Clothing values as related to clothing inactivity and discard

by

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INTRODUCTION

With the declining abundance of natural resources there may be growing concern with avoiding waste in the household. In the process of clothing consumption, waste may occur because clothing not yet fully worn out is inactive or is discarded. Clothing consumption was defined by Winakor as "the whole process of acquiring, using, maintaining, and discarding clothing" (1969, p. 629).

According to Kluckhohn and Others (1962), individual values are directly related to a person's actions. Therefore, more efficient use of existing clothing in response to environmental and societal changes may require individuals to modify some of their personal values. Researchers have studied the area of clothing consumption and personal values separately, but little recent research has been found relating values to clothing consumption. Kluckhohn 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" (1962, p. 395). Researchers have studied the relationship of an individual's values to homemaking (Kohlmann, 1961), clothing (Creekmore, 1963), and housing practices and preferences (Stoeckeler & Hasegawa, 1974).

The purpose of this research was to examine whether an association exists between an individual's values and his

practices regarding discarded and inactive clothing. A self-administered questionnaire was developed based on instruments used by other researchers. The questionnaire consisted of two parts. The first was on clothing values using a numerical rating scale. The second was on clothing consumption practices. Homemakers from several selected groups participated in the study. The instrument was pretested and revised, then administered to the homemakers during meetings of their respective groups. Data were analyzed by correlation and cross-tabulation.

This research was part of a larger project, "Clothing Condition, Inactivity, and Discard," Project 1962 of the Iowa Agriculture and Home Economics Experiment Station. Previous theses on this project explored attitudes toward inactive and discarded clothing (VeVerka, 1974), as well as the willingness of an individual to wear damaged clothing (Vyverberg, 1972). VeVerka found that inactive garments can provide use value to the owner merely by being available for use. Similarly, if a garment is discarded before it is completely worn out an economic loss occurs, but if this garment is utilized by another individual no loss may occur (1974). In Vyverberg's research individuals differed in their willingness to wear a damaged garment before discarding it. She found that people were more willing to wear a damaged garment for less formal occasions (1972).

Two goals of Project 1962 toward which this research was directed were:

-Examine the relationships between values held by the homemaker, particularly economic, status, and esthetic values, and practices with regard to inactive clothing.

-Further characterize the model of the clothing consumption process with respect to inactive storage, its relationship to active inventory, and disposals and discard of clothing.

The objectives of this thesis were:

1. To explore whether an association exists between a person's clothing values and selected clothing consumption practices.

2. To examine whether an association exists between certain clothing values, such as economy or aesthetics, and the number of inactive garments, as well as the number of discarded garments.

3. To explore whether an association exists between a person's clothing values and whether he repairs, alters, or remakes a garment rather than discards it.

4. To examine whether ordered associations exist between a person's clothing values and his disposal of clothing.

Three assumptions were made in this research:

1. The two parts of the instrument are interpreted consistently by all respondents.

2. No bias results from order of administration of the two parts of the instrument.

3. Responses do not differ between group and individual administrations of the instrument.

The nature of this research was exploratory. Because respondents were not a random sample from a larger population, the results cannot be generalized. However, the results may be useful as a basis for formulating hypotheses and developing further research.

SELECTED ASPECTS OF CONSUMPTION AND VALUES

In preparation for this research, literature in the following four areas was reviewed. The first area was consumption economics, specifically clothing consumption; second was the concept of economic waste; third, the area of personal values, especially those values which might affect an individual's clothing consumption; the final area dealt with instrument development and evaluation and the use of cluster analysis and correlation in treating data.

Consumption Economics

Consumption economics had its beginning around the year 1700. By the late 1800's, Ernst Engel, a statistician, had greatly furthered the methodology, analysis, and use of household accounts. In her paper Monroe (1974) discussed the early development of consumption economics through Engel's time. An account of more recent progress in the field of consumption economics can be found in Burk (1968, pp. 3-9).

Clothing Consumption

One of the first full scale studies of clothing consumption was undertaken in 1949. Brew, O'Leary, and Dean (1956) reported on the findings of this study. They analyzed the data from various viewpoints -- farm-city, age group, family members, type of clothing, and income. In 1957 Struefert

explored the areas of active, inactive, and discarded clothing. Using the work of Brew et al. and Struefert as a basis, Winakor (1969) described the process of clothing consumption, identified its parts, and proposed a model of the process.

Winakor stated that clothing consumption can be defined in three different ways:

1. As a synonym for money expenditures for clothing purchased in the market, sometimes including also expenditures for clothing materials and services
2. To mean the use or final "using up" of clothing and related services
3. To encompass the whole process of acquiring, storing, using, maintaining, and discarding clothing (1969, p. 629).

Winakor (1969, p. 631) also discussed the discard, disposal, and inactive storage of clothing. Discard occurs when clothing leaves the possession of the owner for the last time. Disposal refers to the method used to discard the article of clothing, such as selling, using for rags, handing down, etc. Inactive storage is a state in which clothing is not being actively worn for an arbitrary period of one year. Clothing may reach this state of uncertainty for several reasons ranging from sentimentality to being kept for future use by a younger sibling.

Struefert (1957, p. 75) defined inactive storage as wearable garments not being worn at the present time or not having been worn during the past season.

The willingness of a person to wear damaged clothing could affect the amount of clothing discarded and the number of items held in inactive storage. Vyverberg (1972) studied the willingness of women to wear damaged clothing. She found that the type of damage was an important factor in the willingness to wear a garment. For example, women were less willing to wear garments that did not fit properly than garments which had suffered an allover color change. She also found that the formality of the garment and of the occasion were both important factors in the willingness to wear the garment. A formal garment or a formal occasion usually involves many people and an individual would be less likely to wear a damaged garment in this situation.

VeVerka (1974) interviewed respondents in 12 consumer units to determine their attitudes toward and understanding of inactive and discarded clothing. She found that inactive clothing might be stored in the bedroom closet, a closet in another room, in drawers, or at a parent's home. Clothing which was to be discarded was stored in a bedroom closet, in a closet in another room, at a parent's home, in the basement, in a cedar chest or in boxes.

The garments most likely to be inactive or discarded were dresses, shirts, slacks, and suits. The three major reasons for a garment becoming inactive or for being discarded were comfort, fit, and appropriateness or practicality.

In general, inactive garments had been owned for a longer period of time than active garments.

> It was found that the respondents who lived in smaller dwelling units had lived there for shorter periods of time, had less storage space, were more likely to live in apartments or mobile homes, were more likely to have a member of the family who had changed jobs within the last three years, were more likely to anticipate moving within the next three years, were more likely to store clothes in someone else's home, were more likely to feel they had insufficient storage space, and were more likely to be either a single consuming unit or family consisting only of husband and wife. The families who lived in larger dwelling units had lived there for longer periods of time, had more storage space, were more likely to live in houses, were less likely to have a family member who had changed jobs within the last three years, were less likely to anticipate moving within three years, and were more likely to be in a family consisting of more than two members (p. 57).

> The data indicated that families living in small dwelling units were more likely to have clothing stored in another family's home. The families living in larger dwelling units were more likely to have clothing belonging to other families stored in their homes. The families living in the smaller dwelling units were usually younger people who also stored clothing at their parents' homes (p. 58).

VeVerka's findings suggested that people do not value storage space as long as it is readily available. However, she believed that the cost of storing inactive garments, as well as the cost of making the garments available for use again, should be considered. There are also costs involved in discarding a garment.

She also studied use value in clothing consumption. From her work it appears that garments in inactive storage do provide use value, while a discarded garment provides no use value for the original owner.

As a result of her study, VeVerka hypothesized that:

- people find it difficult to distinguish between garments in use, in inactive storage, and intended for discard (p. 41).
- fashion change is a factor in whether clothing is placed in inactive storage or is discarded before it is worn out (p. 43).
- a job change may cause garments to become inactive or be discarded (p. 50).
- in general a family that is fairly mobile and lives in a small dwelling unit with less storage area will have a smaller clothing inventory (pp. 57-58).
- younger families and families who are not involved with social organizations do not have as well planned or systematic manner of clothing disposal as older families or families involved with social organizations (p. 59).
- a family that plans to move to a new home will also plan to move inactive clothing (p. 60).

VeVerka proposed that the relationship of inactive clothing to other aspects of the clothing consumption process

is less well-defined than was previously believed. This would allow a garment, such as a formal evening gown, to be placed on a continuum between active use and inactive storage. She also suggested that there may be two phases to inactivity--long term and short term.

Economic Waste

"People differ greatly, of course, in their preferred patterns of living. The French are noted for their consumption efficiency; on smaller volumes of consumption, they can live better than many other peoples can. By contrast, Americans are notoriously wasteful in their consumption habits, and therefore require a far larger volume of consumption to yield the same results in terms of living" (Davis, 1945, p. 11).

Davis, whose main concern was the standard and content of living, was not the first to notice consumer wastefulness. In 1899 Veblen (1953) pointed out the phenomenon of conspicuous waste, which is the obvious and purposeful disposal of an item before it has completely served its usefulness. Veblen stated that

> it frequently happens that an element of the standard of living which set out with being primarily wasteful, ends with becoming, in the apprehension of the consumer, a necessary of life; and it may in this way become as indispensable as any other item of the consumer's habitual expenditure (p. 79).

He further stated that "an article may be useful and wasteful both" (p. 79).

The general high level of real income and the marketing atmosphere within the United States has created an environment in which clothing waste appears to be prevalent. Discard of clothing before it is fully worn out by the owner and inactive storage of useable clothing are possible examples of waste in clothing consumption.

Sherrill (1949) was one of the first to research the area of clothing waste. She interviewed 30 unmarried working women between the ages of 23 and 28 in Greensboro, North Carolina. She listed the following factors as possible indicators of waste in clothing (pp. 18-19):

1. number of garments not in use or in partial use
2. length of time a garment has not been in use
3. amount of wear left in inactive or discarded garments
4. condition of an inactive or discarded garment

She drew the following conclusions (pp. 65, 69-72):

1. a person's general type of employment does not appear to be related to the amount of economic waste in clothing
2. persons judge the adequacy of their storage space by the amount of clothing which they own

3. persons who consider their storage space ample may cause less clothing waste than persons who consider their storage space limited
4. persons with the greatest number of garments have the greatest waste; small wardrobes are more conducive to avoidance of waste
5. fewer years of experience in selecting one's clothing may be related to less waste, while more years of selection experience may be related to greater waste
6. sewing practices may be related to the amount of clothing waste; garments altered by a paid professional or by a skilled owner of the garment result in less waste than clothing altered in a store or by an unskilled person
7. of the garments that were not in full use more than half were in good condition, one fourth in excellent condition, and fewer were in fair or poor condition.

In 1970 Boulding (p. 454) expressed a need to increase efficiency within households and suggested that this is a problem to which home economists should address themselves. Britton (1974) explained how the family can increase efficiency and decrease waste in the specific area of clothing and household textiles.

> We need to take special care of the clothing and household textiles we have and make fullest use of them, at the same time conserving water, fuel, energy, detergents, and cleaning fluids. We need to plan thoughtfully any purchases necessary to supplement the wardrobe of various family members to fit the purchases in our budgets. Then we must shop wisely for fabrics, styles, and tailoring that are appropriately durable without using an excess of gasoline for our shopping trips. Saving our money and the Nation's scarce resources may mean that we have to use more knowledge and skills, and simplify our standards (p. 20).

Vyverberg (1972) and VeVerka (1974) were both concerned with clothing waste. In Vyverberg's study, willingness to wear a damaged garment could affect the number and kind of items discarded and in inactive storage. This problem is an important consideration when discussing clothing waste.

VeVerka (1974) was also concerned with waste in clothing. She found that inactive storage is an uncertain state. A garment may be intentionally or unintentionally placed in inactive storage and it may stay there only temporarily or permanently. While it is there, it may or may not provide use value for the individual. If it does not provide use value and stays in inactive storage for a long period of time, it may result in economic waste.

According to VeVerka, if a garment is discarded before it is fully used economic waste may occur. However, if this garment can be utilized by another person, the waste can be eliminated. Development of an effective second-hand clothing market could result in less waste, especially in the case of

clothing made of man-made fibers, which are more durable than natural fibers (p. 70).

Values

General values

Eduard Spranger (1928) theorized that there were six ideal types of men - Theoretic, Economic, Aesthetic, Social, Political, and Religious and that these six types actually represented values which men possess. Spranger believed that the total personality of an individual could best be studied by the use of values. He did not believe that any pure type of man existed, but that each person is actually a mixture of these six values types with one tending to be dominant.

Spranger's hypothesis prompted Vernon and Allport (1931), Thorndike (1936), Hartmann (1939), Kluckhohn and Others (1962), and several other researchers to study the area of values. Kohlmann (1961) reviewed these papers; therefore they are reviewed only briefly here.

In an attempt to verify Spranger's basic theory Vernon and Allport (1931) developed a test of personal values (Study of Values) based on Spranger's six ideal types of men. Their results indicated that Spranger's view of values constituting generalized motives in men was justified. They also successfully determined the prominence of each of the six values in any individual.

