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THE USE OF THE SEMANTIC DIFFERENTIAL IN A STUDY OF THE
EFFECTS OF ASPIRATIONAL AND DISSOCIATIVE REFERENCE
GROUP INFLUENCE ON CONSUMER BEHAVIOR

DISSERTATION

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The purpose of this study was to investigate the effects of aspirational and dissociative reference group influence on consumer behavior. Briefly stated, the hypotheses tested were

1. The way a consumer behaves is related to his and his reference group's values, norms, and attitudes regarding specific products and product uses.

2. Reference groups have a positive influence on consumer behavior when the consumer desires to belong to the group in question.

3. Reference groups have a negative influence on consumer behavior when the consumer does not wish to be associated with the group in question.

4. Reference groups have no effect on consumer behavior when the individual is unaware or has no perception of the particular group's behavior norms.

5. Aspirational and dissociative reference group influence will differ when compared with different consumer characteristics, such as sex and age.

A review of the literature revealed a great deal of research in the area of small, face-to-face group influence. There was, however, a severe shortage of research in the secondary-group influence area.

A sample of ninety-three students at Tarrant County Junior College - Northeast Campus, Hurst, Texas, submitted responses to a thirty scale semantic differential which measured attitude toward several specific concepts. Similar subject attitudes (similar semantic differential scores for a particular concept) was one method used to determine the various groupings used in the study. Once the subjects were grouped, two Q-Sorts performed by each individual were analyzed. Each subject was asked to rank ten consumer products (a) as their "Ideal Self" would and (b) as they perceived that a "Business Executive" would. The correlation of the Q-Sorts served as the test to "accept" or "reject" the study's hypotheses.

For the practical marketer, this paper offers the following results--as they pertain to this study only:

1. A marketer should always be aware that the attitude expressed by a consumer is not always going to be indicative of what the consumer will or will not do in a buying situation.
2. It would appear that consumers engage in behavior of a specific nature due to the influence of positive or aspirational reference groups more often than as a direct

response to negative or dissociative reference groups. The end result in either situation may conceivably be the same; however, the reasons for the behavior could be totally different--which is a primary reason for interest in studying consumer behavior.

3. By knowing as much demographic information as possible about the target market, the advertiser can create promotions that will possibly attract not only those consumers actually in the market but also those who would aspire to be or "consider" themselves unofficially in that market. This conclusion is presented with the understanding that even though significant correlations between attitude and behavior were few, the overall trend was that of a positive correlation.

4. Attitude is not inconsistent with behavior; however, no causal relationship can be said to exist from the results of this study--i.e., no direct linkage was made between attitude and behavior.

The findings of this study--it is hoped--will contribute some additional support for further study in the area of secondary reference groups and their relationships--if any--to consumer behavior.

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CHAPTER I

INTRODUCTION

Nature of the Problem

This study is concerned with a problem area that has confronted the field of marketing since its beginning. The problem area is that of consumer behavior. The problem is--and has always been (whether acknowledged by marketing personnel or not)--the answer to the question: Why does the consumer behave in the manner that he does?

What causes a consumer to buy the type of clothing that he does? Why does he or she prefer one product brand over another? Why will one buyer purchase a Chevrolet and another purchase a Cadillac?

The answers to these questions, and others like them, have always been difficult to ascertain. The reason for the difficulty lies in the fact that there are a multitude of factors that can and do cause people to behave in their own particular manner.

The approach taken in this study is to investigate two of the many possible factors that might affect a consumer's behavior. The two factors referred to are aspirational and dissociative reference groups.

Background

The term "reference group" is commonly used to describe or denote any group with which a person associates his attitudes and behavior. Kelley distinguishes between the two major functions of reference groups in the determination of individual attitudes (5, p. 210). One function of a reference group is that of setting norms--the "normative function" (5, p. 212). Reference groups also serve as a standard with which people can evaluate themselves and others (5, p. 213). Reference groups, therefore, have been used to categorize groups in which an individual desires to "gain and maintain acceptance" (5, p. 210) and to denote groups which individuals use as a reference point when making evaluations about themselves and others (5, p. 211).

Shibutani says that current usage of the term "reference group" points to three specific referents for a single concept. The three referents are (a) groups which serve as comparison points, (b) groups to which one aspires, and (c) groups whose perspectives are assumed by the "actor" (8, p. 563). Shibutani restricts the usage of reference groups to the third referent--"that group whose perspective constitutes the frame of reference of the actor" (8, p. 563). He feels this restriction increases the usefulness of reference-group-study in research.

A "perspective," according to Shibutani, is defined as an ordered view of one's world, i.e., what is taken for granted about the attributes of various objects, events, and human nature (8, p. 564). It constitutes the matrix through which one perceives his environment. A reference group, then, is that group "whose outlook is used by the actor as the frame of reference in the organization of his perceptual field" (8, p. 565). Much of the interest in reference groups comes out of concern with situations which confront people with the necessity of making a decision between two or more organized perspectives (8, p. 568). "Organized perspectives arise in and become shared through participation in common communication channels, and the diversity of mass societies arises from the multiplicity of channels and the ease with which one may participate in them" (8, p. 569). "The concept of reference group," Shibutani concludes, "summarizes differential associations and loyalties and facilitates the study of selective perception" (8, p. 569).

Support for Shibutani's theory about organized perspectives comes from Arndt: "a consumer unwilling to make risky product decisions would need social support and thus tend to initiate group discussion" (14, p. 223). For example, Arndt found that a consumer perceiving greater risk made greater effort to reduce risk by means of informal communication with others who had tried the

product or just to get their opinion and/or encouragement (14, p. 223).

Common communication channels, as discussed by Shibutani, are very important to reference group study. Stafford identifies specific benefits of communication by saying, "Through direct and indirect communication, members learn the norms and values of their informal groups and see how the normative structure is expressed in the status arrangements and corresponding behavior patterns" (11, p. 69). Stafford's view is that group interaction is a major factor in attitude formation and attitude change, as well as in other phenomena of importance to the individual--such as the satisfaction of social needs (11, p. 68).

To Stafford, the most common definition of "groups" revolves around the concept of "reference groups." A reference group can be a group to which a person actually belongs, "to which he aspires to belong, or dissociative groups to which he aspires not to belong" (11, p. 69). Most social psychologists, according to Stafford, consider reference groups to be a person's major source of values, norms and perspectives (11, p. 69).

Purpose and Significance of the Study

The purpose of this study is to investigate the effects of aspirational and dissociative reference group influence on consumer behavior.

Attitude is generally represented by some type of outward behavior. There are two ways, as Stafford indicates, in which behavior is influenced by reference groups. First, reference groups influence aspiration levels and therefore play a major role in producing satisfaction or frustration. Second, reference groups influence kinds of behavior, i.e., they establish approved patterns of behavior (11, p. 69). Reference behavior is a cognitive process in which the individual evaluates his status, behavior, norms, and values by means of referents. Referents are defined as whatever the individual uses in evaluating his own status, norms, values, and behavior--the referent is usually some reference group (11, p. 69).

