

_____ 2.3d How would you feel about your job if you considered only the beauty and attractiveness you get to enjoy?

_____ 2.3e How would you feel about your job if you considered only the freedom from bother and annoyance that you have?

_____ 2.3f How would you feel about your job if you considered only your safety?

_____ 2.3g How would you feel about your job if you considered only how much it enables you to accomplish things?

_____ 2.3h How would you feel about your job if you considered only its effect on your acceptance and inclusion by other people?

The questions on this page ask you to give your reactions to how you would feel about your family life.

About my FAMILY LIFE I would feel:

1	2	3	4	5	6	7
Terrible	Unhappy	Mostly dissatisfied	Mixed (about equally satisfied and dissatisfied)	Mostly satisfied	Pleased	Delighted

A Neutral--neither satisfied nor dissatisfied

B Never thought about it

C Does not apply to me

_____ 2.4a How would you feel about your own family life--your marriage, husband or wife, and children--if you considered only its effect on your standard of living?

_____ 2.4b How would you feel about your own family life if you considered only the fun it enables you to have?

_____ 2.4c How would you feel about your own family life if you considered only its effect on your independence or freedom--the chance you have to do what you want?

_____ 2.4d How would you feel about your own family life if you considered only the attractiveness and beauty it enables you to enjoy?

_____ 2.4e How would you feel about your own family life if you considered only the freedom from bother and annoyance that it enables you to have?

_____ 2.4f How would you feel about your own family life if you considered only the safety it enables you to have?

_____ 2.4g How would you feel about your own family life if you considered only how it enables you to accomplish what you want?

_____ 2.4h How would you feel about your own family life if you considered only its effect on your acceptance and inclusion by other people?

The questions on this page ask you to give your reactions to how you would feel about your neighborhood.

About my NEIGHBORHOOD as a place to live I would feel:

1	2	3	4	5	6	7
Terrible	Unhappy	Mostly dissatisfied	Mixed (about equally satisfied and dissatisfied)	Mostly satisfied	Pleased	Delighted

A Neutral--neither satisfied nor dissatisfied

B Never thought about it

C Does not apply to me

_____ 2.5a How would you feel about your own neighborhood as a place to live if you considered only the standard of living it enables you to have?

_____ 2.5b How would you feel about your own neighborhood as a place to live if you considered only the fun you have?

_____ 2.5c How would you feel about your own neighborhood as a place to live if you considered only its effect on your independence or freedom--the chance you have to do what you want?

_____ 2.5d How would you feel about your own neighborhood as a place to live if you considered only the amount of beauty and attractiveness it enables you to enjoy?

_____ 2.5e How would you feel about your own neighborhood as a place to live if you considered only the freedom you have from bother and annoyance?

_____ 2.5f How would you feel about your own neighborhood as a place to live if you considered only your safety?

_____ 2.5g How would you feel about your own neighborhood as a place to live if you considered only how it enables you to accomplish things?

_____ 2.5h How would you feel about your own neighborhood as a place to live if you considered only how much you are accepted and included by other people?

The questions on this page ask you to give your reactions to how you would feel about your spare time.

About my SPARE TIME I would feel:

1	2	3	4	5	6	7
Terrible	Unhappy	Mostly dissatisfied	Mixed (about equally satisfied and dissatisfied)	Mostly satisfied	Pleased	Delighted

[A] Neutral--neither satisfied nor dissatisfied

[B] Never thought about it

[C] Does not apply to me

_____ 2.6a How would you feel about the way you spend your spare time, your non-working activities, if you considered only its effect on your standard of living?

_____ 2.6b How would you feel about the way you spend your spare time if you considered only how much fun you have?

_____ 2.6c How would you feel about the way you spend your spare time if you considered only your independence or freedom--the chance you have to do what you want?

_____ 2.6d How would you feel about the way you spend your spare time if you considered only the beauty and attractiveness you enjoy?

_____ 2.6e How would you feel about the way you spend your spare time if you considered only the freedom you have from being bothered and annoyed?

_____ 2.6f How would you feel about the way you spend your spare time if you considered only your safety?

_____ 2.6g How would you feel about the way you spend your spare time if you considered only how it enables you to accomplish things?

_____ 2.6h How would you feel about the way you spend your spare time if you considered only how much you are accepted and included by others?

The questions on this page ask you to give your reactions to how you would feel about our national government.

About our NATIONAL GOVERNMENT I would feel:

1	2	3	4	5	6	7
Terrible	Unhappy	Mostly dissatisfied	Mixed (about equally satisfied and dissatisfied)	Mostly satisfied	Pleased	Delighted

A Neutral--neither satisfied nor dissatisfied

B Never thought about it

C Does not apply to me

_____ 2.7a How would you feel about the way our national government is operating if you considered only its effect on your standard of living?

_____ 2.7b How would you feel about the way our national government is operating if you considered only the fun it enables you to have?

_____ 2.7c How would you feel about the way our national government is operating if you considered only the independence or freedom--the chance you have to do what you want--that it enables you to have?

_____ 2.7d How would you feel about the way our national government is operating if you considered only the beauty and attractiveness it enables you to enjoy?

_____ 2.7e How would you feel about the way our national government is operating if you considered only the freedom from bother and annoyance that you have?

_____ 2.7f How would you feel about the way our national government is operating if you considered only your safety?

_____ 2.7g How would you feel about the way our national government is operating if you considered only how it enables you to accomplish things?

_____ 2.7h How would you feel about the way our national government is operating if you considered only its effect on how much you are accepted and included by other people?

YOUR FEELINGS ABOUT YOURSELF

Below are ten statements about how one feels about oneself. We are interested in knowing how you feel about each statement. For each item, CIRCLE THE NUMBER which best indicates the extent of your agreement or disagreement. For example, circle "1" if you strongly disagree with the statement, and "4" if you strongly agree.

	Strongly disagree	Disagree	Agree	Strongly agree
3.1 I feel that I'm a person of worth, at least on an equal plane with others.	1	2	3	4
3.2 I feel that I have a number of good qualities.	1	2	3	4
3.3 All in all, I am inclined to feel that I am a failure.	1	2	3	4
3.4 I am able to do things as well as most other people.	1	2	3	4
3.5 I feel I do not have much to be proud of.	1	2	3	4
3.6 I take a positive attitude toward myself.	1	2	3	4
3.7 On the whole, I am satisfied with myself.	1	2	3	4
3.8 I wish I could have more respect for myself.	1	2	3	4
3.9 I certainly feel useless at times.	1	2	3	4
3.10 At times I think I am no good at all.	1	2	3	4

[Morris Rosenberg's Self Esteem Scale (items 3.1-3.10) was used and reprinted by permission of Princeton University Press. SOURCE: Morris Rosenberg, Society and the Adolescent Self Image (Princeton, N.J.: Princeton University Press, 1965).]

Now we have some questions of a different kind. For each of the following four questions check one of the two responses that best describes how you feel.

4.1 Have you usually felt pretty sure your life would work out the way you want it to, or have there been times when you haven't been sure about it?
CHECK ONE:

[ ] I have felt pretty sure life would work out the way I want it to.

[ ] There have been times when I haven't been sure about it.

4.2 Do you think it's better to plan your life a good way ahead, or would you say life is too much a matter of luck to plan ahead very far?
CHECK ONE:

[ ] I think it's better to plan my life a good way ahead.

[ ] I think life is too much a matter of luck to plan ahead very far.

4.3 When you do make plans ahead, do you usually get to carry things out the way you expected, or do things usually come up to make you change your plans?
CHECK ONE:

[ ] I usually get to carry things out the way I expected.

[ ] Things usually come up to make me change my plans.

4.4 Some people feel they can run their lives pretty much the way they want to; others feel the problems of life are sometimes too big for them. Which one are you most like?
CHECK ONE:

[ ] I feel I can run my life pretty much the way I want to.

[ ] I feel the problems of life are sometimes too big for me.

Now that you have done some thinking about your family life and your life in general, we would like to ask you how you feel about them. Please write on the line to the left of each question one of the following numbers OR letters to indicate how you feel. For example, if you feel terrible about it write in "1," if you have mixed feelings about it (that is, you are about equally satisfied and dissatisfied) write in "4," and if you feel delighted about it write in "7." If you feel neutral about it (that is, you are neither satisfied nor dissatisfied), write in "A." If you have never thought about it, write in "B." If it does not apply to you, write in "C."

I feel:

1	2	3	4	5	6	7
Terrible	Unhappy	Mostly dissatisfied	Mixed (about equally satisfied and dissatisfied)	Mostly satisfied	Pleased	Delighted

[A] Neutral--neither satisfied nor dissatisfied

[B] Never thought about it

[C] Does not apply to me

_____ 9.1 How do you feel about your own family life--your husband or wife, your marriage, and your children, if any?

_____ 9.2 How do you feel about your life as a whole?

9.3 This study has asked you to tell us how you feel about various parts of life. Are there things which affect your quality of life which have not been included? If so, please write them below.

_____

_____

_____

_____

NOW WOULD BE A GOOD TIME TO TAKE A BREAK BEFORE GOING ON TO THE NEXT PAGE.

YOUR FAMILY SITUATION

This study is about the quality of life of family members. Therefore, we are interested in knowing some things about yourself and your family. As you answer the questions, please consider only yourself and the family members now living in your household.