In 1933 Cantril and Allport reported on various applications of the Study of Values. They "demonstrated unmistakably that aesthetic, social, and religious values play a relatively more prominent role in the personalities of women than of men, and conversely that men are relatively stronger in theoretical, economic, and political interests" (p. 260). In summary they stated that "several experiments demonstrate a clear relationship between values and conduct" (p. 272).

Thorndike (1936) questioned whether there were "any valid reasons why the methods of science should be abandoned in favor of either philosophical arguments or intuitional conclusions when one passes from facts of existence to facts of values" (p. 7).

Hartmann (1939) believed that values were the basic unifying concept or tool for all the social sciences and that if this was true the psychologists were not only "justified in studying value experiences of individuals but [were] compelled to do so" (p. 568).

As stated in the introduction, the definition of values used in this research was stated by Kluckhohn and Others (1962). "A value is 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 further stated that a value does "not arise solely out of immediate

tensions or immediate situations" (p. 425).

Kluckhohn (1962) also made the following statements:

1. Sometimes what a person says about his values is truer from a long-term viewpoint than inferences drawn from his actions under special conditions (p. 406).

2. Values are . . . cultural products (p. 398).

3. Some values are directly involved in the individual's existence as a "self" (p. 398).

Jacob, Flink, and Shuchman (1962) reviewed the value studies of several persons including Kluckhohn (1962) in order "to delineate the value concept more sharply than has previously been done for use as an analytic tool in the policy sciences" (Jacob et al., 1962, p. 7). Based on their review and on their desire to identify a more precise concept of value for their purpose they proposed the following definition of values: "normative standards by which human beings are influenced in their choice among the alternative courses of action which they perceive" (p. 10). They also made certain other statements which are relevant to this discussion:

1. "Values do not have the property of universality. That is, all men are not bound by identical norms in making choices" (p. 15).

2. "Values have the property of substantial continuity from generation to generation;. . . this continuity derives primarily from social learning . . ." (p. 15).

3. "Values can and do change, though they have a strong hold upon most human beings and constitute a relatively stable component of the personality" (p. 15).
4. Over time patterns of values and beliefs are modified, "even when they appear deeply entrenched in a society. The same is evident in the lives of individuals, though the capacity for change seems to vary among individuals and according to age - the familiar experience being congealing of values and beliefs as the person grows older" (p. 26).

Other persons who studied values more recently are Rokeach and Parker (1970). They used two sets of values - 18 terminal values ("preferred endstates of existence that people strive for," p. 98) and 18 instrumental values ("preferred modes of behavior," p. 98). Their values framework differs greatly from that used in this thesis.

Value studies have been done in various areas of home economics. Among the more recent work is that of Kohlmann (1961), who attempted to prepare an instrument to determine the values of homemakers, and of Stoeckeler and Hasegawa (1974) who studied values related to making consumer housing decisions. In neither of these studies was the values instrument directly based on the Spranger (1928) or Vernon and Allport (1931) values framework.

Clothing values

In 1930 Flugel (1969) attempted to identify individual clothing types. His was apparently the first such classification dealing with clothing. Cantril and Allport (1933) reported that the Study of Values had been applied by D. A. Newman, H. G. Nickerson, and E. Bryer to determine the relationship between personal values and clothing interests. One of their findings was that "men's general interest in clothes seems to have no relation to their personal values, but women who have high aesthetic and economic values show a comparatively great interest in clothes, while women with high theoretic and religious values are relatively disinterested in clothes" (p. 267). This study may have been the first of its kind.

More recently many studies have been done relating values to clothing. The first was that of Lapitsky (1961), who worked on the general theory that "values are central factors in human motivation and are major determinants of attitudes and behavior" (p. 70). This theory goes back to the discussion of Spranger (1928), Vernon and Allport (1931), and Kluckhohn (1962).

Lapitsky defined clothing values as "the 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).

This is believed to be the first formal definition of clothing values. She used five clothing values in her study, stemming from Spranger's basic values. They were:

> Aesthetic: the desire for, appreciation of, or concern with beauty in clothing.
>
> Economic: the desire for comfort in clothing and for the conservation of time, energy, and money in clothing usage or selection.
>
> Political: the desire for obtaining prestige, distinction, leadership, or influence through clothing usage.
>
> Social I: the expression of regard for fellow beings through clothing behavior . . . .
>
> Social II: the desire for obtaining social approval through clothing usage with conformity playing a prominent role (pp. 3-4).

This division of the social value into two parts might have been an attempt to overcome some of the problems encountered with the social value in the Study of Values test (Cantril & Allport, 1933, p. 268).

Lapitsky administered her instrument to undergraduate students and to teachers. Her findings confirmed two of her hypotheses and supported Cantril and Allport's findings:

1. The aesthetic and economic clothing values . . . have more dominant positions in the value configurations of women than any of the other clothing values investigated (Lapitsky, 1961, p. 78).

2. Positive relations . . . exist between clothing values and parallel general values (p. 78).

She recommended that "further attempts should be made to develop an absolute clothing value measure so that one value is not selected at the expense of another" (p. 80).

In 1963 Altpeter, using Lapitsky's instrument, found a positive relationship between the aesthetic value and a high interest in clothing -- searching for beautiful and unusual clothes and enjoying shopping. She found that a high economic value was associated with a low amount of interest in clothing -- buying traditional styles, shopping at local stores, and examining seams. This finding seems to contradict Cantril and Allport (1933, p. 267), who reported that others had found a high economic value related to a high amount of interest in clothing. Altpeter found that a person rating high on the political value enjoyed shopping and chose current and popular styles, but did not pay much attention to labels. Individuals with a high Social I and II value rating expressed an average amount of interest in clothing and placed less importance on beauty (1963).

Francl (1970) used a version of Kohlmann's values instrument as revised by Smith (1966) to determine the degree of association of homemaker values with fashion choices. She found a significant relationship between the status value and fashion choice. However, status is not one of the values dealt with in the present research.

Creekmore (1963) dealt with clothing behaviors and their relation to general values and basic needs. She used Spranger's six value types (1928) and added two of her own -- Sensuous and Exploratory. In her values study she found positive relations between the Social and Religious values, the Economic and Political values, and the Exploratory and Theoretic values. She suggested that needs may have a greater effect on clothing behavior than values. She also "assumed that values and needs might act independently of each other and that an interaction of the two might be related to certain aspects of clothing behavior" (p. 141). Creekmore felt that if needs and values affect clothing practices, "these factors should be studied in relation to clothing behavior in order to understand the importance of clothing in the lives of individuals and to read effectively the conscious and unconscious communication which is inherent in clothing worn" (p. 140).

Creekmore found that under certain conditions specific values and clothing behaviors were related:

- -economic value to the management of clothing, the use of clothing construction, and the use of clothing as a tool
- -aesthetic value to tactual aspects of clothing, as well as interest in the symbolic meaning communicated in the use of clothing
- -religious and aesthetic values to experimentation in the use of clothing
- -social and religious values to appearance

-political and religious values to the theoretic aspects of clothing

-religious value to modesty

-social value to conformity in the use of clothing

-exploratory value to no concern for clothing (pp. 148-152).

Two of Creekmore's general hypotheses were confirmed:

> Hypothesis A. Specific clothing behaviors will be related to specific value orientation and to the striving for the satisfaction of specific needs (p. 152).
>
> Hypothesis B. General clothing behaviors will be related to specific needs and specific type orientations (p. 156).

In 1971, using Lapitsky's (1961) work, Creekmore revised her previous instrument and redefined some clothing values. Those definitions were used in the present study:

(1) Aesthetic: "Desire for, appreciation of, or concern with beauty in clothing." (Lapitsky, pg. 3)

(2) Economic: Desire for conservation of time, energy and money in relation to clothing use and selection.

(3) Exploratory: Desire for and appreciation of clothing items as a source of raw material for experimentation.

(4) Political: "Desire for prestige, distinction, leadership or influence through the use of clothing." (Lapitsky, pg. 4)

(5) Religious: Desire for a symbolically moral expression in clothing use.

(6) Sensory: Desire for comfort, such as warmth, coolness, smoothness, tightness, looseness or firmness in the use of clothing.

(7) Social: Concern for others in the use of clothing.

(8) Theoretical: Desire to understand why clothing is used or needed and why it satisfies. (Creekmore, 1971, p.45).

The final pretest of this instrument (Creekmore, 1971) was administered to freshman home economics students in 1964. The items were tested for face validity by seven judges and item analysis was done after each pretest to determine the internal consistency for each value. The items from this 1971 Clothing Values Measure (pp. 46-52) were used in developing the instrument for the present study.

Walker (1969) did an exploratory study relating clothing expenditures to selected values, self-actualization, and buying practices. She stated that "anthropologists, sociologists, psychologists, clothing specialists, and many others have contributed to our understanding of the importance of clothing as an expression of individual, as well as cultural values" (p. 13). In her study Walker found that the general Aesthetic value was positively related to the wife's education level, while the religious value was negatively related to this variable. The length of residence in the community was negatively related to the Aesthetic value and positively related to the economic value. The wife's age was negatively related to the Social value (pp. 3-4).

To summarize, values are cultural products, but people differ in their value orientations. In general, conduct and

values are related. Individual clothing values have been shown to be related to and possibly a major factor in clothing behavior, with people having certain value orientations being more concerned about clothing than people with other value orientations.

Instrument Development and Evaluation

Developing an instrument

Borg and Gall (1971, p. 198) suggested that the first step in developing an instrument for a study is to list specific objectives, always keeping in mind the methods of data analysis that will be used.

According to Oppenheim (1966), a self-administered instrument eliminates the interviewer and therefore any bias on the part of the interviewer, but such an instrument must be simple, because no additional explanation can be given. Items should be carefully chosen and worded. Leading questions and loaded words or phrases should be avoided (p. 59). Definitions should be given to help clarify questions (p. 58). Classification questions, such as age, marital status, income, education, and occupation, should be placed at the end of the instrument. "A filter question [can be] used to exclude a respondent from a particular question sequence if those questions are irrelevant to him" (p. 39).

Content validity is "the degree to which the sample of test items represent the content that the test is designed to measure" (Borg & Gall, 1971, p. 136). Harding (1944) used judges to aid in determining the content validity of the items in his Value-type Generalizations Test. He asked the judges to decide whether each statement represented the value-category in which it had tentatively been placed.

In regard to the use of a rating scale, Oppenheim (1966) stated that "it will usually be found that raters are unable, in most instances, to make discriminations that are finer than ten points or so" (p. 86). This issue is still controversial. Oppenheim expressed his opinion that "although steps on a rating scale are often used as if they had numerical values and as if the intervals were equal, we usually lack the evidence to justify such assumptions" (p. 87).

Randomizing the statements in the instrument is important in order to avoid any obvious pattern especially when using values statements (Harding, 1944, p. 64). The instrument should be tested as to the order of questions, total length, and amount of time and effort involved (Oppenheim, 1966, p. 38). Borg and Gall (1971, p. 203) suggested that a thorough pretest be carried out using a sample of individuals from a population similar to the intended research subjects.

Data should always be regarded as confidential and respondents should be assured of this and guaranteed anonymity. Respondents will be more frank and revealing under these circumstances. They should not be asked to put names on their questionnaires, but instead numbers should be used for identification (Oppenheim, 1966, pp. 36-37). The instrument should also include a letter of transmittal (Borg & Gall, 1971, p. 204) giving good reasons for completing the questionnaire, a brief description of the purpose of the study, and offering to send a copy of the results if desired by the respondents.

Analyzing the data

Frequency counts are useful in identifying the number and percentage of units in each answer category. Such information can also be helpful in deciding "how to collapse the variable into a smaller number of categories for subsequent analyses" (Armor & Couch, 1972, p. 64).

> A common technique for examining the total relationship among two or more categorized variables is known as "cross-tabulation" analysis. This simple technique produces "joint frequency" tables which enable an investigator to compare the distribution of units for a particular variable . . . across the categories of one or more variables. Simple computations such as percentages, the chi-square test, and measures of association are usually applied to the frequencies to aid in the search for relationships among the variables (p. 75).

The correlation method is generally used when the researcher is attempting to discover or clarify relationships. By using the correlation coefficient it is possible to determine the degree of interrelationship between a large number of variables (Borg & Gall, 1971, pp. 317-320). The correlation coefficient does not indicate cause and effect. It merely explores the possibility of such factors, but further research of an experimental nature must be done to substantiate such a claim (pp. 320-321).

In an exploratory study the correlation coefficient is used to indicate the statistical significance of the linear association between two variables. This means that the "coefficient is sufficiently high so that we may be reasonably confident that a true relationship exists between the variables we have correlated" (p. 357). Borg (p. 359) states that if there are 100 or more subjects a correlation ranging from .20 to .35 indicates a very slight relationship, from .36 to .65 it is statistically significant beyond the one per cent level, from .65 to .85 an accurate group prediction is possible, and .85 and over indicates a close relationship.