There are very practical reasons for interest in studying reference groups. The field of marketing is a primary area that has expressed great interest in reference groups. As Venkatesan indicates, "Many buying actions come from a desire to identify with a membership or reference group" (13, p. 385). Even though "the influence exerted by given groups, such as neighborhood groups, bridge clubs, on its members is informal and subtle" (13, p. 385), it has been proven to be very powerful. Grubb and Hupp state further:

For an individual consumer and his significant references, total understanding of

the product's symbolic meaning includes perceptions of the kinds of people whom they believe use that product. When a person endorses a specific product in the interaction process, he is communicating that he wishes to see himself as associated with the kind of people he perceives consume the product (3, p. 59).

In marketing this finding has application in the area of promotion or advertising. "Promotion of a particular brand requires development of a strong consumer perception of the kind of people who own and use the product" (3, p. 63). This stresses that aspirational and dissociative reference groups do affect the purchase behavior of the consumer. The actual effect on purchase behavior can be positive or negative or varying degrees of either. An example of the third variation is given by Venkatesan: "in the marketplace we can observe that individuals purchase a product or adopt a new style, but reserve the right to choose different brands or variations. In this way, it seems, the feeling of independence in the consumer decision-making process is maintained" (13, p. 387).

A study of the effects of reference groups on consumer behavior can be significant from an additional point of view. As a review of the literature reveals, there has been a great void in consumer behavior research--the reference group area--basically since 1972. A majority of the most current research in reference groups and consumer behavior was carried out and reported in the

middle and late 1960's. Perhaps this study can add something to the existing knowledge and help to fill the void that has developed.

Scope

Aspirational and dissociative reference groups represent only two of the multitude of factors that play a part in determining individual consumer behavior. An analysis of the entire area of consumer behavior was well beyond the intent and purpose of this study.

The current study on reference group influence on consumer behavior was limited geographically. Time and financial limitations necessitated confining the research to the students enrolled at the Northeast Campus of Tarrant County Junior College, Hurst, Texas.

Hypotheses

Hypothesis 1. Reference groups are one of the major sources for the foundation of individual consumer behavior. A person's perception of himself is made apparent through the expression of attitudes, values, and norms. Reference groups help to identify and strengthen certain values, norms, and attitudes within the individual. Thus, the way a consumer behaves is related to his (and his reference group's) values, norms, and attitudes regarding specific products and product uses.

Hypothesis 2. Aspirational and dissociative reference groups serve as standards with which non-members can evaluate themselves and others. The comparative function of reference groups is an area of great importance to the field of marketing.

A. Reference groups have a positive influence on consumer behavior when the consumer desires to belong to the reference group in question.

B. Reference groups have a negative influence on consumer behavior when the consumer does not wish to be associated with the reference group in question.

C. Reference groups have no effect on consumer behavior when the individual is unaware or has no perception of the particular group's behavior norms.

Hypothesis 3. Aspirational and dissociative reference group influence will differ when compared with different consumer characteristics, such as sex, age, occupation, family size, and income level.

Research Methodology

Primary and secondary research methods were used for this study. Primary data was gathered through the use of a questionnaire. The questionnaire was sent to business students attending Tarrant County Junior College - Northeast Campus, in Hurst, Texas.

Secondary sources of information included books and articles from both professional and general journals

and periodicals. The above sources of information were related to consumer behavior in general and to the effects of reference group influence on consumer behavior in particular.

Survey

A questionnaire was distributed to students enrolled in Introduction to Business classes at Tarrant County Junior College - Northeast Campus, Hurst, Texas. Students at Tarrant County Junior College represented, it was believed, a good cross section of reference group characteristics which possibly might affect consumer behavior in Tarrant County (see Chapter III for a detailed discussion). The characteristics mentioned above included such things as types or level of education desired, varied age groups, personal or family income, sex, and others.

The questionnaire was designed to reveal the effect that secondary reference group influence has on the behavior of consumers who would like to be associated with a particular group. Also, the behavior of consumers who do not want to be associated with a certain group was studied.

In order to measure the effects of group influence on consumer behavior, perceptions and attitudes had to be determined. The semantic differential provided a relatively standardized and quantifiable procedure for

measuring attitudes and perceptions of concepts; therefore, the semantic differential technique was a measuring device used in this study. The semantic differential is described more fully in Chapter III.

A second measuring device used in this study was a tool for evaluating attitudes developed by William Stephenson called Q-Sort (12). Many studies have proven the usefulness of this methodology to marketing by using consumer products in the test (1,4,9,10). This methodology is fully explained in Chapter III.

The sample for this study consisted of one hundred students enrolled in Introduction to Business courses at Tarrant County Junior College - Northeast Campus. The total size of the sample could have been determined by

the formula
$$n = \frac{N}{1 + Ne^2}$$

where: n = sample size

N = population size (total number of students in Introduction to Business classes during the semester the sample is taken)

e = precision factor (15, p. 549).

The level of confidence of the sample would have been 95 per cent with a precision factor of plus or minus 15 per cent. Using the above formula, the sample size would have been forty for a population of 389 (the number of students enrolled in Introduction to Business classes in the Spring of 1976).

A sample size of one hundred was chosen because it would yield a closer approximation of the normal distribution:

The size of sample needed to take advantage of the central limit theorem depends upon the extent to which the population under study deviates from normality. Generally, the sampling distribution of the means closely approximates the normal for samples of 100 or larger, no matter how radically the parent population deviates from the normal. For most behavioral research, samples of size 30 will be adequate to insure close approximation of the normal by the sampling distribution of the means (7, p. 137).

Limitations

The limitations to this research study were as follows:

1. The research was limited to the student body of Tarrant County Junior College - Northeast Campus, Hurst, Texas, during the spring semester of 1976. Findings, therefore, were limited to this student population. It is conceivable, however, that the findings could be generalized to other college aged residents of Tarrant County.
2. Time and financial constraints made it necessary to survey only a small number of the total possible respondents enrolled at Tarrant County Junior College - Northeast Campus.
3. Neither the Semantic Differential nor the Q-Sort Technique can be designed to eliminate all possible bias in the replies. Therefore, inaccurate information was the result in some responses.

4. This research was confined to investigating only two of the many factors that have influence on consumer behavior: aspirational and dissociative reference groups.

Definition of Terms

Primary Reference Group. A primary reference group is defined as "an aggregate of individuals whose numbers are small enough that each person can communicate with all the others face-to-face" (2, p. 310).

Secondary Reference Group. For purposes of this study, a secondary reference group will be defined as any one of three types of reference groups: a membership group (other than a primary reference group), an aspirational group, or a dissociative group.

Membership Group. A membership group is an aggregate of people "to which a person is recognized by others as belonging" (2, p. 310).