FOR EACH QUESTION, PLACE A CHECK MARK IN THE BRACKETS [✓] OR WRITE THE ANSWER ON THE LINE PROVIDED.

13.1 What is your sex?

[ ] Male

[ ] Female

13.2a How old were you on your last birthday?

_____ Age at last birthday

13.2b What is the month, day, and year of your birth?

_____ Month _____ Day _____ Year of Birth

13.3 What is your religion, if any?

[ ] Protestant: _____ (please specify)

[ ] Catholic

[ ] Jewish

[ ] None

[ ] Other: _____ (please specify)

13.4 What is your race?

[ ] White

[ ] Black/Negro/Afro-American

[ ] Other: _____ (please specify)

13.5 Do you (or does a member of your family who lives with you) own your home, do you rent, or what? (CHECK ONE)

[ ] Own or buying

[ ] Renting

[ ] Other: _____ (please specify)

13.6a Is this your first marriage?

[ ] YES → In what year were you married? _____

[ ] NO →

13.6b In what year did your present marriage begin? _____

13.6c How did your last marriage end? CHECK ONE.

[ ] Death → Year of death: _____

[ ] Divorce → Year of divorce: _____

[ ] Annulment → Year of annulment: _____

13.7a What is the highest level of formal schooling that you have completed? CHECK ONE.

[ ] Less than 8 grades of elementary school

[ ] 8 grades of elementary school

[ ] 1-3 years of high school

[ ] Completed high school and received diploma or passed high school equivalency exam

[ ] 1-3 years of college

[ ] College graduate, bachelor's degree

[ ] Post bachelor's course work

[ ] Master's degree

[ ] Post master's course work

[ ] PhD, EdD

[ ] Other professional degree (such as MD, DO, JD, DDS): _____ (please specify)

13.7b Are you NOW attending or enrolled in one of the programs listed above?

[ ] YES →

[ ] NO

13.7c If YES, is that full-time or part-time?

[ ] Full-time student

[ ] Part-time student

13.7d Please specify in which one of the above programs you are now enrolled (such as high school, college, master's program).

Type of school or program _____

_____

13.8a IN THE PAST, have you been enrolled in any type of educational program other than high school or college, such as vocational school?

[ ] YES →

[ ] NO

13.8b If YES, please specify your field of training (such as business, office work, practical nursing, beautician, mechanic, electrician).

Field of training _____

_____

13.8c Did you complete the training program?

[ ] YES

[ ] NO

[ ] DOES NOT APPLY

13.8d Are you NOW enrolled in any type of educational program other than high school, college or graduate school, such as vocational training program, arts and crafts classes, or religion classes?

[ ] YES →

[ ] NO

13.8e If YES, what type of educational program is it?

Field of training or type of program _____

_____

_____

13.9a Are you presently employed, unemployed, retired, or what? CHECK AS MANY AS APPLY TO YOU.

[ ] Housewife or househusband

[ ] Student

[ ] Permanently disabled

[ ] Retired

[ ] Unemployed (that is, previously employed for pay and/OR presently looking for a job)

GO TO QUESTION 13.10a ON PAGE 38. (unless you also check one of the categories below in which case go to 13.9b on the next page).

[ ] Temporarily laid off OR on strike OR on sick leave

[ ] Working now

GO TO QUESTION 13.9b ON THE NEXT PAGE.

13.9b If you are working now OR are temporarily laid off OR on strike OR on sick leave, what kind of work do you do? What is your main occupation called? (If you have two jobs, your main occupation is the job on which you spend the most time. If you spend an equal amount of time on two jobs, it is the one which provides the most income.)

Main occupation _____

13.9c What do you actually do in that job? What are some of your main duties?

Duties _____

_____

13.9d What kind of business, industry or organization is your job in? What do they do or make at the place where you work?

Kind of business, industry or organization _____

_____

What they make or do _____

_____

13.9e About how many hours a week do you do this work? CHECK ONE.

[ ] Less than 20 hours per week

[ ] 20 hours per week

[ ] 21-39 hours per week

[ ] 40 hours per week

[ ] 41-50 hours per week

[ ] 51-60 hours per week

[ ] More than 60 hours per week

13.9f Do you do this work inside your home, outside your home but on your own property, or away from your home and property? CHECK THE ONE PLACE IN WHICH YOU DO MOST OF THIS WORK.

[ ] Inside my home

[ ] Outside my home but on my property

[ ] Away from my home and property

13.9g Are you an hourly wage worker, salaried, on commission, self-employed, or what? CHECK ONE.

[ ] Hourly wage worker

[ ] Salaried

[ ] Work on commission, tips

[ ] Self-employed in own business, professional practice, or farm

[ ] Work without pay in family business or farm

13.9h How long have you been in your present job?

_____ years and _____ months

13.9i Is this your first job?

[ ] NO →

[ ] YES

13.9j What kind of work did you do in your first full-time job after completing your education or training? What was your occupation called?

Occupation _____

_____

13.9k What did you actually do in that job? What were some of your main duties?

Duties _____

_____

13.9l Would you be satisfied to stay in your present position indefinitely?

[ ] YES

[ ] No

13.9m Do you anticipate a change from your present occupation or your position within the near future?

[ ] YES →

[ ] NO

13.9n If YES, please describe your anticipated new position, what your title will be and what you will do.

Anticipated new position _____

_____

Title _____

_____

Duties _____

_____

13.9o Are you currently employed in a second job?

[ ] YES →

[ ] NO

13.9p If YES, about how many hours a week do you do this work?

[ ] Less than 20 hours per week

[ ] 20 hours per week

[ ] 21-39 hours per week

[ ] 40 hours per week

13.10a Do you do any volunteer work in the community?

[ ] YES →

[ ] NO

13.10b If YES, what kind of volunteer work do you do?

_____

_____

_____

13.10c What do you actually do in that work? What are some of your main duties?

Volunteer duties _____

_____

_____

_____

13.10d For what organization do you do this work?

Kind or name of organization _____

_____

_____

13.10e How often do you do this volunteer work? CHECK ONE.

[ ] About once or twice a year

[ ] About 3-6 times a year

[ ] About once a month

[ ] About once a week

[ ] Almost every day

[ ] Other _____
(please specify)

13.10f What are some of the reasons why you do volunteer work? _____

_____

_____

13.10g What satisfactions do you get from doing volunteer work? _____

_____

_____

13.11a What do you estimate will be your total family income before taxes in 1977? Please include income from all sources before taxes, including income from wages, property, stocks, interest, welfare, Aid to Families with Dependent Children, child support from a previous marriage, and any other money income received by you and all family members who live with you.

ESTIMATED TOTAL FAMILY YEARLY INCOME, 1977

[ ] Under $3,000
[ ] $3,000 - $3,999
[ ] $4,000 - $4,999
[ ] $5,000 - $5,999
[ ] $6,000 - $6,999
[ ] $7,000 - $7,999
[ ] $8,000 - $9,999
[ ] $10,000 - $11,999
[ ] $12,000 - $14,999
[ ] $15,000 - $19,999
[ ] $20,000 - $24,999
[ ] $25,000 - $29,999
[ ] $30,000 - $34,999
[ ] $35,000 - $49,999
[ ] $50,000 - $74,999
[ ] $75,000 and over

13.11b About how much of this total family yearly income do you estimate that YOU will earn in 1977?

ESTIMATED PORTION OF TOTAL FAMILY INCOME, 1977, EARNED BY YOURSELF

[ ] Does not apply, not employed in 1977
[ ] Under $3,000
[ ] $3,000 - $3,999
[ ] $4,000 - $4,999
[ ] $5,000 - $5,999
[ ] $6,000 - $6,999
[ ] $7,000 - $7,999
[ ] $8,000 - $9,999
[ ] $10,000 - $11,999
[ ] $12,000 - $14,999
[ ] $15,000 - $19,999
[ ] $20,000 - $24,999
[ ] $25,000 - $29,999
[ ] $30,000 - $34,999
[ ] $35,000 - $49,999
[ ] $50,000 - $74,999
[ ] $75,000 and over

13.12 In the coming year, would you say your financial situation will get worse, stay about the same, or get better? CHECK ONE.

[ ] Get worse
[ ] Stay about the same
[ ] Get better

IMPORTANCE OF LIFE CONCERNS

All of us have an idea of what we think is important in life. Now that you have done a lot of thinking about various parts of your life, we would like to ask you how important you think various life concerns are. Take a few moments to think about what is important to you. CIRCLE THE NUMBER in the column that best represents the degree of importance of each life concern to you. For example, circle "1" if it is of no importance, circle "3" if it is of some importance, and circle "5" if it is of very high importance.