Sokal (1966) discussed the use of a similarity matrix by which variables can be arranged in an attempt to cluster them into homogeneous groups. In a similarity matrix the more similar the variables the closer their location to the

diagonal line and to each other. Therefore, those variables which are closely related, if arranged properly, will appear as homogeneous clusters.

OBJECTIVES

The major objective of this study was to explore whether an association exists between a person's clothing values and selected clothing consumption practices. If, as Spranger (1928), Kluckhohn (1962), and others have indicated, values are an integral part of an individual's personality, then it is possible that a person's values and his consumption practices are associated.

A more specific objective of this study was to examine whether an association exists between certain clothing values and the number of inactive garments, as well as the number of discarded garments. It is possible that a person who favors the aesthetic value would retain few inactive garments and discard a large number of garments, while a person who favors the economic value would behave in the opposite manner. A person who favors the aesthetic value would be expected to be interested in the latest fashions and have little interest in keeping out-of-fashion clothing. On the other hand, a person favoring the economic value might be interested in keeping items of clothing in hope of reusing or remaking them.

A second specific objective was to explore whether an association exists between a person's clothing values and whether he repairs, alters, or remakes a garment rather than discarding it. Repairing, altering, and remaking garments

might be a trait of a person with a strong economic value.

The third specific objective of this study was to examine whether ordered associations exist between a person's clothing values and his disposal of clothing. Disposing of clothing by giving it to a charity or church group might be more likely for the individual whose religious value is strong.

PROCEDURE

Introduction

The first step in this research was to develop an instrument, which consisted of two parts. Part I, dealing with clothing values, was adapted from Creekmore's instrument (1971, pp. 45-52). Part II dealt with clothing consumption. The entire instrument was then pretested and revised. After revision, it was administered to several groups of women. Criteria were set up for accepting and editing the returned instruments. Each part of the instrument was appropriately coded and the data were analyzed using correlation, chi-square, and frequency counts.

Development of the Instrument

Part I: Clothing values

Part I of the instrument used in this research was designed to examine the clothing values of the respondents. A majority of the items were initially taken from Creekmore's clothing values instrument (1971, pp. 45-52). Creekmore's items were designed for the college level student. Her items were reviewed and some were eliminated because the subject of the item was not suited for the respondents of this research. Likewise, the wording of the items was simplified or modified to be more understandable and appropriate for the respondents.

Certain of Creekmore's items also needed to be updated.

Creekmore's instrument consisted of partial statements each with two alternate endings. The respondent could respond to the two endings by choosing from one of four possible paired weightings: 0-3, 3-0, 1-2, 2-1. For this research the format of these statements was changed. Two items were made from each of Creekmore's partial statements. For each item, the respondent indicated on a nine-point rating scale how much the statement was like herself. That is, if the statement was very much like herself the respondent would answer with a 9 and if it was very little like herself, she would answer with a 1.

To validate each value item, six judges were chosen. Two of the judges were graduate students, both of whom had majored in textiles and clothing as undergraduates; four were members of the faculty in the Textiles and Clothing Department at Iowa State University. Each item was typed on a separate piece of paper. Each judge received a complete set of items along with a set of envelopes, each envelope marked with the name of one of the eight values as stated by Creekmore (1971, p. 45). A "miscellaneous" envelope was also provided. The judges were each given a typed page of directions on how to proceed and a page with the values definitions. A copy can be found in Appendix A. They were to read each item and decide what value that item would represent if the respondent

felt that the statement was very much like herself. They were then to place the item in the appropriately marked value envelope. If the judge was undecided about an item, she was to write a comment to that effect beside the item and place the item in the miscellaneous envelope.

The results were tallied for each item. An item was accepted for inclusion in the instrument if five or six judges agreed on the value represented by the item.

In order to get about the same number of items for each value, some unacceptable items were revised and some new items were written. These were then rejudged and, based on similar criteria, were either accepted or rejected. Sixty-five items were finally accepted to appear in the instrument.

Several faculty members in addition to the judges were shown the items and asked to submit comments. A few items were revised and the format slightly altered based on their suggestions.

The selected items were randomly ordered and the pages for each questionnaire were randomized so as to avoid possible bias due to fatigue among the respondents.

Part II: Clothing consumption

Part II of the instrument used in this research dealt with actual clothing practices of the respondents and their families. The questions referred to housing, family size,

clothing storage, inactive and discarded clothing, and the homemaker's age, education, and activities. Three sources were used in developing the questions and deciding on the format for Part II. First, the objectives of the research were carefully considered. Second, the work of VeVerka (1974) was studied and some questions from her interview schedule were selected and revised. Third, some questions were adapted from the instruments used for the Study of Household Textiles Acquisition and Use (Thomas, 1975, pp. 181-201) and the Study of Clothing Acquisition and Use (Kunz, 1970, pp. 129-140), as well as from conversations with persons who had worked on these projects.

Pretest

Both parts of the instrument were designed to permit self-response. A letter of introduction was prepared briefly describing the research and the purpose of the instrument. A set of directions for each part of the instrument was also written. These were all included in the pretest.

Ten individuals were purposefully chosen as representative of the intended respondents. Each person was given a copy of the instrument and asked to respond to it at home. All were informed that this was a pretest of an instrument to be used in research and completed by women like themselves. Therefore, any comments, criticisms, questions, or suggestions

which they could provide would be helpful and could be written directly on the instrument.

Revisions

After the pretest, slight changes in format were made. Also, several possible responses previously omitted were added to some items of Part II. The introductory letter, the directions for each part, and some questions were also reworded or additions made. A copy of the final instrument can be found in the Appendix B.

Administration of the Instrument

The instrument was intended to be administered to women between 20 and 55 years of age who were married or had children living at home. These eligibility requirements were chosen for two reasons. First, it was assumed that these women would have an established set of clothing values. Second, by being responsible for the clothing of two or more persons the women would have varying amounts of experience in dealing with inactive clothing, discarded clothing, and care and storage of clothing.

The instrument was administered to women in either social or service organizations. Groups were purposefully selected to meet eligibility requirements and to provide a variety of personal values. The groups were chosen by previous knowledge,

word of mouth from faculty members, and through a listing provided by the Ames Chamber of Commerce. One group was from the Amana Colonies, Iowa, one from Nevada, Iowa, and the rest from Ames, Iowa. An officer of each group was telephoned and certain information about the nature of the research and the instrument was discussed with this person. A copy of the initial telephone statement can be found in the Appendix C.

When the researcher visited the group a brief introduction was made and then copies of the instrument were handed out. The administration of the instrument usually took place during the first half of the meeting. The total time required to complete the instrument was approximately 40 minutes. When several of the respondents were finished, all were interrupted and asked to please check that all questions were fully answered and that no pages were left unanswered. The groups were paid 50 cents for each completed questionnaire.

A majority of the respondents completed the instrument during group meetings. However, a few responded individually at home. This exception was necessary because a few individuals were unable to complete the instrument during the time available at the meetings. In the case of one group the meeting time was too short to allow the instrument to be administered during the meeting, so the members took the instrument home and returned it at the next meeting. Ninety-two instruments were completed during group meetings and 20

instruments were completed individually at home.

Accepting, Editing, and Coding the Instrument

An instrument was judged to be completed and acceptable if:

1. the respondent was married or had children living at home
2. no whole pages were unanswered
3. no major questions were unanswered or only partially answered
4. the answers to Part II appeared to be consistent on related questions.

Of the 112 instruments collected, 102 were accepted as complete for coding and analysis.

Certain editing was necessary in order to insure that all responses were interpreted similarly. For example, on question number 27 in Part II some women checked "yes" only if they or their husbands had further training. In this case no check mark was interpreted as a "no" answer.

Data from Part I of the questionnaire were keypunched using the numbers used on the rating scale by the respondents.

Part II was coded in two ways. Most data were coded numerically on a summary card for running of frequency tables. For more detailed analysis some data were coded as dummy variables (1 - 0); this required three additional cards.

Analysis of Data

Items in Part I were correlated with each other in the order in which they appeared in the questionnaire. The correlation matrix was then rearranged with items grouped according to values assigned by the judges. Because the data failed to cluster according to these values, the final step was to sort the correlations by hand to discover what items were clustering into homogeneous groups (Sokal, 1966). Using this method, three paired clusters each containing some items from two value groups were identified. By summing the scores on individual items within each paired cluster, a cluster score was obtained. These three cluster scores, along with the scores on three individual items, were copied onto a computer card. Frequency counts with means and standard deviations were also done on Part I.

Frequency counts and cross-tabulations were also computed for specific items in Part II.

Cross-tabulations were computed using the cluster sums and selected individual items from Part I versus specific items on Part II. The computer tables were then inspected. Cells within some tables were combined so that where possible each cell had a frequency of at least five in it. To test for significance of each 2 x 2 table a corrected chi-square formula was used (Snedecor & Cochran, 1967, p. 122). For larger tables the standard chi-square formula was used.

Chi-square results were noted at the five and ten per cent levels of significance.

The results of this analysis were interpreted and conclusions were drawn. From this analysis of the instrument and the data several suggestions were made for improving the instrument and recommendations were made for future research.

FINDINGS

Information discussed in the first three sections of this chapter are based on frequency counts from Part II of the instrument -- characteristics of the respondents and their families, housing and clothing storage, and inactive and discarded clothing. The fourth section deals with cross-tabulations of items within Part II. The next section discusses the correlations and cluster groupings of the clothing value items in Part I. The final section contains the results of correlations and cross-tabulations between selected items in Part I and selected items in Part II.

Characteristics of the Respondents and Their Families

Of the 102 respondents all but two indicated that they had husbands. Sixty-four families had sons and 54 had daughters. The most frequent age for both sons and daughters was 6 to 10 years old. The next most frequent age of sons was 11 to 15 years old, while the next most frequent age for daughters was three to five years old. The majority of families consisted of two to four persons. Detailed tables showing the composition of the respondents' families may be found in Appendix D.

Over half (55) of the husbands had graduated from college or had done graduate work, while less than half (39) of the

wives had graduated from college or done graduate work. However, 42 of the wives had completed some college. Exactly half of the husbands had had some additional technical, vocational, or formalized training. In contrast, over half (63) of the wives had additional training.

Nearly 75 per cent of the husbands were classified as white collar workers with over half (70) of the husbands wearing either business suits, sports jackets and slacks, or sport shirts and slacks for work.

Of the wives 49 had not worked outside the home within the past week. Twenty-one had worked 40 or more hours. The ages of the wives who reported their ages ranged as follows:

25 years old and under - 22

26 to 35 years old - 49

36 to 45 years old - 21

46 to 55 years old - 7

56 years old and over - 2

The largest number of women (31) spent approximately 6 to 10 hours each week participating in recreational activities. Ninety-two of the 102 respondents participated in quiet activities, such as knitting, sewing, reading, crocheting, watching TV, and needlepoint. Outdoor activities ranked next (76) followed by group activities (64) and attending concerts, plays, and sports activities (65). Active sports ranked last (60).

Although quiet activities were most popular, the majority of respondents (73) had not knitted or crocheted anything for their families within the past six months. Ninety-one of the 102 respondents owned sewing machines. Of these respondents 28 had completed more than 10 garments from new fabric for themselves or for members of their families within the past year. About half of the respondents (49) had made over or remodeled any garments in the past year. Of these, 35 had done one to four garments with only three respondents having done 10 or more garments.

Three-fourths (76) of the respondents felt that their families were average in regard to how hard they were on their clothing.

Housing and Clothing Storage

The average number of rooms per family was five. The majority (77) of respondents lived in single family houses.

Thirty-nine respondents had moved within the past year. Twenty-six had moved within the last one to two years. Twenty-seven moved into their present homes five or more years ago. Those persons who had moved within the last year had either moved from another state or within the same town or county.

The majority of respondents (72) reported they had about the same amount of storage space now as they had before they last moved. Of those 15 persons who had stored clothing outside their homes, 10 had taken it to relatives' houses and five had stored it with drycleaners, furriers, or movers. All of the families (13) who had children living away from home were storing clothing for those children.

Inactive and Discarded Clothing

The most common items of special clothing which were available for use or needing only minor care, but were presently in storage, were wedding dresses, formal wear, and maternity clothes. Each of these items was mentioned at least 30 times.

Over half (59) of the families did not have clothing stored or put away which would need more than just minor care. Of those who did, fit was the major reason reported for these items not being in condition to be worn. This finding supports that of Vyverberg (1972) that persons are not willing to wear garments that fit poorly. Replacing missing buttons or trim, mending, and altering were the most common methods that had been used to restore clothing to active use in the past year.

Seventy of the 102 respondents had clothing which they were keeping, but did not plan to wear again, even though it

was in good condition and still fit. The reasons most often given for storing these garments were that they were out of style or had sentimental or historic value.

Only about a third (31) of the respondents had clothing which they were keeping even though it was in bad condition and they did not plan to wear it again. Sentimental or historic value was mentioned as a reason, along with the possibility of using the fabric for some other purpose.

Thirteen respondents had additional clothing which was being kept for reasons other than those mentioned in the instrument. Hand-me-downs and old clothes which were to become "work clothes" were mentioned.