Aspirational Group. An aspirational group is an aggregate of individuals "to which an individual wishes or aspires to belong" (2, p. 310).

Dissociative Group. A dissociative group is an aggregate of individuals "with whose values or behavior an individual does not want to be associated" (2, p. 310).

Semantic Differential. The semantic differential is a psychological technique used to measure attitudes toward a specific thing or situation. It measures the intensity

of the feeling and the direction of the feeling toward particular concepts. Each semantic differential question is composed of two opposite statements or adjectives. Respondents are asked to indicate on a seven position scale where they stand on a particular dichotomous question, concept or attribute (6, pp. 18-30).

Q-Sort. The Q-Sort technique requires a subject to use a number of specific descriptive items to describe (through a ranking or ordering process) his actual-self, ideal self, or some defined other (9, pp. 28-29).

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CHAPTER II

REFERENCE GROUP INFLUENCE ON CONSUMER BEHAVIOR:

A REVIEW OF THE LITERATURE

A brief introduction to the area of reference groups and reference group influence will help to provide for a better understanding of specific reference group studies that are reported later in this chapter. Studies dealing with both primary reference groups and secondary reference groups are presented in order to emphasize the importance of the total reference group concept to the study of consumer behavior. Discussion in later parts of this paper will, however, be limited to secondary reference groups and their influence on consumer behavior.

An Introduction to Reference Groups

Hyman was the first to coin the term "reference group" (20, p. 383). The term "reference" was used to

designate the type of group that an individual uses as a point of reference in determining his own judgments, beliefs, and behavior. However, that individual may agree with the group in whole or only in part, or he may use the group as a reference in an entirely negative way, and he may or may not belong to the group (21, p. 274).

Many writers have interpreted the role of reference groups in influencing behavior. Most of the interpretations

are in general agreement--with only minor differences occurring. Stafford, for example, characterizes reference behavior under three general dimensions: knowledge, affectivity, and sanctions. "These dimensions appear as interrelated variables which come into play in all forms of reference behavior" (38, p. 110).

Knowledge of the reference group's existence is of primary importance: "For a phenomenon to be used, the individual must be aware (have knowledge) of its existence, and the degree and kind of knowledge serve as guides to his use of the referent" (38, p. 110).

Stafford's second dimension of reference behavior--affectivity--"relates to the degree of identification a person has for a particular group. Recognition of the importance of a person's degree of identification to a reference group is very valuable to an understanding of how groups influence the behavior of their members" (38, pp. 110-111).

Finally, the sanctions perceived by individuals constitute the third dimension of reference behavior.

The concept of referents indicates the existence of myriads of potential referents and, yet, the actual number of referents utilized by any one person is necessarily limited. When an individual perceives a potential referent, such as an informal social group, to be the source of positive sanctions (rewards) or negative sanctions (punishment or withholding of anticipated rewards), which relate to himself, at that moment the informal

group becomes an actual referent and is used in the evaluation of norms, values, statuses, and behavior (38, p. 118).

Kelman identified three processes of social influence in his discussion of reference group influence: compliance, identification, and internalization. "Compliance can be said to occur when an individual accepts influence from another person or from a group because he hopes to achieve a favorable reaction from the other" (23, p. 439). An individual, for example, might make a special effort to express only the "correct" opinions in order to gain admission into a specific group or social set, or in order to avoid certain negative reactions--such as being fired from a job. The same idea can be expressed in terms of consumer behavior. A consumer might adopt a particular behavior not because he really supports its content, but "because it is instrumental in the production of a satisfying social effect" (23, p. 439). This type of behavior will be expressed only when the individual's actions are observable by the reference group (23, p. 439).

"Identification can be said to occur when an individual adopts behavior derived from another person or group because this behavior is associated with a satisfying self-defining relationship to this person or group" (23, p. 440). Self-defining relationship is defined as a role relationship that "forms a part of the person's self-image" (23, p. 440). Through identification a person tries to be

like or actually to be the other person. "By saying what the other says, doing what he does, believing what he believes, the individual maintains this relationship and the satisfying self-definition that it provides him" (23, p. 449). Identification and compliance are similar in that the individual does not adopt the reference behavior because of satisfaction derived from the behavior only. The two differ in that the individual under the identification process actually believes in the opinions and actions that he adopts (23, p. 441).

Internalization can be said to occur "when an individual accepts influence because the induced behavior is congruent with his value system. It is the content of the induced behavior that is intrinsically rewarding here" (23, pp. 441-442). A person, for example, may adopt the recommendations of an expert because he finds them "relevant to his own problems and congruent with his own values" (23, p. 442). The recommendations will generally be modified to some degree in order to fit a unique situation. Both rational and irrational grounds can support internalization of behavior (23, p. 442).

The three social processes discussed above appear to be similar in some respects and different in others. An important thing to remember is that these three processes of social influence are not mutually exclusive (23, pp. 442-443).

Turner, in related research, expressed reference group behavior concepts from a role standpoint. He said that "the reference group is a generalized other which is viewed as possessing member roles and attributes independently of the specific individuals who compose it" (40, p. 400).

When a reference group is the source of values and perspectives, the identity of meaning with role-taking is apparent. One takes the role of a member of the group, which is synonymous with having "a psychologically functioning membership" in the group, and one adopts the group's standpoint as one's own. Thus, except for emphasizing that the source of values need not be a group of which the individual is objectively a member, this use of reference group corresponds to one traditional usage of role-taking (40, pp. 398-399).

Reference group influence--in terms of role-taking--varies in different situations. The individual, often referred to as the "actor," may or may not take the role of member of a reference group.

So long as the actor is using the reference group only as a point of comparison in estimating his own social standing or in deciding whether to be satisfied or dissatisfied with his lot, external attributes of the other alone are involved. The role of the relevant other is not being taken. But when levels of aspiration, degrees of determination, and the like are being compared, the individual must necessarily take the role of the other in order to make a comparison (40, p. 399).

Continuing in the role-taking approach used in the study of reference group behavior and influence, Turner defined the term "audience group" as the group "by whom the actor sees his role performance observed and evaluated,

and he attends to the evaluations and expectations which members of the group hold toward him. The actor takes the role of his audience reflectively" (40, p. 399).

The actor, according to Kemper, attributes specific values to an audience group and tries to behave in accordance with those values:

The audience group may have expressed its values in some concrete instance as they are known to the actor, or the imputation of values to the audience may be purely a matter of speculation by the actor. In either case, the actor will be guided by what he understands his audience's values to be (24, p. 33).

The audience group can be a good example of the aspirational reference group concept. Aspirational reference groups are used almost entirely as non-membership comparison groups. "The audience may not even know of the individual's existence. In the individual's scheme of things, however, the audience is valued as a potential source of reward, and he will endeavor to win that reward--even at great cost" (24, pp. 37-38).

"Efforts to understand the totality of consumer behavior have taken researchers into related fields, with some of the most fruitful results in terms of both theory and practice coming from the behavioral sciences" (16, p. 63).

