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THE RELATIONSHIP BETWEEN

PERSONALITY AND STYLE OF DRESS

A thesis

submitted to the Faculty of Graduate Studies
in partial fulfilment of the requirements

for the degree of

Doctor of Philosophy

in Psychology

Division of Social Sciences

University of Saskatchewan Regina Campus

by

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Regina, Canada

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We, the undersigned, certify that Christopher Kay Knapper

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ABSTRACT

One hundred and fifty subjects between 21 - 35 years volunteered for a study relating mental health, field dependency, and attitudes toward the female's role. Mental health was measured by Shostrom's *Personal Orientation Inventory* (POI), the *Eysenck Personality Inventory* (EPI), and a seven-item inventory developed for this research called the *Blewett-Wynn Inventory* (B-W). Field dependency was measured by the *Rod-and-Frame Test* (RFT). Attitudes toward women's roles were measured by the *Feminist-Anti-Feminist Inventory* (FA).

Results are discussed in terms of a factor analysis (Varimax) and specific correlational relationships. Field independence was found to relate significantly to the neuroticism scale (EPI) and nine scales from the POI. Pro-feminist attitudes were found to relate significantly with nine scales from the POI. Several B-W items were found to correlate significantly with both the POI and EPI scales.

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CHAPTER 1: INTRODUCTION - CLOTHING, PSYCHOLOGY AND PERSON PERCEPTION

This study is concerned with the question of whether the way a person dresses is related to his personality. Popular opinion and folklore would leave us in no doubt that such a relationship exists, but psychologically the problem is rather more complex. We must ask: "What aspects of personality?" And we must try to define and measure with some precision the multifarious ways in which people may dress. Furthermore, it is scarcely sufficient to demonstrate merely that a relationship exists: we need to show in what ways, to what extent, and under what circumstances the clothes a man wears may denote something about his personality. The following investigation is an attempt to answer such questions from the point of view of social psychology.

Stimulus characteristics in person perception

Basic to the problem is the way we form impressions of other people. This is the study of person perception. According to the discussion of person perception provided by Warr and Knapper (1968, Ch. 1), two of the most important components of the process are what they term "stimulus person information" and "perceiver variables".

The term "perceiver variables" refers to the characteristics of the perceiver which may affect the impressions he forms of others - such factors as his age, sex and socio-economic status, as well as his past experience. We are not directly concerned with such factors in

this study, but shall refer to them in passing from time to time. The term "stimulus person information" is self-explanatory, but Warr and Knapper (1968, pp. 9-11) make a further distinction between overt characteristics of the stimulus and covert characteristics (the terms are originally Egon Brunswik's). Covert characteristics generally imply aspects of the stimulus person which can only be inferred indirectly - such as his social class, his mood or personality. Judgments of overt fact, which generally precede judgments about covert characteristics, are mainly concerned with the appearance of the stimulus person, how he acts, or what he says. Clothing is obviously an overt stimulus characteristic, just as personality is a covert characteristic.

However, such overt stimulus characteristics have received scant attention from psychologists: "Except for psychoanalysts, some psychiatrists, and a few anthropologists, one finds almost no scholars willing to bend their efforts to the study of appearance" (Stone, 1962). Early studies tended to concentrate on facial expression as a cue to personal traits or to the emotion being experienced by the stimulus (see Warr and Knapper, 1968, Ch. 7 for a review of such studies). There are relatively few investigations of other externally observable stimulus characteristics, such as a person's total physical appearance, posture, gesture or clothing.* Recent studies in person perception research have tended to emphasize interaction processes rather than situations in which a stimulus is perceived indirectly. Such studies have concentrated on such things as a stimulus person's verbal behaviour or the way he exchanges glances with

*For a recent and interesting discussion of the judgments we make from large bodily cues, such as posture and stance, and relationship of such cues to clothing, see Machotka, 1968.

another (see for example Exline, 1963, and Kendon, 1966). It would seem, however, that the more "static" aspects of a stimulus person's characteristics should not be ignored by psychologists. Warr and Knapper (1966a, 1966b, 1968) have strongly rejected a currently common view in social psychology that only perception involving face-to-face interaction is worthy of study. They have pointed out that indirect perception is in fact characteristic of a great many of the personal impressions we form in everyday life - especially those we form via the mass media of communication. Consequently, it is timely to examine some of these relatively static, overt characteristics of stimulus persons, whose role in the perceptual process has so far been largely ignored by social psychologists.

We mentioned above that most of the studies of overt stimulus information to date have concentrated upon facial expression. A scrutiny of these studies allows us to make several generalizations about the way perceivers form impressions of others. The first of these generalizations is that on the basis of fairly minimal cues judges are often quite prepared to ascribe all manner of personal traits to a stimulus person. The interesting point here is that although the cues are overt, the judgments made not only concern overt stimulus characteristics, like age or sex, but also covert characteristics, such as the stimulus person's mood and personality. For example, if we show the judge a black and white head and shoulders photograph, he is usually quite ready to infer to the stimulus person a wide range of characteristics such as aggression, extraversion or anger, without access to any other information

except the photograph.*

A second interesting generalization is that there is often a large measure of agreement among judges about the characteristics ascribed from such limited information. In other words, using the example cited above, judges from a relatively homogeneous population would tend to agree upon the extent to which the stimulus was aggressive, angry or extraverted.

A final generalization would be that in spite of this judgmental agreement there is often little validity in such judgments. For example, Secord (1958) has shown that there is a large measure of agreement among judges about the physiognomic correlates of many personality traits. Yet it is logically impossible that relatively permanent attributes of personality can be affected by the physical structure of the face.

We can consider these same three generalizations in regard to the specific overt stimulus characteristic of clothing. Is there any evidence that perceivers will make a variety of judgments based upon the way a person dresses? If so, is there any agreement among judges concerning the impressions conveyed by different costumes? Finally, are such judgments valid? Do they relate to any real characteristics possessed by stimulus persons?

Studies in the psychology of clothes

Before we consider the evidence in relation to these specific queries, we would do well to briefly examine the field of clothing research in order to place our own inquiries into a suitable context.

*It should be pointed out that in the type of judgmental situation referred to in this paragraph, subjects are generally asked to ascribe traits to the stimulus, and most subjects comply. This does not necessarily mean that they would do so on their own, without "prompting".

On the whole, clothing and dress are subjects which have been largely ignored by psychologists. While there have been several books bearing the title "The Psychology of Clothes", these studies are almost exclusively speculative in nature and contain little in the way of experimental evidence to back up the points they make. Some early psychologists were concerned with the question of how man came to wear clothes in the first place. Theories ranged from modesty (Wundt, 1916) to protection against insect bites (Dunlap, 1928). The most famous psychological study of dress, however, is probably that by Flügel (1930) which examines clothing from the point of view of psychoanalysis. He too was concerned primarily with the motivation underlying the wearing of clothes and changes in fashion. The sexual element is stressed, and considerable attention is devoted to the phallic symbolism of clothing: "the readiness with which a woman will remove her cloak when she is in evening dress...is to some extent diagnostic of her general friendliness and willingness to invite sexual admiration. If she throws off her outer wrap promptly she is socially and sexually in sympathy with her environment" (Flügel, 1930, p.79). Another psychoanalyst, Garma (1949), saw clothes as a substitute for the fetal membrane (a view shared by Flügel), while Reik (1952), amplifying the commonly held psychoanalytic view that clothes are an extension of the body, went so far as to maintain that the common female complaint, "I have nothing to wear" is no more than penis envy!

Apart from interpretations of this sort, psychologists in general have chosen to ignore the topic of dress. Few textbooks of general or social psychology even mention the subject and a recent comprehensive review of the psychological literature by Ryan (1966) led her to conclude

that "there has been relatively little research by social psychologists in which clothing has been one of the variables studied" (p. 3).

Nor has the topic received much attention in the areas of psychopathology or psychotherapy. One occasionally finds reference to clothing as an aid to therapy. For instance a study by Baker (1955) concluded that clothing was an important morale booster for mental patients, and Miller, Carpenter and Buckley (1960) suggested the use of "fashion therapy" (lectures on clothes, help with dress, etc.) to aid the rehabilitation process. Goffman (1961), commenting on the divesting of a patient's belongings when he enters hospital, referred to such items as clothing and cosmetics as an "identity kit". Their loss is similar to the ritually symbolic act of divesting a monk of his own clothes when he takes his monastic vows. In a later book, the same author comments that improvement in a mental patient is often symptomized by his taking an interest in his clothes and appearance (Goffman, 1963). Emde (1966) found that a change from uniform to street clothes by the staff of a mental hospital had important consequences for the patients, including the production of elaborate fantasies. On the whole, however, it is rare to find any systematic attempts to understand the importance of dress for the mentally ill.

The topic of clothing has received little more attention from cultural anthropologists, although Montagu (1958) commented upon the possible origin of clothing and its use by primitive man, while Linton (1949) described how cultural motivations, either passive or warlike, may be exemplified in tribal dress.

If the psychology of clothes has been largely ignored by psychologists, it has received increasing attention of late from behavioural scientists working in the field of home economics: "Home economists in recent years have become increasingly aware of the importance of the social psychological factors related to clothing" (Ryan, 1966, p. v). The aspects of dress which are of interest to home economists obviously cover much wider ground than we can consider here, but there are several important empirical studies by home economists which have a direct bearing on the topic of this investigation. Such studies, along with the more meagre contributions by psychologists, will be reviewed in detail below.

Clothing and person perception

The impressions formed by clothing

We may now return to our three generalizations concerning the role of clothing in person perception. The first question to be considered is whether the way a stimulus person dresses does indeed affect the way he is perceived. It will be recalled that we earlier made a distinction between overt characteristics of the stimulus person and covert characteristics. As far as overt cues are concerned, it is fairly obvious that clothing can be a fairly reliable indication of such things as the sex of a stimulus person, his or her age and occupation (especially if a uniform is being worn). Indeed Flügel (1930) attributed more importance to clothing in this connection than to almost any other overt cue: "In the case of an individual whom we have not previously met, the clothes he is wearing tell us at once something of his sex, occupation,

nationality, and social standing, and thus enable us to make a preliminary adjustment of our behaviour towards him long before the more delicate analysis of feature and speech can be attempted" (p. 15).

Turning to the covert stimulus characteristics, we find that there has been considerable interest in the ability of dress to convey information concerning the socio-economic status of the stimulus. Numerous studies confirm that in fact clothing is used as a guide to status. For example, Form and Stone (1957) found that subjects drawn from a wide socio-economic spectrum all used clothing cues in ascribing social class to stimulus persons, and a study described by Ryan (1966, p. 21) showed that clothing was more important than facial features as a cue to socio-economic status. Douty (1963) had four models photographed in four different costumes and each costume was rated by female subjects in terms of the type of woman who would wear them. She found that a different status was ascribed to each of the four costumes. Thibaut and Riecken (1955) successfully manipulated perceived social status by having two stimulus persons dress smartly or shabbily, and Lefkowitz, Blake and Mouton (1955) showed that a well-dressed stooge, who deliberately crossed the road at a red light, could cause more traffic signal violations by nearby pedestrians than could the same person when shabbily attired. Results of this kind would have given considerable satisfaction to the economist Veblen, whose theory of conspicuous consumption was at least partially based on the premise that people select clothing to indicate their status to others (Veblen, 1912). Indeed, Montagu (1958) maintains that even in primitive societies there is a link between status and dress: "Only great warriors could wear the feather bonnet that has

come to be associated with the Plains Indians. Large ear ornaments could be worn only by the ruling classes among the Incas" (p. 103).

If socio-economic status is usually a covert characteristic of the stimulus person, then it is also a fairly "obvious" covert characteristic in the sense that it often relates to fairly gross differences between people. We might wonder whether clothing could serve as a cue for some of the more subtle and complex stimulus characteristics, such as a person's personality, values, attitudes and interests, or his mood and emotional state. Stone (1962), for one, believes that it can: he maintains that clothes not only enable us to identify the wearer, but that they also provide cues to the "value, mood and attitude" of the wearer.

In fact, most of the empirical evidence concerns clothing as a cue to aspects of the stimulus person's personality, rather than his current state of mind. Hoult used as stimulus material photographs in which the faces were kept constant while the clothing changed. It was found that judgments of personal characteristics, such as co-operativeness and intelligence, varied according to the way the stimulus person was dressed. However in a second experiment, in which judges rated live stimulus persons with whom they were acquainted, change of costume had no effect upon "social ratings" (Hoult, 1954). Douty (1963), in the study mentioned above, also had subjects rate each of four different costumes on semantic differential type scales. She found that the costumes generated significantly different impressions in terms of the personality of the wearer. Ryan had six female undergraduates rated by a high school class on two different occasions. On the second occasion all but one of the girls had changed her clothing.

Judgments of personal characteristics were found to differ for all stimulus persons except the one who had retained her original dress (Ryan, 1966, Ch. 1). Ryan also reports several investigations in which students rated pictures of stimuli where the head had been obliterated. Without the cue of facial expression, judgments of personal traits were found to vary considerably (Ryan, 1966). In a British study which used rather similar stimulus material, Gibbins (1969) found that teenage girls distinguished between the likely wearers of the costumes in terms of personality, morals (with regard to smoking, drinking and boyfriends) and probable hobbies, as well as the wearer's age, occupation and education. Yet another study reported by Ryan, and carried out by some of her students (see Ryan, 1966, Ch. 1) used a technique similar to that of Hoult (1954). The heads of five girls were photographically superimposed on five different costumes, and it was found that in making judgments on an adjective check list there were differences in the personality traits checked according to costume. However, there were even larger differences attributed to the different faces (in contrast to judgments of occupation, education, socio-economic status and intelligence, where clothing style was a more important determinant of perception than facial features). Ryan also found differences in ascribed attitudes, interests and values, according to the costume worn.

It should be noted, however, that all the above studies with the exception of that by Hoult made use of stimulus persons who were either not real people (as in the drawings) or who were personally unknown to the judges. It could be that when the stimulus person is well-known to the

judge - even when the former deliberately dresses in an atypical manner - clothing will have comparatively little influence upon the way the perceiver judges personality. Unfortunately, there has been virtually no empirical research into this question.

There has, however, been some investigation of the effect of costume on judgments of liking for the stimulus person, and here it has been found that judgments of stimuli who are well-known to the perceiver may well be affected by dress. Thus, Cannon Staples and Carlson (1952) and Kuhlen and Lee (1943) found that the most popular upper-grade high-school students were rated high on personal appearance (which presumably includes the factor of dress). This is in line with Nystrom's (1928) contention that "apparel is one of the most effective means (of)...gaining the esteem and goodwill of other people". We would also predict that dress would be an important cue to our perception of a stimulus person's mood or emotional state, even - or especially - when that person is intimately known to us. However, there is little empirical evidence to bear upon this point.

Just as clothing is only one of the factors which determine perception, so the cues derived from clothing may well be more important for some personal characteristics than for others (something which has yet to be thoroughly investigated). Furthermore, some judges may use clothing cues more than others.* Nevertheless, it would be a reasonable generalization to say that the way a person - especially a stranger - dresses is an important influence on the way in which we perceive him.

*The importance of perceiver variables in person perception is discussed below.

Perceiver variables in perception of dress

The second question we raised with regard to clothing and person perception was whether there is substantial agreement among judges as to the different personal characteristics ascribed to different styles of dress. In the case of the obvious clothing cues which are provided by, say, a police or military uniform, there would almost certainly be a large measure of agreement among perceivers at least as to such overt characteristics as the occupation and status of wearers.* But what of the clothing cues which relate to the covert characteristics of the stimulus person? The fact that we find systematically significant differences between groups' perceptions of stimuli dressed in different costumes testifies to at least some measure of agreement between perceivers. But often subject groups are fairly homogeneous (college students for example).

We would expect, from previous research in the field of person perception (see Warr and Knapper, 1968, Ch. 4) that what are known as perceiver variables would affect judgments based upon clothing, and Ryan (1966) comments that "the particular sorts of characteristics perceived will depend upon the interests and values of the observers" (p. 14). Indeed, Form and Stone (1957), Rosencranz (1962), and Vener (1953) did show that "clothing awareness" was related to a perceiver's socio-economic status, higher status judges being more clothes-conscious. (At the same time Gates (1960) found that social mobility from one status group to another had little effect on clothing preferences or behaviour.) Sherlock (1961) found some cultural differences between Americans and Indians in

*While status is normally a covert characteristic in contemporary society it is interesting to note that in the case of military personnel the characteristic of rank is very obviously overt, with clothing here being an important cue.

the personal traits they ascribed to an Indian woman dressed in various different ways. On the other hand, Kittles (1961) failed to find the cultural differences she expected between American negroes and whites with respect to the importance ascribed to clothing. Both Anspach (1968) and Bathke (1968) have recently investigated different concepts of dress in various ethnic groups; the former worked with Thai women and the latter with Mexico-Americans. In a rather different context Knapper and Kinley (1969) studied the relationship between perceivers' ethnocentrism and the judgments they made of stimulus persons wearing a variety of costumes. Though the results of this research are not yet complete, it appears that ethnocentrism has some slight effect on clothing perception. Compton (1967) studied the differences in clothing fabric, colour and design preferences between delinquent and non-delinquent girls. She attempted to relate such choices to personality and physical characteristics.

With the exception of these few studies evidence concerning the role of perceiver variables in perception of dress is sadly lacking, nor do we know very much about the way in which perceiver characteristics of this kind interact with judged stimulus traits. Even the role played by the sex of the perceiver is not as yet understood, since the great majority of studies of clothing have used judges and stimuli of just one sex - usually women. At the same time it seems evident that there is considerable general agreement in the judgments made within fairly homogeneous groups.

A related problem is whether there is any consistency in the perceptions generated by particular types or items of clothing. Form and Stone (1955) were able to isolate a number of the cues used by their

samples of white collar and manual workers to identify the occupational status of others; there were several differences between the samples in the use they made of such cues. In a study by Wexner (1954) some consistency was found between specific colours of clothes and the perceived mood of the wearer, but in a similar experiment by Murray and Deabler (1957) results differed according to the socio-economic status of the perceiver (a finding which argues in favour of multi-factor experiments in this area). These studies, which are among the few to consider impressions generated by specific attributes of dress, fall a long way short of being able to predict the effects of combining colours with each other or with other factors, such as the facial features of the wearer. Furthermore, constantly changing fashions in colours, lines, materials, etc., may mean that any success in predicting the effect of particular clothing combinations would be short-lived.

Clothing and the personality of the wearer: the validity of judgments

We come finally to the question of whether the judgments made about personal characteristics on the basis of dress have any validity - are they related to any real characteristics possessed by the stimulus persons? It should be noted at the outset that there is a distinction here between validity, in the sense that we are using it, and accuracy. An example may make this clearer. Some aspect of a person's dress may encourage us to make a particular judgment about him. If investigation shows that people who dress in this specific way differ in some respect from people who dress in another way, then this aspect of dress would be a valid criterion of judgment. However, our perceiver might be using this criterion in an extremely inaccurate way. Supposing we believe that wearing a bow-tie

indicates a cheerful disposition. Investigation may reveal that people who wear bow-ties do in fact differ from people who do not - but not in their cheerfulness, rather in, say, their aggressiveness. We would then have been using a valid criterion of judgment in an inaccurate manner. In the case of many of our judgments of overt stimulus characteristics it is fairly evident that perceptions will be both valid and accurate (e.g. the perception that the man wearing the dark blue uniform with a pistol at his belt is a policeman). In the case of covert stimulus characteristics the matter is rather less straightforward. We are here interested mainly in the validity of judgments of covert characteristics - particularly judgments pertaining to the stimulus person's personality.