		No importance at all	Little importance	Some importance	High importance	Very high importance
14.1	Having freedom from bother and annoyance	1	2	3	4	5
14.2	My family life	1	2	3	4	5
14.3	Beauty and attractiveness in my day to day life	1	2	3	4	5
14.4	My independence or freedom	1	2	3	4	5
14.5	Being accepted and included by others	1	2	3	4	5
14.6	My job	1	2	3	4	5
14.7	My standard of living--the things I have like housing, car, furniture, recreation, and the like	1	2	3	4	5
14.8	My safety	1	2	3	4	5
14.9	What our national government is doing	1	2	3	4	5
14.10	Having fun	1	2	3	4	5
14.11	My house or apartment	1	2	3	4	5
14.12	Accomplishing something	1	2	3	4	5

	No importance at all	Little importance	Some importance	High importance	Very high importance
14.13 My neighborhood	1	2	3	4	5
14.14 My clothing	1	2	3	4	5
14.15 The way I spend my spare time, my non-working activities	1	2	3	4	5
14.16 Myself	1	2	3	4	5
14.17 Making changes in my family's lifestyle in order to conserve energy	1	2	3	4	5
14.18 Having financial security	1	2	3	4	5
14.19 Having an interesting day to day life	1	2	3	4	5
14.20 Having my physical needs met	1	2	3	4	5
14.21 Having my social and emotional needs met	1	2	3	4	5
14.22 My own health	1	2	3	4	5
14.23 Our total family income	1	2	3	4	5
14.24 Being creative or expressive	1	2	3	4	5
14.25 Our children	1	2	3	4	5
14.26 Having the opportunity to learn new things	1	2	3	4	5
14.27 Having love and affection	1	2	3	4	5

14.28 What other things are very important to you? Please list them below.

_____

_____

_____

15.1a We would like to know something about the people who live in your household. In the chart below, please list for ALL PERSONS LIVING IN YOUR HOUSEHOLD NOW: their birth date, age at last birthday, sex and marital status. Do not list any person more than once.

Please use the following numbers to indicate marital status:

[1] Never married	[4] Separated
[2] Married	[5] Divorced, not remarried
[3] Widowed, not remarried	[6] Don't know

		Date of birth mo./day/yr.	Age at last birthday	Sex (circle M or F)	Marital Status
SPOUSE (husband or wife)				M F	
CHILDREN BORN TO THIS MARRIAGE, LIVING IN THIS HOUSEHOLD Please list in order from oldest to youngest	1.			M F	
	2.			M F	
	3.			M F	
	4.			M F	
	5.			M F	
	6.			M F	
	7.			M F	
	8.			M F	
	9.			M F	
CHILDREN BORN TO WIFE PRIOR TO THIS MARRIAGE, LIVING IN THIS HOUSEHOLD Please list in order from oldest to youngest	1.			M F	
	2.			M F	
	3.			M F	
	4.			M F	
	5.			M F	
CHILDREN BORN TO HUSBAND PRIOR TO THIS MARRIAGE, LIVING IN THIS HOUSEHOLD Please list in order from oldest to youngest	1.			M F	
	2.			M F	
	3.			M F	
	4.			M F	
	5.			M F	
ADOPTED CHILDREN NOT BORN TO EITHER SPOUSE, LIVING IN THIS HOUSEHOLD Please list in order from oldest to youngest	1.			M F	
	2.			M F	
	3.			M F	
	4.			M F	
	5.			M F	

CONTINUED ON NEXT PAGE.

NOTE: If there are not enough spaces, please finish the list on the last page.

		Date of birth mo./day/yr.	Age at last birthday	Sex	Marital status	Relation to you
OTHER RELATIVES LIVING IN THIS HOUSEHOLD (such as niece, nephew, grandchild, parent, sister, uncle, brother, brother-in-law, mother-in-law, husband's uncle)	1.			M F		
	2.			M F		
	3.			M F		
	4.			M F		
	5.			M F		
	6.			M F		
	7.			M F		
	8.			M F		
OTHER PERSONS LIVING IN THIS HOUSEHOLD (such as foster child, friend, household help, boarders)	1.			M F		
	2.			M F		
	3.			M F		
	4.			M F		
	5.			M F		
	6.			M F		
	7.			M F		

NOTE: If there are not enough spaces, please finish the list on the last page.

15.1b Counting yourself, how many people now live in your household?

_____ People

15.2a Are there any other children born to you and/or your spouse (including children from previous marriages) who were not listed in the preceding chart?

[ ] YES →

[ ] NO

15.2b If YES, how many?

_____ Males

_____ Females

15.2c Please list their ages at last birthday from oldest to youngest by sex.

Males _____ _____ _____ _____

Females _____ _____ _____ _____

APPENDIX B

INTERVIEWER PROCEDURES AND FORMS

USED IN THE FIELD

APPENDIX B

INTERVIEWER PROCEDURES AND FORMS

USED IN THE FIELD

November, 1977

OAKLAND COUNTY LIFESTYLE

Interviewer Instructions

TYPE OF INTERVIEWING TECHNIQUE

For this study you will not be doing any actual interviewing with a respondent. You will, however, screen households within each area to determine eligibility for placement of questionnaires, and you will be required to return to those households to pick up and verify completion of those questionnaires.

ELIGIBLE RESPONDENT/HOUSEHOLD

In order for a household to be eligible for placement of questionnaires, the following criteria must be met:

1.) The household must be occupied by a married couple.
2.) The couple must have one or more children from five years of age through 18 years of age.
3.) The husband and wife must both consent to filling out a questionnaire.

In order for a household to be considered complete, BOTH questionnaires are to be completely filled out and must be accompanied by a signed consent form.

RESPONDENT INCENTIVE

In order to show their appreciation for respondent's co-operation, Michigan State University will issue a $10.00 check to each family who participates in this study. These checks will be mailed directly to the household approximately four to six weeks after they have completed the questionnaires. Additionally, a summary report of the findings of this research project will be mailed to the participating households upon completion (this will be a couple of months after receipt of the check.)

QUOTA

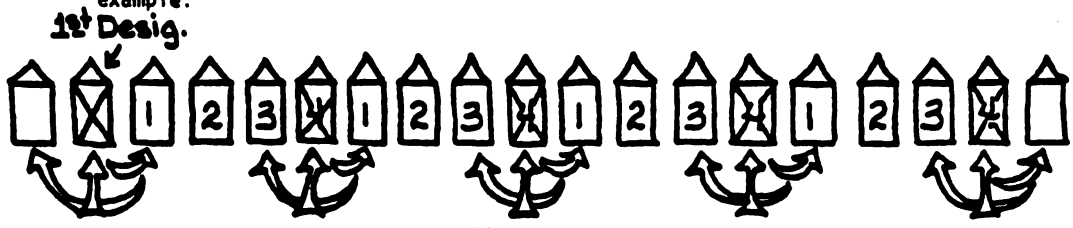
Each area has a quota of four completed households. This means that four husband/wife sets and consent forms will be completed for a total of eight questionnaires per area.

SAMPLING PROCEDURE

Standard sampling procedure is to be used for this study. Proceed to the corner indicated by a red X on your area mapsheet. Begin at the household indicated in the bottom right-hand corner of your mapsheet, this becomes your first designated household and should be written in on your first call record. If you are unable

Oakland County Lifestyle
Interviewer Instructions

to place the questionnaires at the designated household, you will substitute by going to the residence to the right, then to the left, then by skipping four households from your designated one, and continuing this pattern until you have placed them with an eligible household. Please look at the following example:



This is the pattern that you will follow in covering your blocks to determine eligibility for placement.

CALLBACKS

There are three callbacks required on the first household attempted for each set of questionnaires to be completed. Let's examine some possible field situations. Since you can only place your questionnaires in households meeting certain criteria it would be futile to make three callbacks on a household containing a widow over 65. When you begin work in an area and run into a no answer at one of your designated households, check with the residence to the right, explain the purpose of your visit and ask if their neighbor meets the eligibility requirements. If they do, you should continue to call on that household; if not, ask the person you are speaking to if they meet the requirements and attempt placement. In other words, screen your neighborhood efficiently for eligible households before attempting callbacks and you will minimize the number of trips made to an area considerably.

INTERVIEWING HINTS

* Make sure that at least one (either husband or wife) has signed the consent form and is certain that the other spouse will do so before leaving the questionnaires.

* Stress confidentiality.

* Remind respondents that the $10.00 and the summary report will only be sent to households who successfully complete both questionnaires and sign the consent form.