Respondents were asked on items 16 and 17 of Part II of the instrument to indicate where and how they stored winter clothing, clothing presently being worn, and inactive clothing, as described in items 10a, 12a, and 13a of Part II. The information obtained is summarized in Tables 1 and 2. Clothing presently being worn was most frequently stored on hangers or in chests of drawers and in regularly used rooms.

The majority (65) of respondents stored out-of-season winter clothing by itself, rather than with regularly used garments. This winter clothing was most frequently stored in regularly used rooms, spare rooms, or in hall closets or special closets, in that order. It was most often stored on hangers or in chests of drawers, or in boxes, in that order of frequency.

Table 1. Where clothing was stored - number of respondents reporting

	Clothing being worn now	Winter clothing that will be worn again in fall	Inactive clothing in questions 10, 12, 13, not being worn at all
In regularly used rooms (includes closet)	97	59	22
In a spare room (includes closet)	21	44	28
In a hall closet or special closet	35	36	17
In the attic	0	8	16
In the basement	1	25	22
In the garage	0	3	4
Other	0	8	8

Over half (65) of the respondents stored inactive clothing by itself, rather than with regularly used garments. Inactive clothing was stored most frequently in spare rooms and second most often in either regularly used rooms or in the basement. The respondents most frequently stored the inactive clothing on hangers or in boxes, with other modes of storage much less frequent.

Of those items of inactive clothing being stored for reasons discussed in questions 10a (clothing stored or

Table 2. How clothing was stored - number of respondents reporting

	Clothing being worn now	Winter clothing that will be worn again in fall	Inactive clothing in questions 10, 12, 13, not being worn at all
On hangers, including in garment bags	97	93	44
In boxes	9	41	43
In a chest of drawers	77	54	17
In a cedar or hope chest	2	13	8
In a trunk	1	10	8
On shelves	40	34	14
Other	0	1	1

put away which you plan to wear again, but which would need more than minor care before it could be worn), 12a (clothing which you are keeping but do not plan to wear again, even though it is in good condition and still fits), and 13a (clothing that you are keeping even though it is in bad condition and you do not plan to wear it again), formal wear, dresses, and coats, jackets, or ponchos were mentioned most often.

The most frequently stated reasons for discarding family clothing were fit (93), condition (73), and appearance or use

(75). Again this supports Vyverberg's findings (1972) that women are unwilling to wear poorly fitting garments. The most frequently (79) stated means of disposal of these garments was by giving them to a church or charity group. The next most often mentioned methods were giving the clothing to another family (56) and using the fabric for some other purpose (51). The fourth method was to throw the garments away (44). The least frequently used means of disposal was selling it through rummage, garage, or second-hand sales.

In the past year 35 families had each discarded over 20 items of clothing, not counting underwear or pajamas, while 27 families had discarded only 6 to 10 garments. If the fabric from a discarded garment was to be used for some other purpose, the most likely use was for rags (60).

Cross-tabulations between Items within Part II

Based on the objectives of this research, certain pairs of items within Part II of the instrument were selected for cross-tabulation. Seventy-eight tables resulted. After the cells within each table were combined as needed to obtain a frequency of at least five observations in each cell, chi-square (Snedecor & Cochran, 1967) was used to analyze the distribution of the data within the tables. Few significant associations were found. In only seven of the 78 tables was the chi-square significant at the five per cent level,

indicating that an association existed between the two variables.

Of the 77 respondents living in single family houses only nine had clothing stored outside their homes, such as at a friend's or relative's home or with a drycleaner or furrier. Eight of the 25 respondents living in other kinds of dwellings had stored clothing in places outside their homes. Persons living in single family dwellings were less likely to store clothing outside their homes than were persons living in other types of housing (calculated chi-square = 4.24; df = 1; $p < 5\%$). One possible explanation for this finding is that for similar families, single family housing may provide more storage space than other forms of housing (VeVerka, 1974, p. 57).

Persons living in single family homes discarded more items of clothing than persons living in other types of housing (calculated chi-square = 7.63; df = 2; $p < 5\%$). It is possible that families who live in single family homes are larger and therefore have more items of clothing which could lead to more discards. These families may also be older and have an established and more efficient system of disposing of clothing than younger families who live in other forms of housing (VeVerka, 1974, p. 59).

Respondents in the 25 year old and under age group and those in the 36 to 45 year old age group were less likely than

the respondents in other age groups to have clothing stored or put away which they planned to wear again, but which would need more than just minor care before it could be worn. About half of those respondents in the 26 to 35 year age group and in the 46 and over age group had such clothing stored (calculated chi-square = 9.847; df = 3; $p < 5\%$). The number and ages of the children in the home may be important factors in this finding. The 26 to 35 year old age group may be keeping clothing for younger children to grow into while the 46 and over age group may be storing clothing for older children who are presently living away from home or are married and storing some of their own clothing in their parents' homes.

From the cross-tabulation of the respondents' ages against the means of disposal it was found that the older the respondent the more likely that discarded clothing would be given to another family (calculated chi-square = 7.60; df = 2; $p < 5\%$). The older individuals may be better established in the community and know more families who can use the discarded clothing than the younger women do.

Over half of the women in the 26 to 35 year old age group disposed of clothing by throwing it away, while in the 25 year old and under age group only about one-fourth used this means of disposal and in the 36 and over age group one-third did (calculated chi-square = 7.32; df = 2; $p < 5\%$).

Possibly the respondents in this age group were busier and had less time to investigate other means of disposal. The women in the 26 to 35 year old age group may have children who are in the very active stages and therefore may be harder on their clothing.

Two-thirds of the persons who participated in outdoor activities gave discarded clothing to families, while only one-third of those who did not participate in outdoor activities used this means of disposal (calculated chi-square = 4.75; df = 1; $p < 5\%$). Again it is possible that participation in outdoor activities, as opposed to quiet activities, generates more contacts with other families and therefore provides greater opportunities to dispose of clothing by this means.

Slightly over half of the respondents who did not work for pay outside the home threw away discarded items of clothing, while one-fourth of the respondents who worked threw away discarded clothing (calculated chi-square = 5.99; df = 1; $p < 5\%$). Nonworking respondents may have less contact with outside sources of disposal for family clothing than working women and may resort to simply throwing away discarded clothing as opposed to using some other means of disposal. A working woman may own a different type of clothing for herself than a nonworking woman and be less likely to throw her own clothing away when she no longer wants it, because it still

has some wear left. On the other hand, a nonworking woman may wear her clothing around the home until it is completely worn out. As Vyverberg (1972) suggested, occasion is an important factor in the willingness of a person to wear a damaged garment. Therefore, a nonworking woman may be more willing than a working woman to wear damaged clothing, which will eventually be thrown away.

In three tables chi-square was found to be significant at the ten per cent level, indicating the possibility of trends.

Eighty-two per cent of the respondents who participated in group activities disposed of clothing by giving it to a church or charity group, while 68 per cent of the non-participants in such activities used this means of disposal (calculated chi-square = 3.64; df = 1; $p < 10\%$). Participating in group activities may have exposed these women to more organized forms of disposal.

One-third of the respondents who participated in group activities sold clothing at garage, rummage, or second-hand sales, while only about one-sixth of the respondents who did not participate in group activities sold clothing at such sales (calculated chi-square = 2.73; df = 1; $p < 10\%$). As stated, a larger proportion of women who participated in group activities gave clothing to church or charity groups, while a smaller proportion of the women who did not participate

in group activities gave clothing to church or charity groups.

Participating in group activities tended to be associated with using fabric from discarded clothing for other purposes (calculated chi-square = 3.40; df = 1; $p < 10\%$). These group activities could include quilting, sewing for charity organizations, making children's clothing and crafts, or making decorations, all of which could provide an opportunity to use fabric from discarded clothing.

In a few of the remainder of the tables some additional associations might have existed, but detail of the distributions was lost when the cells were combined to obtain an acceptable number of observations in each cell. For example, the cross-tabulation between the number of hours the respondents worked and whether they used fabric from discarded clothing for other purposes approached significance at the ten per cent level. It was anticipated that the working women would be less likely to use the fabric than the non-working women. The table showed such a distribution, but when the data were grouped to increase minimum cell size, a significant chi-square was not obtained.

Another example is the cross-tabulation of the number of persons in the family against the number of garments, not counting such items as underwear and pajamas, which were discarded. It would be expected that the more people in the family the greater the number of discards. From the table a

tendency in this direction was apparent, but again the calculated chi-square was not significant.

Some of the findings in this study support VeVerka's observations (1974, pp. 56-61). She observed that families living in larger housing units were more likely to have clothing belonging to other families stored in their homes than were families living in smaller housing units. She found that families living in smaller homes were not directly faced with the problem of clothing disposal because much of their clothing was being stored in other families' homes. Families who are storing clothing for a person who is not living in their home may have classified such clothing as inactive or could even have discarded it. This could occur without the realization of the owner. VeVerka also found that families living in larger housing units usually consisted of more than two members. Families in the smaller housing units were usually younger and it is possible that these younger families may not have a family member belonging to an organization which holds rummage sales. It may also be possible that these younger families do not know other families who could use their discarded clothing.

Although the majority (77) of respondents in this research had five rooms in their homes, not counting bathrooms and unheated porches, it was not determined if the type of housing and the family size was related to the number of rooms.

However, Greeley (1973, p. 70), in a survey of household textiles consumption by 630 midwestern urban families, found that:

> The number of rooms (excluding bathrooms) in the dwellings varied from three to 22 rooms in single-family dwellings and from two to seven rooms in apartments, duplexes, and so forth. The mean number of rooms (excluding bathrooms) per home was 5.71 rooms, with a standard deviation of 1.79 rooms. The mean for apartments, townhouses, etc. was 4.32 rooms, while the mean for single-family dwellings was 6.00 rooms . . . .The number of rooms appeared to be more closely related to the size of the family than to whether the home was a single-family dwelling or a part of a multiple-unit dwelling.

Greeley's findings relate to the first few cross-tabulations of this study which deal with family housing and storage. Her results showed that persons living in single family houses have more rooms than persons living in other forms of housing. Therefore they are likely also to have more storage space. Her findings indicate that family size is related to the number of rooms and since single family houses seemed to have more rooms, it is assumed that the families living in them are larger. Therefore it follows that if there are more persons living in single family houses there will be more clothing discarded.

Analysis of Part I by Correlation

The items in Part I on the instrument were classified into six values categories by the judges. Few Theoretical value items were included in the list of items given to the judges. Since none of these items met the criteria for classification by the judges and because this value was not believed to be important in regard to inactive and discarded clothing, it was dropped from the instrument. Table 3 summarizes the judges' classifications. It was anticipated that the items listed under each value in Table 3 would be more highly correlated with each other than with items in the other value groups. Also, according to Creekmore's work (1963, p. 146) it was expected that the items representing the Economic and Political values and the items representing the Social and Religious values would be associated with each other.

First correlation matrix

The items in Part I of the instrument were first analyzed in a correlation matrix in the same order in which they appeared in the instrument. A frequency count was also done to aid in evaluating the matrix. Very few high correlation coefficients were found among the items and correlations did not show the pattern expected.

Table 3. Values items in Part I of the instrument as classified by the judges

Value	Items
Economic	1, 7, 11, 16, 20, 21, 23, 30, 36, 42, 48, 62, 63
Political	8, 29, 32, 37, 50, 51, 53, 55
Sensory	2, 12, 13, 24, 26, 34, 39, 44, 47, 57, 59
Aesthetic	14, 27, 31, 33, 35, 40, 58, 61
Social	5, 9, 10, 19, 22, 25, 46, 49, 52
Religious	6, 15, 17, 28, 41, 60, 64, 65
Exploratory	3, 4, 18, 38, 43, 45, 54, 56

Second correlation matrix

The matrix was then rearranged, grouping the items as shown in Table 3. From Table 4 it can be seen that there were very few correlation coefficients of .400 or above and somewhat more from .195 to .399. (A correlation coefficient of .195 would be statistically significant at the five per cent level with 100 degrees of freedom.) Table 5 shows the percentages of significant correlations within each values group and among groups. More than half of the items in the Political, Religious, and Exploratory groups were correlated with other items within their own groups. Items in the other value groups were correlated with less than one-third of the items within their own value groups.

Table 4. Possible and actual number of correlations among items within each value group[a]

	Economic	Political	Sensory	Aesthetic	Social	Religious	Exploratory
Number of possible correlations[a]	78	28	55	28	36	28	28
Number of items correlated .400 or above	0	4	1	0	1	4	5
Number of items correlated .195 to .399[b]	18	13	14	8	10	12	9

[a]Includes both positive and negative correlations.

[b]A correlation of .195 indicates significance at the five per cent level with 100 degrees of freedom.