It is rather surprising to find that in spite of the large number of studies of the accuracy of person perception "clothing has not been one of the variables in any of these studies" (Ryan, 1966). This is not to deny, however, that it is popularly believed that clothing is, indeed, a valid indicator of the wearer's personality.

"Fine feathers make fine birds" is a familiar proverb in many languages, and advertisements for both men's and women's clothes do not hesitate to suggest that suitable attire will enhance the wearer's ego: "...the knowing look of a poised, confident man in _____ sports coats" (Playboy, June, 1967, p. 167); "...what is there about a jumper which increases industry, ambition, energy and determination? Nobody is lazy in a jumper..." (New Yorker, July 15, 1967, p. 16). Indeed, talking of the Madison Avenue approach to advertising clothes, Seldin (1963) remarks: "Milady's new dress was more than a combination of fabric,

thread and buttons - it was an extension of her personality" (p. 185).

Flügel (1930) had expressed much the same idea when he talked of clothes as an extension of the bodily self (Ch. 2), and more recently Argyle wrote that "it is possible to dress in clothes to portray the man, and indeed, a person's clothes are one of the best clues to his self-image" (Argyle, 1967, p. 126). Lynes, who believed that personality was expressed through all aspects of "taste" (for example, in home and furniture design), saw clothes as portraying "the mood and morals and mores" of society in general (Lynes, 1949, p. 305). A similar point was made by Bush and London (1960) who examined the role of young boys in society in terms of the disappearance of knickers as a normal form of dress.

Several writers on the psychology of dress, while producing no actual empirical evidence, have listed possible effects on behaviour and personality,* especially self-confidence, of being well or poorly dressed (e.g. Dearborn, 1918; Morton, 1926). Hollingworth (1928) even went so far as to attribute juvenile delinquency to an "intense craving for the right clothes" (p. 114). It has been further suggested that such effects may originate in childhood when children are, say, given a feeling of inferiority by being forced to wear clothes which differentiate them from the peer group (e.g. Young, 1938). Other researchers have said that well-dressed children are more self-confident and better mannered (Hurllock, 1956; Nash, 1910).

It has been shown in a number of studies that people frequently

*As opposed to mood - there are many empirical studies of how dress affects the wearer's mood (see Ryan, 1966, Ch. 13).

cite the expression of personality as a motive in clothing selection and behaviour. Alexander (1961) asked samples of high school students and college girls why they believed it was important to be well-dressed. In the case of the college girls and both the male and female high school students, approximately 11 per cent gave as a reason the expression of individuality or personality. A questionnaire study by Barr (1934) revealed that a majority of women in her sample chose clothing in order to express personality (even more important, however, was a desire for clothing to conform to the group norm).

Just as one may believe that clothes should reflect the inner man (or woman) so it may also be the case that behaviour or personality may be affected by the way one dresses. Ryan (1966, Ch. 3) tells how a group of nuns attending university were interviewed and asked about the psychological effects of their habits. "They all felt that their habits had a great effect upon their actions as well as on the actions of others towards them. Knowing that people in general expected a nun to be sweet, gentle, dignified, and serious, as well as deeply religious, their robes were a constant reminder to them to act in that way and to live up to people's expectations" (p. 71).

If clothing were in fact a reliable clue to personality then one would expect to find mention of it in the textbooks of personality psychology. Murphy (1947) gives the opinion that "clothing is largely a means of making real the role that is to be played in life" (p. 495), but his textbook deals with clothes primarily in terms of the beauty and status of the wearer. On the whole texts in this area are devoid of any reference to the importance of dress, a typical example being Dreger's Fundamentals

of Personality; here the index contains 56 entries under the heading, "Factors of personality", from "autonomic resilience" to "wrist-finger speed", without however any reference to either clothing or dress.

Nor do the textbooks or handbooks of abnormal psychology and psychopathology mention any ways in which clothing may be related to personality disorders. However, this may be only because the subject has been an unfashionable one for researchers in this area. In fact, it is not uncommon for clinical psychologists to hint that clothing can at times be a useful aid to diagnosis. Wallen (1956), talking of the clinical interview situation, remarks that the clothing a person wears is always in some sense an expression of his relationship to his social environment and of his self perception: "It is not uncommon to see women who are dowdy or who are given to somber clothing begin to attend to their appearance or to choose more colorful clothing as therapy progresses. This change seems to parallel changes in the direction of greater self-confidence and greater interest in the relationships between themselves and others" (Ch. 5). Elsewhere, Wallen states that clothing can convey such things as narcissism and homosexuality, and Argyle (1967), talking about mental disorder and social behaviour, states that manics can be recognized by their "smart, striking but rather loud clothes" (p. 136). A fairly well-known account of the relationship between dress and personality disorders is to be found in connection with the famous "Three Faces of Eve" case of multiple personality. In her autobiographical account, Evelyn Lancaster mentions several examples of the radically different taste in clothes of "Eve White", "Eve Black", and "Jane". On one occasion the prudish, anxiety-ridden Eve White was

horrified to find that her other self, Eve Black, had purchased a red satin evening dress. The skirt had an open fold "through which, I'm sure, vast areas of leg frequently showed". The top of the dress was strapless, backless "and as near frontless as a dress dare be...It symbolizes Eve Black for me" (Lancaster and Poling, 1958, Ch. 3).

Writers of textbooks on fashion, dressmaking and dress design have on the whole been much less reluctant than psychologists to give us the benefit of their views on the relationship between clothes and the personality of the wearer, even though what they have to say on the matter is happily uninfluenced by scientific research. A common sentiment of fashion designers is that "a costume must harmonize with the individuality of the wearer" (Doten and Boulard, 1939, p. 182). Home dressmakers are warned that "to appear well-dressed one needs to understand the relations of personality to clothes" (Goldstein and Goldstein, 1940, p. 254). Picken (1938), in a chapter of her book entitled "Clothes - an Index to Character", says that dress should reflect what the wearer is, what she thinks, and "what her attitude is towards the serious and frivolous things of life". Sceptics are referred to their history books where they will see "the actual character of the kings and queens expressed in their clothes".*

Many of the writers in these fields are quite specific in recommending styles of clothing for certain types of personality. Talbot (1943) divides women into three basic personality types - the "tailored" type, the "feminine" type, and the "sophisticated - dramatic" type, each of whom is advised to dress in a distinctive manner. Morton (1943) reviews the personality theories of Allport and Jung in a chapter entitled

*The same author defines "personality" as "the expression of surplus energy".

"Understanding and dressing to Temperament". She selects the dimension of masculinity/femininity as one of fundamental importance and proceeds to list in a long table all those aspects of dress which emphasize various positions along this dimension. Kettunen (1941) is another writer who includes a chapter on "Personality and Dress". Her basic personality structure also includes masculinity - femininity, but added to this are the dimensions "dynamic - retiring" and "dignified - vivacious". Kettunen also has a chapter of advice on going for a job interview with a list of hints on how to convey through one's clothes the impression of efficiency.

The same writers also comment on the relation between personality and specific aspects of a clothing - notably colour: "Just as there are designs for every personality type, so are there colors suited to the various personalities" (Goldstein and Goldstein, 1940, p. 254). Picken gives some more specific advice: she recommends that colours should be carefully chosen to emphasize personality traits - or even to "build up personality". For example, "red is the most aggressive of all colors", while "yellow symbolizes freshness, health, vigor, happiness" (Picken, 1938). Story and Ogelsby in their book Individuality and Clothes (1940) go even further, for, they state, "Geranium pink may change a girl's career. It may give her courage, faith, and belief in the world and joy in her endeavor" (p. 102).

From all of the above it would seem that a large body of opinion from a wide variety of sources is agreed that there is indeed a link between clothing and the personality of the wearer. However, we must now ask whether there are any empirical research findings which would tend to support this conclusion. While some experimental evidence can be brought to bear on the issue, it is unfortunately the case that

scientific inquiries in this area are considerably rarer than the free ranging opinions we have just reviewed above.

Several studies relate subjects' professed interest in clothes, as opposed to the type of clothing they actually wear, to aspects of their personality. Stepat (1949) has shown that concern about clothing and grooming is related to "adjustment" as measured by the Washburn Social Adjustment Inventory and the Minnesota Personality Scale. Both Machover (1949) and Ryan (1966, Ch. 4), in studies which made use of projective techniques, have suggested that interest in clothes may be related to personality adjustment. The same relationship, using various different techniques, has been investigated by Rosencranz (1949; 1962) and by Vener (1953) and Vener and Hoffer (1959). On the whole these studies show that high interest in or concern about clothes is linked with a high level of social participation and - to a certain extent - extraversion. However, this trait is regarded as symbolizing poor, rather than satisfactory, social adjustment; subjects apparently participate more in a rather anxious desire for social approval, they tend to be dependent on others, extremely sensitive to the feelings and opinions of others, at the same time generally lacking confidence in their social relationships.

This pattern is further echoed in a variety of studies, all of which measure clothing interest in different guises and under different names. For example, Baumgartner (1961) found that college women who ascribed more importance to clothes participated in a greater number of social activities. And Katz and Lazarsfeld (1955), in a study of "fashion leadership" (subjects' sensitivity to dress and fashion measured

according to their responses on a questionnaire), showed that this factor was linked to the number of organizations to which an individual belonged. Several researchers (e.g. Hoffman, 1956) were able to relate subjects' preferences for "dressy" clothes to high scores on the social factors of personality tests. Interest in clothes also has much in common with the concept of "wardrobe size" and indeed it has been found that the number of clothes possessed is related to social participation for both high and low income groups (Stone and Form, 1955). A possible explanation for this pattern of results is that "the greater the self-confidence, the less the need for, and hence interest in, clothing" (Ryan, 1966, p. 284). Partial evidence in support of such an explanation is provided in Creekmore's (1963) find that the use of clothing as a status symbol is associated with needs for belongingness and self-esteem.

It is important to draw a distinction between having a high level of interest in clothes and feeling well-dressed. High interest in dress, as we have seen, is frequently linked with lack of self-confidence and efforts at social participation, the suggestion being that clothes here serve as a sort of compensatory device. Feeling well-dressed also leads to a high degree of social participation - presumably out of different motives, however.* Wearers who feel well-dressed (see Ryan, 1966, Ch. 6) have higher morale, feel more efficient and are happier (as was predicted by the fashion experts we quoted earlier). Confidence in clothes has been found to lead to more participation in class discussions. And wearers who are satisfied with their range of clothes - irrespective of how many clothes they actually possess - participate more in social affairs (Dickins, 1944; Silverman, 1945). Moreover, there would seem to be some

*Perhaps social participation here implies a mood or transitory state rather than a personality characteristic.

justification for this, since Cannon and Staples and Carlson (1952) and Kernaleguen and Compton (1968) showed that judged personal appearance was, indeed, linked with acceptability for samples of high school students and college girls respectively.* And Kuhlen (1947) found that having problems in clothes selection was associated with low peer acceptability in ninth grade boys.

Several studies have attempted to relate subjects' expressed interest in dress to their value-systems, as measured by the Allport-Vernon-Lindzey values test. Nickerson and Bryer (see Cantril and Allport, 1933) found that high interest in clothes was related to the aesthetic, economic and political, as opposed to the religious and theoretical values. These results applied only to women, however, for these investigators failed to establish any correlations between men's values and their interest in clothes. Other investigators have correlated general values with the wearers' values concerning clothing and dress. Aiken (1963), for example, measured the "clothing values" of 300 undergraduate women on a specially designed, factor-analyzed, clothing questionnaire, and related scores on this instrument to scores on the Allport-Vernon-Lindzey values test, as well as the California Personality Inventory, and F-scale, and the Sixteen Personality Factor Questionnaire. He found that high scorers on the "decoration" and "interest" clusters of the clothing questionnaire tended to be uncomplicated and socially conscientious (the latter finding fits in with the conclusions of other investigations of clothing interest mentioned above). High scorers on the "comfort" cluster were found to be "controlled extraverts", high scorers on "economy" were more intelligent, while those

*Another study by Kittles (1956) failed to find a relationship, however.

who expressed "conformity" in dress, also tended to conform on other personality measures. Hartmann (1949) suggested that clothing values and general values might be linked in a more obvious way than this - for example, that people placing high value on economy would see clothes mainly in terms of how cheap and practical they were. Some evidence to support this hypothesis was obtained by a number of investigators, including Altpeter (1963), Finlayson (1959), and Lapitsky (1961). However, Mendoza (1965) found differences in such relationships between female undergraduates from the U.S.A. and the Philippines, and an ambitious study by Creekmore (1963), which used a measure of clothing behaviour,* showed that many aspects of such behaviour failed to correlate with subjects' values in the way which had been hypothesized. Yet another investigator (Deemer, 1967) developed a measure of clothing and appearance values (the Clothing and Appearance Image Measure), and was able to relate scores on this instrument to perceived "adjustment" as indicated by the wearers.

Earlier in this section we inquired whether the wearing of specific items of clothing or types of dress gave rise to particular impressions on the part of the perceiver. A related question is the effect that items, types, textures or colours of clothing may have upon the wearer. Research on colour preferences (as opposed to colours actually worn) suggests that women's preferences for bright colours or a wide range of colours goes with sociability or extraversion (see Borror and Creekmore, 1965; McInnis and Shearer, 1964; and Ryan, 1966, Ch. 4) - yet another confirmation of the advice often given by fashion writers. On the whole, however, there

*Not actual behaviour as witnessed by a third party, but based upon how subjects said they would behave in certain circumstances.

is a dearth of information on the relationship between personality and specific forms of dress. And while there is ample evidence (see Ryan, 1966) that various attributes of clothing are felt by the wearer to influence his mood (which may in time be related to personality) it is unfortunately equally clear that the relationships differ markedly from one wearer to the next.

A common feature of all the studies mentioned so far which attempt to relate clothing and personality is that they take a measure of clothing behaviour (interest, preference, values, etc.) which is provided by the wearer. In the present investigation we are primarily concerned with the validity of impressions formed from actual clothing worn, and the answer to this question would best be provided by the type of study which takes some objective measure of appearance and then relates this to the personality of the wearer. Unfortunately studies of this kind are rare.

A couple of investigations have related fashion or fad leadership to aspects of personality. Sohn (1959) found that college men judged to be fashion leaders also tended to be leaders in other areas, and Janney (1941) showed that college girls who successfully originated clothing fads were more active and socially successful. Both these studies are rather peripheral to our purpose here, although it is worth noting in passing that their findings offer something of a contradiction to the view referred to above that high interest in clothes is related to poor adjustment and lack of self-confidence. However, in a very recent study Kernaleguen and Compton (1968) found that college girls rated by their peers as fashion leaders scored low on creativity (as measured by the Torrance Test of Creative Thinking). The authors explain their finding

in terms of Maslow's statement that self-actualizing people should have no need to be fashionable.

More relevant here is a study by Ryan (see Ryan, 1966, Ch. 13) in which she used a group's rating of girls' appearance in an attempt to correlate personality factors and aspects of dress. Unfortunately, she failed to find any significant relationship between emotional stability in teenage girls, as measured by the Bernreuter Personality Inventory Test, and a (rather unsatisfactory) interviewer's assessment of the "becomingness" of her clothes. Two somewhat similar studies by Hendricks, Kelley and Eicher (1968) and by Williams and Eicher (1966) found that the clothing appearance of teenage girls, as judged by teachers and peers, was related to sociogram-derived scores on social acceptance. And Hamilton and Warden (1966) found that interviewer assessment of the acceptability of high-schoolers' clothes was positively related to academic achievement and participation in extra-curricular activity (we might postulate the existence here of a third, causal factor). A study by Silverman (1945) was able to point to several relationships between dress and personality. She had eleventh and twelfth grade girl students rated by their teachers for "general appearance". The ratings were made on five-point scales for six aspects of appearance, most of which were related to clothing (e.g. "cleanliness of person and clothing"). High and low scorers on a composite "appearance" rating were found to differ on several aspects of "personality", as measured by the Sheviakor and Friedberg Interests and Activities Questionnaire. Students in the "low appearance" group had less self-confidence and tended to dislike or resent others. The "high-appearance" group scored high on all the attributes related to extraversion (they enjoyed each

other's company, etc.) as well as being rather higher in intelligence. It is of interest that Silverman also found the high-appearance group to be "joiners" (i.e. of various school extra-curricular activities) and were more active in the groups they joined. One is tempted to speculate whether the differences between the clothing groups were not in fact related to a third factor, such as socio-economic status. The argument here would be that a "favourable" home background (in terms of parents' income and occupation) would result in a "higher" standard of dress, as well as more confidence on the part of the children (some relationships between clothing and status have been discussed earlier). However, no investigator appears to have considered this possibility and the idea of a third factor remains an untested hypothesis.

Silverman's results, for people who seem well-dressed to their peers, fit in quite well with the findings we reviewed earlier concerning the effects of feeling well-dressed. But once again we should note the contrast with the supposed personality correlates of high interest in clothes. We can only hypothesize that many of the self-confident people who feel and are judged to be well-dressed are not the same people who display an anxious interest in clothes in an attempt to become "one of the crowd". Something of a dilemma remains however, and further research is needed into the relationship between clothing interest or awareness and clothing appearance.

The present investigation has much in common with the study by Silverman, in that both attempt to relate aspects of a stimulus person's personality to his clothing style as judged by others. Our first task here was to devise an adequate measure of clothing perception: the development of the clothing differential is described in detail in Chapter 2.

By the use of this instrument it was possible to collect comprehensive judgments of male students' clothing style from a large group of their peers. These clothing judgments could then be related to aspects of the wearer's personality by subjecting a sample of the stimulus persons to a series of personality tests and other measures. This procedure is outlined in Chapter 3, while Chapter 4 presents the results of the final correlations between judged clothing style, the wearer's personality, and the other measures taken.

Summary

We began by discussing the role of stimulus characteristics in person perception and commented upon the relative lack of information concerning the effects on perception of such overt characteristics as the general appearance, posture, and dress of the stimulus. A more thoroughly investigated characteristic is facial expression, and a review of research in this area led us to make three generalizations: (a) that perceivers are on the whole quite ready to make complex judgments, even about covert characteristics, on the basis of this cue; (b) that there is considerable agreement regarding the judgments made; and (c) that often the judgments have little or no validity. After a brief review of early studies in the psychology of clothing we proceeded to examine evidence concerning the application of these generalizations to the cue of clothing. The first generalization can be confirmed by a number of studies, but evidence is generally lacking with regard to the extent of agreement between impressions formed from clothes by judges of different types (generalization (b)). The final generalization was considered with

specific reference to the validity of clothing as a cue to personality. Popular opinion supports such a link, but research to date does not allow us to say much about the specific relationships between ways of dressing and personality characteristics.

CHAPTER 2: MEASURING IMPRESSIONS OF CLOTHING

General requirements for a clothing measure

Chapter 1 reviewed several studies which attempted to relate aspects of dress to the wearer's personality. These studies made use of a wide variety of clothing measures. Many of the investigations focussed upon the wearer himself (usually herself) and elicited his expressed interest in clothes, "clothing awareness", or the size of his wardrobe. Still other researchers investigated the personality correlates of feeling well-dressed or being satisfied with one's clothes.

Although the majority of these studies made use of fairly straightforward questionnaires, some workers devised special measuring scales to assess the wearer's values concerning dress. For example Aiken's (1963) opinionnaire was based on 80 statements about clothes culled from the works of previous writers on the psychology of dress. As a result of factor analysis of responses to these statements, five clusters were revealed and statements with high loadings on these clusters were combined into a shorter questionnaire. Deemer (1967) devised her Clothing and Appearance Image Measure in a somewhat similar way. Starting with a long list of words and phrases frequently used in describing women's clothing and appearance, she arrived at a scale which had 49 items in its final form. The scale is intended to measure seven categories of clothing behaviour whose face validity was established by five judges

in a sorting task. Still other measures of clothing values have been produced by Creekmore (1963) and Lapitsky (1961).