Bourne, a sociologist, determined that reference group influence could affect a purchase in three different ways:

1. Reference groups could influence brand or type but not product choice.
2. Reference groups could influence both brand and product choice.
3. Reference groups could influence product but not brand choice (5, p. 351).

When almost everyone uses a particular product, reference groups do not exert much--if any--influence. Clothing, for example, is a product purchased by everyone in our society. Reference groups influence the brand or type of clothing purchased but not the product category itself. An example of reference group influence over both the product and the brand is embodied in the automobile. "Cars are a case in which both the product and the brand are socially conspicuous. Whether or not a person buys a car, and also what particular brand he buys, is likely to be influenced by what others do" (5, p. 351).

According to Bourne, instant coffee is one of the best examples of a product where reference groups influence the product choice but not the particular brand (5, p. 352). The primary determining factors with respect to reference group influence appear to be the conspicuousness or social importance of either the product and/or the brand.

Gardner, an anthropologist, enumerated six assumptions about the forces influencing man's behavior. All six relate to some form of referent--self, individuals, one's culture,

etc. One assumption in particular, closely corresponds to the imagery of comparison or audience groups:

Finally, we have the process of symbolic communication by which the individual interprets and gives meaning to the world about him. Words, objects, actions, pictures all communicate many things both consciously and subconsciously. For example, what image do we conjure up of the kind of person who drives a red convertible, likes musical comedy and modern novels as compared with one who drives a Rolls Royce, likes opera and classics (13, p. 3).

Cartwright, a psychologist, in researching group influences and opinion change found three areas of interest:

1. The group is seen as a source of influence over its members.
2. The group itself can become the target of change.
3. Many changes in behavior "can be brought about only by the organized efforts of groups as agents of change (6, pp. 237-238).

From these basic findings, Cartwright developed eight principles relating to a group as a medium of change or influence.

Principle No. 1. If the group is to be used effectively as a medium of change, those people who are to be changed and those who are to exert influence for change must have a strong sense of belonging to the same group.

Principle No. 2. The more attractive the group is to its members the greater is the influence that the group can exert on its members.

Principle No. 3. In attempts to change attitudes, values, or behavior, the more relevant they are to the basis of attraction to the group, the greater will be the influence that the group can exert upon them.

Principle No. 4. The greater the prestige of a group member in the eyes of the other members, the greater the influence he can exert.

Principle No. 5. Efforts to change individuals or subparts of a group which, if successful, would have the result of making them deviate from the norms of the group will encounter strong resistance.

Principle No. 6. Strong pressure for changes in the group can be established by creating a shared perception by members of the need for change, thus making the source of pressure for change lie within the group.

Principle No. 7. Information relating to the need for change, plans for change, and consequences of change must be shared by all relevant people in the group.

Principle No. 8. Changes in one part of a group produce strain in other related parts which can be reduced only by eliminating the change or by bringing about readjustments in the related parts (6, p. 238).

Primary Reference Groups

The literature strongly supports the influence on consumer behavior exerted by primary reference groups. A primary reference group is defined earlier in this paper as "an aggregate of individuals whose numbers are small enough that each person can communicate with all the others face-to-face" (10, p. 310). Research studies investigating the effects of primary reference group influence on consumer behavior are separated into three categories: small, face-to-face groups; social class as a reference group; and the family as a group.

Small, Face-to-Face Groups

Exemplary of small group research studies are those by Stafford, "Effects of Group Influences on Consumer

Brand Preferences," and Witt, "Informal Social Group Influence on Consumer Brand Choice."

The purpose of Stafford's study was to identify whether informal social groups influence the brand preferences of their members and, if so, in what manner.

For the experiment, Stafford selected ten groups of women--close friends, neighbors or relatives--who might go shopping together. He hoped to show that (a) the influence of groups on the brand preferences of their members could be shown statistically and (b) the degree of influence "exerted varies according to the internal cohesiveness of the group, and according to the type and strength of informal leadership exhibited" (39, p. 68).

A sociometric test was used to determine the informal leader in each group and group member responses were then compared to those of the group leaders. The study involved the selection of a loaf of bread marked only with either the letter H, L, M, or P. This was done twice a week for eight weeks (39, pp. 70-71).

The results indicated that consumers are definitely influenced by informal reference groups and that leaders influence other group members in two ways: (a) "the higher the degree of brand loyalty exhibited by a group leader, the more likely were the other members to prefer the same brand," and (b) "the greater the degree of leader

brand loyalty, the higher was the percentage of his group also becoming loyal" (39, p. 74).

Witt's study investigated the influence of small, informal social groups on the brand choice behavior of their members. Two determinants of group influence were used in the study: (a) "group cohesiveness" and (b) "the group member's knowledge of the behavior of other group members" (42, p. 473). Witt's hypotheses were based on the fact that similarity of brand choice within a group is related to each of the above determinants.

The study was conducted using fifty groups of five individuals. Each group was composed of male, Pennsylvania State University undergraduates who lived in the same dormitory and smoked cigarettes. Four products were chosen that (a) had obvious differences with competing brands, (b) were conspicuous when being used or purchased, and (c) reflected a degree of personal taste in selection (42, pp. 473-474). Each group member was tested on two variations of group brand choice knowledge: (a) his perception of the brand choice of the other group members, and (b) the correct knowledge of the brand choices of the other group members (42, p. 474).

A significant correlation between group cohesiveness and similarity of brand choice was found for two of the test products: beer and after shave lotion. This was enough justification to conclude that the influence of

a group on its members is directly proportional to the cohesiveness of the group (42, p. 475). The second hypothesis was also verified by the findings: "if a group member's brand choice is to be influenced by the brand choices of his fellow group members, the individual must be aware of their brand choices" (42, p. 475).

A review of the research literature concerning small, face-to-face reference group influences on consumer behavior yielded the following conclusions.

First, reference groups influence consumer behavior through the performance of their two basic functions. The two functions of reference groups are (a) to establish norms and standards for group members, and (b) to serve as a standard with which non-members can evaluate themselves and others.

Reference groups, according to Kelley (22), perform two functions: they establish norms and standards for group members and they serve as a standard with which non-members can evaluate themselves and others. The comparative function of reference groups is a very strong factor for marketing personnel to keep in mind. As Stafford (39) found, consumers are definitely influenced by informal reference groups and group leaders carry even greater influence: "the higher the degree of brand loyalty exhibited by a group leader, the more likely were the other members to prefer the same brand" (39, p. 74).

Venkatesan (41) found that in the absence of objective standards, individuals who are exposed to a group norm will tend to conform to that group norm. He also discovered that if an individual is pressured to conform to a group norm--again, in the absence of objective standards--the person will tend to reject the group judgment and display independence even though he may feel the group is right. Grubb and Hupp's (15) findings were very positive and supported both of the study's hypotheses. They found that consumers of a specific product held self-concepts very similar to the self-concepts they (the consumers) attributed to other consumers of the same brand of product. It was proven also that users of a particular brand held self-concepts considerably different from the self-concepts they attributed to consumers of a competing brand.