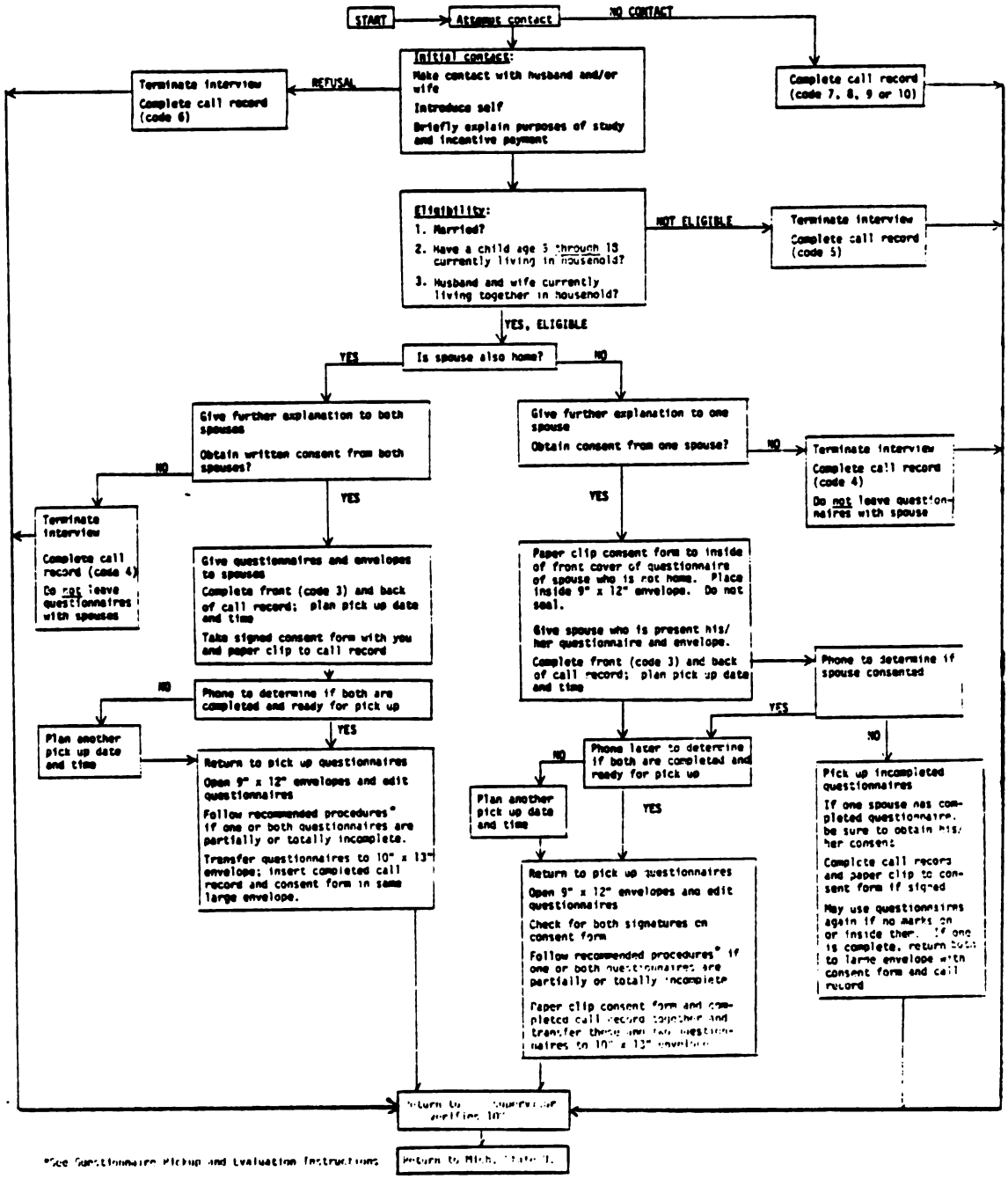
* State a specific date and time for pick-up of questionnaires and arrange for both spouses to be present if possible.

* Call your respondents before you return to your area to pick-up the questionnaires.

QUALITY OF LIFE PROJECT, FALL 1977
MICHIGAN STATE UNIVERSITY

INTERVIEWER FLOW CHART

MBS/11-5-77



*See Questionnaire Pickup and Evaluation Instructions

MICHIGAN STATE UNIVERSITY

COLLEGE OF HUMAN ECOLOGY EAST LANSING · MICHIGAN · 48824

November 15, 1977

This is to introduce an interviewer from (name of market research agency). interviewer is asking your participation in a study of the quality of life of families in Oakland County, Michigan. The research project and questionnaire have been developed by the Departments of Family and Child Sciences and Human Environment and Design, College of Human Ecology at Michigan State University. The project has been funded by the Michigan Agricultural Experiment Station.

You and your spouse's cooperation in granting a short interview and in completing self-administered questionnaires will be sincerely appreciated, and your names will in no way be linked to your responses.

Sincerely,

Margaret M. Bubolz

Margaret M. Bubolz, Professor
Family and Child Sciences

Ann C. Slocum

Ann C. Slocum, Assistant Professor
Human Environment and Design

MICHIGAN STATE UNIVERSITY

COLLEGE OF HUMAN ECOLOGY
EAST LANSING · MICHIGAN · 48824

Fall 1977

CONSENT FORM

We, the undersigned, willingly consent to participate in a study about the quality of life of Michigan families. We do so with the understanding that our responses will contribute to the goals of the research project being conducted by the College of Human Ecology at Michigan State University and the Michigan Agricultural Experiment Station. The purposes of the study have been explained to us, and they are repeated in the letter attached to the questionnaire. Thus, we have knowledge of the aspects of the study.

We agree to complete the questionnaires as accurately and completely as we are able. We further understand that our names will in no way be linked to the answers we have given, and we reserve the right to withdraw from the study at any time. We desire to participate in this research and consent and agree.

PLEASE SIGN YOUR FIRST AND LAST NAMES.

Wife's Signature	Date	Husband's Signature	Date

Street Address	City/Town, State	Zip Code

We, the undersigned, guarantee complete anonymity to the persons whose signatures are above. Their names will in no way be linked to the responses given. We further agree to pay the abovesigned family an amount of $10.00 upon receipt of the two completed questionnaires. We will be happy to answer any questions they might have about completing the questionnaires. Please call 517-353-5389 or 517-355-1895.

Margaret M. Bubolz
Dr. Margaret M. Bubolz, Professor
Family and Child Sciences

Ann C. Slocum
Dr. Ann C. Slocum, Assistant Professor
Human Environment and Design

APPENDIX C

VALUE CRITERIA CODES FOR OPEN-ENDED RESPONSES TO ITEM 1.15b

APPENDIX C

VALUE CRITERIA CODES FOR OPEN-ENDED RESPONSES TO ITEM 1.15b "What are some of the most important reasons why you feel as you do about your clothing?"

Standard of Living--the things you have

Ability to have, provide or buy or desirability of being able to have, provide or buy what one needs, wants, and likes
Standards of quality (e.g. best of clothing, better clothing, good clothing, custom-made clothing, well-made, more expensive clothing)
Quantity desirable (e.g., would like more or be able to afford more, could use more, sew to increase quantity)
Sufficiency; adequacy (e.g., have enough, do not have enough)
Other

Fun

Enjoyment derived from process of sewing
Sociability (e.g., enjoy going out and being with others)
Enjoyment derived from being dressed well or from wearing what one has
Enjoyment derived from being able to participate in activities (such as sports, parties)
Other

Independence or Freedom--the chance you have to do what you want

Freedom to dress the way one wishes or to wear what one wants; dress to please self
Freedom from social pressure (i.e., from other people, social institutions such as fashion industry) to conform to standards of clothing quality, expense, etc.
Other (e.g., self sufficiency in shopping)

Beauty and Attractiveness

Body image (weight, height, body build)
Becomingness (e.g., appearance conscious, clothes look good on self, like to look nice)
Cleanliness
Neatness; good repair
Fit
Attainment of desirable aesthetic attributes such as color, form, harmony, design
Other

Freedom from Bother and Annoyance

Ease of care
Freedom from responsibilities or necessity of shopping
Services received from others (e.g., wife selects them, keeps them clean)
Other

Safety

Safety with respect to fire, fabric finishes, dyes
Safety with regard to occupational hazards
Other

Accomplishing Something--ability to accomplish what one wants

Achievement of what one wants through home sewing (without specifying what one wants)
Achievement of desirable status (instrumental function)
Facilitation of role performance
Service grants to family and others (e.g., through home sewing)
Other

Acceptance and Inclusion by Others

Esteem by others; receipt of compliments
Social acceptability and approval; decency and propriety (e.g., feel presentable)
Appropriateness of clothing for the occasion/situation
Other

Self Regard

Self esteem, self worth, self regard (including pleasurable feelings about self; feel well dressed; clothes make self feel good)
Promotion or attainment of self confidence
Other

Self Expression

Expression of self and/or personality (e.g., my dress is me, clothes are what you are)
Expression of feelings, attitudes, moods
Expression of status, success (expressive function); general reference to status
Identification of self by type of dresser
Other

Fashion

Newness
In style or stylish; in fashion or fashionable; up-to-date
Other

Variety

Variety desirable in wardrobe; freedom from boredom; variety in styles from which to choose in the marketplace
Other

Creativity--value clothing as an art form which can express uniqueness of the individual

Combination of desirable design elements and fabric/garment characteristics achieved by home sewing or having clothes made
Ability to experiment with clothing or accessories and/or desirability of time for such experimentation
Other

Functionality

Functional (e.g., functional, serviceable, practical)
Durability
Meets physiological needs and climatic conditions: physiological comfort (e.g., I dress comfortably, I'm comfortable, comfortable, it's comfortable), freedom of movement, absorption of moisture, etc.
Psychological comfort; makes one feel comfortable (e.g., I feel comfortable)
Other

Economy

Reduction of clothing expenditures by making clothes
Value reasonable prices
Ability to purchase clothing within financial means
Management emphasis: value shopping around, getting most from the dollar; variety of prices from which to choose; conservation of time or management of time for shopping or sewing; management of wardrobe size
Versatility of styles and types (e.g., "I can mix and match and thus make my wardrobe stretch.")
Other

Sexuality

Sexual distinction (e.g., desire for more feminine clothing)
Sexual attraction or attractiveness to mate or opposite sex; dress to please mate
Other

Miscellaneous

Clothes are not important and/or other areas of life are more important; not interested in clothing
Never thought about it; don't think about it much
Clothes don't make the person
Expression of general satisfaction
Like or love clothes or general statements of importance without further qualification; like nice clothes
Deemphasis on fashion
Sew own clothes without underlying value stated
Other neutral statements otherwise uncodable
Other