A common feature of the measures we have just described is that they can only be administered to the wearer of the clothes (another feature is that most of them are suitable only for women). The present study is concerned with the perception of clothing by a third party - in other words we need a scale which will measure impressions of dress as worn by someone else. As we mentioned in Chapter 1, few studies have tackled the problem in this way. One of these studies, that by Ryan (1966, Ch. 13), used a peer-group rating of adolescent girls' appearance. Ryan gives no information of the precise nature of the appearance measure: in any case she was unable to establish any relationships between appearance and personality. Another study which related ratings of appearance to the stimulus person's personality is that by Silverman (1945) which we have already discussed in the previous chapter. Silverman asked teachers to rate their students on six aspects of appearance, and arrived at a composite appearance score for each student. Students with scores in the upper quartile were then compared with students in the lower quartile in terms of their scores on several personality tests.

For the present investigation it was decided to use a measuring instrument which would provide a rather more sophisticated indication of clothing appearance than the global measure used by Silverman. It will be recalled that this study is an attempt to examine the significance of clothing as an overt stimulus characteristic in person perception. The measure used here is a version of one that is relatively rare in studies of clothing, but which has been used frequently, and found to be very

satisfactory, in person perception research. This instrument is the semantic differential.

The semantic differential was originally devised by Osgood, Suci and Tannenbaum (1957) to specify differences between concepts in terms of their connotative meanings. However a great amount of research has shown that the instrument is also an extremely useful measure of the way we perceive others - its validity and reliability for this purpose have been established in a number of studies (see Warr and Knapper, 1968, Ch. 2).

The instrument typically contains a set of scales, each of which comprises a number of gradations between an adjective or descriptive phrase and its antonym. Subjects consider the stimulus person in terms of each scale on the form, placing a check-mark in one of the divisions to indicate to what extent they believe the particular scale is expressive of the meaning of the concept being rated.

As Warr and Knapper point out, there is no "one" semantic differential and different combinations of scales are used for different purposes. An important problem here is the selection of scales which comprise the total instrument. Osgood, Suci and Tannenbaum have carried out factor analyses of responses to a wide variety of concepts on many thousands of different scales. Three factors invariably seem to be dominant, and these are, in order of magnitude, Evaluative (good-bad), Potency (strong-weak) and Activity (active-passive). Osgood, Suci and Tannenbaum were of course concerned with measuring the meaning of concepts rather than the perception of people, but Warr and Knapper, in a factor analysis of semantic differential ratings of politicians, found an identical factor structure.

From these results it might be supposed that the problem of devising a semantic differential to measure perceptions of clothing style would be quite easy to solve - one would simply select a variety of scales shown to have high loadings on the Evaluative, Potency and Activity factors, and combine them to make a "clothing differential". Unfortunately there are several objections to taking such an easy course.

The first objection is that the three-factor structure obtained by Osgood and his colleagues may have been an artefact arising from the way responses to a heterogeneous collection of stimuli have been combined. Many of the factor analyses were carried out on responses which had been summated over a very wide variety of concepts (from, say, "Paper Clip" to a painting by Picasso), and it is possible that the factors extracted would not have been observed if individual concepts had been studied separately. Warr and Knapper (1968) maintain that this is especially likely with respect to the nature and magnitude of factors beyond the third. They cite the results obtained by an advertising agency for a brand of cigarettes in which a small Situational factor was evident, related to whether the cigarettes were for everyday smoking or for special occasions. We might expect that similar factors might emerge in the case of judgments of clothing style.

A second objection is that although the Evaluative-Potency-Activity structure emerges over a wide variety of concepts, loadings of individual scales on a particular factor may change dramatically from one concept to another. This is a point which is not realised by many users of the semantic differential, and in fact summation of scale response scores over a particular factor is a common procedure. Before we can tell what factor

structure will emerge for our "clothing differential" and which scales will comprise each factor we need to carry out our own factor analysis of semantic differential judgments of style of dress.

This is in fact the method used in the present investigation to devise a satisfactory measure of perception of clothing style. However before scale responses can be factor analyzed in this way we have to have a population of scales for subjects to respond on. Several techniques have been employed to obtain a population of descriptive terms relevant to particular concepts. One method used by Osgood, Suci and Tannenbaum is to have recourse to readily available collections of terms such as Roget's Thesaurus. Another rather more satisfactory method is based on what is known as the "spew" hypothesis (Underwood and Schultz, 1960) which states that the "availability" of words is directly related to the frequency with which words have been experienced. Using a word association task as an indicator of "availability", Osgood and his colleagues were able to arrive at some 10,000 adjectives which could be assumed to be those which their subjects had experienced most frequently.

In the case of terms describing clothing our task is rather less numerically formidable than this. In place of a word association task we elicited free descriptions of clothing. A scale based on such responses has the advantage over most other measures of clothing appearance in that it is not confined merely to items or variables considered important by the experimenter.*

*Recent studies at the University of Liverpool have shown that the trait names which occur most frequently in written descriptions of individuals differ from those which find their way into adjective check lists, rating scales and other formal measures of personality (Bromley, 1968).

The free-response task

Free descriptions of men's clothing styles were obtained from seventy third-year Arts and Science students from the University of Saskatchewan, Regina Campus. Thirty-five men and thirty-five women each gave a brief description of the "normal style of dress" of three male students whom they knew well. A specially prepared form was used for this task (Appendix A) and it was stressed that the investigator was interested not in lists of actual items of clothing worn, but rather in the judges' general impressions of the way the student stimulus normally dressed.

The 210 free descriptions were examined and each descriptive word or phrase was tabulated, together with the frequency of occurrence for each trait. The average length of clothing descriptions was 140.7 words, and the mean number of different words or phrases cited by each judge (for three stimulus persons) was 14.26 (male judges 14.49, female judges 14.02).

The table contained in Appendix B shows the traits elicited, in order of extent of use by the judges. Two hundred and three different adjectives or descriptive phrases were generated in all. Synonyms were listed separately, except where one phrase was simply a repetition of another in a different grammatical form: i.e. "slovenly" and "sloppy" would each be tabulated separately, but "selects clothes carefully" would be regarded as equivalent to "careful in choice of clothes". Antonyms were also tabulated separately except in the case of opposites differing only in respect to a prefix (e.g. "mature" and "immature").

The data of Appendix B show that over half of the 203 traits were cited on two occasions or less, and that a few traits were cited a very large number of times. (Table 1 shows this relationship more explicitly.) Very few of the traits were not cited approximately equally by both male and female judges. If we wish to obtain some indication of the extent to which originality in providing traits was displayed differentially by males and females we may examine those descriptive terms which were cited only once. Forty-eight out of 78 of these traits were provided by men, suggesting that male judges may have had a slight tendency to cite more unusual terms. However this may not be generally applicable to all male judges: the phenomenon could be attributable to just a few "original" male judges.

Of more importance in connection with the results in Table 1 and Appendix B is the question of the "cut-off point" for judges and traits. At what point was it decided that enough descriptive terms had been provided? In fact the number of free descriptions was not arbitrarily fixed at 210. Descriptions were examined in batches of thirty (five male judges, five female judges) and scrutiny of descriptions was terminated at a point where so few new terms were being generated that further tabulation would have been virtually redundant. Figure 1 depicts the progression of the tabulation process for the 70 judges (judges were numbered male and female consecutively, judge #1 being male, judge #2 being female, and so on). The graph shows the decrease in new terms generated as the tabulation of results proceeded.* The number of new

*"Newness" is of course largely determined by the order in which a particular judge's free description was examined. Judge #1 generated the largest number of new traits only because no other judge preceded him for tabulation purposes.

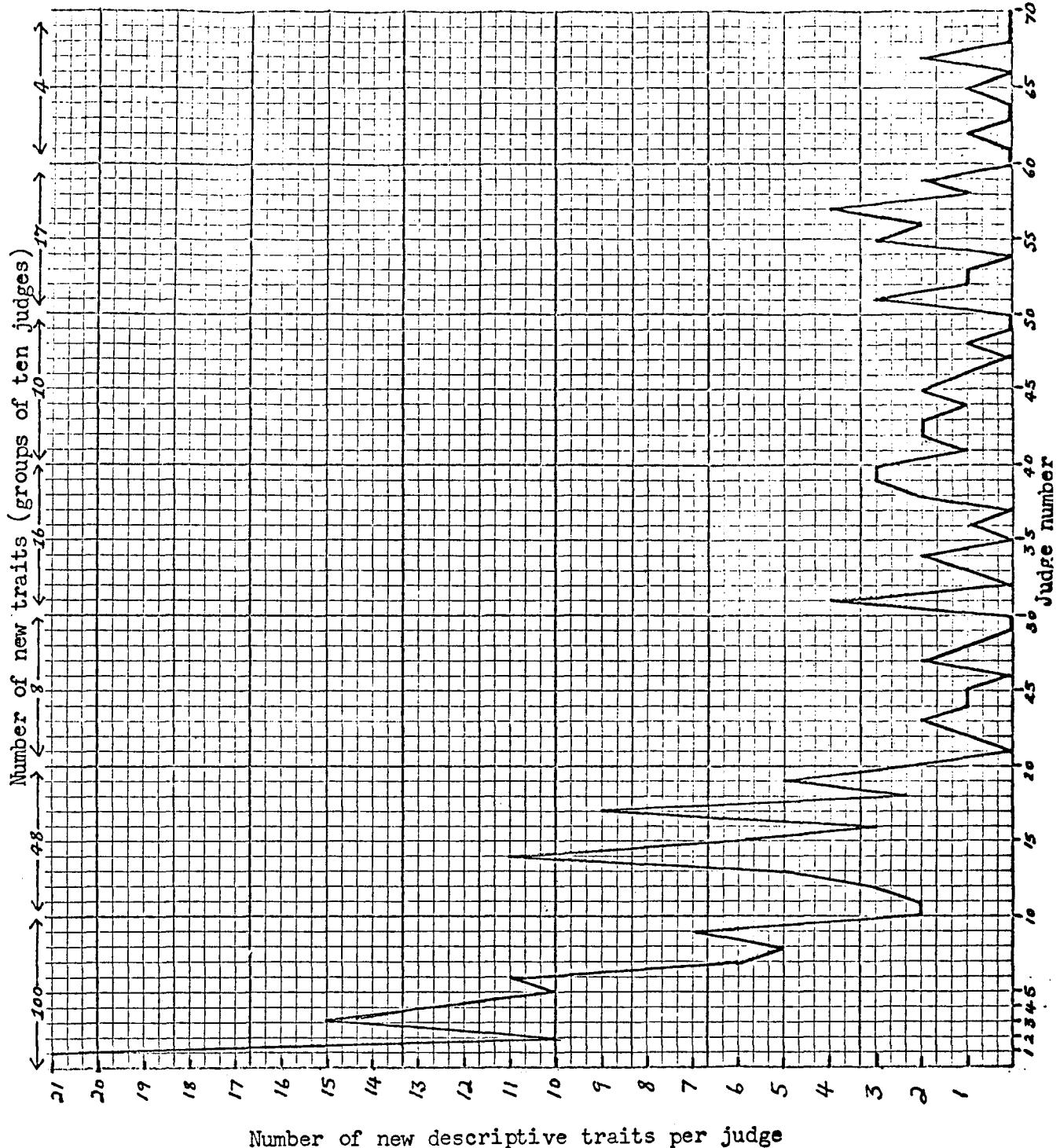


Figure 1: Number of "new" descriptive traits used by judges 1 to 70 on the free description task

Table 1: Number of different traits cited by judges in free descriptions for a particular frequency of occurrence

Number of times trait cited by judges	Number of different traits cited at this frequency
83	1
65	1
58	1
43	1
40	1
36	1
35	1
30	1
26	1
25	3
23	1
21	3
17	2
16	1
15	2
14	1
13	3
12	1
11	5
10	3
9	4
8	3
7	6
6	10
5	6
4	9
3	13
2	40
1	78

terms provided in each consecutive batch of 30 descriptions gradually got less, until at the seventh batch only four were generated. At this point tabulation was terminated, since it seemed likely that a comparably small number of such terms could continue to be generated almost indefinitely.

The preliminary sorting task

The next task in the preparation of the "clothing differential" was to reduce the number of descriptive traits. The semantic differential comprises bi-polar scales, and it was therefore likely that many of the terms in the list of 203 could be linked with others in the list. However, even supposing that satisfactory pairings could be made for a majority of items, there would still remain well over 100 scales. A form comprising this number of scales would be unduly tedious for subjects to respond on. Furthermore, the largest computer capacity locally available for the factor analysis of initial responses on the differential could cope with a maximum of 80 scales.

One method of reducing the initial population of descriptive terms would have been to select traits on the basis of their frequency of occurrence in the free response task. It has already been pointed out however that most of the terms were cited only once or twice: to have included only those items which occurred more than, say, twice would have limited not only the number but also the richness and variety of scales. This method of reducing the population of terms was therefore rejected. Instead an attempt was made to effect this reduction by deleting the obvious synonyms from the list of traits.

To do this the 203 terms were arranged in alphabetical order. This list was presented to twelve judges, six male and six female members of the teaching staff of the University of Saskatchewan, Regina Campus, together with appropriate instructions for the selection of synonymous terms (see Appendix C). Beginning with the first trait, judges were asked to take each item in turn and compare it with each succeeding

trait on the list, noting down any pairs of terms which seemed to them to be synonymous when applied to the description of clothing and dress.*

From these judgments clusters of synonymous terms were compiled (see Table 2). For any two traits to be considered synonymous they had to have been specified as such by at least ten out of the twelve judges. At least one term was retained in the final list from each cluster of synonyms, the usual criterion for inclusion or deletion being the frequency with which the trait had been cited in the original free response task (these frequencies are shown in Table 2). In several instances more than one term in a cluster was retained in the final list, and no synonym which had been originally cited more than twelve times was deleted. (Retained terms from each cluster are underlined in Table 2.) In addition several terms which had been scheduled for deletion were ultimately included in the preliminary clothing differential because they happened to be suitable antonyms for retained items. These terms are indicated by asterisks on Table 2.

Disregarding these latter terms, 74 items were deleted from the original list of 203, leaving 129 items for incorporation in the preliminary version of the differential. Each of these terms had now to be paired with an antonym** in order to yield a bi-polar scale. As far as possible terms were paired with others in the original list, and to do this effectively the investigator carried out a judgment task roughly similar to the one described above, comparing each term in the list with

*Thanks are due to those members of the Regina Campus faculty who gave so generously of their time - sometimes up to five hours of it - to complete this extremely tedious task.

**Antonym is not used here in the strict sense of "exactly opposite in meaning". Rather, an attempt was made to pair terms which represented opposite polarities of a particular dimension of meaning.

Table 2: Clusters of terms judged to be synonymous, with frequency of citation on free-response task (retained traits are underlined)

Trait	Citations	Trait	Citations	Trait	Citations
<u>Acceptable</u>	6	<u>Sharp</u>	25	<u>Distinctive</u>	2
Presentable	1	<u>Smart</u>	1	<u>Dresses for himself</u>	21
Proper	1	Bland	1	Independent in clothing choice	2
Respectable	1	Drab	1	Individualistic	2
Adaptable	1	<u>Faded</u>	2		
All-purpose	1	Lifeless	1		
For everyday wear	1	<u>Nondescript</u>	2	<u>Dressed-up</u>	9
Functional	1	<u>Careless</u>	14	Dressy	5
Hard-wearing	1	<u>Sloppy</u>	26	Effective	2
<u>Practical</u>	8			Successful	
Serviceable	1	<u>Clothes-conscious</u>	13	dresser	3
Aesthetic	1	Fashion-conscious	12	<u>Wears clothes well</u>	6
Artistic	1				
<u>Imaginative</u>	2	<u>In fashion</u>	40	Fastidious	
		Particular	2	dresser	2
<u>Always wears same clothes</u>	25	Selects clothes carefully	6	<u>Immaculate</u>	6
<u>Clothes lack variety</u>	17	Studied	2	Impeccable*	5
				Meticulous	3
Appropriate	4	Common*	1	Perfect	1
<u>Clothes for specific event</u>	10	Customary	1	Spotless	2
		Mediocre	1		
<u>Articulate</u>	1	Moderate	1	Filthy	2
Eloquent	1	<u>Neat</u>	83	<u>Grubby</u>	11
		Orderly	1	Soiled	3
At ease in his clothes	2	Ordinary	4		
Carefree	1	Regular*	1	Flamboyant	1
<u>Casual</u>	58	Tidy	10	<u>Flashy</u>	9
<u>Comfortable</u>	16	Unrumped	1	Garish	1
Easy-going	1	Creased	2	Gaudy	1
Leisurely	1	Dishevelled	1	Loud	7
Relaxed	3	<u>Messy</u>	5	Ostentatious	4
		Scruffy*	1	Good	7
Attention-attracting	3	"Slept-in"	1	<u>Good-quality</u>	10
Eye-catching	1	Slobbish	1		
<u>Noticeable</u>	7	Slovenly	1	Honest	1
		Unkempt	6	<u>Sincere</u>	1
<u>Attractive</u>	3	<u>Wrinkled</u>	9	Old	11
Eye-appealing	2	Cultured	1	Shabby	2
		<u>Polished</u>	2	Worn	6
"Tailored"	2	Disgusting	1	Ragged	2
<u>Well-fitting</u>	11	Nauseating*	1	Tattered	1
		Offensive	1	<u>Torn</u>	4
		<u>Revolting</u>	2		

* Traits originally deleted but subsequently used as antonyms for other retained items.

every other term in an attempt to find the most suitable possible antonym. A difficulty here is that in the case of a term which may have different meanings when applied to clothes the addition of an antonym may restrict or distort this meaning (e.g. the meaning of the term "polished" would be different if combined in a scale with "rude" from the meaning if combined with "scuffed"). In cases like this the investigator had recourse to the original free descriptions to determine in what sense the term was originally used. In all, 46 terms were paired with others in the original list; for 34 of the remaining 37 terms other antonyms were found (some of them from among the traits discarded in the synonym judgment task). In a large number of cases this merely involved the addition of a prefix. Three terms were discarded because their meaning was obscure when applied to judgments of clothing and it was felt that their inclusion might lead to confusion or difficulty in any subsequent judgment task. These terms were "contemptuous", "intellectual" and "solid": none of them was cited more than twice in the free descriptions.

In the process of turning the single descriptive terms into bipolar scales some very slight changes were made in the wording of some traits. The purpose of such changes was to make the clothing differential as easy to use as possible by providing scales which expressed opposite polarities of a dimension - but expressed them in the same semantic form. An example of such a change would be the term "baggy", which was changed to "wears baggy clothes" in order to match "wears tight clothes", its scale antonym.

The clothing differential

The resulting 80-item clothing differential appears as Appendix D. Two versions of the differential were prepared, a different order of scales and pages being employed for each in order to counteract possible order effects.* Inspection of the differential reveals a few items which seem unsatisfactory, either because the terms used are difficult to understand in relation to clothing, or because of pairs of terms which do not appear to be strictly opposite in meaning. It should be remembered however that any such ambiguity or lack of precision could be expected to reveal itself in subjects' responses on this initial form of the instrument. Scales on which responses varied markedly or were neutral would not yield high loadings on principal factors in the subsequent factor analysis (see following section). Since only these highly loaded scales were ultimately utilized in the final version of the clothing differential to indicate perception of dress, the inclusion of some ambiguous scales at this stage should not be a cause of too much concern. It was thought preferable to allow any ambiguities of this kind to be detected in this objective way, rather than to subjectively eliminate "unsatisfactory" scales prematurely.