Second, reference group norms must be known before they can have any influence on consumer behavior.

Shibutani (37) refers to a reference group as "that group whose perspective constitutes the frame of reference of the actor." Witt (42) concluded that the influence a group has on its members is directly proportional to the cohesiveness of the group. Also, he proved that in order to be influenced by group decision a group member must be aware of the choices or decisions made by his fellow members. Witt and Bruce (43) found that the strength of the relationship between group cohesiveness and similarity of

brand choice within groups varied within pairs of test products. These results indicate that brand choice decisions do vary in their susceptibility to group influence.

The purpose of a study by Murphy (33) was to add to the understanding of the social influence exerted by informal primary groups on consumer behavior. His investigation found, among other things, that an informal primary reference group's influence is directly related to (a) the frequency of group member interaction, (b) group members' perceived knowledge of the behavioral patterns of fellow members, and (c) the conspicuousness of the behavior under question.

Third, reference groups influence consumer behavior by reducing risks involved in the decision making process.

Woodside (45) found that consumers acting as a group are more willing to choose riskier and potentially more beneficial product alternatives after group discussion than before group discussion. He found the same thing to be true for consumers acting individually. Arndt (2) concluded that neither favorable nor unfavorable word-of-mouth advertising directly affected the acceptance or rejection of a new product within reference groups. It appeared that the word-of-mouth process would be best described as "seeking social support for adoption or non-adoption and as risk reduction by group action" (2, p. 295).

Alverson (1) found that consumers sought to reduce decision making risks through a compromise situation which he called the cognitive-social process underlying group induced shifts. Individual group members accepted "safe" compromise decisions which were supported by the group as a whole.

Social Class

"The Effect of Social Class on Brand Loyalty," by Frederick May and "a Comparison of Housewife Decision Making in Two Social Classes," by Fry and Siller provide good representative studies in social class influence on consumer behavior.

May's study (31) explored the influence of social class on brand loyalty. For this experiment, personal interviews with three hundred eighty-seven heads of households in the St. Louis, Missouri, metropolitan area were conducted. The household heads selected for this study recently purchased a new car and had previously owned at least one other automobile.

Interview respondents were asked to recall and describe all the cars they or their family had ever owned. Each person was then asked to describe the decision leading to the current purchase decision--if other makes were considered, each was described. Before this information was analyzed, all respondents were classified into five major

social categories based primarily on occupational prestige and level of education.

The results of this experiment are stated in three broad generalizations:

1. The lower class buyer is mostly brand loyal, considers few alternatives, and when he switches, it is to competing makes (he does not tend to trade up or down);

2. The middle class buyer switches brands, considers many alternatives, and tends to trade down; and

3. The upper class buyer is short-term loyal and tends to trade up.

The objective of the study by Fry and Siller (12) was to compare the purchase decision process of working and middle class housewives under the somewhat controlled conditions of a simulated shopping trip.

The experiment made use of a panel of seventy-nine housewives from two residential areas in London, Ontario, representing working and middle class neighborhoods. Each housewife was to select one of four loaves of bread on each delivery date. The bread was identified by letter and price only. All the different brands were identical in all respects except price and brand. If a participant selected the same brand three times in a row, a preference was established. When this happened, a price deal was offered to determine the effect of price on behavior.

After twenty deliveries, a questionnaire was given to all housewives to provide measures on selected personality, shopping and demographic variables.

The results indicated that housewives in the two social classes made roughly the same decisions, but for different reasons. The working class subject was very subjective--she demonstrated a high reliance on the general belief in a price/quality association when making price level decisions. The middle class housewife was objective --she analyzed the alternatives before making decisions.

The following conclusions are based on a review of the research literature pertaining to the effects of social class influence on consumer behavior.

First, social class influences consumer behavior, but it is becoming increasingly more difficult to distinguish the different social classes themselves.

Martineau found that "consumption patterns operate as prestige symbols to define class membership, which is a more significant determinant of economic behavior than mere income" (29, p. 130). He also stated that it is very important to understand that there are vast psychological differences between the different classes--"they do not handle the world in the same fashion" (29, p. 130). Myers, Stanton, and Haug (34) concluded that social class was basically inferior to income as a correlate of consumer

buying behavior--at least for low-cost packaged consumer goods. Rich and Jain (36) noted that social class distinctions are quickly diminishing due to the rising incomes and higher educational levels of all classes.

Second, different social classes respond differently to such questions as (a) brand loyalty, (b) decision making, and (c) use of credit cards.

Regarding the effects of social class on brand loyalty, May's study (31) revealed that (a) the lower class buyer is brand loyal, (b) the middle class buyer tends to switch brands and to trade down, and (c) the upper class buyer is loyal on a short-term basis and tends to trade up. When comparing the decision making process of housewives in two separate social classes, Fry and Siller (12) discovered that both made approximately the same decisions, but their reasoning was different. The working class wife was very subjective (quality is associated directly with price) and the middle class wife was objective (all alternatives are analyzed before a decision is made). A study by Mathews and Slocum (3) indicated that the lower social classes tend to use credit cards for installment purchases; whereas, the upper social classes use credit cards primarily for convenience. Social class was determined by a combination of occupation and education.

Family

Two examples of research studies concerning the effects of family influence on consumer behavior are those of Kenkel and Hoffman and Wolgast.

Kenkel and Hoffman (25) conducted an experiment at Iowa State University which investigated the roles of the husband and wife in decision making. The purpose of the study was to determine how much influence each spouse had in the decision-making process and to determine whether each could predict his or her actions.

The determination of the amount of influence was limited to three variables: (a) the total number of actions performed by each spouse, (b) those actions that consisted of giving ideas and suggestions, and (c) those actions that contributed to the functioning of the group. The measure of self-prediction was the question posed before and after the experimental session against what actually happened.

The results of the study indicated that husbands did most of the talking and had the greatest influence on the decision. The wife was considered to be the peacemaker. It was found that, in most cases, neither the husband nor the wife could predict the role each would play in the decision-making process. One final result was that the experiment pointed out the great difficulty of obtaining information about the respective roles of husbands and wives in decision-making.

The purpose of the study by Wolgast (44) was to answer three questions concerning the roles of husbands and wives in the decisions about the economic affairs and purchases of the family. The questions were

1. How do husbands and wives describe their respective roles in some of the major kinds of economic decision making?
2. Do the wishes and buying plans expressed by husbands show any differences from those expressed by wives; and, if so, what kinds of differences?
3. Are there any differences in the rate of fulfillment of buying plans expressed by husbands and wives (44, p. 151)?

This study was based on a cross-section of families from all parts of the United States. Information was obtained through personal interviews with heads of households and wives of heads of households--but not necessarily in the same household. The survey questions used pertained to the question, "who in your family makes this or that decision" (44, p. 152) regarding the following decision areas: (a) savings, (b) purchase of household goods, (c) purchase of an automobile, and (d) handling family income and expenses?