Table 5. Percentage of significant[a] correlations (positive and negative) within and among value groups as originally identified by the judges

	Economic	Political	Sensory	Aesthetic	Social	Religious	Exploratory
Economic	23						
Political	7	61					
Sensory	25	13	27				
Aesthetic	11	19	23	29			
Social	9	7	17	18	31		
Religious	13	5	9	13	26	57	
Exploratory	11	33	16	27	13	13	50

[a]Significance at the five per cent level (.195 with 100 degrees of freedom).

In contrast to Creekmore's findings (1963, p. 146), the items representing the Economic and Political values in this study were found to be only slightly associated (seven per cent of the possible correlations); however, a moderate association (about one-fourth of the possible correlations) was found among the items representing the Religious and Social values, which is in agreement with the findings of Creekmore.

It was decided that in order for an item to be considered as representative of a value it had to be positively correlated at the five per cent level -- .195 or above -- with at least 50 per cent of the items within that group and correlated positively with 20 per cent or fewer of the items outside the group. Those items which meet this criterion were:

Economic - 23

Political - 8, 32, 37, 53, and 55

Sensory - 44, 47, and 57

Aesthetic - none

Social - 52

Religious - 15, 28, 41, 60, 64, and 65

Exploratory - 3, 38, 54, and 56.

In addition, after review several other items were accepted for the following reasons: they were similar in wording to those items already chosen, their overall mean ratings on the instrument were around 5 and the standard deviations no higher

than 2.3, and they were correlated with more than 25 per cent of the items within their groups and with less than 10 per cent of items outside the group.

Social - 10

Economic - 20 and 11

Aesthetic - 33

The following items were reassigned because they were correlated more highly with items from another value:

1 - from Economic to Religious

2 - from Sensory to Social

16 - from Economic to Sensory

61 - from Aesthetic to Exploratory

Third correlation matrix

Because homogeneous groups of items had not formed according to the judges' classification of items and Creekmore's findings (1963), it was decided to construct a similarity matrix by hand (Sokal, 1966). Each correlation of .400 or above and the two correlated variables were written on a separate square of red paper, each correlation of .300 to .399 on a pink square of paper, and those correlations from .200 to .299 on yellow slips. These slips were then arranged in the manner suggested by Sokal. Again no pure value clusters (homogeneous groups containing items of one value only) appeared. However, three paired clusters, each containing items from two values groups, did appear.

After constructing the matrix by hand and evaluating the wording of various items which clustered, the following paired clusters of items were established:

Religious-Social - 28, 41, 64, and 65

Political-Exploratory - 8, 32, 37, 38, 51, and 56

Sensory-Economic - 20, 23, 24, 42, 44, and 48

In addition, items 31, 33, and 35 were accepted as representative of the Aesthetic value, being correlated with 43 per cent of more of the items within the Aesthetic group and with 26 per cent or fewer of items in other groups.

The four items representing the Religious-Social cluster referred either to modesty or morality and also mentioned other people and what type of clothing they wear. The Religious value definition refers to symbolically moral expression in clothing use, while the definition of the Social value refers to a concern for others in the use of clothing (Creekmore, 1971, p. 45).

Items in the Political-Exploratory group mentioned new and different styles, as well as variety in clothing. They also referred to a desire to stand out and be well dressed. The definition of the Political value states a desire for prestige, distinction, leadership, or influence through the use of clothing. The Exploratory value is defined as having a desire for and appreciation of clothing as a source of experimentation (Creekmore, 1971, p. 45).

Comfort and easy care in clothing were often mentioned in the six items representing the Sensory-Economic cluster. In addition, usefulness and cost were each mentioned in one item. Definitions of the Economic value and the Sensory value state a desire to conserve time, energy, and money and a desire for comfort in clothing, respectively (Creekmore, 1971, p. 45).

The three Aesthetic items selected referred to beauty, prettiness, and good lines in clothing. The Aesthetic value is defined as a desire for, appreciation of, or concern with beauty in clothing (Creekmore, 1971, p. 45).

Even though all possible items were not used, it appears that those items which were found to cluster into the three values cluster groups and those which were chosen to represent the Aesthetic value were representative of the definitions as originally presented to the judges (Appendix A).

Each respondent was given a score for each paired cluster. This score was obtained by summing her rating on the items included in the cluster. The highest score possible on the Religious-Social group was 36, the highest possible on the Political-Exploratory group was 54, and the highest possible on the Sensory-Economic was 54. The actual scores on the Political-Exploratory value group ranged from 6 to 52 with the majority of the responses being between 10 and 39. The scores on the Sensory-Economic value ranged from 34 to 54 with

the majority from 50 to 54. The scores on the Religious-Social value group ranged from 4 to 35 with the majority from 10 to 29.

The responses given on the three individual Aesthetic items were on the average high -- above 5. The distributions of scores on the Aesthetic items and on the three paired clusters must be kept in mind when interpreting the data.

It is not known why the items did not correlate as would be predicted on the basis of the judges' classifications and Creekmore's work (1963; 1971). However, there are several possible reasons. First, the response format was changed from Creekmore's paired items to individual items with separate responses on a 1 to 9 scale. Second, the items were reworded to better suit the respondents of this study. However, the judges classified the items after they were reworded; their classifications corresponded to those of Creekmore's original items. Therefore, no differences were anticipated in the correlations or associations because of rewording.

The respondents in this research were not the same age as Creekmore's respondents, but were on the average older. However, the age range of the judges who classified the items was the same as that of the respondents. Therefore, the difference in age between Creekmore's respondents and the respondents in this study was not expected to be a factor in the classification of items.

It is quite possible that there has been a change in styles of living, social attitudes, and dress patterns since Creekmore originally drafted her items. The wording of some items may no longer be relevant today. For example, after finishing the instrument one young woman remarked that many of the questions on Part I referred to dresses and she very seldom wore dresses any more, because pants suits were more popular and comfortable.

It is believed that the two major reasons why the items did not correlate as expected were the change in format and changes in social conditions. One general question which may be posed as a result of this research is if item wording must be changed with fashion and depending on the target population, will it ever be possible to make a standardized clothing values instrument? It was apparent from this research that in the short period of time from the development of Creekmore's instrument in 1971 to its use here several items had already become outdated. If wording will constantly have to be changed, how can the researcher be sure that the meaning of the instrument and what it measures has not changed?

Correlation and Cross-tabulation between Part I and Part II

Correlation matrix

A correlation matrix was used to determine the degree of association between the following 11 variables:

Clothing consumption variables

- Part II item 10a - Do any members of your family have clothing stored or put away which they plan to wear again, but which would need more than just minor care before it could be worn?
- Part II item 12a - Do any members of your family have clothing which they are keeping but do not plan to wear again, even though it is in good condition and still fits?
- Part II item 13a - Do any members of your family have clothing that they are keeping even though it is in bad condition and they do not plan to wear it again?
- Part II item 37 - How hard do you feel your family is on clothing?

Personal characteristic

- Part II item 32 - age of the respondent

Values variables

- Political-Exploratory values cluster group
- Sensory-Economic values cluster group
- Religious-Social values cluster group
- Aesthetic item 31 Part I
- Aesthetic item 33 Part I
- Aesthetic item 35 Part I

The following variables were positively correlated at the one per cent level of significance: item 12a with item 13a; and item 32 with the Religious-Social values cluster group. No correlations significant at the five per cent level were found except among the values variables.

The association between items 12a and 13a was interesting because item 12a refers to clothing which is in good condition and still fits, while item 13a refers to clothing which is in bad condition. A probable explanation for item 12a and 13a being correlated is that both refer to clothing which the family members do not plan to wear again, while item 10a refers to clothing which they do plan to wear again. This finding indicates that people who accumulate inactive clothing which they do not plan to wear again are retaining both some garments which are in good condition and some in bad condition. Persons who have clothing put away which needs only minor care before it can be worn again appear less likely to also have garments of the type described in items 12a and 13a. It is possible that there are two types of inactivity - one as described in item 10a and one as represented by items 12a and 13a.

The association of item 32 (age of the respondent) with the Religious-Social values cluster group means that the older respondents had higher scores on this values cluster group, indicating that the older the respondent, the greater

the importance placed on the Religious-Social value.

Cross-tabulations

Using the paired values cluster group scores -- Religious-Social, Political-Exploratory, and Sensory-Economic -- and one representative item (33) of the Aesthetic value from Part I, cross-tabulations were done with certain items from Part II to discover what associations existed between a person's clothing values and his clothing behavior. Where necessary cells were combined as before and chi-square analysis was used to determine if significant associations existed. Of 139 tables, data in only five resulted in chi-square values significant at the five per cent level.

The higher the score on the Political-Exploratory values cluster group, the greater the chance that the person was storing her wedding dress (calculated chi-square = 10.08; df = 3; $p < 5\%$).

People with very high or very low scores on the Political-Exploratory values cluster group were less likely to be storing formal wear than were the respondents with moderate scores (scores of 20 to 39) (calculated chi-square = 10.39; df = 3; $p < 5\%$).

Respondents who scored highest on the Sensory-Economic values cluster group were less likely to have maternity clothes stored and ready to wear or needing only minor care than were those with lower scores (calculated chi-square =

10.88; df = 1; $p < 5\%$).

Of the respondents who scored 30 or above on the Political-Exploratory values cluster group only ten per cent gave discarded clothing to rummage sales, while 16 per cent of the respondents scoring 29 or below used this means of disposal (calculated chi-square = 3.94; df = 1; $p < 5\%$).

No explanations for these four associations could be found on the basis of the definitions of each values cluster group. It is possible that these associations are actually not significant and that the results occurred by chance.

The higher the respondent's score on the Political-Exploratory values cluster group, the greater the possibility that the respondent participated in activities by attending concerts, plays, and sports events. This finding was significant at the five per cent level; however, one cell in the table contained only four observations (calculated chi-square = 8.85; df = 3; $p < 5\%$). According to the definition of the Political-Exploratory values cluster group, a respondent scoring high on this group would be concerned with prestige. Attending activities such as concerts and plays would be expected to be of interest to persons scoring high on this values cluster group.

The distribution of data in four tables was found to be significant at the ten per cent level, indicating the possibility of trends. The first two findings listed are based on

tables each having one cell with less than five observations.

Persons scoring high on the Political-Exploratory values cluster group tended to be less likely to store special types of clothing than were persons who scored lower on the Political-Exploratory values cluster group (calculated chi-square = 7.49; df = 3; $p < 10\%$). Persons with high scores on this values cluster group by definition would be interested in new popular styles and so may not be willing to wear special clothing, such as formal wear, which is out of fashion or which they have already worn a few times in public.

Respondents who scored high on the Political-Exploratory values cluster group tended to be more likely than those scoring lower to have discarded family clothing due to problems with fit (calculated chi-square = 3.12; df = 1; $p < 10\%$). Persons scoring high on the Political-Exploratory values cluster group would by definition be concerned with appearance and therefore might be more likely to discard clothing which fit poorly.

Persons scoring high (10 to 39) on the Religious-Social values cluster group tended to be more likely to be involved in group activities than were those scoring lower (calculated chi-square = 5.35; df = 2; $p < 10\%$). The Religious-Social values cluster group by definition is concerned with people and it would be expected that the respondents with high scores on this values cluster group would enjoy group involvement.

Persons who responded with low (1 to 3) ratings on the selected Aesthetic item number 33, meaning that the item was not very much like themselves, tended to be less likely to have mended clothing in the past year than those persons who rated the Aesthetic item higher (calculated chi-square = 6.59; df = 3; $p < 10\%$). The Aesthetic value and the selected item are concerned with beauty in clothing and therefore a person scoring high on this item would probably be willing to mend clothing in order to maintain the appearance of the garments. Persons less interested in the appearance of clothing may be less willing to take time to do mending.

Perhaps more of the distributions within the 139 tables might have been found to be significant, but in order to meet the requirements of chi-square analysis some of the detail of the original distribution was lost. For example, the cross-tabulation of the Sensory-Economic values cluster group with whether or not the respondent was storing her wedding dress appeared from the table to be of possible significance but only approached significance at the ten per cent level.

However, cross-tabulations of many variables which were expected to be associated did not result in tables which appeared to show significant distributions, and chi-square analysis showed that the distributions were not significant. An example of an anticipated relationship which did not prove to be significant was the expectation that persons scoring

high on the Religious-Social values cluster group would be more likely to give discarded clothing to church or charity groups. No such tendency was found.

CONCLUSIONS

The first goal of Project 1962 towards which this research was directed was to examine the relationships between values held by the homemaker; particularly Economic, Status, and Aesthetic values, and practices with regard to inactive clothing. Status was not dealt with in this research. However, the Economic and Aesthetic values as well as other values were examined to determine their association with inactive clothing and discarded clothing. The objectives of this research were based primarily on this goal. Few significant conclusions could be drawn, because the values part of the instrument did not function as expected and because correlations and cross-tabulations between values and clothing consumption practices revealed few associations.

In regard to the associations between clothing values and clothing practices, it appears from this research that Political and Exploratory values are more closely related to the clothing practices studied than are other values. In addition it is evident that respondents have difficulty sorting out the various types of inactive clothing; that is, separating items of special clothing from inactive clothing needing more than minor care or from inactive clothing which would not be worn again regardless of whether it was in good or bad condition. However, the respondents were able to identify why these garments had become inactive and were

being stored. Poor fit was a common reason given, while outdated style and sentimental or historic reasons were also mentioned often. Poor fit was also a common reason for discarding family clothing, along with the condition and appearance of the garment.