The clothing differential makes use of nine-point scales, rather than the seven-point scales favoured by Osgood, Suci and Tannenbaum and many other researchers. Justification for the use of the longer scales is provided by Warr and Knapper (1968, Ch. 2) who showed that nine-point scales are as reliable as seven-point scales, and that the larger number of scale divisions is likely to provide a more sensitive instrument when

*Although these precautions were taken there is good evidence from previous research with the semantic differential that order effects are virtually non-existent (see Warr and Knapper, 1968, Ch. 2).

used by intelligent adult subjects. The same investigators have shown the frequency distribution of responses on nine-point scales to be satisfactorily normal.

After some pretesting of the clothing differential to ensure the instrument could be used without difficulty and to establish an approximate time for completion, the differential was used to measure the clothing impressions that form the main data for this investigation. Two hundred and nine second and third year students from the Social Sciences Division of Regina Campus (122 male students and 87 female) participated in this part of the experiment.

Judgments were elicited during regular sessions of undergraduate classes in history, political science and psychology. Subjects were given two copies of the differential and the instrument was explained to them. The instructions, which were given verbally, are contained in Appendix E. The judges were then asked to think of two male students from the campus whom they knew fairly well. The remainder of the instructions for this part of the experiment were as follows:

We should like you to give your impression of the style of dress of each student on the clothing differential (two copies of the differential are provided). If possible try to base your judgments on a total impression of the student's clothing style - don't just think of the stimulus person dressed in one outfit, but make your judgments on the basis of how the student dresses over a period of time, in different circumstances and for different occasions.

Please remember that all the scales on the form refer to style of dress or clothing. Some scales are descriptive of the clothes themselves (e.g. polished-scuffed), and some scales describe how the person looks in his clothes (e.g. well-dressed-disreputable). However none of the scales is intended to directly describe the

personality of the wearer, and you are asked to be especially careful to avoid using scales in this sense.*

Please indicate at the top of each set of forms the following information: (a) your sex (b) your year in University (c) the name of the person whose clothing you are rating (we intend to contact some of these people at a later date).

The information you provide will be regarded as strictly CONFIDENTIAL and will not be shown to the persons you are rating.

For the purposes of tabulation a numerical value of from one to nine was assigned to each scale division, nine indicating the "positive" end of the scale. In fact the decision as to which end of the scale was positive was in many cases arbitrary, since only after factor analysis of scale responses could it be determined in what sense each scale was being used.

When the values for the eighty scales had been determined for all subjects this information was entered on computer cards. Although the immediate use for this information was the factor analysis of responses, it should be noted here that the same information (or part of it) was to be used in a later stage in the investigation. Responses on the scales with high factor loadings would ultimately be used to test the main hypothesis that there is a link between judged style of dress and personality.

The choice of stimulus persons

Before going on to consider the results of the factor analysis

*The investigator verbally expanded upon this part of the instructions. In answer to queries from subjects, it was explained that it was legitimate to incorporate aspects of personality in judgments only if the sole cue to such judgments was the stimulus person's dress. For example, if a person's style of dress gave the impression that he was, say, "snobbish", then this was an acceptable usage of this scale. However it would be illegitimate to rate a person as snobbish if this judgment were based upon other cues to his personality apart from dress.

a word of explanation is required concerning the choice of stimulus persons for the present investigation. The population from which stimulus persons were drawn for both the free description and the main judgment task was intentionally restricted: it comprised only male students. The justification for this restriction is that in order to examine the expected relationship between dress and personality it is necessary to limit the possible variables in order to be able to devote more attention to the precise nature of the relationship involved.

Obviously judgments of the clothing style of male undergraduates are likely to differ somewhat from judgments of the dress of male farmers or bankers - and differ even more markedly from judgments of the dress of female students, housewives or chorus girls. It was decided here to concentrate on one type of stimulus person and examine the relationship in detail rather than to establish a general but more imprecise relationship which might apply to a wider cross-section of people.

However, while deliberately limiting the study to one type of stimulus person, it is claimed that any links established between clothing and personality are likely to apply in a general sense to other populations. It is further contended that having established and thoroughly investigated such relationships for one type of stimulus person, the same techniques of enquiry can be used to discover how similar - or different - relationships might exist for other populations of stimuli.

The choice of men stimuli rather than women was determined mainly by the paucity of studies of men's dress. It was also felt that impressions formed from men's dress were likely to be more stable than

those from women's dress: women generally tend to have larger and more varied wardrobes than men, and their clothes can change radically according to the occasion. Women are also more susceptible than men to the vicissitudes of fashion. As far as the age of subjects is concerned, there is good evidence that the age-group represented by our sample of stimulus persons is of particular importance from the point of view of clothing behaviour. According to Ryan (1966, Ch. 2) "numerous studies have shown that between the ages of sixteen and twenty-five...the largest amount of money is spent on clothing, and wardrobes are largest".

Although the only stimulus persons used are men, it will be noted that throughout the investigation judgments have been elicited from both men and women. Differences between the impressions formed from clothing by male and female judges are noted and commented upon when they occur.

The factor analysis

The ratings of the 209 judges (418 stimulus persons) on the eighty scales were intercorrelated to yield an 80×80 intercorrelational matrix, and this matrix was analyzed according to the principal components method. Thirteen factors were extracted with an eigen value of greater than 1.00, and at this point extraction of factors was terminated. Figure 2 shows the proportions of the total variance accounted for by each of these factors, in order of magnitude. After the first five factors these proportions can be seen to decrease only slightly from one factor to the next (shown by a flattening of the curve on the graph). Accordingly the first five factors were rotated according to the Varimax procedure.

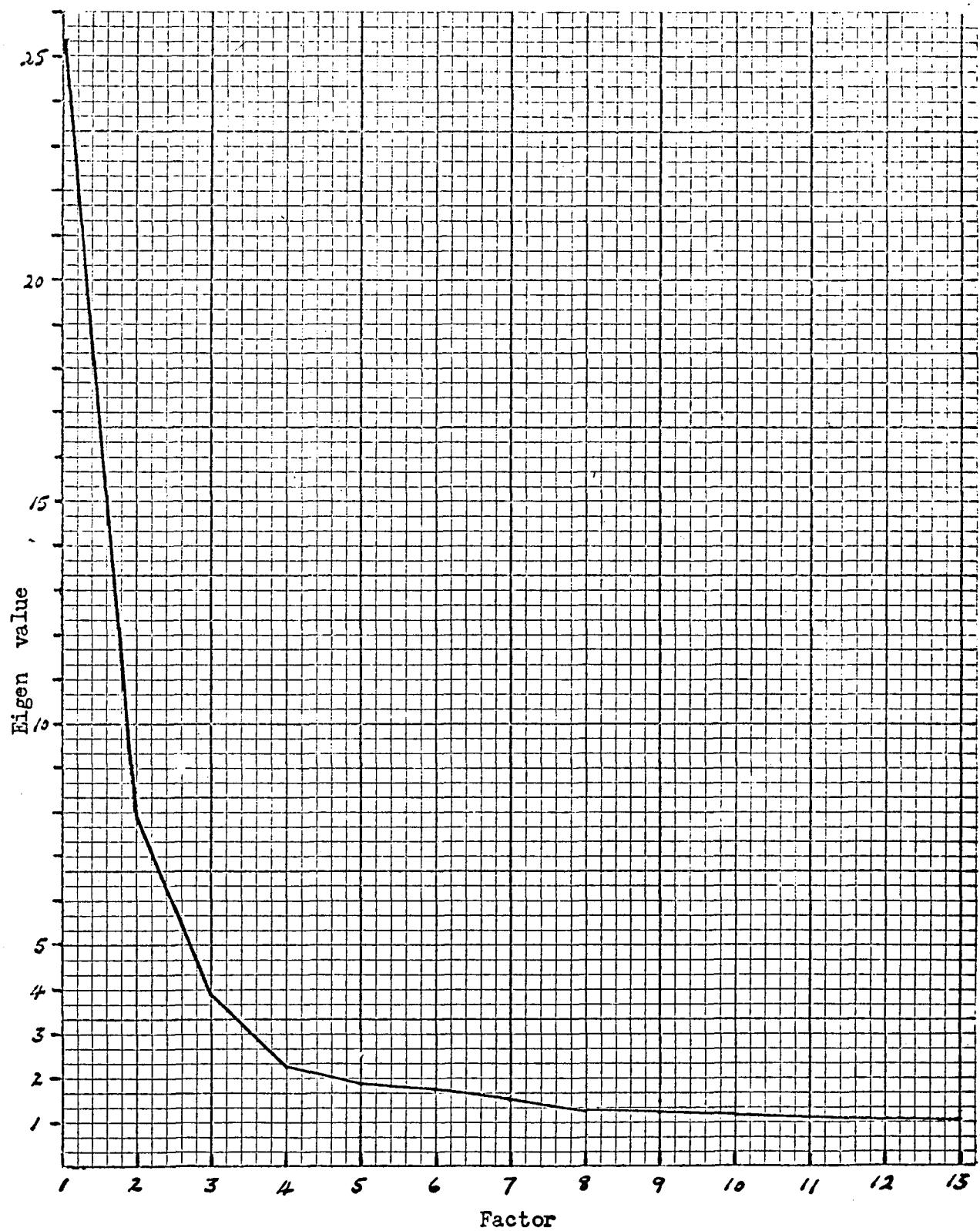


Figure 2: Proportion of total variance accounted for by unrotated factors with an eigen value of 1.00 or greater

Table 3 shows the scales with the highest loadings on each of the five rotated factors. Scales are listed with the positive term first. The first factor, which accounts for 26 per cent of the total variance, appears to be related to care of clothes, and could be described as an "Evaluative/Neatness" dimension, with the highest loadings being on scales such as Neat-Sloppy, Well-dressed-Disreputable and Polished-Scuffed. The second factor, accounting for 13 per cent of the total variance, seems to be an "Originality" factor: scales with high loadings include Noticeable-Unobtrusive, Unique-Regular and Original-Unoriginal. The remaining three factors account for considerably less of the total variance (4.7 per cent, 4.3 per cent and 3.2 per cent respectively) and are rather more difficult to identify. Factor III appears to be a "Trying to Impress" factor (as opposed to "Being Oneself"), the three scales with the highest loadings being Snobbish-Sincere, Dresses to conform-Dresses for himself and Superficial-Trustworthy. Factor IV, with highest loadings on Wears clashing colours-Good sense of colour, Colours contrast-Colours blend and Garments match poorly-Garments match well could be termed a "Co-ordination" factor. And factor V, which has high loadings on only two scales (Sporty-Formal and Young-looking-Mature) could be tentatively described as a "Youthfulness" factor. These five factors account for over 50 per cent of the total variance, a figure which corresponds quite closely to similar proportions obtained by Osgood, Suci and Tannenbaum in early factor analyses of responses on the semantic differential (see Osgood, Suci and Tannenbaum, 1957, Ch. 2).

There have been very few factor analytic studies of clothing judgments, and it is consequently difficult to draw many inferences concerning

Table 3: Scales with high loadings on five rotated factors

	Scale	Factor loadings				
		I	II	III	IV	V
I FACTOR	*Neat/Sloppy	0.8592	0.0776	-0.0192	-0.1518	0.0304
	*Well-dressed/Disreputable	0.8540	0.1933	-0.0004	-0.1395	0.0423
	*Polished/Scuffed	0.8512	0.1456	0.0952	-0.0529	-0.0213
	*Well-kept/Worn	0.8507	0.0938	0.0517	-0.0383	0.0063
	*Immaculate/Messy	0.8444	0.0949	0.0178	-0.1006	0.0329
	*Clean/Grubby	0.8406	-0.0537	-0.1143	-0.0823	0.0775
	*Sharp/Scruffy	0.8385	0.2220	0.0314	-0.1346	0.1012
	*Well-pressed/Wrinkled	0.8299	0.1407	0.0307	-0.0971	0.0831
	*Refined/Crude	0.8135	0.1546	-0.0792	-0.1093	-0.0730
	*Impeccable/Torn	0.7917	0.0993	0.0317	-0.0577	-0.0253
	*Well-organized/Confused	0.7585	0.1256	-0.1403	-0.2394	-0.0243
	*Natty/Careless	0.7482	0.1204	-0.0025	-0.1238	0.0043
	*Fresh/Greasy	0.7270	0.0853	-0.1726	-0.2513	0.1606
	*Sparkling/Faded	0.7105	0.3286	-0.0176	0.0698	0.0262
	Pleasant/Unpleasant	0.7015	0.0881	-0.3736	-0.2202	0.1013
	Impressive/Disgraceful	0.6921	0.3639	-0.1336	-0.2212	0.1198
	*Good-quality/Poor-quality	0.6886	0.2470	-0.0526	-0.2702	0.1261
	Refreshing/Nauseating	0.6426	0.2255	-0.2732	-0.2945	0.1260
	Attractive/Revolting	0.6424	0.2510	-0.3020	-0.2755	0.1939
II FACTOR	*Conventional/Hippy	0.6416	-0.4779	0.0193	-0.0391	0.0748
	*Well-fitting/Bulky	0.6243	0.2139	-0.0334	-0.0886	0.1583
	Acceptable/Alienating	0.6241	-0.0199	-0.2522	-0.1526	0.1854
	Nice/Nasty	0.6147	0.0433	-0.3845	-0.2303	0.0317
	*Smooth/Rugged	0.6041	0.1116	0.1792	0.0170	-0.2571
III FACTOR	*Noticeable/Unobtrusive	0.0272	0.7311	0.0518	-0.0712	0.1190
	*Unique/Regular	-0.2442	0.7031	-0.0627	0.0409	-0.1167
	*Original/Unoriginal	0.1407	0.6765	-0.2154	-0.1188	0.0185
	*Spectacular/Reserved	-0.1381	0.6703	0.1439	0.1007	0.1091
	Dresses with a flair/Clothing lacks flair	0.4551	0.6686	0.1571	-0.0925	0.0422
	*Outlandish/Ordinary	-0.3275	0.6527	0.1176	0.0718	-0.0128
	*Flashy/Sober	0.0977	0.6443	0.2301	0.1660	0.0772
	*Imaginative/Unimaginative	0.2611	0.6282	-0.2531	-0.0518	0.0656
	Interesting/Uninteresting	0.3022	0.5913	-0.2479	-0.2204	0.2283
	Extreme/Conservative	-0.4760	0.5881	0.1166	0.1219	-0.0813
	*Mod/Square	0.1226	0.5835	-0.0237	-0.0911	0.2994
	Classy/Common	0.3996	0.5807	0.0751	-0.0331	-0.1366
	Debonair/Practical	0.2219	0.5700	0.3415	0.0806	-0.0918
	Modern/Old-fashioned	0.4074	0.5391	0.0539	-0.1596	0.2846
	Sophisticated/Simple	0.4928	0.5227	0.1044	0.0132	-0.1937
	Wide variety of clothes/ Clothes lack variety	0.4907	0.5173	0.1500	-0.0776	0.0950
	Distinguished/Nondescript	0.5344	0.5129	-0.0470	-0.0893	-0.1298

(Table continued on page 51)

Table 3 (continued)

	Scale	Factor loadings				
		I	II	III	IV	V
FACTOR III	*Snobbish/Sincere	-0.1811	0.1594	0.6399	-0.0402	0.0278
	*Dresses to conform/Dresses for himself	0.2040	-0.0968	0.6090	-0.0420	0.0910
	*Superficial/Trustworthy	-0.3389	0.1140	0.5715	0.0833	0.1190
	Nasty/Nice	-0.6147	-0.0433	0.3845	0.2303	-0.0317
	Unpleasant/Pleasant	-0.7015	-0.0881	0.3736	0.2202	-0.1013
	Expensive/Economical	0.4221	0.3956	0.3701	-0.1100	-0.0375
FACTOR IV	Lacks confidence/Confident	-0.3369	-0.3748	0.3519	0.1537	-0.0687
	*Wears clashing colours/Good sense of colour	-0.5494	-0.1385	-0.0326	0.6435	0.0361
	*Colours contrast/Colours blend	-0.2472	0.1252	-0.0288	0.6329	0.0991
	*Garments match poorly/Garments match well	-0.5191	-0.2338	-0.0158	0.6059	0.0218
	Clothes do not suit him/His clothes suit him	-0.3372	-0.2262	0.1482	0.4755	-0.0742
	Clothes unsuitable for season/Clothes suitable for season	-0.3582	-0.0198	0.1790	0.3924	-0.1248
	Wears bright colours/Wears muted colours	0.2318	0.4146	0.0171	0.3885	0.3477
	Overdressed/Tasteful	-0.5461	-0.0475	0.2515	0.3606	-0.0688
	Wears patterned clothes/Wears plain clothes	0.2072	0.2344	-0.0101	0.3228	0.3727
FACTOR V	Sporty/Formal	-0.0993	0.0570	-0.0793	0.1172	0.5237
	Young-looking/Mature	-0.0974	-0.0171	0.0725	0.0635	0.4324
	Wears tight clothes/Wears baggy clothes	0.3010	0.2011	0.1303	-0.0442	0.3776
	Wears patterned clothes/ Wears plain clothes	0.2072	0.2344	-0.0101	0.3228	0.3727
Per cent total variance **		26.12	13.14	4.70	4.34	3.22
Per cent common variance **		50.675	25.506	9.129	8.426	6.263
					(total 51.52)	
					(total 99.999)	

* Scales ultimately selected as representative of a factor

** Accounted for by all 80 scales

the nature of the factor structure obtained here. Certainly the five factors discussed above bear little resemblance to lists of "clothing dimensions" or "values" compiled by various investigators on a more or less a priori basis. (For example Lapitsky (1961) postulated the following clothing values which were supposed to coincide with general value systems: aesthetic, economic, political (obtaining prestige or influence through clothing usage) and social. Deemer (1967) derived seven categories of clothing behaviour from a long list of phrases frequently used in describing women's clothing and appearance.) The categories were: economic, aesthetic, physical comfort, psychic comfort, care, social dominance and social empathy.

Aiken (1963) carried out a factor analysis of true-false responses to 80 statements describing women's clothing behaviour, and arrived at five clusters: decoration in dress, comfort in dress, interest in dress, conformity in dress and economy in dress. Aiken obtained the statements from the type descriptions employed by various writers on clothing and dress (e.g. Flügel and Hartmann) and there is thus a strong likelihood that the choice of statements was biassed. Gibbins (1969), in the only study known to the author which factor analyzed semantic differential judgments of costumes, obtained three main factors. The first, accounting for 30 per cent of the total variance, appeared to be evaluative, but was claimed by Gibbins to be more closely related to "fashionability". The second, "activity" factor accounted for 19 per cent of the total variance, and the third factor, accounting for 5 per cent of the total variance, was described as a "casualness" factor. A major shortcoming of Gibbins' study was that his original forty scales appear to have been selected

without any specific reference to clothing: certainly there is no mention in his report as to their origin or the rationale for the choice of scales. A further disparity between Gibbins' technique and that employed in the present study is that the former used only women judges, and the stimuli were costumes taken from pictures in women's magazines rather than real people.

The identification of factors is an easier task than selecting those scales which adequately represent each factor for the purpose of arriving at a series of meaningful scores on the clothing differential. This selection process must take into account (a) the loading of the scale on the particular factor, (b) the "purity" of the loading, i.e. whether or not the scale is loaded on only one factor, and (c) the scale communality: the proportion of the total variance attributable to the dimension being measured by the scale, as opposed to that proportion attributable to the general unreliability of the scale.