Results of the study indicated that economic decisions are generally made jointly by husbands and wives--especially in the areas of saving and handling income and expenses. However, the husband is more involved in the purchase of a car and the wife plays a major role in planning home appliance purchases. Other results showed

that wishes and buying plans were quite similar for both husbands and wives; however, wives generally have a better fulfillment rate.

A review of the research literature concerning the effects of family influence on consumer behavior produced the following conclusions.

First, women tend to have the most influence regarding consumer buying decisions.

Lewin (27) concluded that changes in the food habits of the family ultimately depended on psychological changes within the housewife in the buying situation. He further stressed that any changes in the desires and attitudes of husbands and children actually influence changes in food habits only to the degree that their desires and attitudes affect the housewife. Wolgast (44) found that economic decisions are generally made jointly by husbands and wives; however, the husband is more involved in the purchase of a car and the wife plays the major role in purchasing home appliances. Other results showed that wishes and buying plans were quite similar for both husbands and wives; however, wives generally had a better fulfillment rate. The results of a study by Morgan (32) indicated that most married couples agreed as to who made the final decision in economic areas. The results also supported Wolgast's findings in that the wife was found to be a better predictor of future plans.

Second, men have limited influence in specific product categories and children have very little influence at all regarding some products while they demonstrate a considerable influence in the purchase of other products.

Gisler's study (14) questioned the generalization that women influence 85 per cent of consumer buying. The results of his effort indicated that men definitely influence decisions for certain products. The purchase of such masculine products as tobacco, motor oil, gasoline, and roofing material were found to be greatly influence by the husband. Examples of other masculine products could be auto tires and parts, fishing and hunting supplies, and lawn care supplies. Other products were either decided upon jointly or primarily influenced by the wife--especially as the product tended toward feminine appeal.

Berey and Pollay (4) investigated the degree of influence a child has on purchase decisions. It was found that the child's degree of assertiveness had little effect on whether the mother purchased the child's favorite food item. Also, it was demonstrated that the more child-centered the mother is, the less likely she would be to purchase the child's favorite food item. The reason is that a child usually will prefer fad food items that may not be as healthful as that which the mother feels is best. A more current study by Luke (28) researched and attempted to measure the perceived influence that a child has on the

family purchase of major products. His study differed from that of Berey and Pollay in that Luke investigated major product purchases while other studies dealt primarily with everyday non-durable goods. The results of the study indicated that (a) children do have significant influence on the purchase of selected major products purchased by the family as a unit, and (b) there is a positive correlation between parent and child perception of the influence the child has on major product purchases.

Third, determining family member influence within the family is generally very difficult.

Ferber (11) found that, in most cases, family members tend to discount their own influence in comparison to the influence attributed to them by other members of the family. As a rule, he found that wives tend to be more consistent and uniform in their ratings of family member influence than husbands. In studying the real and conceived roles in family decision making, Kenkel and Hoffman (25) disagreed with most of the data investigated. Their conclusion was that husbands did most of the talking and had the greatest influence on the decision making process. It was also concluded that, in most cases, neither the husband nor the wife could predict the role each would play in the process of decision making. This finding is somewhat contrary to that of Ferber.

Summary and Conclusions

In summary, the effects of primary reference group influence--as represented by small, face-to-face groups, social class as a group, and the family as a group--on consumer behavior is a topic of much concern and research in the field of marketing. The conclusions in this section of the paper are related to each of the three group classifications mentioned above.

Small, Face-to-Face Groups--Research in this area concluded the following:

1. Reference groups influence consumer behavior through the performance of their two basic functions, which are (a) to establish norms and standards for group members, and (b) to serve as a standard with which non-members can evaluate themselves and others.

2. Reference group norms must be known before they can have any influence on consumer behavior.

3. Reference groups influence consumer behavior by reducing risks involved in the decision making process.

Social Class--Two general conclusions were found in this area:

1. Social class influences consumer behavior but it is becoming increasingly more difficult to distinguish the different social classes themselves.

2. Different social classes respond differently to such questions as (a) brand loyalty, (b) decision-making, and (c) use of credit cards.

Family.--Research conclusions on family influences are as follows:

1. Women tend to have the most influence regarding consumer buying decisions.

2. Men have limited influence in specific product categories and children have very little influence at all within certain product categories while having considerable influence in the family purchases of major products.

3. Determining family member influence within the family is generally difficult.

Secondary Reference Groups

The primary characteristic of a secondary reference group--whether a membership group or a non-membership group--is a lack of face-to-face communication on any type of regular basis. For example, the American Marketing Association has both a national organization and local organizations or chapters. Membership in the national organization could be considered a secondary membership group for reference group theory purposes. Local chapter membership could, on the other hand, constitute a primary reference group.

By comparison, secondary reference group influence on consumer behavior has not generated nearly the amount of research as is true of the influence of primary reference groups. Some research is evident in the general area of secondary membership groups; however, very little has been reported in relation to aspirational groups and dissociative groups. These three types of secondary reference groups are redefined below for convenience and clarification.

A membership group is an aggregate of people "to which a person is recognized by others as belonging" (10, p. 310).

An aspirational group is an aggregate of individuals "to which an individual wishes or aspires to belong" (10, p. 310).

A dissociative group is an aggregate of individuals "with whose values or behavior an individual does not want to be associated" (10, p. 310).

Membership Groups

The importance of understanding the dynamics of the relationship between man and the groups in which he operates was expressed by Adler in the following statement:

In order to understand what goes on in an individual, it is necessary to consider his attitude toward his fellow men. The relationships of people to one another in part exist naturally and as such are subject to change. In part they take the form of institutionalized relationships which arise from the natural ones. These institutionalized relationships can be observed especially in the political life of

of nations, in the formation of states, and in community affairs. Human psychological life cannot be understood without the simultaneous considerations of these coherences (17, p. 247).

Hartley found that "despite the importance of understanding the psychological dynamics of reference-group membership, empirical research literature is conspicuously lacking in data in this area, particularly in relation to the personal qualities of the individual and his ability to identify with secondary (i.e., large, impersonal) groups" (17, p. 225).

The study set forth by Hartley (17) was designed to measure the "acceptance" of a college as a reference group. The subjects were seventy-three male freshman students at a large municipal college in the East. Other measures in the study were the subject's (a) ease in interpersonal contacts, (b) judgments of their peers, and (c) four different personality dynamics: sense of victimization, authoritarian submission, cynicism, and lack of self-confidence.

The findings of the study basically supported both hypotheses. Hartley found that "acceptance" of the college as a reference group was positively related to ease in interpersonal contacts and to authoritarian submission and negatively related to sense of victimization, cynicism, and lack of self-confidence. The negative correlations were not statistically significant but were in the

expected direction. Her primary conclusion was, "while both person-oriented and institution-oriented response tendencies contribute to the individual's acceptance of a newly acquired secondary group as a reference group, the latter seem to be involved to a much greater extent" (17, p. 256).