APPENDIX D

FREQUENCY DISTRIBUTIONS OF WOMEN'S AND MEN'S AFFECTIVE EVALUATIONS OF LIFE CONCERNS

APPENDIX D

FREQUENCY DISTRIBUTIONS OF WOMEN'S AND MEN'S AFFECTIVE EVALUATIONS OF LIFE CONCERNS

TABLE D-1.--Frequencies and Relative Frequencies of Women's and Men's Affective Evaluations of Seven Domains

Domains	Terrible		Unhappy		Mostly Dissatisfied		Mixed		Mostly Satisfied		Pleased		Delighted		Neutral		Never Thought		Does Not Apply		No Answer	
	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
Housing																						
Women	1	(.9)	1	(.9)	6	(5.2)	14	(12.1)	36	(31.0)	41	(35.3)	16	(13.8)	1	(.9)	-		-		-	
Men	2	(1.7)	2	(1.7)	3	(2.6)	12	(10.3)	38	(32.8)	43	(37.1)	15	(12.9)	-		-		1	(.9)		
Clothing																						
Women	1	(.9)	3	(2.6)	7	(6.0)	23	(19.8)	45	(38.8)	24	(20.7)	4	(3.4)	4	(3.4)	5	(4.3)	-		-	
Men	1	(.9)	-		2	(1.7)	19	(16.4)	45	(38.8)	30	(25.9)	3	(2.6)	10	(8.6)	5	(4.3)	-		1	(.9)
Job																						
Women	1	(.9)	-		8	(6.9)	11	(9.5)	28	(24.1)	22	(19.0)	8	(6.9)	3	(2.6)	-		34	(29.3)	1	(.9)
Men	-		8	(6.9)	6	(5.2)	24	(20.7)	28	(24.1)	33	(28.4)	14	(12.1)	2	(1.7)	-		1	(.9)	-	
Family Life																						
Women	-		1	(.9)	-		16	(13.8)	28	(24.1)	48	(41.4)	21	(18.1)	1	(.9)	-		-		1	(.9)
Men	-		1	(.9)	-		6	(5.2)	21	(18.1)	61	(52.6)	27	(23.3)	-		-		-		-	
Neighborhood																						
Women	-		-		3	(2.6)	17	(14.7)	36	(31.0)	42	(36.2)	15	(12.9)	2	(1.7)	1	(.9)	-		-	
Men	1	(.9)	1	(.9)	6	(5.2)	16	(13.8)	34	(29.3)	40	(34.5)	18	(15.5)	-		-		-		-	
Spare Time Activities																						
Women	2	(1.7)	1	(.9)	6	(5.2)	34	(29.3)	45	(38.8)	23	(19.8)	3	(2.6)	2	(1.7)	-		-		-	
Men	-		-		11	(9.5)	26	(22.4)	42	(36.2)	26	(22.4)	9	(7.8)	-		-		1	(.9)	1	(.9)
National Government																						
Women	3	(2.6)	3	(2.6)	18	(15.5)	59	(50.9)	19	(16.4)	5	(4.3)	-		5	(4.3)	4	(3.4)	1	(.9)	-	
Men	4	(3.4)	11	(9.5)	27	(23.3)	39	(33.6)	26	(22.4)	5	(4.3)	2	(1.7)	2	(1.7)	-		-		-	

NOTE: Total N across all columns for each row = 116 (100.0%).

TABLE D-2.--Frequencies and Relative Frequencies of Women's and Men's Affective Evaluations of Eight Criteria

Criteria	Terrible		Unhappy		Mostly Dissatisfied		Mixed		Mostly Satisfied		Pleased		Delighted		Neutral		Never Thought		Does Not Apply		No Answer	
	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
Standard of Living																						
Women		-	1	(.9)	4	(3.4)	15	(12.9)	40	(34.5)	43	(37.1)	12	(10.3)	1	(.9)		-		-		-
Men		-	2	(1.7)	7	(6.0)	11	(9.5)	43	(37.1)	43	(37.1)	9	(7.8)	1	(.9)		-		-		-
Fun																						
Women	1	(.9)	3	(2.6)	5	(4.3)	27	(23.3)	43	(37.1)	28	(24.1)	4	(3.4)	2	(1.7)	3	(2.6)		-		-
Men	1	(.9)	3	(2.6)	11	(9.5)	24	(20.7)	55	(47.4)	13	(11.2)	8	(6.9)		-	1	(.9)		-		-
Independence/Freedom																						
Women	1	(.9)	4	(3.4)	5	(4.3)	21	(18.1)	36	(31.0)	33	(28.4)	13	(11.2)	2	(1.7)	1	(.9)		-		-
Men	1	(.9)	3	(2.6)	9	(7.8)	21	(18.1)	39	(33.6)	29	(25.0)	12	(10.3)	1	(.9)		-	1	(.9)		-
Beauty																						
Women		-	1	(.9)	3	(2.6)	23	(19.8)	51	(44.0)	25	(21.6)	1	(.9)	2	(1.7)	9	(7.8)		-	1	(.9)
Men	1	(.9)	2	(1.7)	11	(9.5)	31	(26.7)	36	(31.0)	22	(19.0)	6	(5.2)	2	(1.7)	5	(4.3)		-		-
Freedom from Bother																						
Women	1	(.9)	3	(2.6)	8	(6.9)	21	(18.1)	42	(36.2)	22	(19.0)	5	(4.3)	2	(1.7)	11	(9.5)	1	(.9)		-
Men	1	(.9)	2	(1.7)	6	(5.2)	14	(12.1)	49	(42.2)	30	(25.9)	7	(6.0)	2	(1.7)	4	(3.4)	1	(.9)		-
Safety																						
Women		-	2	(1.7)	5	(4.3)	19	(16.4)	46	(39.7)	30	(25.9)	4	(3.4)	3	(2.6)	7	(6.0)		-		-
Men	2	(1.7)	2	(1.7)	4	(3.4)	17	(14.7)	46	(39.7)	30	(25.9)	6	(5.2)	2	(1.7)	7	(6.0)		-		-
Accomplishing Something																						
Women	1	(.9)	3	(2.6)	4	(3.4)	28	(24.1)	48	(41.4)	22	(19.0)	6	(5.2)	1	(.9)	2	(1.7)	1	(.9)		-
Men	1	(.9)	3	(2.6)	6	(5.2)	24	(20.7)	44	(37.9)	26	(22.4)	9	(7.8)	3	(2.6)		-		-		-
Acceptance and Inclusion																						
Women		-		-	3	(2.6)	10	(8.6)	44	(37.9)	41	(35.3)	11	(9.5)	3	(2.6)	4	(3.4)		-		-
Men		-	1	(.9)	2	(1.7)	9	(7.8)	45	(38.8)	42	(36.2)	9	(7.8)	4	(3.4)	3	(2.6)	1	(.9)		-

NOTE: Total N across all columns for each row = 116 (100.0%).

APPENDIX E

MULTIPLE REGRESSION TABLES FOR THE PREDICTION OF SIX DOMAINS BY EIGHT CRITERIA

APPENDIX E

MULTIPLE REGRESSION TABLES FOR THE PREDICTION OF SIX DOMAINS BY EIGHT CRITERIA

TABLE E-1.--Multiple Regression Analyses of the Prediction of Affective Evaluations of Housing by Eight Criteria

Analysis of Variance					Multiple Regression					
Source of Variation	Sum of Squares	df	Mean Square	F (Probability)	Variable	Unstandardized Regression Coefficient (Estimated Beta)	Standard Error of Regression Coefficient	F	Probability	Standardized Regression Coefficient
Women										
Regression	61.94	8	7.74	10.65 (.000)	Standard of Living	.370	.145	6.52	.013	.392
					Fun	-.180	.133	1.84	.179	-.191
Residual	50.90	70	.73		Independence or Freedom	.072	.130	.30	.583	.065
					Beauty	.400	.120	11.21	.001	.416
Total	112.84	78			Freedom from Bother	.349	.122	8.16	.006	.300
					Safety	-.041	.140	.09	.769	-.035
Multiple R = .741					Accomplishing Something	.034	.131	.07	.795	.032
Multiple R^2 = .549					Acceptance & Inclusion	-.177	.109	2.63	.109	-.192
Adjusted R^2 = .497					(Constant)	1.279	.597	4.59	.036	
Men										
Regression	34.58	8	4.32	7.12 (.000)	Standard of Living	.251	.118	4.50	.038	.297
					Fun	.060	.166	.13	.720	.065
Residual	40.09	66	.61		Independence or Freedom	-.254	.156	2.65	.108	-.241
					Beauty	.262	.118	4.89	.030	.302
Total	74.67	74			Freedom from Bother	.265	.111	5.66	.020	.307
					Safety	.328	.107	.09	.761	.030
Multiple R = .680					Accomplishing Something	.089	.119	.56	.459	.086
Multiple R^2 = .463					Acceptance & Inclusion	.007	.104	.00	.948	.008
Adjusted R^2 = .398					(Constant)	1.788	.701	6.51	.013	

TABLE E-2.--Multiple Regression Analysis of the Prediction of Affective Evaluations of Job by Eight Criteria

Analysis of Variance					Multiple Regression					
Source of Variation	Sum of Squares	df	Mean Square	F (Probability)	Variable	Unstandardized Regression Coefficient (Estimated Beta)	Standard Error of Regression Coefficient	F	Probability	Standardized Regression Coefficient
Men										
Regression	101.58	8	12.70	15.73 (.000)	Standard of Living	.121	.096	1.59	.211	.105
					Fun	.303	.120	6.38	.014	.316
Residual	57.30	71	.81		Independence or Freedom	.193	.117	2.72	.103	.198
					Beauty	.670	.106	.40	.529	.072
Total	158.88	79			Freedom from Bother	.090	.118	.58	.448	.089
					Safety	.051	.080	.40	.526	.051
Multiple R = .800					Accomplishing Something	.234	.116	4.04	.048	.208
Multiple R^2 = .639					Acceptance & Inclusion	-.040	.102	.16	.692	-.034
Adjusted R^2 = .599					(Constant)	.167	.619	.07	.788	

NOTE: Number of women responding on scale to all eight job-by-criterion items was too few (N=20) for a reliable calculation of this regression equation for women.