As far as the present selection procedure is concerned, scales with low communalities were discarded (communalities for selected scales were never below 0.4 and rarely below 0.5). This immediately ruled out the possibility of utilizing scales to represent factor V since the highest communality available here for any scale was only 0.31. For each of the remaining four factors there were several scales with satisfactory communalities. The problem then becomes one of selecting those scales which have large and relatively pure loadings on the respective factors, and discarding those scales which do not. The nature of this problem differs from one factor to another: in the case of the first two factors there are large numbers of scales which are acceptable, while for factors

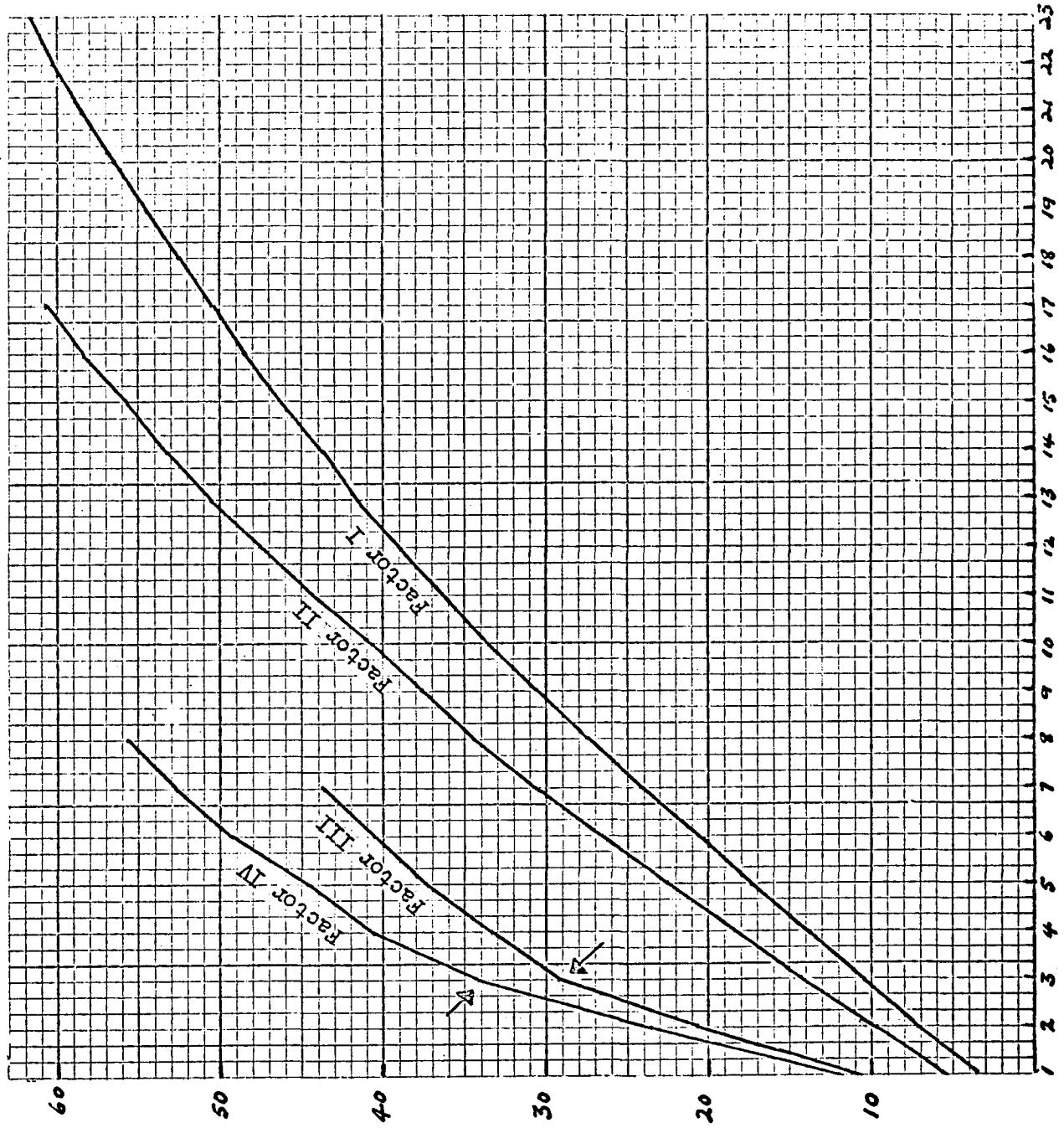
III and IV it is considerably more difficult to choose satisfactory scales.

The procedure adopted in the case of these two last factors was to examine the cumulative percentage of the variance for each factor accounted for by each scale in turn, beginning with the scales which had the highest loadings. The procedure will be made clearer by consulting Figure 3. In the case of both factors III and IV it is apparent that after the third scale the cumulative percentage of the factor's variance accounted for by the scales to date begins to decline fairly markedly; in fact the first three scales of factor III account for 29 per cent of the variance attributable to the factor, and the first three scales of factor IV account for 34 per cent of the variance for that factor. Thus these scales were chosen to represent factors III and IV respectively. It should be pointed out that in the case of factor IV, although the scale loadings are high, these loadings are not as pure as might be desirable. Although scores on the scales are included in the final correlation matrix, results for this factor should be regarded with more caution than those obtained for the other three factors.

Figure 3 is of less help in selecting scales to represent factors I and II. In the case of these two factors the cumulative proportion of factor variance accounted for by each scale rises in a steady, almost straight line. It has already been pointed out that there are many acceptable scales (scales with high, pure loadings) for both these factors. In view of the large number of scales with high loadings, the decision to discard scales was made in terms of purity.

One way of providing a numerical index of purity is to divide the square of the scale loading on a particular factor by the communality for

Scales in order of magnitude of factor loading



Cumulative percentage of variance for each factor accounted for by individual scales

Figure 3: Cumulative proportions of factor variance accounted for by individual scales for four factors

that scale. The value thus obtained may be expressed as a percentage. This is in fact the percentage of the scale's accountable variance which is attributable to the particular factor being considered. In the case of both factors I and II, scales with percentages of 70 per cent or less were discarded. (In fact if such a criterion were applied to factor III, the three scales already selected would again be chosen. In the case of factor IV however only one of the selected scales has a purity percentage exceeding 70 per cent. The rather unsatisfactory nature of the scales representing this fourth factor has already been discussed above.) The percentage of the factor variance accounted for by the scales selected to represent factor I is 51.69 per cent, and for factor II is 33.36 per cent.

Selected scales for all four factors are shown by asterisks in Table 3. In the main, selection can be seen to coincide with high loadings on the factor in question, although there are some cases where highly loaded scales were rejected because they failed to meet the purity criterion. Of the original 80-item clothing differential, we are now left with 32 scales, 18 representing factor I, 8 representing factor II, 3 representing factor III and 3 representing factor IV. Clothing scores were obtained for each stimulus person on the four dimensions by summing scale scores on each factor. The procedure for relating such scores to personality and other stimulus variables will be described in Chapter 3.

CHAPTER 3: THE WEARER - MEASURING HIS CLOTHING BEHAVIOUR AND PERSONALITY

Chapter 2 described the development of a measure of clothing style. The clothing differential was discussed in detail because it was a new instrument which had to be specially devised for the purposes of the present investigation. However the differential is not the only measure used in this study, nor is it even the sole measure of dress.

The last chapter was concerned mainly with the perceiver, and it was emphasized that the clothing differential measured clothing style as seen by someone else. In contrast, the present chapter shifts the focus to the stimulus person - the wearer of the clothes. We shall here concentrate on those aspects of clothing behaviour which are measurable in the wearer, and we shall attempt to show how these may be related to the way the wearer is perceived by others, as well as to aspects of his personality. Before examining these attributes of the stimulus person, however, it is necessary to consider an important question concerning the reliability of the judgments made about him so far.

The inter-rater reliability of the clothing differential

One of the comments voiced most frequently by users of the clothing differential was that the instrument would reveal more about the rater than about the person he was rating. This echoes the criticism often made concerning the semantic differential by those encountering the measure for the first time to the effect that

responses will reflect the idiosyncracies of the perceiver far more than they will tap some stable perceived characteristics of the stimulus person. To a certain extent of course this is true, for complete agreement between different raters of the same stimulus is rare. To what extent this reflects a different perception of the stimulus as opposed to different perceptions of the scales involved is a point which cannot concern us here. It should be noted however that researchers have consistently found the semantic differential to be a highly reliable instrument, both as a measure of meaning and when used to measure impressions of people (see Osgood, Suci and Tannenbaum, 1957; and Warr and Knapper, 1968, Ch. 2).

In the case of the present instrument it will be recalled that a total of 209 different perceivers used the clothing differential to rate the style of dress of two male stimulus persons of their choice. Several of the stimulus persons were selected by more than one perceiver: in fact 51 stimulus persons were rated twice, 7 stimulus persons were rated three times, 1 stimulus person was rated four times, and 1 was rated six times. These multiple ratings provided an opportunity to test the inter-rater reliability of the clothing differential by correlating different judges' perceptions of the same stimulus person.

It may be objected that the 60 people who were rated more than once do not comprise a random selection of the total sample of stimulus persons available here, and that the very reason that these people were selected several times is that they were particularly distinctive dressers. If this were true, then the reliability coefficients obtained for students with multiple ratings might be overestimates. One way of answering such an objection would be to demonstrate that mean perceptions

of stimulus persons with multiple ratings were no different from perceptions of those stimuli who were judged only once. Table 4 shows the mean factor scores for the randomly selected sample of stimulus persons who took part in the final stage of the investigation (for the method of selection see the following section of this chapter). The table also shows the mean factor scores for all those students in this sub-sample who had been selected and rated by more than one judge. It can be seen that with the possible exception of factor III, the factor scores are extremely similar: in no case did the difference between the means approach significance.

Table 4: Mean clothing factor scores for 88 randomly selected stimulus persons

	Stimulus persons rated by more than one judge (<u>N</u> =18)	All stimulus persons in sample (<u>N</u> =88)
Factor I	111.3	113.2
Factor II	38.7	38.4
Factor III	9.6	11.3
Factor IV	9.8	9.8

Accordingly, scores on the 32 factored scales of the clothing differential were correlated for the sixty stimulus persons who had been rated more than once. Including stimuli who had been rated three, four and six times, this involved a total of 93 correlations, and the median value of r was +0.494. The frequency distribution for these inter-rater reliability coefficients is shown in Figure 4.

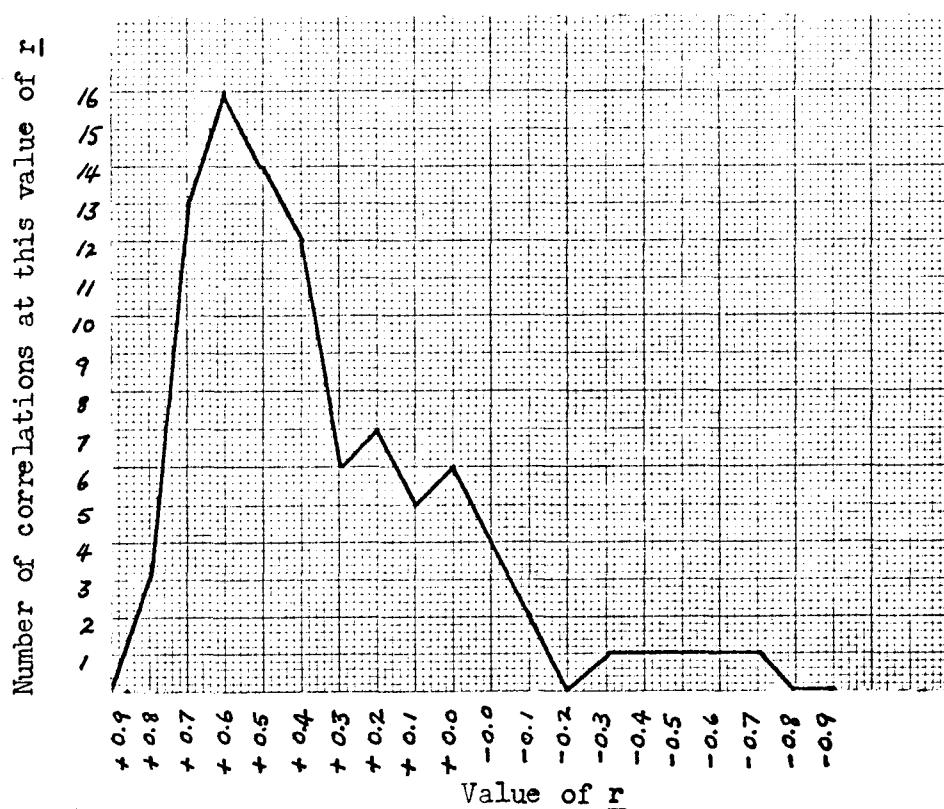


Figure 4: Frequency distribution of clothing differential reliability coefficients

It can be seen that there is a large number of high correlations, some exceeding +0.8; on the other hand there are eleven instances where the value of r is negative. On checking the original profiles it was found that the three largest negative correlations occurred in instances where the identity of the stimulus person was in doubt (for example, there were two students of the same name on campus) and it is possible that in these cases the correlated ratings referred to two different stimulus persons. In considering the remaining correlations two points should be borne in mind. Firstly, it is important to remember that judges were rating the stimulus person on the basis of their own past

experience of him and the way he dressed. It is of course quite likely that the experience of two judges could be different, depending upon the nature and frequency of their respective contacts with the stimulus person. Secondly, it has been found that test-retest reliabilities for the semantic differential are generally in the order of +0.6 (see Warr and Knapper, 1968, Ch. 2). Bearing in mind that r_{tt} values involve one judge rating a constant stimulus, the inter-rater median r quoted above appears quite satisfactory, and indicates that on the whole the impressions of style of dress measured by the clothing differential are not merely idiosyncratic to the particular rater making the judgment.

A further indication of inter-rater agreement can be obtained by correlating factor scores for different raters of the same stimulus. For factors I and II the values of r are satisfactory, being +0.482 and +0.435 respectively. However, the r value for factor IV is +0.313, and for factor III is only +0.130. This indicates that a stimulus person's score on factor III - and to a lesser extent on factor IV - depends considerably upon the person doing the rating. Hence any subsequent correlations between personality dimensions and externally-derived scores on these two factors should be interpreted with considerable caution. It should be added that whenever multiple judgments were available for any stimulus person, they were fully utilized. For example, on the final correlation matrix mean factor scores were calculated for the eighteen stimulus persons who had been rated more than once.

Selecting a sample of stimulus persons

When making their ratings on the clothing differential, the 209

judges had indicated the names of the people whose clothing they were describing. It was now possible to contact these stimulus persons for the next stage of the investigation - the administration of personality tests and the various other measures. Unfortunately the feasibility of utilizing the entire sample of 345 different persons was ruled out by several practical considerations. These revolved around the difficulty of contacting such a large number of individual students, bringing them to a central location and administering a battery of tests that would prove probably tedious and certainly time-consuming (in fact the sessions took from one and a half to two hours).

Instead it was decided to randomly select one third of the total sample. By using random number tables 107 persons were selected and requested to attend one of several testing sessions. Letters (see Appendix F) were sent to these students, explaining in general terms the purpose of the investigation, and promising a small monetary reward and subsequent feedback on an individual's test results as well as the general findings. (The feedback proved a much greater inducement than the cash.) Letters were followed up by telephone calls whenever possible.

The response to this recruitment drive was extremely encouraging. Of the 107 people contacted, 13 failed to appear, or appeared too late to participate, 3 were out of town, 1 appeared but could not complete the tests because of a language difficulty, 1 could not be contacted, 1 refused to participate, and 88 appeared and took part in the tests, which is a response rate of 82 per cent. The 88 students represented all faculties and divisions of the University. For most of the subjects a single clothing rating was available, while for some there were multiple ratings.

The procedure for administering the test battery to these students is described later in this chapter. Meanwhile it is necessary to outline the criteria for the selection of the tests and other measures used.

The selection of personality tests and other measures

Students in the selected sample were tested on a variety of measures. There were two personality tests and several measures of clothing behaviour, including a test of clothing interest and measures of the student's perceived clothing style, and ideal clothing style. In addition there were a few miscellaneous measures, such as the subject's socio-economic status and whether he came from a rural or an urban background.

Personality measures

Two personality tests were used in the investigation: Harrison Gough's California Psychological Inventory (C.P.I.), and H.J. Eysenck's Maudsley Personality Inventory (M.P.I.). Both were selected only after a thorough review of personality tests currently available in North America and Europe. In seeking suitable tests it was decided to use ones which would be easy and rapid to administer and score: this virtually limited the choice to paper and pencil tests. The C.P.I. provided the more comprehensive measure of personality, yielding scores on eighteen dimensions. Particularly pertinent is the claim by the deviser of the C.P.I. that it measures personality characteristics which "are related to the favorable and positive aspects of personality rather than to the morbid and pathological" and which are "important for social living and social interaction" (Gough, 1964). Since in

the study clothing is being looked at primarily as a cue in person perception, this latter point is of obvious relevance.

The M.P.I. is a much shorter test, and gives scores on two dimensions: Extraversion-introversion, and Neuroticism. It was selected principally because it was expected that extraversion (the "outgoing, uninhibited, impulsive and sociable inclinations of a person": Knapp, 1962) would be of particular relevance to the motivation underlying clothing behaviour.

Both tests are of fairly recent origin, but both have been the subject of an extremely large amount of experimentation, and they may be considered to be among the most valid and reliable paper-and-pencil personality tests currently available in the English language. While each test is easy to complete, the C.P.I. is considerably longer than the M.P.I. The estimated time for administration of the latter is only ten to fifteen minutes, while that for the C.P.I. is 45 minutes to one hour. (In the present investigation it was found that the time for completion frequently exceeded an hour.) This effectively precluded the use of any further personality tests, since any additional subject time was to be used for various other measures. Choice of the two personality tests was not influenced by the experience available from the work of other investigators in the field of clothing. Students of clothing and personality (see Chapter 1) have used a variety of personality tests, but only one incorporated the C.P.I. (see Aiken, 1963) and none the M.P.I., as far as the present investigator is aware. A favourite test has been the Allport-Vernon-Lindzey measure of values, but since this test is not concerned with personality as such it was not considered for use here.

Clothing measures

The first clothing measure selected was a test of clothing interest. In the review of the literature on clothing and person perception (see Chapter 1) it was seen that interest in clothes as expressed by the wearer was a dimension frequently chosen to relate to personality variables and values. A large number of indicators of clothing interest have been used, the most common being a rather arbitrary count of the number of items in a girl's wardrobe.* However Rosencranz (1949) devised a clothing interest questionnaire, and was kind enough to send a copy of this questionnaire to the present investigator. The original Rosencranz version was brought up to date, altered to be applicable to men rather than women, and somewhat shortened. In its present form it contains ten items, all of which can be checked in one of five categories (e.g. How often do you help your friends select clothing? Very often, Often, Sometimes, Seldom, Practically never.). Scores for each item are weighted according to the category checked and a final total score out of fifty is thus obtained. The complete questionnaire appears as Appendix G.

As well as the clothing interest questionnaire, subjects were asked to complete the 80-item clothing differential to give their perception of their own clothing style, and to use a second copy of the differential to give their perception of their ideal clothing style (how they would ideally like to dress). Instructions for the administration of the differentials were those used for the original raters

*Other measures include frequency of church attendance (Dickins, 1944), the number of times clothing was mentioned in a T.A.T. task (Rosencranz, 1962), and the number of dress associations given in a word-association test (Rosencranz, 1965).

(see Chapter 2 and Appendix E). Responses on these two clothing differentials were used to provide a measure of clothing satisfaction: to do this product-moment correlations were computed between each subject's actual and ideal clothing style profiles. In addition, factor scores were derived from the students' perceptions of actual clothing style, and these were in turn correlated with personality dimensions.