Two other studies were found that discussed membership groups as reference groups. Campbell found that "the distinctive voting patterns of certain large-scale groupings in the population suggest the presence of group standards and group influence" (9, p. 473). The secondary membership groupings used in Campbell's study (9) were race, religion, union, and non-union.

Newcomb's findings in his Bennington Study "seem to support the thesis that, in a community characterized by certain attitudes, the individual's attitude development is a function of the way in which he relates himself to the total membership group and to one or more reference groups" (35, p. 386).

Aspirational Groups

Normative influence requires at least enough interaction to enable the group to evaluate the extent of the individual's conformity to group norms. Comparative influence depends only upon the influence recipient being attracted to group members or activities (18). Comparative

influences, therefore, could be used by non-members of various groups. Aspirational groups, in particular, could serve as comparative reference groups very satisfactorily, since--by definition--they are non-membership reference groups. "By no means need an individual belong to a reference group to be influenced by it. An obvious example is an upwardly striving woman who examines the society pages of the newspaper for 'social set' fashion guidance" (21, p. 275).

An example of "aspirational group influence" at work is given by Simmel, a sociologist:

Social forms, apparel, aesthetic judgments, the whole style of human expression are constantly transformed by fashion, in such a way, however, that fashion in all these things affects only the upper classes. Just as soon as the lower classes begin to copy their style, thereby crossing the line of demarcation, the upper classes have drawn and destroying the uniformity of their coherence, the upper classes turn away from this style and adopt a new one, which in its turn differentiates them from the masses; and thus the game goes merrily on. Naturally, the lower classes look and strive toward the upper, and they encounter least resistance in those fields which are subject to the whim of fashion; for it is here that mere external imitation is most readily applied. The same process is at work as between the different sets within the upper classes, although it is not always as visible here ... (26, p. 122).

Cocanougher defines aspirational reference groups as "those non-membership groups which can influence an individual's behavior, whether or not he is in actual physical contact with the group" (8, pp. 5-6). Not all

reference groups even have to be organized: "they may be vague collectivities, sprawling social categories, groups out of the dead past, or groups not yet born" (19, p. 17).

A study by Cocanougher (8) was designed to inquire into the relationship between an individual's choice of a socially distant aspiration group and the development of his aspirations as a consumer. Subjects for the research were one hundred fourteen male undergraduate students at The University of Texas at Austin. The socially distant aspiration (or reference) group was business executives. The hypotheses tested in this study were

- I. Reference group influence will be related to the attraction the subject feels toward the group.
 - a. The amount of influence exerted by the business executive group will be related to the subjects' expressed attitudes toward a career in business, with those subjects having the most favorable attitudes being the most influenced.
 - b. The degree of influence exerted by the business executive group will be related to the attitudes the subjects have toward business executives, with those subjects having the most favorable attitudes being the most influenced.
- II. Among individuals who are similarly attracted to the group, variations in conformity to group norms will be related to the personality trait of authoritarian submission (8, p. 41).

Each subject was asked to do five things: (a) fill out a questionnaire designed to display his interest in pursuing a business career--the Rimmers short-form

adaptation of the Miller Attitude Toward Any Occupation Test; (b) complete a semantic differential test to reveal his attitude toward business executives; (c) provide various demographic data; (d) complete a test which measures the personality trait of authoritarian submission; and (e) perform two separate Q-Sorts using cards describing various consumer products.

Both parts of the first hypothesis were supported statistically: (a) the measure of attitudes toward a career in business correlated with group influence at $r = .53$ --which is significant at the .0001 level; and (b) the measure of attraction to group members correlated with group influence at $r = .45$ --which is also significant at the .0001 level (8, pp. 60-61). The second hypothesis, however, was not supported and it was concluded that "the authoritarian submission variable has no effect on reference group influence ..." (8, p. 63).

Dissociative Groups

Everyone, at one time or another, encounters a situation that has negative attitudinal effects. When this happens in reference group situations, it is clearly evident that negative or dissociative reference groups exist whose norms individuals seek to avoid adopting as their own (21, pp. 274-275). An example of a negative reference group "might be the individual who on election day purchases

a despised newspaper and votes exactly the opposite of the printed recommendations, with the voiced opinion that what is good for this particular newspaper cannot be good for him" (3, p. 104). As common as dissociative or negative reference groups appear to be, there has been very little research done to investigate the concept at all.

One study by Cleland, Patton and Seitz (7) investigated the use of insult as an index of negative reference groups. The subjects were three hundred sixteen institutionalized retardates from five geographical regions. A hypothetical situation was designed and the subjects were instructed to insult someone who had made them angry. The resulting insults were placed in categories and compared with insults obtained from one hundred twelve business school students. The primary finding was that the most common insults of the retardates "related to intelligence of the hypothetical object of the insult, while the comparison group favored attacks on the object's character" (3, p. 30).

While this study has no direct relationship to marketing, the fact that this area of the behavioral sciences produced the only article found on the subject of negative or dissociative references groups does show one important thing. The review of the literature suggests that a tremendous gap exists in the knowledge

and understanding of negative or dissociative reference group influence on behavior in general and consumer behavior in particular.

Secondary Reference Groups: Summary

Almost everyone would agree that secondary reference groups--whether membership, aspirational, or dissociative--should significantly influence consumer behavior. However, this is an area of consumer behavior in which apparently very little research has been conducted. This was the conclusion Hartley drew in 1968 regarding secondary membership group influence. Since 1968, the research literature has been updated very little in this area. Research in secondary aspirational and dissociative reference group influence on consumer behavior has been even more scarce. Conclusions are very difficult--if not impossible--to draw from such a limited amount of research.

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CHAPTER III

THE MEASURING INSTRUMENTS

The two measuring instruments used in this study were the semantic differential technique and a Q-sort. The purpose of this chapter is to identify and explain the manner in which these tools were used.

The Semantic Differential

According to Charles E. Osgood and his associates at the Institute of Communications Research, the University of Illinois,

The semantic differential is essentially a combination of controlled association and scaling procedures. We provide the subject with a concept to be differentiated and a set of bipolar adjectival scales against which to do it, his only task being to indicate, for each item (pairing of a concept with a scale), the direction of his association and its intensity on a seven-step scale (5, p. 20).

The semantic differential has been applied to research problems arising in many varied fields of study--specifically in the fields of personality, psycholinguistics, psychotherapy, communications and advertising (5, pp. 217-317).

The semantic differential is a technique developed for objectively measuring meaning and/or attitude. "The

meaning of a concept to an individual subject is defined operationally as the set of factor scores in the column representing that concept" (5, p. 87). The measurement of an attitude belonging to a group is similarly defined by Osgood: "The meaning of a concept in the culture is defined operationally as the set of averaged factor scores in the column representing that concept" (5, p. 88).