Creekmore (1963, p. 147) found that needs, as defined in her research, may have a greater effect on clothing behavior than values. This may explain the fact that so few associations were found between the clothing values and specific clothing practices in the present research. Perhaps more work should be done to determine what relationship exists between needs and clothing practices.

The second goal of Project 1962 towards which this research was directed was to further characterize the model of the clothing consumption process with respect to inactive storage, its relationship to active inventory, and disposals and discards of clothing. These aspects of clothing consumption were dealt with in Part II of the instrument.

It appears that persons living in single family housing, as the majority of these respondents were, have larger families and therefore larger numbers of discarded garments. They also may have more storage space and not need to use storage facilities outside the home. However, they in turn provide such storage facilities to family members living away from home.

The majority of respondents stored clothing which was out of season or inactive separately from clothing presently being worn. The most common method of storage, regardless of which category the garments were in, was on hangers.

In general, it appears that older homemakers are more likely to have established plans for disposing of clothing and to have less inactive clothing. It is also possible that older individuals become more involved in Religious-Social type activities and know of more outlets for such clothing.

The type of recreational activities in which a person participated was related to her clothing practices. Participation in outdoor and group activities may result in less clothing waste, because the women either use the fabric for some other purpose or are able to give it to another family, a charity, or a church group, or to sell it at a rummage, garage, or second-hand sale.

Over half of the respondents indicated that they had clothing which was being stored, but would need more than just minor care before it could be worn. Over two-thirds of the respondents had clothing stored which they did not plan to wear again, even though it was in good condition and still fit. This is contrasted with only about one-third of the respondents who had clothing stored which was in bad condition and they did not plan to wear again. Correlations showed

an association between the last two categories, indicating that a person who was storing clothing that would not be worn again would be likely to have some in good condition and some in poor condition. From these findings it appears that the major discriminating idea in clothing inactivity is whether the clothing will be worn again, rather than the condition of the garment.

Struefert (1957), who interviewed 12 rural families, reported that they had few inactive garments. However, she did not quantify her findings so it is not possible to compare her results with those obtained in this research.

Considering that the typical family size in this research was two to four persons, approximately one-third of the families had each discarded 20 or more items of clothing in the past year, while 27 families had each discarded 6 to 10 garments. This results in a range of from 1.5 discarded garments per person per year to 10 discarded garments per person per year. This range appears to be rather low for families of this size and stage in life. It is possible that the respondent's recall of discards is incomplete. Because the act of discarding a garment is not very memorable, it may not be remembered as well as the purchase of a new garment (Winakor, 1969, p. 631).

Waste in clothing consumption may occur if usable clothing is not worn or is destroyed. Perhaps not all inactive clothing is being wasted in the judgment of the owner. VeVerka (1974) observed that inactive clothing may provide satisfaction for the owner, because it is still available for use.

As Sherrill (1949) discussed, of the garments which were not in full use by her respondents, over half were in good condition. In the present study, poor fit appears to have been one of the major reasons for a garment having become inactive or being discarded. This was previously observed by Vyverberg (1972) and may be an important consideration in regard to clothing waste.

Garments which become inactive unintentionally are another source of waste, as VeVerka (1974) noted. A good example of this may be the finding in the present research that all of the families who had children living away from home were storing clothing for these children. Another example is that the respondents were unable to categorize their inactive clothing, suggesting that it may have reached inactivity unintentionally; that is, they may have been unable to recall how long the clothing had been inactive or to decide whether it would ever be worn again.

A third source of clothing waste is those still usable garments which are just thrown away, rather than being used

second-hand or using the fabric from the garment for some other purpose. This method of disposal appears to be more common among women who do not work for pay outside the home. In this research it was not determined whether the garments which were thrown away were in good or bad condition.

Perhaps if the public were made aware of the sources of clothing waste, they would be better able to avoid such waste. This might be done by first pointing out the possible sources of clothing waste and then proposing alternatives, such as selling clothing to a second-hand store, giving it to a charity, remaking the garment, or using the fabric from the garment for some other purpose. Another possibility, as suggested by VeVerka (1974), would be to establish an effective recycling system for natural and man-made fibers.

RECOMMENDATIONS

The whole area of values is difficult to study. It is a very personal and private aspect of an individual's life and one that is not often formally questioned. The measuring devices may therefore be undependable even if the format and wording were ideal.

Obtaining information of the nature sought in this research is difficult. The respondents are not always sure themselves of the answers even if the questions are clearly stated. Much of the information asked in Part II was subject to recall, which is not always reliable, especially since the respondents were not at home when answering the questionnaire, they had not previously been told the nature of the questionnaire, and in some cases they did not even know that they were going to be responding to a questionnaire. Perhaps much of the information asked was confusing to the respondents because they had not thought about this topic before.

Because it was believed that limitations of the instrument could be at least partially responsible for the small number of significant findings obtained in this research, several recommendations for improvement were made. Failure to obtain highly correlated values clusters on Part I of the instrument indicates the general need for more research in the area of clothing values instruments, specifically in the

areas of format, item wording, and characteristics of respondents. These recommendations are:

- Experiment with different response formats in clothing values instruments, controlling on selected characteristics of respondents while allowing other characteristics to vary.
- Experiment with wording of items to determine the effects of changes in wording on responses.
- Investigate if changes in wording may be necessary for different target populations.
- Investigate how age and other characteristics of respondents affect clothing values.

Many of the difficulties with responses to Part II of this instrument appeared to be due to the self-response format. The following recommended changes may help to clarify the questions for the respondents.

- Depending on the target population, "in another country" may need to be added as a possible response to item 3.
- On item 9 the exclusion statement should be changed to read "Do not include outgrown, out-of-style, or out-of-season clothing." Many respondents listed "off season" clothing under the "other" response.
- Items 10a, 12a, 13a, and 18 should be prefaced with a reminder that special clothing, previously discussed

in item 9, is not included.

- On item 10b the "why" needs to be emphasized either verbally or by underlining. The "other" category included such responses as "I hate mending" and "needs a new zipper," which should actually be classified under "condition," and "hand-me-downs," which probably should have been classified as "fit." One respondent also answered "plan to make over," but no reason was given as to why the garment needed to be made over -- poor fit or out-of-style?
- Because many respondents mentioned hand-me-downs and clothing being saved for the next child in "other" categories throughout Part II and also in response to item 14b, perhaps these two areas should be covered by separate questions.
- On items 16 and 17 reverse the order on the columns so that "Clothing being worn now" is first, "Winter clothing that will be worn again in Fall" is second, and "Clothing in questions 10, 12, 13 not being worn at all" is last. This would seem to be a more logical progression.
- The present wording of item 19 produced answers under "other" which told how clothing was discarded. Therefore, perhaps it should be revised to read

"Which of the following are reasons why you have discarded family clothing in the past year?"

- An attempt should be made to avoid items such as item 21 which refer back to previous questions. It is possible that this kind of item may discourage the respondents and lower the quality of responses. However, with careful planning the instrument might be arranged to overcome this problem.

- In the possible responses to item 13b one response read "will use fabric for some other purpose." This statement could be made more explicit -- "the fabric from the garment will be used in some other way." A similar response choice in item 20 also should be changed. Instead of reading "used the fabric for some other purpose," which may not have been clear to the respondents, it could be changed to read "fabric from the garment was used in some other way." These changes are suggested because in both items the respondents listed such things as rags, rag rugs, and cleaning rags under the heading of "other," instead of checking the appropriate response above.

From this research it appears that the respondents were better able to identify why the clothing was inactive than

they were able to separate the various aspects of inactivity, such as special clothing from clothing that will be worn again but will need more than minor care, or clothing which will not be worn again whether it is in good or bad condition. Correlations showed items 12a and 13a on Part II to be associated. Both of these items referred to clothing which would not be worn again. However, item 12a dealt with clothing in good condition and which still fit, while item 13a discussed clothing in bad condition. Neither of these two items were associated with item 10a which referred to clothing which would be worn again but would need more than just minor care.

An alternative to revising items 10a, 12a, and 13a might be to begin this section of Part II which deals with inactive clothing by placing emphasis first on the reasons why such clothing was not being worn, then discussing whether this clothing will or will not be worn again, and finally asking what condition the clothing is in. This may be a more suitable questioning sequence because it separates the various aspects of inactivity and may aid the respondents in sorting out what information is desired.

The next two recommendations refer to both parts of the instrument. The entire instrument should again be thoroughly pretested before it is used on the intended population or another instrument which has previously been tested should be

used.

Because the respondents began and finished the instrument at different times and because some respondents skipped one or two pages or gave inappropriate answers, it is recommended that the instrument be administered under more favorable conditions. This could be done by holding a special meeting only for the purpose of completing the instrument so that the respondents give their total attention to the instrument rather than some other activity to come. Alternately, rather than using a self response instrument have private interviews with each respondent. Responses to the "other" category of item 12b in Part II illustrate why this recommendation is made. Item 12a asks if any member of the family is keeping clothing which will not be worn again though it is in good condition and still fits. A few respondents answered "outgrown" in the "other" category of item 12b, which asks why the clothing referred to in item 12a is being kept. This sort of answer indicates that the question was not being carefully read.

The following are recommendations for future studies in the area of clothing consumption, specifically inactivity and discard, and in the area of clothing values.

- Even though the work of VeVerka (1974) was used as a basis for defining concepts and the instrument was designed to separate the various aspects of inactivity

in clothing, it was apparent from the completed instruments that the respondents were not differentiating clearly between special clothing being stored, clothing not being worn but in good condition, and clothing being kept which is in bad condition. Therefore, further research is recommended dealing only with the inactive phases of clothing consumption. Two objectives are suggested: to identify more clearly why such clothing is inactive and to discover how people classify this clothing.

- Perhaps a similar more detailed study should also be made on the discard and disposal of clothing to learn why clothing is discarded and how each kind of clothing is disposed of.
- Further research is needed to determine if associations exist between clothing values and clothing consumption, specifically inactivity and discard, but only after more reliable instruments have been developed to measure these factors.

In assessing the findings and recommendations of this research it must be remembered that the nature of the research was exploratory and that the sample was not random. The results cannot be generalized to a larger population, but may be useful as a basis for further research.

SUMMARY

Due to the declining abundance of natural resources, it may be necessary for households to cut down on waste in consumption. Clothing consumption was defined by Winakor as "the whole process of acquiring, using, maintaining, and discarding clothing" (1969, p. 629). Inactive clothing and discarded clothing are two major areas of potential waste in clothing consumption. Inactivity is a state in which clothing has not been worn for a period of one year or more. Discard is when clothing leaves the possession of the owner for the last time.

In order to make better use of clothing, individuals may need to alter their values orientation. Kluckhohn 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" (1962, p. 395). He also found individual values to be directly related to a person's actions.

Researchers have previously studied the relationship of individual values to homemaking (Kohlmann, 1961), clothing (Lapitsky, 1961; Creekmore, 1963), and housing practices and preferences (Stoeckeler & Hasegawa, 1974). However, little if any research has been done to discover if relationships exist between clothing values and clothing inactivity and discard.

The general objective of this research was to explore whether an association exists between a person's clothing values and selected clothing consumption practices. Specific objectives were to examine whether an association exists between certain clothing values and the number of inactive garments, as well as the number of discarded garments; to explore whether an association exists between a person's clothing values and whether he repairs, alters, or remakes a garment rather than discarding it; to examine whether ordered associations exist between a person's clothing values and his disposal of clothing.

The respondents were 102 women belonging to various organizations -- one in the Amana Colonies, Iowa, one in Nevada, Iowa, and the remainder in Ames, Iowa. The respondents ranged from 20 to 55 years of age. The majority of families ranged from two to four persons with all but two respondents having husbands. The average number of rooms per family was five. The majority of respondents lived in single family houses.

The instrument used in this study consisted of two parts. Part I dealt with clothing values and Part II dealt with clothing consumption. The instrument was pretested and revised, then administered to the respondents during meetings of their respective organizations.

The data from Part I were analyzed using correlation matrices, while Part II was also analyzed using correlation as well as by cross-tabulation and chi-square. To achieve the objectives of this research certain aspects of Part I were cross-tabulated with chosen items from Part II and chi-square analysis was used to test the significance of the results.

Findings included the following:

- The most common items of special clothing which were available for use or needed only minor care, but were presently in storage, were wedding dresses, formal wear, and maternity clothing.
- Fewer than half of the families had clothing stored or put away which needed more than just minor care.
- A majority of the respondents had clothing which they were keeping, but did not plan to wear again.
- About one-third of the respondents had clothing which they were keeping even though it was in bad condition and they did not plan to wear it again.
- Over half of the respondents stored out-of-season winter clothing and inactive clothing by itself, rather than with regularly used garments.
- The most frequently stated reasons for discarding family clothing were fit, condition, and appearance or use, in that order. The most frequently stated means

of disposal of these garments was by giving them to a church or charity group, another family, or using the fabric for some other purpose, in that order.