Miscellaneous measures

Many previous studies of clothing (see Chapter 1) have suggested that important determinants of clothing choice are the wearer's socio-economic status, and whether he comes from a rural or an urban home background. For example, people from the town are supposed to be more clothes-conscious than people from the country (Ryan, 1966, Ch. 6), and importance attached to clothes is said to rise with the socio-economic status of the wearer (Ryan, 1966, Ch. 3). Accordingly measures were obtained of both these variables.

An indication of whether the student came from a rural or urban background was obtained by asking him to indicate the place where he had lived most of his life before starting University. Classification of responses was a fairly straightforward procedure, with villages and small towns being taken to indicate a predominantly rural background, and towns and cities to indicate an urban background. Nearly all students in the sample came from Saskatchewan, and a provincial map enabled the investigator to locate the place of origin and its population with considerable accuracy. The present indicator of background is not quite as satisfactory as those employed in previous studies, since it is likely that many students, on entering University, became

part of a new social milieu. However, while it would have been impossible to easily measure aspects of this milieu (and in any case it is doubtful that large differences between students would exist) it was quite possible that students might have retained attitudes to dress which were influenced by their background prior to arriving at University. Furthermore, few of the students would have been completely cut off from their home background while attending University.

The indicator of socio-economic status was the occupation of the student's father. Blishen (1967) has claimed that this information indicates socio-economic status as accurately as more sophisticated measures, and he has provided a list of 320 Canadian occupations with numerical values for each which are derived from the average income and education level for incumbents of every occupation. These values represent the position of each occupation on a socio-economic status hierarchy. The occupations given by the students in the sample were assigned scores in accordance with the values in Blishen's list, and there were relatively few cases where this could not be done satisfactorily. One difficulty with using Blishen's index however is that owner-farmers are excluded from the classifications. Eighteen of the sample had fathers who were farmers, and these had to be classified as "farm managers", which probably had the effect of slightly decreasing the socio-economic status value in these cases. Again, the measure used for socio-economic status is not as satisfactory as some of those employed in other studies. The main difficulty is that students, when they enter University, often attain a certain degree of independence. However the index employed here is probably the best measure available

if we bear in mind that any influence of socio-economic status that may be established later in the study will in effect be a "carry-over" from the student's background before entering University.

The collection of data from selected students

The measures employed to collect data from the 88 students, and the criteria for the selection of these measures have just been described. It now remains to provide a more detailed outline of the data collecting procedure.

Students were tested in groups at the University social psychology laboratory. The investigator began by briefly outlining the purpose of the study, and by explaining how the students had been selected to participate. There followed the administration of six measures: (a) the C.P.I., (b) the M.P.I., (c) the eighty-item clothing differential for perception of "actual clothing style" (only the 32 factored scales were scored), (d) a similar clothing differential for perception of "ideal clothing style", (e) the clothing interest inventory, (f) a general information questionnaire which requested the student's name, telephone number and major, his father's occupation, and the name of the place he had lived before coming to University; in addition there was a space on this form for the student to indicate if he would like a summary of the results at a later date* (this form is included as Appendix H). The order of administration of the measures was varied from one group of students to another, and in the case of both the clothing differentials the order

* Over 90 per cent of the subjects checked this affirmatively.

and polarities of the scales were randomized. Throughout all the group sessions the investigator was constantly present to answer questions. At the end of each session, which took from $1\frac{1}{4}$ to 2 hours to complete, subjects were paid a token fee to defray expenses. Tabulation of data from the various measures was carried out in the manner to be described in the following chapter.

CHAPTER 4: THE RELATIONSHIP BETWEEN CLOTHING STYLE AND PERSONALITY

Initial tabulation of results

The most important results of the investigation were those obtained by correlating scores on all the main variables discussed in Chapter 3. Results from these final correlation matrices are described later in the present chapter. Meanwhile it is of interest to outline some of the findings which were obtained on each of the individual measures: this is the purpose of the present section.

Results of the personality tests

The mean scores and standard deviations for each dimension on the C.P.I. are shown in Table 5. Also shown are the means and standard deviations for a sample of 1133 male American college students, cited by Gough in the C.P.I. manual (Gough, 1964). While it can be seen that the results for the present small sample of Canadian male undergraduates are extremely similar to those cited by Gough for the larger American sample, it is interesting that on 16 of the 18 dimensions the American mean is higher than the Canadian mean. In the case of Social Presence the Canadian students scored slightly higher than the Americans, and there is a similar but slightly larger discrepancy for Flexibility. Since the aim of the C.P.I. is "to provide a comprehensive survey of an individual from a social interaction point of view" (Gough, 1964), and since all scales contribute to this picture, it may be assumed that, with the

exception of the two scales noted, the present sample is likely to have rather more difficulties with their social interactions than the American students. It is not possible to state the reasons for these differences without the benefit of further research.

Table 5: Means and standard deviations for two male student samples on the C.P.I.

Scale	Present sample (<u>N</u> =88)	Sample of American college males (<u>N</u> =1133)		
	Mean	Standard deviation	Mean	Standard deviation
Dominance	25.4	6.7	28.3	6.3
Capacity for Status	19.3	3.3	20.9	3.8
Sociability	23.7	5.0	25.4	5.0
Social Presence	38.0	6.1	37.3	5.8
Self-acceptance	21.6	3.9	22.3	3.8
Sense of Well-being	35.4	4.5	36.6	4.6
Responsibility	26.4	5.1	30.8	4.5
Socialization	33.4	6.1	36.8	5.2
Self-control	25.0	5.9	27.6	7.5
Tolerance	21.7	4.4	23.3	4.8
Good Impression	15.3	5.6	17.2	6.2
Communality	24.7	2.1	25.5	2.0
Achievement via Conformance	24.2	4.7	27.4	4.5
Achievement via Independence	20.3	3.5	20.9	4.2
Intellectual Efficiency	37.8	5.0	39.8	5.0
Psychological-mindedness	10.9	3.4	11.4	3.0
Flexibility	13.2	4.4	11.1	3.8
Femininity	16.6	3.5	16.7	3.7

In the case of the M.P.I., for the present sample the mean score for Extraversion-introversion was 28.33, with a standard deviation of 8.40, while the mean for Neuroticism was 23.35, with a standard deviation of 10.42. These figures compare with an Extraversion-introversion mean score of 28.40 and standard deviation of 8.06, and a Neuroticism mean score of 20.19, with a 10.71 standard deviation - results which are quoted by Eysenck for a sample of 714 American male University students (Knapp, 1962). Again, the figures for the two samples correspond very closely, although the Canadian students appear to be slightly more neurotic than their American counterparts. (In fact this Canadian mean for Neuroticism corresponds more closely with the mean score of 23.32, which Eysenck quotes for a sample of 213 English male University students.)

Results for the clothing measures

Table 6: Means and standard deviations for externally-derived and wearer-derived factor scores

Factor	Externally-derived scores		Wearer-derived scores	
	Mean	S.D.	Mean	S.D.
I Evaluative/ Neatness	113.2	27.9	111.3	25.1
II Originality	38.3	10.0	37.4	9.2
III "Trying to Impress"	11.3	4.5	10.5	3.1
IV Co-ordination	9.8	5.2	9.3	4.1

Table 6 shows the mean clothing factor scores and standard deviations for the 88 selected subjects. One set of scores was obtained from the ratings by external judges, the other was obtained from the wearers' self perceptions on the clothing differential: hereafter these are referred to as externally-derived scores and wearer-derived scores respectively. It can be seen that both sets of scores are quite similar,* though there is a slight tendency for wearers to rate themselves less positively than they were rated by others. "Neutral" scores on each factor (calculated by multiplying the mid-point scale value on the clothing differential by the number of scales representing each factor) would be 90 for factor I, 40 for factor II, and 15 for each of factors III and IV. Comparing the means in the table with these rather arbitrary "neutral" values shows that on the whole the subject panel sees itself, and is seen, as fairly neat, as co-ordinating clothes well, and as "being themselves" in choice of clothing. Responses on Originality are very close to the mid-point.

The mean score on the Clothing Interest Inventory was 29.8 , with a standard deviation of 7.9 . It will be recalled that the maximum possible score on this measure was 50, with a minimum possible of 10. Since this measure was devised especially for the present investigation it is not possible to make any comparisons with similar results for other student samples.

The measure of clothing satisfaction was obtained by correlating each subject's scores on the "actual" and "ideal" clothing differentials

*A fact which supports the contention that the factor scores do indeed denote real dimensions of clothing behaviour.

over the 80 scales. The measure of clothing satisfaction thus arrived at was expressed in terms of the value of the Pearson product-moment correlation coefficient, and the median value of r for all 88 subjects was +0.596, which shows that the level of satisfaction in the sample was fairly high.*

Results from other measures

The only other measures taken were those of the subject's socio-economic status, and whether he came from a rural or urban background. The distribution of socio-economic status scores for the sample was fairly wide: the mean score on Blishen's index was 46.49, with a standard deviation of 13.58, whereas Blishen (1967) quotes the mean socio-economic index for Saskatchewan as 38.15, with a standard deviation of 12.36. (The lowest listed score on Blishen's index is 25.36 and the highest is 76.69. For our sample the lowest and highest scores are 28.12 and 76.44 respectively.) It would be expected that a University sample would have a higher mean index than the provincial population in general, and this is in fact the case. It should also be borne in mind that the mean index for the present sample is probably depressed by the assignment to 18 sons of farmers the index value for "farm managers and foreman" (35.05). (The reasons for this have been described in the previous chapter.)

As far as the home background of the subjects is concerned, 25 were judged to have come from a primarily rural background and 63 from a predominantly urban background.

*Osgood, Suci and Tannenbaum (1957) favour the use of discrepancy scores or the generalized distance score (D) to measure the similarity between two profiles. However, later researchers have pointed out various faults in both these measures, and r is commonly regarded as a more sensitive and accurate indicator of profile similarity (see Warr and Knapper, 1968, Ch.2).

The final correlation matrices

Relation of personality to externally-derived clothing factor scores

For the next stage of the analysis of results a 28 x 28 inter-correlational matrix was computed. The 28 variables were as follows: 18 scores on the C.P.I., 2 scores on the M.P.I., 1 clothing interest score, 1 clothing satisfaction score, 1 indicator of rural or urban background, 1 index of socio-economic status, and, finally, 4 clothing factor scores yielded by the clothing differential judgments made by the original raters of each wearer.

It is evident that a number of the intercorrelations provided by this matrix will be of little interest here (for example the correlations between the individual personality dimensions). The remaining correlations which are of central concern to this investigation are discussed in detail below.

Table 7 lists those intercorrelations which showed a significant ($p < 0.05$) relationship between individual factor scores and dimensions of the C.P.I. The most notable feature of the results is that there were only four significant correlations (out of a possible 72) for the C.P.I. - and only one (out of eight) for the M.P.I. The overall absence of relationships between personality dimensions and clothing factor scores is discussed at length later in this section. First, however, there follows a discussion of the implications of the few correlations which did achieve significance.

For factor I there were two significant r values, those for self-acceptance (positive) and for Psychological-mindedness (negative). The former dimension is described by Gough as indicating "factors such as

Table 7: Significant correlations between externally-derived factor scores and C.P.I. dimensions

FACTOR	C.P.I. dimension and value of r^*
I Evaluative/ Neatness	Self-Acceptance +0.241
	Psychological-mindedness -0.227
III "Trying to Impress"	Communality +0.241
IV Co-ordination	Responsibility +0.232

* r significant at $p < 0.05$ in all cases

poise, spontaneity and self-confidence in personal and social interaction", while the second measures "the degree to which the individual is interested in, and responsive to, the inner needs, motives, and experiences of others". Factor I was classified as an Evaluative/Neatness dimension, and these correlations seem to indicate that people who are seen as good, neat dressers tend to be self-confident and happy about their social relationships and interactions, but that in fact they are not particularly perceptive of the behaviour and motivations of other people. The first relationship seems fairly predictable in the sense that a person who is seen to dress well might be expected to be fairly self-assured (although which is cause and which effect is not possible to say). The second relationship is less predictable, suggesting as it does a certain lack of sensitiveness on the part of the well-dressed male. It is quite possible of course that the explanation of these relationships lies in the fact that both variables are related to a third, which has not been measured here.

Factor II yielded no significant correlations, but factor III ("Trying to Impress") was positively related to the C.P.I. dimension of Communalism, and factor IV (Co-ordination) was positively correlated with Responsibility (in interpreting these correlations it should be borne in mind that both the last two factors have low inter-rater reliabilities - see Chapter 3). Responsibility is described as identifying "persons of conscientious, responsible and dependable disposition and temperament", while Communalism indicates "the degree to which an individual's reactions and responses correspond to the modal pattern established for the inventory" (Gough, 1964). The relationship between Responsibility and high scores on factor IV is rather unexpected. It should be remembered that a high score on factor IV in fact indicates lack of co-ordination (scales loaded highly on this factor include Wears clashing colours-Good sense of colour, and Garments match poorly-Garments match well). This then means that those male students who are seen as co-ordinating their clothes and colour schemes poorly tend to be more responsible. Possibly they devote more time to social relationships than they do to their dress!

In the case of the M.P.I. there was only one significant relationship with clothing factor scores. This involved scores on factor I, which were correlated +0.277 with Extraversion. It is interesting however that although there were no other statistically significant correlations with Extraversion, the r values for both factors II and IV are almost significant at +0.187 and -0.194 respectively. We might expect Extraversion to be positively related to both Evaluative/Neatness and Originality scores: and the C.P.I., dimension of Self-acceptance, which was significantly

related to factor I, has much in common with Extraversion.* The relationship between Extraversion and good clothing co-ordination is not entirely surprising in view of the significantly positive relationship between Extraversion and neatness (factor I).

As was pointed out at the beginning of this section, the most striking point to be made about the correlations between the clothing factor scores and the personality scores does not, however, concern the significant relationships discussed above. Rather it concerns the large number of correlations which did not reach a satisfactory level of significance: on the basis of chance alone we could expect more than five out of eighty correlations to reach significance at the 5 per cent level of probability. This means in effect that, with the exceptions noted above, the judgments made about the way a male student dresses are of little help in predicting aspects of his personality. This finding is somewhat surprising in view of the fact that many people believe that clothes reveal a great deal about the personality of the wearer.

A distinction was made in Chapter 1 between studies which related personality to clothing measures elicited from the wearer, and those attempting to link personality and external judgments about the wearer's clothing behaviour. It was pointed out that studies of the second type are few and far between. The two principal studies of this type which were reviewed earlier (those by Ryan, 1966; and Silverman, 1945) employed much simpler measures of clothing style

*The correlation between Extraversion and Self-acceptance for the present sample was +0.564.

than have been used here. In place of a series of factor scores on the clothing differential they used fairly arbitrary ratings of "appearance". In view of the present failure to find many significant relationships, it is interesting that Ryan too was unable to obtain any significant correlations between peer ratings of girls' appearance, and scores on the Bernreuter Personality Inventory Test.*

Silverman, using teacher ratings of appearance, did find a few significant relationships for high and low appearance groups. The principal finding was that girls in the "high appearance" group scored higher on all attributes related to extraversion. Evidence for a similar relationship in the present study has already been discussed. In connection with the Silverman study two further points need to be made. The first is that Silverman's appearance measure was an extremely gross instrument, and that to merely compare high and low scorers on appearance (which incorporated factors unconnected with clothing) maximized the likelihood of obtaining significant differences. The present study differs in that several measures of clothing behaviour were taken, and their relationships to personality dimensions were calculated on the basis of results for all subjects, not just those for extreme cases. A second point is that Silverman's technique for getting teacher ratings of appearance was somewhat dubious, since it is quite possible that the raters were unconsciously incorporating aspects of the girls' personalities into the appearance judgments.

*On the basis of results from a rather different study, Hoult (1954) too concluded that, when the stimulus was known to the judge, clothes were an unimportant cue to personal characteristics (see Chapter 1).

In view of these criticisms it would seem likely that the relationships found by Silverman tend to exaggerate the true state of affairs, and that while some relationships do exist - especially with regard to extraversion - they are probably of fairly minor importance in helping us predict personality from clothing judgments. Before leaving Silverman's study mention should also be made of the suggestion, first referred to in Chapter 1, that her results may have been due to a relationship between both clothing appearance and extraversion and a third factor, socio-economic status. This possibility was investigated in the present study, and it was found that socio-economic status was significantly correlated with none of the clothing measures, and with only one of the twenty personality dimensions.*

Relationships between personality, clothing interest, and clothing satisfaction

It has already been pointed out that most previous studies of personality and dress have used clothing measures elicited from the wearer himself (or herself). The pattern of findings obtained from such investigations is summarized in Chapter 1.

The present inquiry also utilized similar measures of the wearer's clothing behaviour; those of clothing interest and clothing satisfaction. In contrast to the results cited in the previous section, here there are fairly large numbers of significant correlations with personality dimensions. These correlations are shown in Table 8.

*There was a correlation of +0.239 between socio-economic status and the C.P.I. dimension of Social Presence ($p<0.05$).

Table 8: Significant correlations between clothing interest, clothing satisfaction and personality dimensions

Clothing Measure	Personality Dimension	<u>r</u>	p<
CLOTHING INTEREST	Achievement via Independence (CPI)	-0.288	0.01
	Psychological-mindedness (CPI)	-0.288	0.01
	Extraversion (MPI)	+0.216	0.05
CLOTHING SATISFACTION	Capacity for Status (CPI)	+0.216	0.05
	Sociability (CPI)	+0.303	0.01
	Social Presence (CPI)	+0.250	0.05
	Sense of Well-being (CPI)	+0.226	0.05
	Responsibility (CPI)	-0.298	0.01
	Extraversion (MPI)	+0.321	0.01

The wearer's expressed interest in clothing, as measured by the clothing interest inventory, is seen to be negatively related to two dimensions on the C.P.I. (Achievement via Independence and Psychological-mindedness) and positively related to Extraversion on the M.P.I. These findings provide a most interesting confirmation of the results from previous studies which have attempted to relate clothing interest and personality. In Chapter 1 it was stated that investigations to date have shown that a high level of interest in clothes is related to extraversion and to poor adjustment. The rationale underlying this relationship is that high clothing interest is symptomatic of a rather anxious desire to seek social approval. Those who are well adjusted, so the argument goes, have no need to draw attention to themselves by their clothing behaviour. Whether or not this rationale is accepted, the results from the present investigation certainly confirm the relationship between clothing interest and extraversion. And there is also a

suggestion that the two negative correlations indicate poor adjustment. According to Gough, low scorers on Achievement via Independence tend to be seen as "inhibited, anxious, cautious, dissatisfied, dull, and wary; as being submissive and compliant before authority; and as lacking in self-insight and self-understanding" (Gough, 1964). It might too be expected that a low score on Psychological-mindedness is a negative attribute as far as adjustment is concerned.

The results for clothing satisfaction also provide ample confirmation of the trend shown by previous studies. In summarizing the results of such studies in Chapter 1, it was stated that high clothing satisfaction, or feeling well-dressed, was related to higher morale, efficiency, feeling happy, and a high level of social participation. Results from Table 8 show that high clothing satisfaction is significantly related to Capacity for Status, Sociability, Social Presence, Sense of Well-being, and Extraversion. There is also a negative relationship with Responsibility. An explanation for the latter relationship which springs to mind is that "responsible" people may well be self-critical, and hence tend to score low on clothing satisfaction. However, for the present sample Responsibility is positively correlated with Self-acceptance ($r=+0.314$) and with Sense of Well-being ($r=+0.244$). Since both of these dimensions imply a lack of self-criticism, the above hypothesis would appear to be incorrect. Nonetheless, with this rather puzzling exception, the pattern of correlations observed here provides a remarkable parallel with previous findings. This is particularly interesting when it is borne in mind that the measure used here for clothing satisfaction is unique to the present study, and that all the previous investigations utilized only female subjects.