TABLE E-3.--Multiple Regression Analyses of the Prediction of Affective Evaluations of Family Life by Eight Criteria

Analysis of Variance					Multiple Regression					
Source of Variation	Sum of Squares	df	Mean Square	F (Probability)	Variable	Unstandardized Regression Coefficient (Estimated Beta)	Standard Error of Regression Coefficient	F	Probability	Standardized Regression Coefficient
Women										
Regression	36.78	8	4.60	7.03 (.000)	Standard of Living	.171	.100	2.92	.093	.193
					Fun	.256	.140	3.34	.073	.268
Residual	39.92	61	.65		Independence or Freedom	-.078	.132	.35	.556	-.082
					Beauty	.183	.130	1.98	.164	.201
Total	76.70	69			Freedom from Bother	.232	.119	3.79	.056	.276
					Safety	-.034	.130	.07	.796	-.037
Multiple R_c = .692					Accomplishing Something	.273	.117	5.48	.022	.277
Multiple R^2 = .480					Acceptance & Inclusion	-.308	.124	6.12	.016	-.360
Adjusted R^2 = .411					(Constant)	2.242	.662	11.48	.001	
Men										
Regression	29.48	8	3.68	9.52 (.000)	Standard of Living	.066	.104	.41	.526	.092
					Fun	.152	.108	1.98	.164	.216
Residual	23.60	61	.39		Independence or Freedom	.172	.124	1.93	.169	.240
					Beauty	.223	.137	2.63	.110	.298
Total	53.08	69			Freedom from Bother	.019	.129	.02	.884	.025
					Safety	.056	.138	.16	.688	.076
Multiple R_c = .745					Accomplishing Something	.068	.112	.37	.546	.096
Multiple R^2 = .555					Acceptance & Inclusion	-.160	.138	1.34	.252	-.229
Adjusted R^2 = .497					(Constant)	2.753	.402	46.78	0	

TABLE E-4.--Multiple Regression Analyses of the Prediction of Affective Evaluations of Neighborhood by Eight Criteria

Analysis of Variance					Multiple Regression					
Source of Variation	Sum of Squares	df	Mean Square	F (Probability)	Variable	Unstandardized Regression Coefficient (Estimated Beta)	Standard Error of Regression Coefficient	F	Probability	Standardized Regression Coefficient
Women										
Regression	23.59	8	2.95	4.04 (.001)	Standard of Living	-.034	.160	.04	.833	-.037
					Fun	.081	.116	.49	.488	.106
Residual	49.65	68	.73		Independence or Freedom	.065	.133	.24	.627	.081
					Beauty	.201	.127	2.52	.117	.271
Total	73.24	76			Freedom from Bother	-.051	.151	.11	.737	-.064
					Safety	.087	.178	.24	.626	.084
Multiple R = .568					Accomplishing Something	.131	.139	.89	.349	.134
Multiple R^2 = .322					Acceptance & Inclusion	.087	.121	.52	.475	.115
Adjusted R^2 = .242					(Constant)	2.596	.700	13.75	.000	
Men										
Regression	36.38	8	4.55	5.04 (.000)	Standard of Living	.212	.157	1.82	.182	.204
					Fun	.330	.149	4.90	.030	.339
Residual	62.29	69	.90		Independence or Freedom	.152	.182	.01	.934	.013
					Beauty	.166	.166	1.00	.321	.168
Total	98.67	77			Freedom from Bother	.034	.177	.04	.850	.032
					Safety	.102	.157	.42	.516	.086
Multiple R = .607					Accomplishing Something	-.148	.190	.60	.441	-.118
Multiple R^2 = .369					Acceptance & Inclusion	-.013	.168	.00	.940	-.011
Adjusted R^2 = .300					(Constant)	1.800	.771	5.42	.023	

TABLE E-5.--Multiple Regression Analyses of the Prediction of Affective Evaluations of Spare Time Activities by Eight Criteria

Analysis of Variance					Multiple Regression					
Source of Variation	Sum of Squares	df	Mean Square	F (Probability)	Variable	Unstandardized Regression Coefficient (Estimated Beta)	Standard Error of Regression Coefficient	F	Probability	Standardized Regression Coefficient
Women										
Regression	33.63	8	4.20	4.35 (.000)	Standard of Living	.252	.149	.03	.866	.028
					Fun	.426	.144	8.82	.004	.443
Residual	59.92	62	.97		Independence or Freedom	.148	.152	.94	.335	.141
					Beauty	-.187	.177	1.12	.294	-.163
Total	93.55	70			Freedom from Bother	.119	.164	.53	.471	.099
					Safety	.163	.159	1.04	.311	.142
Multiple R = .600					Accomplishing Something	-.006	.128	.00	.962	-.006
Multiple R^2 = .359					Acceptance & Inclusion	.084	.147	.33	.570	.078
Adjusted R^2 = .277					(Constant)	.918	.879	1.09	.300	
Men										
Regression	54.06	8	6.76	15.09 (.000)	Standard of Living	.364	.099	13.53	.001	.386
					Fun	.568	.137	17.14	.000	.660
Residual	25.07	56	.45		Independence or Freedom	.104	.161	.42	.522	.114
					Beauty	-.504	.163	9.58	.003	-.569
Total	79.13	64			Freedom from Bother	.343	.132	6.80	.012	.363
					Safety	-.047	.103	.21	.648	-.046
Multiple R = .826					Accomplishing Something	.026	.118	.05	.826	.028
Multiple R^2 = .683					Acceptance & Inclusion	-.037	.104	.12	.724	-.040
Adjusted R^2 = .638					(Constant)	1.037	.502	4.27	.043	

TABLE E-6.--Multiple Regression Analyses of the Prediction of Affective Evaluations of National Government by Eight Criteria

Analysis of Variance					Multiple Regression					
Source of Variation	Sum of Squares	df	Mean Square	F (Probability)	Variable	Unstandardized Regression Coefficient (Estimated Beta)	Standard Error of Regression Coefficient	F	Probability	Standardized Regression Coefficient
Women										
Regression	30.42	8	3.80	10.93 (.000)	Standard of Living	.330	.131	6.30	.017	.367
					Fun	.142	.129	1.22	.278	.181
Residual	11.48	33	.35		Independence or Freedom	-.214	.152	2.00	.167	-.217
					Beauty	.197	.129	2.32	.137	.203
Total	41.90	41			Freedom from Bother	.014	.160	.01	.933	.014
					Safety	.292	.113	6.69	.014	.368
Multiple R = .852					Accomplishing Something	.225	.213	1.12	.298	.217
Multiple R^2 = .726					Acceptance & Inclusion	-.135	.151	.80	.376	-.148
Adjusted R^2 = .660					(Constant)	.402	.561	.51	.478	
Men										
Regression	31.31	8	3.91	4.21 (.001)	Standard of Living	.308	.156	3.92	.053	.340
					Fun	-.128	.180	.51	.478	-.158
Residual	44.62	48	.93		Independence or Freedom	.134	.184	.53	.469	.171
					Beauty	.201	.177	.01	.910	.023
Total	75.93	56			Freedom from Bother	-.087	.139	.39	.534	-.120
					Safety	.221	.106	4.34	.043	.314
Multiple R = .642					Accomplishing Something	.097	.165	.34	.559	.105
Multiple R^2 = .412					Acceptance & Inclusion	.064	.151	.18	.671	.076
Adjusted R^2 = .314					(Constant)	1.426	.536	7.07	.011	

APPENDIX F

PEARSON CORRELATION MATRICES

APPENDIX F

PEARSON CORRELATION MATRICES

TABLE F-1.--Key to Variable Numbers in Pearson Correlation Matrices: Tables F-2 to F-7

Domain or Criterion	Variable Number		Questionnaire Number
	Women	Men	
Perceived Overall Quality of Life	1	1	1.1 & 9.2[a]
Housing	2	2	1.12
Clothing	3	3	1.15a
Job	-	4	1.7
Family Life	4	5	1.3a
Neighborhood	5	6	1.14
Spare Time Activities	6	7	1.16
National Government	7	8	1.10
Standard of Living	8	9	1.8
Fun	9	10	1.11
Independence or Freedom	10	11	1.5
Beauty and Attractiveness	11	12	1.4
Freedom from Bother & Annoyance	12	13	1.2
Safety	13	14	1.9
Accomplishing Something	14	15	1.13
Acceptance & Inclusion by Others	15	16	1.6
Self	16	17	1.17
Energy Lifestyle Changes	17	18	1.18
Total Family Income	18	19	1.24
Financial Security	19	20	1.19
Interesting Life	20	21	1.20
Physical Needs	21	22	1.21
Social-Emotional Needs	22	23	1.22
Health	23	24	1.23
Creative & Expressive	24	25	1.25
Learn New Things	25	26	1.26

[a]POQL is the arithmetic mean of responses to items 1.1 and 9.2.