- In the past year one-third (35) of the families had each discarded over 20 items of clothing, not counting underwear or pajamas, while 27 families had discarded 6 to 10 garments.
- The age of the respondent was found to be associated with the Religious-Social values cluster group, indicating that the older the respondent, the greater the importance placed on the Religious-Social value.

The following three observations were found to be possible trends:

- Persons scoring high on the Political-Exploratory values cluster group tended to be less likely to store special types of clothing than were persons who scored lower on the Political-Exploratory values cluster group.
- Respondents who scored high on the Political-Exploratory values cluster group tended to be more likely than those scoring lower to have discarded family clothing due to problems with fit.
- Persons who responded with low ratings on the selected Aesthetic item, meaning that the item was not very much like themselves, tended to be less likely to have mended clothing in the past year than those persons who rated the Aesthetic item higher.

The majority of families of respondents in this research had some type of inactive clothing. These people were able to tell why the clothing became inactive, but had difficulty sorting the inactive clothing into different categories, such as needing more than minor care but will be worn again, will not be worn again but in good condition and still fits, or in bad condition and will not be worn again.

Keeping or destroying clothing that is still usable causes clothing waste. If this waste is to be reduced families will need to become aware of these sources of clothing waste and find ways to overcome it. It is possible that even though these garments are not being used they still provide satisfaction for the owner because they are available for use (VeVerka, 1974). Therefore the owner may not consider her practices to be wasteful.

Recommendations based on the findings of this research deal primarily with suggested revisions of the instrument, specifically wording, format, and administration. It is suggested that more detailed studies be done separately on the three areas of values, inactivity, and discard, before proceeding with another study of the association of clothing values with clothing practices. Possibly, as stated in Creekmore's (1963, p. 147) findings, associations between needs and clothing behavior should be studied rather than clothing values.

The nature of this research was exploratory and the respondents did not represent a random sample; therefore the results cannot be generalized to a larger population. However, the results can be used as a basis for formulating hypotheses and developing further research.

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APPENDIX A: JUDGES' INSTRUCTION SHEET AND CLOTHING VALUES DEFINITIONS

INSTRUCTION SHEET

The following statements are adapted from a clothing values instrument developed by Anna Creekmore. It is necessary to do a preliminary classification of these statements to determine content validity. Your help is needed to identify what value is represented by each statement. Then, surviving statements will be used in a questionnaire. After pretesting, this questionnaire will be given to approximately 100 homemakers along with a questionnaire investigating clothing inactivity, discard, and disposal. Responses on the two questionnaires will be analyzed by correlation.

1. Read the definition of each of the values.

2. Read each statement. Place each slip in the envelope that represents the most appropriate value. Ask yourself the question - "If the respondent agreed that this statement was very much like herself, what value would she be reflecting?"

3. If a statement does not seem to you to fit any of the values, place it in the "miscellaneous" envelope.

4. If a statement seems to reflect two or more values with neither dominant, also place it in the "miscellaneous" envelope. Please write on the slip the two or more values to which it seems to belong.

Please feel free to make any comments or criticisms. Write these on the appropriate slip or on the back of this sheet.

If you have any questions, you may contact me at:
office - 294-5215
home - 292-3425

I would appreciate you returning the envelopes and your comments to me or Dr. Winakor by February 24.

This research is part of a larger project "Clothing Condition, Inactivity, and Discard," Project 1962 of the Iowa Agricultural and Home Economics Experiment Station.

Thank you very much for your help!

Geitel Winakor
Darlene Fratzke

CLOTHING VALUES

Aesthetic:	Desire for, appreciation of, or concern with beauty in clothing
Economic:	Desire for conservation of time, energy, and money in relation to clothing use and selection
Exploratory:	Desire for and appreciation of clothing items as a source of raw material for experimentation
Political:	Desire for prestige, distinction, leadership, or influence through the use of clothing
Religious:	Desire for a symbolically moral expression in clothing use
Sensory:	Desire for comfort in clothing, such as warmth, coolness, smoothness, tightness, looseness, or firmness in the use of clothing
Social:	Concern for others in the use of clothing
Theoretical:	Desire to understand why clothing is used or needed and why it satisfies

APPENDIX B: LETTER OF TRANSMITTAL, INSTRUMENT PART I AND PART II

College of Home Economics
Department of Textiles and Clothing
140A MacKay Hall
Ames, Iowa 50010

IOWA STATE UNIVERSITY

Telephone: 515-294-2628

Introduction -

For several years the Textiles and Clothing Department at Iowa State University has been conducting research about the use of clothing. The purpose of the present study in which you are invited to take part is to find out more about how people store and discard clothing and how they feel about clothing. We hope that the information gathered will be useful to high school and college teachers, to extension home economists, and to families in buying, caring for, and storing clothing.

You can help by completing the answer to each question. While you have the option not to answer all of the questions, we hope that you will reply to each one. There are no "right" or "wrong" answers to these questions; we are just interested in what people really feel and do.

Your answers to the questions will be kept confidential and the findings will not be connected in any way with your name. The numbers at the top of each part of the questionnaire are only for identifying the two parts and keeping them together. If you have any questions about the questionnaire please feel free to ask.

We greatly appreciate your cooperation in this research and will be happy to send you a summary of the results. If you would like a summary please write your name and address on the line below. (This will be kept separate from the questionnaire; the questionnaire will be identified only by number.)

Thank you again!

Sincerely,

Darlene Fratzke

Darlene Fratzke
Research Assistant

Geitel Winakor

Geitel Winakor
Professor

Name _____

Address _____

_____

PART I

For each statement in Part I please answer by writing one number in the blank at the right of each statement. Choose a number from the 1-9 scale at the top of the page. Ask yourself - "Is this statement like me?" If your answer is "yes, it is very much like me," then you would place a 9 in the blank. If the statement is not very much like you, then you should place a 1 in the blank. If you are undecided as to whether the statement is or is not like you, then respond by placing a 5 in the blank. If the statement is only a little like you, then choose either 6, 7, or 8 depending on how much like you the statement is. The same is true for 2, 3, and 4 which indicate the degree to which the statement is not like you.

The numbers on each page are in order, but the pages may not be in order. Please be sure to complete each page.

Feel free to ask questions if you have any.

least like me — most like me

1 2 3 4 5 6 7 8 9

undecided

1. I would go to a talk about "buying clothing to save money" _____

2. If I were taking a plane to visit relatives, I would wear an old outfit that is very comfortable for traveling ..... _____

3. When new fashions appear in the stores, I like to try them on to see how they look ..... _____

4. If I needed a new raincoat, I would have the fun of trying on several brands and styles before buying ..... _____

5. If we were going to a movie with friends and my friends wanted to wear dressy clothes, I would wear the same type of clothes..... _____

6. If I were going shopping for clothes in Cedar Rapids or Des Moines on a very hot summer day, I would wear a dress with sleeves and a neckline that was not too low..... _____

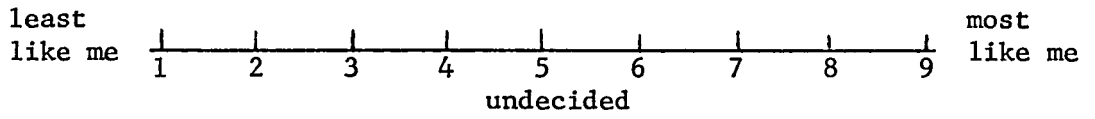
7. If I needed a new raincoat, I would buy the first good quality simple style I found that was reasonable in price . _____

8. I would like to be the best dressed woman in my neighborhood ..... _____

9. I would like to be able to teach others to select clothing suitable for themselves ..... _____

10. If a friend and I were shopping and we both saw and liked a beautiful dress on the rack, I would let my friend buy it since it was the only one the store had and she liked it very much ..... _____

11. If I was shopping for a daytime outfit, I would choose one that was a real bargain ..... _____



12. If I needed a dressy dress and had to make a choice between two I would pick the more comfortable one even though it was not quite as good a design for me ..... _____

13. If I were going shopping for clothes in Cedar Rapids or Des Moines on a very hot day in summer, I would choose a cool comfortable dress with a low neckline ..... _____

14. I always make sure that my dress and accessories go together well ..... _____

15. I would like to read an article on how religious beliefs have affected clothing styles in history ..... _____

16. If I were buying a new school garment for a child, I think it would be important that the garment be durable ..... _____

17. If I had to choose an outfit to wear to a church wedding, I would pick a plain, conservative style ..... _____

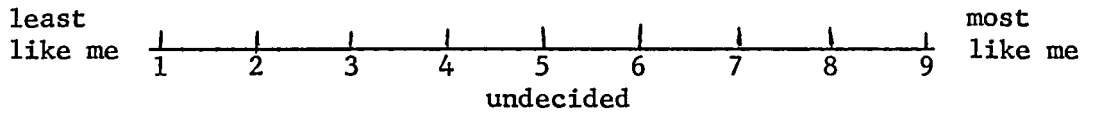
18. I like clothes which I can mix and match as I please ..... _____

19. I like to wear clothes that do not embarrass my friends .. _____

20. I like to shop in stores where I can get good clothes for less money ..... _____

21. If I was shopping and saw a very beautiful dress which cost slightly more than I had planned to spend, I would not buy it because it cost more than I could afford ..... _____

22. If both my friend and I were shopping for special occasion dresses and she couldn't afford to spend as much as me, I would buy a dress similar to the type she could afford ..... _____



23. When going on a short trip, I would take clothes which need little care ..... _____

24. I like to wear clothes which feel good to me physically .. _____

25. If a friend asked to borrow one of my blouses and I didn't think it would go with her outfit, I would let her have it without saying anything rather than hurt her feelings .... _____

26. I like casual clothes that are very comfortable, even though they might take more care ..... _____

27. I would not buy a dress unless the fabric and trim went well together ..... _____

28. I feel that people should wear only clothes that are morally right to wear according to the teachings of the church ..... _____

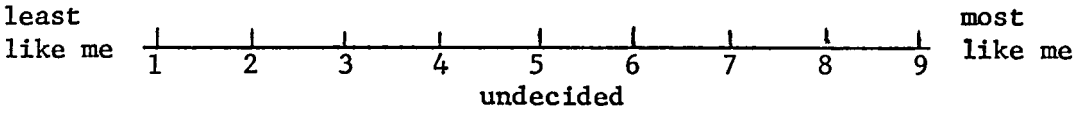
29. I like to buy my clothes in the best store in town without going anywhere else ..... _____

30. I like to wear clothes which are easy to care for ..... _____

31. I think that it is important for clothes to be beautiful . _____

32. I like to wear clothes which make me stand out in a group . _____

33. If I was shopping for a street dress, I would choose one that was very pretty ..... _____



34. When new fashions appear in the stores, I look for something I know is comfortable ..... _____

35. If I needed a dressy dress and had to make a choice between two I would pick the one with better lines for me even if it was not as comfortable ..... _____

36. If I were buying a new school garment for a child, I think it would be important that the garment be easy to keep clean ..... _____

37. I would like to be a woman whom others admire for having a large and varied wardrobe ..... _____

38. If a very new and different style of shoe came out, I would try a pair just to see how they looked and felt on me .... _____

39. If I wanted a new winter coat, I would buy the softest, warmest, and richest feeling coat I could find ..... _____

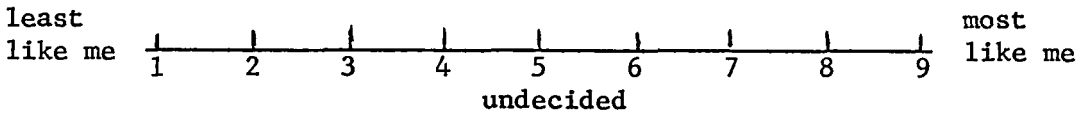
40. If I were shopping for a party dress and the first one I tried on was very pretty, I would buy it ..... _____

41. If I were buying a new school garment for a child, I think it would be important that it be modest and conservative . _____

42. I like casual dresses that are very easy to care for ..... _____

43. If the latest fad was splashy printed pantsuits, I would try one on just to see what they were like to wear ..... _____

44. I like my clothing to be very comfortable and easy to wear ..... _____



45. If a friend asked me to help her buy a dress, I would have her try on different types of dresses to see what looked best on her ..... _____

46. If my sister and I wore each others' clothes, I would buy a simple dress that I knew she could wear ..... _____

47. If a very new and different style of shoe came out, I would ask for the more comfortable looking type ..... _____

48. I like to wear clothes which are useful for many situations _____

49. I would like to work with a program to help the mentally ill choose becoming clothing ..... _____

50. If I were taking a plane to visit relatives, I would wear my best clothes since my relatives may bring others to the plane to meet me ..... _____

51. At any event I usually notice the expensive, high fashion clothes that others are wearing ..... _____

52. If my husband and I were invited to a party with my friend and her husband and I wasn't sure what to wear, I would wear something like my friend's dress because she has only one good dress to wear ..... _____

53. If both my friend and I were shopping for special occasion dresses and she couldn't afford to spend as much money as me, I would buy a more outstanding dress than my friend could afford ..... _____

54. If I read that styles might change next year, I would buy several fashion magazines to see what the changes would be _____

55. When going on a short trip, I would take clothes which make a good impression on others ..... _____

least like me — 1 2 3 4 5 6 7 8 9 — most like me

undecided

56. I like to try on as many of the new styles as possible ... _____

57. I like to wear clothes which are comfortable to me, but may not be especially stylish ..... _____

58. If I was shopping and saw a very beautiful dress which cost slightly more than I had planned to spend, I would not worry about the price and buy it anyway ..... _____

59. Even though my friends wanted to wear dressy clothes to a movie, I would wear my usual, comfortable, casual clothes ..... _____

60. I think clothing usually shows the religious beliefs of people ..... _____

61. I like to wear clothes which are especially beautiful in themselves ..... _____

62. I believe that most of the time people wear what they find easiest to take care of ..... _____

63. If I found a new dress or fabric that I wanted and the price was a bit more than I had planned to pay, I would try to look for something within my price range, rather than buy the one I had found ..... _____

64. I believe that most of the time people show their moral character by the clothes they wear ..... _____

65. I think it is important for clothes to reflect what is morally right ..... _____

PART II

In Part II mark a check (✓) or X in the blank to indicate your answer to the question. Some of the questions say "check as many as apply," in which case you may check more than one answer. If you check an "other" blank, please explain why on the line following. A few of the questions have only a blank for you to fill in your own answer.