Relation of personality to wearer-derived factor scores

Results so far have shown that while perceived clothing style has little relationship to the wearer's personality, measures of clothing behaviour elicited from the wearer himself are correlated with quite a number of personality dimensions. This suggested that the computation of a second correlation matrix might be worthwhile, this time using factor scores derived from the wearer's self-perceptions. A measure of the wearer's perception of his own (or "actual") clothing style on the clothing differential had been obtained earlier, and these responses have already been used in connection with the measure of clothing satisfaction. It was a fairly simple matter to obtain self-perception scores on each of the four factors and to correlate these scores with the 20 personality dimensions. For good measure these newly derived factor scores were also correlated with clothing interest and clothing satisfaction, to yield a 4×22 matrix.

Table 9 lists the significant correlations between these factor scores and the personality dimensions. It can be seen that substituting wearer-derived factor scores for externally-derived scores triples the number of correlations which are significant beyond the 5 per cent level of probability. Furthermore, many of the r values are considerably higher than any of those cited in Table 8. There are also several correlations which are significant at the 10 per cent but not the 5 per cent probability level, and these are listed in Table 10. The correlations presented in this table are not discussed in detail: they are presented only to facilitate a comparison with results cited earlier for externally-derived factor scores, where reference was made to a

Table 9: Significant correlations between self-perception factor scores and personality dimensions

FACTOR	Personality dimension	<u>r</u>	<u>p<</u>
I Evaluative/ Neatness	Dominance (CPI)	+0.269	0.05
	Sociability (CPI)	+0.426	0.001
	*Self-acceptance (CPI)	+0.360	0.001
	Sense of Well-being (CPI)	+0.256	0.05
	Socialization (CPI)	+0.233	0.05
	Communality (CPI)	+0.359	0.001
	Flexibility (CPI)	-0.323	0.01
	*Extraversion (MPI)	+0.326	0.01
II Originality	*Extraversion (MPI)	+0.267	0.05
III "Trying to Impress"	*Extraversion (MPI)	-0.243	0.05
IV Co-ordination	Sociability (CPI)	-0.249	0.05
	Self-acceptance (CPI)	-0.247	0.05
	Communality (CPI)	-0.282	0.01
	Flexibility (CPI)	+0.299	0.01
	*Extraversion (MPI)	-0.213	0.05

*Similar correlation also obtained between personality dimension and externally-derived factor score (p<0.1)

Table 10: Correlations approaching significance between self-perception factor scores and personality dimensions (p<0.1 in all cases)

FACTOR	Personality dimension	<u>r</u>
I Evaluative/ Neatness	Capacity for Status (CPI)	+0.185
	Tolerance (CPI)	+0.187
	Achievement via Independence (CPI)	-0.183
II Originality	Dominance (CPI)	+0.186
	Sociability (CPI)	+0.189
	Responsibility (CPI)	-0.186
III "Trying to Impress"	Responsibility (CPI)	+0.195
	*Communality (CPI)	+0.201

*Similar correlation also obtained between personality dimension and externally-derived factor score (p<0.1)

few correlations which did not quite attain significance at the 5 per cent level. Meanwhile the results outlined in Table 9 merit a more thorough discussion.

Factor I can be seen to significantly correlate with no less than 8 out of the total of 20 personality dimensions. Four of these dimensions are subsumed under Gough's heading "Measures of Poise, Ascendancy and Self-assurance"; Gough regards all these dimensions as part of a cluster, in that they "share a common emphasis on feelings of interpersonal and intrapersonal adequacy" (Gough, 1964). It would seem likely that the M.P.I. trait of Extraversion, which is also correlated with scores on factor I, might form part of the same cluster.

This leaves the traits of Socialization, Communalism and Flexibility. The first of these, a measure of social maturity, and Communalism, which indicates the degree of modal responding on the inventory, are positively related to high scores on the Evaluative/Neatness factor. Flexibility is negatively related to scores on this factor, which might have something to do with its "neatness" component. Taken together, the eight correlations show that students who see themselves as good, neat dressers are generally extraverted, self-assured, socially mature and inflexible.

Scores on both factor II and factor III are significantly correlated with only one personality trait: the M.P.I. dimension of Extraversion. In the case of factor II there is a positive relationship, and for factor III a negative relationship. This appears to indicate that extraverts attempt to be original in their style of dress (they also tend to be seen as original - see page 77), and that they try to

"be themselves" rather than trying to impress with their clothes (this latter intention is not apparently detected by those who perceive the wearer however).

Scores on factor IV correlate negatively with Extraversion, Sociability, Self-acceptance and Communality, and positively with Flexibility. This means that those students who see themselves as co-ordinating their clothes well are inflexible, but generally extra-verted and self-assured. It is interesting that all dimensions which are related to scores on factor IV are also correlated in a similar manner to factor I scores.

It is difficult to compare the pattern of correlations obtained here with the pattern observed for correlations between personality dimensions and factor scores derived from the ratings by external judges. If, for the purposes of such a comparison, we adopt a 10 per cent level of significance, then there is a total of 9 significant correlations between personality and externally-derived factor scores. Only 5 of these relationships are significant (again, $p<0.1$) when correlations are computed between personality dimensions and factor scores obtained from the wearer. (The five relationships common to both sets of factor scores are indicated by asterisks on Tables 9 and 10.)

The fact that there are many more significant relationships between self-perceptions of clothing and personality than between "other-perceptions" and personality, indicates that the wearer's impression of how he dresses does not always coincide with the way he is perceived to dress.* Whether this is due to lack of accuracy on the

*The median correlation between self-perception of clothing and clothing perceptions provided by the judges, for 88 subjects over 32 scales, was +0.437.

part of the wearer or on the part of the external judge is impossible to say for certain. The larger number of correlations with the wearer's clothing perception would suggest that he was the more sensitive perceiver of his own clothing style. However his "clothing perception" might be wishful thinking (he might be deluding himself about how he appears) rather than accurate perception. If this is so then it can hardly be expected that such information will be picked up by external observers - at least, not without the benefit of E.S.P!* Be that as it may, it can be said that while judgments of someone else's clothing are a poor guide to the wearer's personality, asking the wearer about the way he dresses is quite a good way of discovering something about his personality.

Summary of findings on clothing and personality

If we examine the results from the previous three sections a pattern of relationships between clothing and personality begins to emerge. With the exception of the five correlations discussed earlier, there is little relationship between judgments by others of the way a student dresses and aspects of his personality. In other words the impressions we may form of a male student's clothing style are a poor predictor of his personality. On the other hand, the way the wearer rates his own style of dress is related to a fairly large number of aspects of his personality. Both clothing interest and clothing satisfaction are significantly related to personality traits in men in ways very similar to the relationships established for women by other

*There is yet another possible explanation for this discrepancy. This is that the wearer does accurately perceive his style of dress, but that a large component of this perception has to do with aspects of dress which are not visible to an outside observer. For example, "Originality" for the wearer might entail choice of certain kinds of socks in the case of a male, or selection of special underwear in the case of a female.

researchers using similar variables.

The results also show that not all personality dimensions are relevant to clothing behaviour. The 20 significant correlations listed in Tables 7 and 9 represent only 10 of the 20 dimensions studied, the remaining 10 traits being correlated with none of the factor scores. Four of the dimensions seem to be of particular importance. If we include all significant correlations between clothing measures and personality (see Tables 7, 8 and 9), the personality traits which yield the most correlations are Extraversion, which exhibits 7 (out of a possible 10) significant relationships at the 5 per cent level of probability, and Self-acceptance, Communality and Sociability, all of which are significantly correlated with three other measures. The rather all-pervading influence of the M.P.I. Extraversion trait would appear to provide some support for Eysenck's contention that it is indeed a very central dimension of personality.

A final point should be made in relation to all the significant correlations described in the preceding three sections. It should be remembered that the magnitude of a correlation coefficient between two measures is limited in part by the reliabilities of the individual measures concerned. In the case of the C.P.I., the test-retest reliabilities quoted by Gough (1964) for male high-school students do not exceed +0.74 for any scale, and one rtt value is as low as +0.38 (that for Communality). In the case of the M.P.I., reliabilities of the two dimensions involved are much higher (nearly all the quoted values are above +0.8, see Knapp, 1962) and this is probably reflected in the present study by the large number of correlations with Extraversion.

Test-retest reliabilities are not available for the factors on the clothing differential, but on the basis of previous work with the semantic differential, we would not expect coefficients to much exceed +0.6. Bearing all this in mind, the magnitude of many of the correlations obtained is very satisfactory, especially those between personality dimensions and wearer-derived clothing measures.

Other correlations

In addition to the correlations between clothing and personality measures, there are several other relationships revealed in the matrices which are of interest.

In view of the repeated findings that socio-economic status and rural or urban background are related to clothing behaviour (see Chapter 1, and Ryan, 1966), it is interesting that in the present study these factors were not related to any of the clothing measures. One obvious reason for this, as mentioned in Chapter 3, is that once the student arrives at University he adopts his own status and environment, and his original background and his father's occupation become less important. Even apart from this fact, students tend to be a fairly homogeneous group compared with the general population as far as these variables are concerned. Certainly the lack of significant relationships for this small sample of male students does nothing to invalidate the many findings that in North America as a whole clothing is an important cue to socio-economic status, and that people of different status and from different backgrounds have different ideas about the clothes they buy and wear.

Correlations were also computed between clothing interest and clothing satisfaction and both sets of factor scores. Relationships which achieved significance beyond the 5 per cent level of probability are detailed in Table 11.

Table 11: Significant correlations between factor scores, clothing interest, and clothing satisfaction

	Factor scores from external judge	Factor I	Clothing interest		Clothing satisfaction	
			r	p<	r	p<
Factor scores from wearer	Factor II	--	--	+0.262	0.05	
		--	--	+0.239	0.05	
	Factor III	+0.256	0.05	--	--	
	Factor IV	--	--	-0.248	0.05	
	Factor I	+0.647	0.001	+0.434	0.001	
	Factor II	+0.405	0.001	+0.360	0.001	
	Factor IV	-0.544	0.001	-0.445	0.001	

As far as clothing satisfaction is concerned, the correlations show the same trend for externally-derived factor scores as for wearer-derived scores, except that the relationships are much more marked when the factor scores are based on self-perceptions. The positive correlations with factors I and II and the negative relationship with factor IV indicate that the wearer who is satisfied with his clothing appearance sees himself, and, to a lesser extent, is seen as being a neat, original dresser, who co-ordinates his clothes and garments well. It would seem

then that the person who displays high clothing satisfaction on the whole has reason to be satisfied. This confirms the findings for women obtained by Cannon, Staples and Carlson (1952), and by Kernaleguen and Compton (1968), described in Chapter 1. At the same time the high correlations obtained here provide evidence for the construct validity of the clothing differential, for we would certainly expect that the person who was highly satisfied with his dress would rate himself as a good, neat, original dresser who co-ordinated his clothes well.

Scores on clothing interest correlate with wearer-derived factor scores on factors I, II and IV, while the only significant relationship for externally-derived scores is on factor III. Students with high interest in clothes, predictably, rate themselves as especially good, neat dressers. They see themselves as co-ordinating clothes very well, and as being fairly original in selection of dress. Paradoxically however, none of this is transmitted to external perceivers, who see high-interest wearers merely as "trying to impress"!

Summary and implications of the results

The topic of this investigation was introduced in Chapter 1 by asking three questions about the nature of the relationship between personality and clothing. It was asked, firstly, whether personality judgments were commonly made on the basis of dress. The second point to be raised was whether agreement existed among judges in such cases. Thirdly, it was queried whether these judgments had any valid basis, whether there were any real relationships between clothing appearance and personality. It is possible to answer the first two questions

affirmatively on the basis of previous research in the area of clothing. The final question has been a main focus of interest of the present investigation. We should now be in a position to provide some of the answers.

On the basis of the results described above we may conclude - at least for a student population - that there are few relationships between a person's personality and the way he is perceived to dress. Apart from the fact that neat dressers are more self-confident and extraverted and understand other's needs only poorly, there is little that can be gleaned from the few correlations between personality dimensions and externally-derived factor scores. Indeed, as far as the present sample is concerned, clothing is not even an adequate cue to the wearer's socio-economic status or his rural or urban background.

It logically follows from this that if we attempt to judge personality from our perceptions of a person's clothing style the chances of success are slim. Several possible explanations for this have already been suggested. One is that personality has no bearing on the way a person dresses. Another is that personality does influence choice of clothing, but that perceivers are incapable of detecting such clothing cues in the wearer. The fact that many personality dimensions are related to the wearer's clothing interest, clothing satisfaction, and to the way he perceives his own style of dress would appear to rule out the former possibility. If we accept that self-perceptions of clothing style are related to actual clothing behaviour (and it is of course possible that this is not so and that the self-perceptions on the differential represent mere clothing fantasies) then presumably many

of the aspects of dress reflected in the wearer's factor scores are too subtle to be detected by an external perceiver. (The fact that many items of clothing are not even visible to most perceivers has already been mentioned.)

Still further possible explanations exist for the results obtained here. It is conceivable that the failure to establish more than token links between perceived clothing style and personality is due to some inadequacy in the main measuring instrument, the clothing differential. It could be for instance that the differential is not sufficiently sensitive to tap the relationships in question. However, the large number of significant correlations between personality and wearer-derived factor scores, and between factor scores and the other clothing measures would tend to support the view that the clothing differential comprises the most valid and sophisticated instrument so far devised to measure impressions of clothing. It is possible that the selection of a more diverse population of stimulus persons would have revealed more relationships between personality and externally-judged clothing style. Furthermore it is interesting that one of the few studies to find such relationships made use of "extreme" stimulus persons. Silverman (1945) compared students of very "high appearance" with those of very "low appearance", a procedure which had the effect of exaggerating differences in clothing style. The stated intention of the present study was to investigate personality and clothing relationships in a fairly naturalistic, unconstrained setting. This is why judges were allowed to rate any male students of their choice, with the only selection restraint being that they knew the stimulus well enough

to describe his clothing style. Use of such a procedure has revealed a general lack of relationships for external judgments across stimuli in general: this appears to be a finding which is both valid and useful. It does not however preclude the possibility that relationships may exist for stimuli who are rated at the extremes on each of the factored clothing dimensions. Such a possibility has yet to be tested.

At the same time however, the general pattern of results obtained here tends to confirm what previous investigators have found: that while measures of clothing behaviour elicited from the wearer are related to numerous aspects of his personality, there are hardly any such relationships for clothing judgments made by external observers. It is interesting to quote Ryan on this point, introducing previous findings on the links between clothing and personality: "If there were positive relationships between specific colors or lines and personality traits, they surely would have been learned and we would be able to judge correctly. Therefore we cannot expect to find many clear-cut positive relationships between specific attributes of clothing and personality characteristics. This does not mean, however, that there are none and we may find other sorts of relationships between various personality characteristics and clothing interest, attitudes or behavior" (Ryan, 1966, p. 88).

We may say then, that while there are indeed relationships between personality and clothing, such relationships are unlikely to be understood by the casual perceiver of another's style of dress. Although the perceiver may be tempted to make inferences about the wearer's personality from what he observes of his dress, he is almost certain to be wrong in

most cases, especially if he bases the majority of his clothing judgments on aspects of dress outside the central Evaluative/Neatness dimension. A much surer guide to personality would be ask the wearer how he sees his own dress, and how interested he is in clothes in general.

As well as considering the implications of the present findings this discussion has made suggestions for future research. In fact note has been taken throughout this investigation of unsolved problems in the field of clothing and personality, but there are several specific lines of investigation which seem to follow directly from the results of the present inquiry.

For the first time a measure of clothing perception is available which has a modicum of validity and reliability, and it is to be hoped that the clothing differential will be used in the future to check established findings, as well as to probe new areas. The shortened form of the instrument, comprising the 32 scales with high principal factor loadings, is easy to administer, and yields extremely simple scores on four clothing dimensions. As such, the differential can give a rapid indication of the clothing style, as seen by others or by the wearer, for an individual or group. As further research on the concomitants of particular factor scores becomes available, it will be possible to comment more meaningfully on the implications of particular patterns of responses on the differential. Meanwhile there is much research that needs to be done on the nature of the instrument itself. An obvious first step would be to investigate whether the factor structure established here for male students holds true for females and for a general population of adults. Would the dimensions of judgment be similar if

the raters formed part of a non-student population, or even a population from a different culture?

Similar questions could be asked about the relationships established here between clothing and personality. How would this pattern differ for a sample of Montreal housewives, Newfoundland fishermen, or Yorkville hippies? One might expect to obtain quite different results in different cultures.

What is clear is that there are numerous questions to be answered, and inadequate research resources and techniques to deal with them. Information on the psychology of clothing is still too often largely a matter of folklore, rather than of scientific inquiry. One special difficulty is that the area overlaps both home economics and psychology and has tended to be neglected by both disciplines. There is presently however a burgeoning interest in a behavioural science approach to clothing and dress on the part of home economists, and this thesis and a few other recent studies by social psychologists (e.g. Gibbins, 1969) provide a small but hopeful sign that students of person perception may be prepared to regard the cue of dress as worthy of interest, and home economics as something more than a combination of baking and sewing. Both disciplines can only stand to gain from an entente.

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Appendix A: Instructions for the free-response task

CLOTHING STUDY - 1

Name: _____ Date: _____

Age: _____ Male or female: _____ Year in University: _____

Think of THREE MALE students whom you know fairly well. For each of them provide a brief description of their normal style of dress. We are not interested in lists of actual items of clothing worn; rather we would like your GENERAL IMPRESSIONS of the way each person normally dresses.