TABLE F-2.--Lower Triangular Pearson Correlation Matrix of POQL and 24 General Life Concerns for All Women[a]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
2	.314														
3	.254	.337													
4	.632	.286	.125												
5	.315	.402	.150	.222											
6	.324	.291	.267	.265	.189										
7	.044	-.004	.030	-.023	-.072	.073									
8	.334	.649	.345	.254	.203	.188	-.035								
9	.490	.374	.413	.334	.290	.509	-.005	.368							
10	.413	.425	.362	.342	.214	.347	.020	.447	.536						
11	.295	.389	.397	.075	.149	.312	.069	.448	.433	.477					
12	.493	.326	.291	.465	-.035	.278	.189	.423	.362	.400	.259				
13	.168	.058	.181	.132	.037	.182	.106	.228	.298	.213	.191	.350			
14	.517	.336	.353	.357	.255	.422	.003	.373	.535	.442	.257	.392	.266		
15	.390	.180	.302	.249	.300	.202	.070	.310	.342	.407	.217	.159	.217	.412	
16	.522	.212	.493	.309	.365	.375	-.009	.266	.470	.319	.288	.329	.215	.536	.512
17	.077	.216	.114	.052	.065	.201	.227	.308	.105	.369	.205	.171	.044	.016	.340
18	.336	.378	.335	.065	.155	.323	.026	.595	.452	.384	.452	.320	.233	.430	.250
19	.329	.404	.383	.118	.216	.202	.031	.572	.354	.254	.421	.278	.152	.382	.242
20	.433	.288	.497	.199	.279	.330	.027	.383	.650	.560	.413	.334	.320	.613	.525
21	.306	.431	.387	.108	.148	.225	.117	.525	.328	.408	.375	.333	.313	.335	.138
22	.498	.131	.390	.316	.310	.306	-.001	.328	.576	.373	.328	.260	.237	.573	.612
23	.343	.241	.234	.254	.223	.246	.153	.268	.324	.285	.203	.283	.229	.262	.287
24	.049	.061	.255	-.029	.250	.153	-.196	.026	.145	.193	.258	-.040	.107	.230	.295
25	.152	.100	.451	.026	.072	.255	-.018	.179	.424	.473	.366	.207	.129	.282	.189

	16	17	18	19	20	21	22	23	24
17	.128								
18	.292	.186							
19	.265	.214	.727						
20	.457	.280	.529	.473					
21	.223	.248	.532	.443	.449				
22	.534	.135	.401	.326	.671	.348			
23	.261	.097	.256	.217	.299	.365	.314		
24	.346	.169	.073	.035	.213	.143	.255	.170	
25	.210	.224	.263	.134	.489	.355	.321	.097	.511

NOTE: Based on sample of 116 women. Refer to Figure 15 for corresponding multidimensional scaling and cluster analyses.

[a]Key to variable numbers is given in Table F-1.

TABLE F-3.--Lower Triangular Pearson Correlation Matrix of POQL and 24 General Life Concerns for Women with High Scores on the Proximity of Clothing to Self Scale[a]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
2	.254														
3	.356	.166													
4	.657	.159	.142												
5	.432	.474	.254	.190											
6	.436	.228	.474	.181	.208										
7	.023	-.078	-.045	-.032	-.141	.174									
8	.230	.536	.169	.180	.150	.300	-.039								
9	.412	.325	.544	.324	.360	.516	.099	.192							
10	.425	.354	.315	.337	.281	.451	.093	.222	.532						
11	.335	.424	.449	.172	.364	.574	.189	.402	.639	.343					
12	.531	.268	.346	.402	.054	.417	.307	.346	.462	.502	.318				
13	.312	-.080	.218	.272	.089	.291	.208	.018	.400	.144	.199	.388			
14	.543	.385	.475	.234	.482	.523	.084	.351	.509	.586	.306	.460	.173		
15	.636	.358	.307	.490	.385	.321	.016	.324	.523	.606	.377	.556	.224	.594	
16	.542	.287	.711	.173	.386	.562	-.070	.217	.485	.413	.507	.514	.256	.621	.569
17	.192	-.021	.071	.101	-.011	.389	.144	.265	.341	.362	.269	.402	.168	.196	.470
18	.360	.263	.259	.057	.139	.429	.206	.455	.354	.365	.451	.345	.185	.462	.248
19	.452	.364	.283	.193	.198	.280	.176	.498	.262	.195	.386	.369	.127	.445	.309
20	.530	.208	.426	.307	.335	.575	.028	.104	.732	.620	.450	.441	.306	.641	.583
21	.323	.340	.261	.180	.287	.436	.159	.243	.337	.427	.378	.366	.250	.341	.306
22	.539	.268	.365	.415	.497	.420	-.086	.308	.598	.510	.489	.335	.224	.605	.725
23	.410	.279	.155	.213	.286	.378	.215	.230	.261	.150	.197	.352	.201	.341	.344
24	.231	.172	.465	-.001	.363	.207	-.256	.193	.417	.245	.337	.219	.282	.407	.374
25	.058	-.030	.435	-.070	.077	.381	-.143	-.001	.546	.399	.298	.279	.356	.288	.207

	16	17	18	19	20	21	22	23	24
17	.295								
18	.246	.281							
19	.318	.280	.747						
20	.569	.428	.363	.367					
21	.298	.453	.494	.348	.323				
22	.599	.356	.254	.252	.628	.418			
23	.244	.189	.314	.342	.249	.524	.354		
24	.598	.324	.311	.257	.407	.497	.594	.190	
25	.392	.375	.217	-.005	.483	.334	.363	.315	.698

NOTE: Based on a subsample of 49 women. Refer to Figure 17 for corresponding multidimensional scaling and cluster analyses.

[a]Key to variable numbers is given in Table F-1.

TABLE F-4.--Lower Triangular Pearson Correlation Matrix of POQL and 24 General Life Concerns for Women with Low Scores on the Proximity of Clothing to Self Scale[a]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
2	.342														
3	.161	.489													
4	.616	.346	.067												
5	.245	.366	.033	.262											
6	.268	.348	.032	.363	.163										
7	.101	.054	.115	-.002	-.018	-.041									
8	.332	.674	.566	.290	.255	.124	-.023								
9	.527	.402	.381	.426	.284	.536	-.047	.456							
10	.497	.468	.414	.344	.180	.269	-.035	.575	.547						
11	.234	.373	.372	.028	-.000	.144	-.021	.472	.341	.362					
12	.430	.372	.239	.554	-.118	.185	.111	.477	.278	.317	.232				
13	.059	.137	.149	.039	0.000	.098	.037	.348	.232	.265	.189	.317			
14	.466	.318	.217	.457	.126	.373	-.030	.411	.550	.334	.245	.294	.347		
15	.195	.069	.300	.075	.229	.106	.128	.306	.223	.256	.111	-.175	.211	.247	
16	.515	.167	.249	.421	.347	.187	.061	.310	.486	.239	.134	.144	.178	.449	.461
17	.096	.341	.176	.053	.124	.094	.256	.346	.071	.403	.182	.130	-.017	.012	.301
18	.314	.441	.405	.056	.178	.246	-.100	.676	.504	.395	.457	.292	.268	.407	.249
19	.236	.437	.482	.065	.241	.134	-.091	.636	.417	.300	.456	.191	.175	.321	.177
20	.313	.343	.571	.112	.241	.107	.055	.575	.586	.516	.401	.217	.335	.566	.465
21	.296	.468	.492	.070	.066	.106	.106	.643	.323	.402	.374	.316	.352	.344	.040
22	.455	.061	.417	.244	.179	.246	.092	.330	.553	.285	.247	.182	.242	.532	.535
23	.314	.230	.333	.303	.146	.099	.066	.311	.398	.417	.214	.220	.261	.213	.241
24	-.037	-.006	.049	-.045	.122	.092	-.172	-.084	-.023	.152	.203	-.290	-.037	.084	.229
25	.232	.179	.472	.094	.068	.142	.079	.290	.361	.528	.412	.143	-.034	.305	.176

	16	17	18	19	20	21	22	23	24
17	.071								
18	.314	.175							
19	.213	.207	.712						
20	.339	.254	.568	.573					
21	.191	.192	.555	.510	.540				
22	.497	.078	.493	.368	.699	.312			
23	.296	.041	.214	.092	.371	.280	.300		
24	.036	-.036	-.117	-.166	.036	-.075	.019	.143	
25	.058	.158	.300	.246	.502	.377	.303	.177	.346

NOTE: Based on a subsample of 67 women. Refer to Figure 18 for corresponding multidimensional scaling and cluster analyses.

[a]Key to variable numbers is given in Table F-1.