Feel free to ask about questions that are not clear.

1. In what kind of housing does your family live?

____ single family house
____ townhouse or duplex
____ apartment
____ mobile home
____ other (explain) _____

2a When did you move into your house, apartment, etc.?

____ within the last year (since July 1, 1974)
____ 1-2 years ago
____ 3-4 years ago
____ 5 or more years ago

2b If you have moved within the past year (since July 1, 1974) do you have more, less, or about the same storage space for clothing now than you had before you moved?

____ have not moved in past year
____ less
____ about the same
____ more

3. Before you moved into your present house, apartment, etc. did you live ...

____ in this same town or county
____ in a different town or county, but in Iowa
____ in a different state

4. How many rooms, not counting bathrooms, unheated porches, etc. does your family have? ____

5. Who lives in your house, apartment, etc.?

__X__ yourself
____ husband
____ sons (list ages ____ ____ ____ ____ ____)
____ daughters (list ages ____ ____ ____ ____)
____ female inlaws or relatives (how many? ____)
____ male inlaws or relatives (how many? ____)
____ roomers, other than relatives (how many? ____)

6. Within the past year (since July 1, 1974) have any members of your family stored clothes in the following places? Check as many as apply.

____ a relative's house
____ with a drycleaner or furrier
____ at a friend's house
____ other places outside your home
(explain)_____
____ none outside the home

7. How many children do you have who are living away from home? ____

8. If you have any children who are living away from home, have these children left any clothing with you to store?

____ yes
____ no
____ doesn't apply - no children away from home

9. Do any members of your family have any of the following kinds of special clothing stored or put away but ready to wear or needing only minor care, such as washing or ironing? Do not include outgrown or out-of-style clothing. Please check as many as apply.

____ special clothing - Christmas, Easter, etc.
____ wedding dress
____ formal wear - formal dresses or tuxedo
____ confirmation clothing
____ costumes or uniforms
____ maternity clothes
____ other (explain) _____
____ none - no such clothing

10a. Do any members of your family have clothing stored or put away which they plan to wear again, but which would need more than just minor care before it could be worn? This could be clothing for any season.

____ yes
____ no

10b. If yes, why is this clothing not in condition to be worn? Check any reasons that apply.

____ appearance - no longer in style, tired of it, etc.
____ fit - no longer fits, the person changed size or shape, the garment changed size or shape, uncomfortable, etc.
____ condition - stained, torn, faded, discolored, missing trim, etc.
____ other (explain) _____

11. In the past year (since July 1, 1974) have you taken clothing like this and done any of these things to it so that it could be worn again? Check as many as apply.

____ mended
____ altered - shortened, lengthened, etc.
____ remodeled - made the item over either in size or style
____ removed a stain
____ replaced missing buttons, trim, etc.
____ dyed it
____ other (explain) _____
____ have not done any of the above

12a. Do any members of your family have clothing which they are keeping but do not plan to wear again, even though it is in good condition and still fits?

____ yes
____ no

12b. If yes, which of the following reasons describe why this clothing is being kept?

____ has sentimental or historic value
____ no longer needed - job changed, no longer belong to the club, etc.
____ out-of-style
____ other (explain) _____

13a. Do any members of your family have clothing that they are keeping even though it is in bad condition and they do not plan to wear it again?

____ yes
____ no

13b. If yes, which of the following reasons describe why this clothing is being kept?

____ sentimental or historic value
____ will use fabric for some other purpose
____ other (explain) _____

14a. Do any members of your family have clothing that is being kept, but is not included in questions 10, 12, and 13?

____ yes
____ no

14 b. If yes, why is this clothing being kept? _____

_____

15a. Does your family store the clothing in questions 10, 12 and 13 by itself or with regularly used clothing?

____ by itself
____ with regularly used clothing

15b. Does your family store winter clothing with clothing now being worn or by itself?

____ by itself
____ with clothing now being worn

16. Where do you store clothes? Check as many as apply in each column.

	Winter clothing that will be worn again in Fall	Clothing being worn now	Clothing in questions 10, 12, 13 not being worn at all
in regularly used rooms (includes closet)			
in a spare room (includes closet)			
in a hall closet or special closet			
in the attic			
in the basement			
in the garage			
other (explain)			

17. How do you store clothes? Check as many as apply.

	Winter clothing that will be worn again in Fall	Clothing being worn now	Clothing in questions 10, 12, 13 not being worn at all
on hangers, including in garment bags			
in boxes			
in a chest of drawers			
in a cedar or hope chest			
in a trunk			
on shelves			
other (explain)			

18. Which items of clothing in the following list are being stored? This question refers to the clothing in questions 10, 12, 13 which is not being worn at all. Check as many as apply.

____ blouses
____ dresses
____ sweaters
____ shirts
____ shoes
____ coats, jackets, ponchos, etc.
____ slacks
____ suits
____ pant outfits
____ skirts
____ housecoats, bathrobes, lounging wear, etc.
____ formal wear
____ other (explain) _____

An item of clothing is discarded when it has left your family for the last time or when it is used for some other purpose, such as for quilts or rags.

19. Which of the following are reasons that you have discarded family clothing in the past year?

____ appearance or use - out-of-style, no longer needed, changed job, etc.
____ fit - no longer fits the owner, out-of-shape, shrank, uncomfortable, etc.
____ condition - bad stain, tear, hole, faded, discolored, worn out, missing trim, etc.
____ other (explain) _____

20. How did you dispose of these garments?

____ gave them to church or charity
____ gave them to a rummage sale
____ sold them at a garage, rummage, or second-hand sale
____ gave them to another family
____ threw them away
____ used the fabric for some other purpose
____ other (explain) _____

21. If in questions 13b or 19 you checked that you use the fabric for some other purpose, how do you use it?

____ for rags
____ for quilt blocks
____ for appliques on other clothing
____ to give to friends who use it
____ for patches on other clothing
____ to make children's clothing
____ to make rugs or carpets
____ other (explain) _____

22. About how many items of clothing, not counting underwear, pajamas, etc., did your family discard in the past year (since July 1, 1974)?

____ 0-none
____ 1-2
____ 3-5
____ 6-10
____ 11-15
____ 16-20
____ more than 20

23. Do you own a sewing machine that works?

____ yes
____ no

24. How many completed garments have you made from new fabric for yourself or a member of your family within the past year (since July 1, 1974)?

____ 0-none
____ 1-2
____ 3-4
____ 5-6
____ 7-8
____ 9-10
____ more than 10

To make over or remodel an item means to take an already existing item and change the size of it in some way or to take it apart and make it into a different garment completely.

25. How many items of clothing have you made-over or remodeled in the past year (since July 1, 1974)?

____ 0-none
____ 1-2
____ 3-4
____ 5-6
____ 7-8
____ 9-10
____ 10 or more

26. Which statement best describes your and your husband's educational background?

husband	you	
____	____	completed elementary school
____	____	completed some high school
____	____	graduated from high school
____	____	completed some college
____	____	graduated from college
____	____	did graduate work

27. In addition, have you or your husband had some technical, vocational, or formalized training?

husband	you	
____	____	yes
____	____	no

If you are currently married, please answer questions 28, 29, and 30.
If not, go on to question 31.

28. What kind of work does your husband do? _____

29. Where is your husband employed? _____

30. What type of clothing does your husband wear to work?

____ business suit or sports jacket and slacks
____ uniform
____ overalls, coveralls, jeans and work shirt, work pants and shirt set, etc.
____ sports shirt and slacks
____ special protective clothing
____ other (explain) _____

31a. Within the past week how many hours did you work for pay at a job outside your home?

____ none - did not work
____ 1-9 hours
____ 10-19 hours
____ 20-39 hours
____ 40 or more hours

31b. Is this the number of hours that you usually work outside your home?

____ yes
____ no

31c. If no, how many hours do you usually work? ____

32. Please check your age range.

____ 25 or under
____ 26-35
____ 36-45
____ 46-55
____ 56 or over

33. What kind of activities do you regularly participate in? Check as many as apply.

____ quiet activities - knit, sew, read, crochet, watch TV, needlepoint, listen to stereo, etc.

____ outdoor activities - gardening, hunting, fishing, boating, etc.

____ active sports - tennis, swimming, gymnastics, softball, volleyball, etc.

____ group activities - church groups, clubs, youth groups, evening classes, etc.

____ attend concerts, plays, sports events, etc.

34. How many hours a week do you spend participating in these activities?

____ 1-5 hours

____ 6-10 hours

____ 11-15 hours

____ 16-20 hours

____ 20 or more hours

35. In the past six months have you made anything for your family by knitting or crocheting?

____ yes

____ no

36. If yes, what was it? _____

37. How hard do you feel your family is on clothing?

hard	average	easy	
____	____	____	yourself
____	____	____	your husband
____	____	____	sons
____	____	____	daughters

APPENDIX C: INITIAL TELEPHONE CONTACT WITH GROUPS

TELEPHONE CALL

Hello - My name is Darlene Fratzke. I am a graduate assistant in textiles and clothing at Iowa State University. The research I am doing is part of an Iowa Agriculture and Home Economics Experiment Station project and is being directed by Geitel Winakor, Professor of Textiles and Clothing in the College of Home Economics. I would like to invite members of the _____ to participate in my research by filling out a questionnaire that I have developed. The questionnaire deals with family clothing and we would like to have homemakers answer it. These may be fulltime homemakers or women who work outside the home. In order to reimburse your group for the time the members spend filling out the questionnaire, the organization's treasury will receive 50¢ for each completed questionnaire. The questionnaire will take approximately 40 minutes of your meeting time.

Would the _____ be interested in participating?

Number of members at each meeting -
Date of next meeting -
Time of next meeting -
Meeting place -

Thank you very much. I'm looking forward to visiting your club. If you need to reach me
my name is Darlene Fratzke
my address is 167-H University Village
my home phone number is - 292-3425
my office phone number is - 294-5215

If no - Thank you very much for taking time to talk with me.

APPENDIX D: COMPOSITION OF THE RESPONDENTS' FAMILIES

Number of sons in each age group

Number of sons	Age of sons (years) (Number of respondents reporting) 0-2	3-5	6-10	11-15	16-20	21-30	30 and over	Total number of sons
1	16	11	22	14	8	1	0	72
2	0	0	6	4	1	0	0	22
3	0	0	0	1	0	0	0	3
Total number of sons	16	11	34	25	10	1	0	97

Number of daughters in each age group

Number of daughters	Age of daughters (years) (Number of respondents reporting) 0-2	3-5	6-10	11-15	16-20	21-30	30 and over	Total number of daughters
1	11	21	15	14	6	0	0	67
2	1	1	3	0	2	0	0	14
3	0	0	2	1	0	0	0	9
Total number of daughters	13	23	27	17	10	0	0	90

Numbers and types of persons in families of respondents

Number of families with		Number of such persons in the home (number of respondents reporting)								Total number of persons in each category
		1	2	3	4	5	6	7	8	
Husbands	100[a]	100[a]	0	0	0	0	0	0	0	100[a]
Sons	64	39	19	5	0	1	0	0	0	97
Daughters	54	32	12	7	2	1	0	0	0	90
Female in-laws	2	2	0	0	0	0	0	0	0	2
Male in-laws	1	1	0	0	0	0	0	0	0	1
Roomers	1	2	0	0	0	0	0	0	0	1
Number of families with this total number of persons in the family	100[a]	0	20	18	33	14	11	3	1	100[a]

[a]One respondent did not answer this question and another answered "no" husband.