MALE STUDENT #1:

(Further space was provided for the descriptions of
two more male students)

Appendix B: Terms used to describe style of dress, in order of frequency of occurrence in free-descriptions

Descriptive Term	Total number of times cited (Number of times cited by males in parenthesis)	Number of judges citing term (Number of male judges in parenthesis)
Neat	83 (36)	50 (23)
Clean	65 (29)	40 (18)
Casual	58 (28)	37 (19)
Conservative	43 (25)	26 (16)
In fashion	40 (22)	23 (14)
Well-pressed	36 (20)	27 (14)
Wears matching garments	35 (18)	26 (12)
Expensive	30 (17)	25 (13)
Sloppy	26 (9)	23 (9)
Always wears same clothes	25 (13)	23 (12)
Sharp	25 (15)	20 (13)
Well-kept	25 (9)	19 (8)
Tasteful	23 (11)	18 (7)
Colourful	21 (8)	20 (8)
Dresses for himself	21 (11)	18 (9)
Wears clashing colours	21 (13)	17 (10)
Clothes lack variety	17 (9)	15 (8)
Wears tight clothes	17 (14)	15 (12)
Comfortable	16 (7)	15 (7)
"Mod"	15 (7)	14 (7)
Muted colours	15 (6)	12 (5)
Careless	14 (8)	12 (6)
Clothes-conscious	13 (6)	10 (4)
His clothes suit him	13 (6)	11 (5)
Well-dressed	13 (6)	11 (5)
Fashion-conscious	12 (8)	10 (6)
Grubby	11 (4)	10 (4)
Light-coloured	11 (6)	9 (5)
Modern	11 (7)	10 (6)
Old	11 (7)	9 (5)
Well-fitting	11 (7)	9 (5)
Clothes chosen for specific event	10 (5)	10 (5)
Good-quality	10 (8)	9 (7)
Tidy	10 (5)	8 (5)
Dressed-up	9 (5)	9 (5)
Flashy	9 (4)	8 (4)
Formal	9 (4)	8 (4)
Wrinkled	9 (4)	9 (4)
Baggy	8 (4)	8 (4)
Clean-cut	8 (3)	7 (2)
Practical	8 (6)	5 (3)
Faddish	7 (5)	6 (4)
Good	7 (4)	7 (4)
Loud	7 (4)	6 (3)

Noticeable	7 (3)	7 (3)
Over-dressed	7 (1)	7 (1)
Young-looking	7 (3)	6 (3)
Acceptable	6 (5)	6 (5)
Conventional	6 (5)	5 (4)
Immaculate	6 (3)	6 (3)
Impressive	6 (1)	4 (1)
Plenty of clothes	6 (5)	6 (5)
Selects clothes carefully	6 (3)	6 (3)
Unkempt	6 (2)	6 (2)
Wears clothes well	6 (2)	5 (2)
Wears patterned clothes	6 (3)	5 (2)
Worn	6 (4)	6 (4)
Confident-looking	5 (3)	5 (3)
Dressy	5 (3)	5 (3)
Extreme	5 (3)	5 (3)
Impeccable	5 (3)	4 (2)
Messy	5 (1)	5 (1)
Nice	5 (1)	4 (1)
Appropriate	4 (1)	3 (1)
Bulky	4 (-)	4 (3)
Hippy	4 (-)	4 (-)
Masculine	4 (-)	4 (-)
Ordinary	4 (1)	4 (1)
Ostentatious	4 (2)	4 (2)
Pleasant	4 (1)	4 (1)
Sophisticated	4 (2)	4 (2)
Torn	4 (2)	4 (2)
Attention-attracting	3 (1)	3 (1)
Attractive	3 (1)	3 (1)
Country-style	3 (2)	3 (2)
Distinguished	3 (1)	3 (1)
Fussy-looking	3 (1)	3 (1)
Good sense of colour	3 (1)	3 (1)
Interesting	3 (-)	3 (-)
Meticulous	3 (3)	3 (3)
Natty	3 (2)	3 (2)
Relaxed	3 (2)	3 (2)
Soiled	3 (2)	3 (2)
Sporty	3 (1)	3 (1)
Successful dresser	3 (1)	3 (1)
Active-looking	2 (-)	2 (-)
At ease in his clothes	2 (-)	2 (-)
Awkward	2 (2)	2 (2)
Clothes suit season	2 (1)	2 (1)
Conformist	2 (2)	2 (2)
Consistent	2 (1)	2 (1)
Creased	2 (-)	2 (-)
Distinctive	2 (2)	2 (2)
Dresses with a flair	2 (1)	2 (1)
Effective	2 (2)	2 (2)
Eye-appealing	2 (1)	2 (1)
Faded	2 (-)	2 (-)
Fastidious dresser	2 (2)	2 (2)
Filthy	2 (1)	2 (1)

For work wear	2 (2)	2 (2)
Imaginative	2 (1)	2 (1)
Independent in choice of clothes	2 (2)	2 (2)
Individualistic	2 (1)	2 (1)
Intellectual	2 (1)	2 (1)
Mature	2 (1)	2 (1)
Nondescript	2 (1)	2 (1)
Outlandish	2 (1)	2 (1)
Particular	2 (-)	2 (-)
Polished	2 (1)	2 (1)
Ragged	2 (1)	2 (1)
Revolting	2 (-)	2 (-)
Rugged	2 (1)	2 (1)
Scuffed	2 (-)	2 (-)
Sexy	2 (1)	2 (1)
Shabby	2 (2)	2 (2)
Smooth	2 (1)	2 (1)
Snobbish	2 (1)	2 (1)
Soft	2 (1)	2 (1)
Solid	2 (2)	2 (2)
Spotless	2 (-)	2 (-)
Studied	2 (1)	2 (1)
Superficial	2 (1)	2 (1)
"Tailored"	2 (-)	2 (-)
Wears contrasting colours	2 (2)	2 (2)
Well-organized	2 (-)	2 (-)
Adaptable	1 (-)	1 (-)
Aesthetic	1 (1)	1 (1)
Alienating	1 (1)	1 (1)
All-purpose	1 (-)	1 (-)
Ambitious-looking	1 (-)	1 (-)
Ambivalent	1 (1)	1 (1)
Articulate	1 (-)	1 (-)
Artistic	1 (1)	1 (1)
Bland	1 (1)	1 (1)
Carefree	1 (-)	1 (-)
Classy	1 (-)	1 (-)
Clothes for outdoors	1 (-)	1 (-)
Common	1 (1)	1 (1)
Confusing	1 (1)	1 (1)
Contemptuous	1 (1)	1 (1)
Crude	1 (1)	1 (1)
Cultured	1 (-)	1 (-)
Customary	1 (1)	1 (1)
Debonair	1 (1)	1 (1)
Disgraceful	1 (1)	1 (1)
Disgusting	1 (-)	1 (-)
Dishevelled	1 (1)	1 (1)
Disreputable	1 (-)	1 (-)
Drab	1 (-)	1 (-)
Easy-going	1 (-)	1 (-)
Economical	1 (1)	1 (1)
Eloquent	1 (1)	1 (1)
Enjoys wearing his clothes	1 (-)	1 (-)

Eye-catching	1 (1)	1 (1)
Flamboyant	1 (1)	1 (1)
For everyday wear	1 (1)	1 (1)
Fresh	1 (1)	1 (1)
Functional	1 (1)	1 (1)
Garish	1 (1)	1 (1)
Gaudy	1 (-)	1 (-)
Greasy	1 (-)	1 (-)
Hard-wearing	1 (1)	1 (1)
Honest	1 (1)	1 (1)
Impulsive	1 (1)	1 (1)
Indifferent	1 (1)	1 (1)
Leisurely	1 (-)	1 (-)
Lifeless	1 (1)	1 (1)
Mediocre	1 (1)	1 (1)
Moderate	1 (1)	1 (1)
Nauseating	1 (-)	1 (-)
Normal	1 (1)	1 (1)
Offensive	1 (1)	1 (1)
Orderly	1 (1)	1 (1)
Original	1 (-)	1 (-)
Parochial	1 (1)	1 (1)
Perfect	1 (1)	1 (1)
Presentable	1 (1)	1 (1)
Proper	1 (1)	1 (1)
Refined	1 (-)	1 (-)
Refreshing	1 (-)	1 (-)
Regular	1 (-)	1 (-)
Reserved	1 (-)	1 (-)
Respectable	1 (1)	1 (1)
Scruffy	1 (1)	1 (1)
Serviceable	1 (1)	1 (1)
Simple	1 (-)	1 (-)
Sincere	1 (-)	1 (-)
"Slept-in"	1 (-)	1 (-)
Slobbish	1 (-)	1 (-)
Slovenly	1 (1)	1 (1)
Slow	1 (-)	1 (-)
Smart	1 (1)	1 (1)
Sober	1 (1)	1 (1)
Sparkling	1 (1)	1 (1)
Spectacular	1 (-)	1 (-)
Suave	1 (1)	1 (1)
Tattered	1 (1)	1 (1)
Trend-setting	1 (1)	1 (1)
Trustworthy	1 (1)	1 (1)
Unique	1 (1)	1 (1)
Unobtrusive	1 (-)	1 (-)
Unruffled	1 (-)	1 (-)
Wears clothes of different materials	1 (1)	1 (1)

Appendix C: Instructions for the preliminary sorting task

The following words and phrases are meant to describe a person's typical style of dress. They were obtained from a large number of descriptions of the typical clothing style of men students. We should like you to point out all those descriptive terms in the list which seem to you to be synonymous. To do this take the first item (1. Acceptable) and check through the remainder of the list, writing down all those words or phrases which seem to be synonyms of "Acceptable". Then take the second item and work through the following items on the list, noting down synonyms of "Active-looking". To complete the task you should have made a total of 203 checkings (once for each trait). It is not necessary to start at the beginning of the list each time you check - simply look at each item following the item that you are checking for synonyms. When you are considering what is a synonym, please remember that all the words and phrases are meant to refer to a person's style of dress - i.e. they may either describe a person's clothing style ("Acceptable") or the clothes themselves ("Baggy"). The words are not intended to directly refer to a person's personality.

(There followed a two-page numbered list of 203 traits, arranged in alphabetical order)

Appendix D: Preliminary version of the clothing differential (different scale and page orders were used for alternative versions)

1A

Acceptable	/---/---/---/---/---'---/---/---/---/	Alienating
Passive	/---/---/---/---'---/---/---/---/---/	Active
Ambitious	/---/---/---/---/---/---/---/---/---/	Unambitious
Inarticulate	/---/---/---/---/---/---/---/---/---/	Articulate
Attractive	/---/---/---/---/---/---/---/---/---/	Revolting
Common	/---/---/---/---/---/---/---/---/---/	Classy
Clean	/---/---/---/---/---/---/---/---/---/	Grubby
Fussy-looking	/---/---/---/---/---/---/---/---'---/	Clean-cut
Clothes-conscious	/---/---/---/---/---/---/---/---/---/	Indifferent to clothes
Clothes for the country	'---/---/---/---/---/---/---/---/---/	Clothes for work
Clothes of different materials	'---/---/---/---/---/---/---/---/---/	Clothes of same material
Clothes unsuitable for season	'---/---/---/---/---/---/---/---/---/	Clothes suitable for season
Colours contrast	/---/---/---/---/---/---/---/---'---/	Colours blend
Lacks confidence	/---/---/---/---/---/---/---/---/---/	Confident
Conservative	/---/---/---/---/---/---/---/---/---/	Extreme
Ambivalent	/---/---/---/---/---/---/---/---/---/	Consistent
Conventional	/---/---/---/---/---/---/---/---/---/	Hippy
Practical	/---/---/---/---/---/---/---/---/---/	Debonair
Distinguished	/---/---/---/---/---/---/---/---/---/	Nondescript
Casual	/---/---/---/---/---/---/---/---/---/	Dressed-up

2A

Dresses for himself	/---/---/---/---/---/---/---/---/	Dresses to conform
Dresses for comfort	/---/---/---/---'---/---/---/---/	Dresses for the occasion
Dresses with a flair	/---/---/---/---/---/---/---/---/	Clothing lacks flair
Expensive	/---/---/---/---/---/---/---/---/	Economical
Enjoys wearing his clothes	/---/---/---/---/---/---/---/---/	Fails to enjoy his clothes
Ignores clothing fads	/---/---/---/---/---/---/---/---/	Follows clothing fads
Formal	/---/---/---/---/---/---/---/---/	Sporty
Greasy	/---/---/---/---/---/---/---'---/	Fresh
Garments match well	/---/---/---/---/---/---/---/---/	Garments match poorly
Poor-quality	'---/---/---/---/---/---/---/---/	Good-quality
Good sense of colour	'---/---/---/---/---/---/---/---/	Wears clashing colours
Soft	'---/---/---/---/---/---/---'---/	Hard
His clothes suit him	/---/---/---/---/---/---/---'---/	His clothes do not suit him
Unimaginative	/---/---/---/---/---/---/---/---/	Imaginative
Impeccable	/---/---/---/---/---/---/---/---/	Torn
Messy	/---/---/---/---/---/---/---/---/	Immaculate
Impressive	/---/---/---/---/---/---/---/---/	Disgraceful
Slow	/---/---/---/---/---/---/---/---/	Impulsive
In fashion	/---/---/---/---/---/---/---/---/	Out of fashion
Uninteresting	/---/---/---/---/---/---/---/---/	Interesting

3A

Light-coloured	/---/---/---/---/---/---/---/---/	Dark-coloured
Feminine	/---/---/---/---/---/---/---/---/	Masculine
Mature	/---/---/---/---/---/---/---/---/	Young-looking
Square	/---/---/---/---/---/---/---/---/	Mod
Modern	/---/---/---/---/---/---/---/---/	Old-fashioned
Careless	/---/---/---/---/---/---/---/---/	Natty
Neat	/---/---/---/---/---/---/---/---/	Sloppy
Nasty	/---/---/---/---/---/---/---/---/	Nice
Noticeable	/---/---/---/---/---/---/---/---/	Unobtrusive
Outlandish	/---/---/---/---/---/---/---/---/	Ordinary
Original	/---/---/---/---/---/---/---/---/	Unoriginal
Unpleasant	/---/---/---/---/---/---/---/---/	Pleasant
Plenty of clothes	/---/---/---/---/---/---/---/---/	Few clothes
Scuffed	/---/---/---/---/---/---/---/---/	Polished
Refined	/---/---/---/---/---/---/---/---/	Crude
Nauseating	/---/---/---/---/---/---/---/---/	Refreshing
Sets clothing trends	/---/---/---/---/---/---/---/---/	Follows clothing trends
Sexless	/---/---/---/---/---/---/---/---/	Sexy
Sharp	/---/---/---/---/---/---/---/---/	Scruffy
Snobbish	/---/---/---/---/---/---/---/---/	Sincere

4A

Smooth	/---/---/---/---/---/---/ Rugged
Flashy	/---/---/---/---/---/---/ Sober
Sophisticated	/---/---/---/---/---/---/ Simple
Faded	/---/---/---/---/---/---/ Sparkling
Spectacular	/---/---/---/---/---/---/ Reserved
Parochial	/---/---/---/---/---/---/ Suave
Tasteful	/---/---/---/---/---/---/ Overdressed
Superficial	/---/---/---/---/---/---/ Trustworthy
Unique	/---/---/---/---/---/---/ Regular
Wears tight clothes	/---/---/---/---/---/---/ Wears baggy clothes
Wears bright colours	/---/---/---/---/---/---/ Wears muted colours
Looks awkward in his clothes	/---/---/---/---/---/---/ Wears clothes well
Wears outdoor clothes	/---/---/---/---/---/---/ Wears indoor clothes
Wears plain clothes	/---/---/---/---/---/---/ Wears patterned clothes
Well-dressed	/---/---/---/---/---/---/ Disreputable
Bulky	/---/---/---/---/---/---/ Well-fitting
Well-kept	/---/---/---/---/---/---/ Worn
Confused	/---/---/---/---/---/---/ Well-organized
Well-pressed	/---/---/---/---/---/---/ Wrinkled
Clothes lack variety	/---/---/---/---/---/---/ Wide variety of clothes

Appendix E: Instructions for the clothing differential

The CLOTHING DIFFERENTIAL is a series of (bi-polar) scales which is intended to measure your impressions of a person's style of dress.

Each scale has nine divisions or compartments, and at each end of the scale there are descriptive words or phrases which are roughly opposite in meaning. You complete each scale of the differential by placing a cross within ONE of the divisions of the scale. The nearer to each end of the scale you place your cross, the more definite you are in your judgment - and the more you believe the particular term applies.

Smart / 1 / 2 / 3 / 4 / 5 / 6 / 7 / 8 / 9 / Scruffy

For example, in the scale above, if you placed your cross in position 1, this would indicate that you judged the style of dress of the stimulus person to be extremely sharp; a cross in position 9 would indicate that you believed his style of dress to be extremely scruffy. If you marked position 2 you judged the style of dress to be sharp, but not as smart as for position 1; and so on.

Position 5 is a NEUTRAL position; it indicates a style of dress that is neither sharp nor scruffy. This central position should be used when the scale has no meaning for you, or when the stimulus person's dress is equally sharp and scruffy. Please use position 5 sparingly - always try to make a decision one way or another. And remember . . . only one cross per scale!

Please place the cross within the divisions, do not cross the lines of the divisions (there are nine possible positions for each scale):

Smart /---/---/X/---/---/---/---/---/ Scruffy
 ↑
 RIGHT

Smart /---/---/---X---/---/---/---/---/ Scruffy
 ↑
 WRONG

Work from the top of each page to the bottom, taking each page in turn. The order of scales on your form may not be the same as the order on your neighbour's - this is intentional.

Please WORK QUICKLY. We are interested in your first impressions and it is not necessary - nor desirable - for you to ponder at length over each scale. It should take only about fifteen minutes to complete the differential. At the same time, take care not to omit any scales - if you cannot decide which scale division to mark, use the neutral (central) position. The differential consists of four pages, with a total of 80 scales. Please feel free to ask questions at any time.



UNIVERSITY OF SASKATCHEWAN REGINA CAMPUS

DIVISION OF SOCIAL SCIENCES

REGINA, CANADA

October 24, 1968

Dear

I am presently carrying out some research on the psychology of clothing, and as part of this project I am attempting to correlate aspects of dress with certain personality traits.

The next stage of my research involves giving personality tests to 100 male students who have been selected from the general University population: you are one such student.

The personality tests to be used are of a simple paper-and-pencil variety, and will be administered to groups of students in sessions lasting just over an hour. Sessions will take place in Room C.226 at the following times:

Tuesday, October 29 at	9:30 a.m.
	11:30 a.m.
	1:30 p.m.
	3:30 p.m.
	5:30 p.m.
Wednesday, October 30 at	5:30 p.m.
Thursday, October 31 at	5:30 p.m.

Other sessions may also be arranged to suit the convenience of students.

You are invited to attend one of these sessions and if possible to make a prior appointment, either by calling into my office (C.226.2) or by telephoning me (University: 525-0400; Home: 527-5292). The methods of selection used mean it will be extremely difficult to replace you if you fail to appear. Please make every effort to attend.

More details about the project will be available at the sessions themselves. Although the test results will be strictly confidential, personality profiles will be made available to those who request them. The sum of \$1 will be payable to each student to defray any expenses he may have incurred.

Many thanks in advance for your co-operation.

Sincerely

A handwritten signature in black ink that reads "Chris Knapper".

Chris Knapper
Special Lecturer of Psychology

CK/sy

CLOTHING INTEREST INVENTORY

Please check the alternative that best applies to you in the ten questions below.

1

1. How often do you help your friends select clothing?

Very often	()
Often	()
Sometimes	()
Seldom	()
Practically never	()

2. How often do the windows of menswear shops attract your attention?

Very often	()
Often	()
Sometimes	()
Seldom	()
Practically never	()

3. How often do you discuss men's fashions and clothes with your friends?

Very often	()
Often	()
Sometimes	()
Seldom	()
Practically never	()

4. How often do you glance over or read advertisements for men's clothing in newspapers or magazines?

Very often	()
Often	()
Sometimes	()
Seldom	()
Practically never	()

5. How often do you delay making a decision in the selection of a major clothing item until you have looked in most of the available stores?

Almost always	()
Often	()
Sometimes	()
Seldom	()
Practically never	()

CLOTHING BEHAVIOUR INVENTORY

6. How many times in the last three months have you made a trip downtown to look at or buy men's clothes?

Seven or more times	()
Five or six times	()
Three or four times	()
Once or twice	()
Not at all	()

7. If you won a hundred dollars in a sweepstake tomorrow, how much of it would you spend to buy clothes for yourself?

\$80 - \$100	()
\$60 - \$79	()
\$40 - \$59	()
\$20 - \$39	()
\$ 0 - \$19	()

8. If you were fairly wealthy, how long would you want a suit to remain your best suit?

One year or less	()
Two years	()
Three years	()
Four years	()
Five or more years	()

9. After a day at the campus, how often do you change clothes to go out to a social event in the evening?

Practically always	()
Often	()
Sometimes	()
Seldom	()
Practically never	()

10. Would you say that your general interest in clothes was:

Very high	()
Fairly high	()
Average	()
Not very high	()
Not at all high	()

Appendix H: Form for collection of miscellaneous data.

NAME: _____

PHONE: _____

MAJOR: _____

FATHER'S OCCUPATION: _____

NAME OF PLACE (CITY, TOWN, VILLAGE) WHERE YOU LIVED MOST OF YOUR LIFE
BEFORE STARTING UNIVERSITY: _____

CHECK HERE IF YOU WOULD LIKE A SUMMARY OF THE RESULTS OF THIS EXPERIMENT
WHEN THEY HAVE BEEN COMPILED: _____