TABLE F-5.--Lower Triangular Pearson Correlation Matrix of POQL and 25 General Life Concerns for All Men[a]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
2	.343														
3	.385	.176													
4	.490	.252	.419												
5	.599	.194	.145	.167											
6	.266	.455	.380	.357	.206										
7	.524	.179	.316	.278	.421	.113									
8	.234	.069	.123	.130	.036	-.103	.289								
9	.388	.589	.315	.445	.127	.259	.201	.044							
10	.565	.108	.369	.235	.470	.282	.480	.219	.252						
11	.443	.134	.151	.274	.262	.252	.443	.235	.281	.650					
12	.392	.121	.157	.292	.296	.264	.357	.130	.335	.503	.572				
13	.333	.086	.143	.151	.179	.210	.287	.119	.160	.289	.553	.384			
14	.071	.117	.019	.023	.107	.181	.141	.145	.008	.211	.167	.275	.233		
15	.643	.466	.388	.579	.310	.420	.398	.205	.554	.324	.370	.379	.329	.065	
16	.447	.143	.269	.290	.337	.108	.341	-.007	.268	.361	.363	.277	.361	.046	.461
17	.675	.244	.317	.347	.456	.207	.455	-.009	.299	.524	.464	.345	.280	.103	.542
18	.087	.239	-.137	.216	.029	.161	.134	.042	.084	.167	.115	.101	.123	.030	.072
19	.479	.291	.319	.461	.274	.303	.190	-.007	.653	.297	.238	.251	.281	-.029	.598
20	.550	.353	.273	.400	.284	.285	.236	.039	.539	.518	.393	.238	.234	.118	.590
21	.542	.347	.302	.389	.340	.329	.407	.107	.347	.641	.352	.463	.242	.170	.453
22	.458	.334	.282	.275	.319	.300	.282	-.039	.466	.262	.258	.342	.185	-.035	.407
23	.472	.181	.197	.145	.498	.223	.318	-.012	.350	.469	.358	.315	.251	.057	.457
24	.323	.143	.038	.164	.238	.180	.308	.090	.252	.524	.616	.454	.337	.295	.294
25	.451	.049	.026	.322	.295	.172	.363	.112	.179	.366	.407	.428	.273	.215	.347
26	.465	.127	.070	.354	.294	.233	.299	.167	.288	.382	.499	.483	.378	.185	.437

	16	17	18	19	20	21	22	23	24	25
17	.504									
18	-.026	.164								
19	.307	.323	.067							
20	.330	.592	.187	.710						
21	.355	.602	.344	.231	.524					
22	.331	.412	.174	.463	.439	.450				
23	.658	.574	.121	.387	.493	.437	.466			
24	.261	.441	.236	.190	.377	.483	.332	.417		
25	.412	.478	.268	.308	.410	.401	.297	.392	.341	
26	.400	.454	.293	.315	.278	.513	.310	.431	.431	.697

NOTE: Based on a sample of 116 men. Refer to Figure 16 for corresponding multidimensional scaling and cluster analyses.

[a]Key to variable numbers is given in Table F-1.

TABLE F-6.--Lower Triangular Pearson Correlation Matrix of POQL and 25 General Life Concerns for Men with High Scores on the Proximity of Clothing to Self Scale[a]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
2	.197														
3	.450	.084													
4	.429	.087	.649												
5	.671	-.035	.247	.106											
6	.356	.417	.482	.341	.108										
7	.729	.051	.523	.398	.602	.156									
8	.164	-.090	-.054	.170	.222	-.220	.184								
9	.082	.304	.309	.409	-.006	.137	.119	-.196							
10	.665	-.136	.592	.434	.487	.230	.511	.221	.201						
11	.533	-.043	.545	.497	.319	.430	.442	.115	.251	.578					
12	.532	.045	.552	.383	.250	.185	.543	.140	.401	.576	.591				
13	.225	-.074	.169	.078	.072	.100	.156	.050	.021	.022	.516	.144			
14	.199	.173	.126	-.166	.067	.045	.188	-.238	.030	.087	.048	.102	.081		
15	.537	.038	.569	.555	.255	.456	.439	.015	.255	.599	.548	.513	.119	.025	
16	.421	.056	.482	.396	.152	.077	.242	.155	.216	.447	.534	.378	.421	.117	.516
17	.763	-.058	.441	.250	.511	.288	.513	.011	-.084	.569	.473	.412	.118	.328	.510
18	-.041	.369	-.275	-.077	-.061	.126	-.102	.003	.032	-.364	-.199	-.054	-.061	-.174	-.127
19	.234	-.095	.464	.458	.058	.246	.149	-.219	.607	.535	.392	.322	.162	-.089	.601
20	.503	-.041	.466	.498	.166	.339	.260	-.154	.367	.655	.447	.401	.042	.037	.648
21	.429	.204	.568	.494	.352	.441	.420	.170	.214	.492	.593	.656	.009	.145	.503
22	.450	.164	.469	.402	.302	.387	.378	-.135	.359	.272	.455	.480	.198	.169	.445
23	.533	-.031	.408	.225	.424	.091	.355	.210	.212	.572	.452	.433	.227	.064	.430
24	.198	-.037	.169	-.034	.142	.216	.244	-.036	-.004	.268	.433	.239	.081	.466	.053
25	.613	-.061	.279	.356	.467	-.063	.556	.168	.127	.428	.519	.433	.146	.212	.498
26	.546	-.016	.307	.370	.405	.141	.319	.159	.204	.419	.618	.466	.141	.023	.504

	16	17	18	19	20	21	22	23	24	25
17	.408									
18	-.332	-.304								
19	.440	.223	-.281							
20	.416	.329	-.224	.757						
21	.255	.435	.059	.145	.328					
22	.302	.467	.030	.336	.423	.602				
23	.675	.523	-.406	.373	.454	.301	.270			
24	.051	.453	-.260	-.040	.157	.314	.195	.163		
25	.475	.554	-.105	.299	.392	.474	.453	.450	.077	
26	.490	.602	-.125	.283	.266	.546	.469	.509	.214	.722

NOTE: Based on a subsample of 40 men. Refer to Figure 19 for corresponding multidimensional scaling and cluster analyses.

[a]Key to variable numbers is given in Table F-1.

TABLE F-7.--Lower Triangular Pearson Correlation Matrix of POQL and 25 General Life Concerns for Men with Low Scores on the Proximity of Clothing to Self Scale[a]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
2	.450														
3	.342	.225													
4	.515	.341	.396												
5	.576	.294	.111	.216											
6	.213	.476	.317	.353	.259										
7	.421	.242	.182	.151	.338	.174									
8	.246	.125	.161	.195	-.028	.150	.321								
9	.521	.716	.319	.459	.224	.317	.234	.127							
10	.533	.201	.280	.144	.476	.310	.476	.224	.278						
11	.411	.202	-.010	.166	.235	.192	.451	.278	.295	.677					
12	.335	.155	-.061	.250	.321	.251	.287	.131	.304	.472	.566				
13	.383	.157	.145	.191	.231	.266	.357	.148	.227	.405	.569	.503			
14	.020	.103	-.045	.088	.125	.217	.118	.238	-.006	.251	.200	.339	.287		
15	.655	.618	.311	.378	.346	.394	.371	.237	.665	.242	.316	.343	.403	.065	
16	.473	.195	.165	.212	.454	.174	.414	-.088	.308	.314	.266	.200	.325	.011	.456
17	.641	.352	.256	.387	.442	.169	.430	-.027	.449	.514	.466	.325	.341	.033	.548
18	.189	.198	.011	.103	.074	.245	.303	.102	.128	.406	.248	.155	.198	.132	.198
19	.531	.437	.252	.410	.367	.317	.181	.046	.671	.212	.183	.227	.323	-.021	.577
20	.581	.505	.186	.352	.338	.266	.292	.096	.610	.467	.376	.166	.311	.138	.571
21	.587	.404	.170	.335	.340	.277	.401	.075	.407	.711	.541	.376	.339	.168	.408
22	.451	.400	.187	.215	.337	.247	.223	-.027	.505	.267	.190	.234	.181	-.106	.379
23	.448	.280	.104	.181	.534	.296	.305	-.095	.417	.421	.330	.250	.263	.054	.471
24	.381	.215	.004	.115	.276	.244	.350	.137	.366	.623	.687	.548	.435	.245	.381
25	.369	.103	-.103	.310	.201	.148	.248	.085	.208	.336	.351	.424	.339	.225	.296
26	.441	.188	-.022	.360	.240	.294	.299	.177	.331	.364	.446	.490	.479	.243	.431

	16	17	18	19	20	21	22	23	24	25
17	.573									
18	.176	.366								
19	.259	.352	.248							
20	.390	.613	.380	.692						
21	.423	.661	.509	.280	.601					
22	.363	.306	.291	.497	.440	.376				
23	.677	.595	.373	.396	.510	.314	.548			
24	.391	.442	.432	.280	.459	.549	.387	.526		
25	.340	.449	.450	.314	.420	.506	.237	.363	.457	
26	.351	.403	.479	.320	.286	.499	.261	.397	.519	.690

NOTE: Based on a subsample of 76 men. Refer to Figure 20 for corresponding multidimensional scaling and cluster analyses.

[a]Key to variable numbers is given in Table F-1.

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