A concept, in a very general sense, is a stimulus to which a subject responds. The response is carried out by checking one of the steps on the seven-step scale mentioned above. The scale positions are designated as follows:

Polar Term X $\frac{\quad}{(1)}$: $\frac{\quad}{(2)}$: $\frac{\quad}{(3)}$: $\frac{\quad}{(4)}$: $\frac{\quad}{(5)}$: $\frac{\quad}{(6)}$: $\frac{\quad}{(7)}$ Polar Term Y

(1) Very X

(2) Quite X

(3) Slightly X

(4) Neutral: Neither X nor Y, or equally X and Y

(5) Slightly Y

(6) Quite Y

(7) Very Y

Scales of other sizes were tried and used by Osgood, but the seven-step scale was found to be very effective (5, p. 85).

An example will help to demonstrate the scale and to explain how a concept can be "differentiated" in meaning.

SPEED BOAT

Slow ___: ___: ___: ___: ___: ___: X Fast
 Safe ___: ___: ___: ___: X: ___: ___ Dangerous
 Beautiful ___: X: ___: ___: ___: ___: ___ Ugly

The concept "Speed Boat" is defined in the example as being very fast, slightly dangerous and quite beautiful. Once the many "differentiations" made by an individual or group in describing a concept are accumulated, meaning or attitude inferences can begin to be made.

When a subject evaluates a concept against a series of scales (bipolar adjectives), each evaluation represents a choice among a set of given alternatives and acts to localize the concept in what Osgood refers to as "semantic space." The operational meaning of the concept is then defined as this point in semantic space. "Difference in the meaning between two concepts is then merely a function of the differences in their respective allocations within the same space" (5, p. 26).

The point in semantic space has two essential properties:

1. Direction from the origin, and
2. Distance from the origin.

Direction from the origin is identified with the quality of meaning. Distance from the origin indicates the intensity of meaning. "The direction from the origin

depends on the alternative polar terms selected, and the distance depends on the extremeness of the scale positions checked" (5, p. 26).

Osgood has done extensive work in the area of evaluating the semantic differential as a usable measuring device. His findings indicate the following:

1. The Semantic Differential (SD) is as objective as any other measuring instrument--"Objectivity concerns the role of the observer, not the observed" (5, p. 125).

2. The SD is quite reliable: correlation coefficients are in the .80's and .90's (5, pp. 140-166).

3. There is a high degree of "face validity" (5, pp. 140-166).

4. The SD meets the sensitivity requirement; that is, it yields distinctions as fine as those made on common sense grounds (5, p. 166).

Selection of Concepts and Scales

The first step in utilizing the semantic differential in the research problem is to determine the concepts to be judged and the scales or word pairs that are to be used to facilitate the judgments. Osgood says that the nature of the problem is the determining factor as to concept selection and that it has been his experience that most researchers simply use "good judgment" in selecting the appropriate concepts (5, p. 77).

Seven concepts were chosen for this study. On the basis of a pretest in April, 1976, one concept was changed from "Being an Individual" to "Self-Reliance." Those participants in the pretest indicated a strong preference for the latter during a post-test discussion period. The final list of concepts is shown below and each subject was instructed to make a response in such a way as to indicate his or her individual attitude toward each of the seven concepts:

1. Myself As I Am
2. Myself As I Would Like To Be 5 Years From Now
(Ideal Self)
3. Conforming to Group Standards
4. Business Executives
5. Self Reliance
6. _____ (Please write in the name of a group that you are not a member of, but one that you would really like to be associated with.)
7. _____ (Please write in the name of a group that you are not a member of and would never want to be associated with even if given the opportunity.)

The subjects were asked write, in the space provided in items six and seven, names of specific groups which met the exact written requirements. Each of the seven concepts appeared on the top of a separate sheet of the data gathering instrument along with an identical list of scales.

The essential operation of measurement is the successive allocation of a concept to a series of descriptive scales defined by polar adjectives, these scales selected so as to be representative of the major dimensions along which meaningful processes vary. In order to select a set of scales having these properties, it is necessary to determine what the major dimensions of the semantic space are (5, p. 31).

There are two primary criteria used in the selection of word pairs or scales: (a) factor representativeness and (b) relevance to the concepts used (5, p. 78).

In working toward factor representativeness, several studies reported by Osgood were examined (5, pp. 37, 43, 51-60, 69). The word pairs found in these studies were then combined with scales which were obtained from various magazine, radio, newspaper, and television advertisements which were directed toward businessmen as a group. All of the scales from both lists were found to be on the Thesaurus study list; therefore, factor representativeness is acknowledged (5, pp. 51-56).

During the April, 1976 pre-test, fifteen Introduction to Business students narrowed a list of forty-seven word pairs to the thirty word pairs used in the study. The "relevance to the concepts used" was determined by tabulating the number of neutral responses for each word pair under each of the seven concepts. Those word pairs, or scales, with the largest number of neutral responses were omitted from the final list. The grouping of the thirty word pairs into three dimensions (factors)--evaluative,

activity-potency, and stability-receptivity--and the scales under each dimension are noted in Figure 1.

Evaluative

Good-Bad
 Sociable-Unsociable
 Safe-Dangerous
 Superior-Inferior
 Friendly-Unfriendly
 Selfish-Unselfish
 Kind-Cruel
 Clean-Dirty
 Rich-Poor
 Successful-Unsuccessful
 Meaningful-Meaningless
 Progressive-Regressive
 Honest-Dishonest
 Positive-Negative
 Wise-Foolish
 Educated-Ignorant
 Pleasurable-Painful
 Influential-Uninfluential
 Important-Unimportant

Activity-Potency

Active-Passive
 Excitable-Calm
 Complex-Simple
 Emotional-Unemotional
 Strong-Weak
 Brave-Cowardly

Stability-Receptivity

Stable-Changeable
 Sane-Insane
 Cautious-Rash
 Interesting-Boring
 Sensitive-Insensitive

Fig. 1--Scales grouped along dimensions

Testing Procedure

As explained in Chapter I, students enrolled in Introduction to Business classes at Tarrant County Junior College - Northeast Campus during the Spring of 1976 constituted the sample for this study. Of the one hundred four distributed questionnaires, ninety-three were satisfactorily completed and serve as the basis for this research. Students were tested during their regular class period and received no advance information about what they were going to be doing during that class session. Three night classes and two day classes participated in the survey.

At the beginning of each test-period, the instructions for the semantic differential which appeared on the first two pages of each subject's test booklet were read aloud. A period for questions and answers followed the oral instructions and then the subjects were asked to raise their hand during the test to have any needed clarification made. The instructions for this part of the study are found in Appendix A. Special oral instructions, not appearing on the test booklet, concerned

1. Emphasis on the fact that no name should be written on any test booklet and that all responses would be completely anonymous, and
2. A definition of the concept "Self-Reliance" to mean being able to depend on one's self in decision making situations.

Statistical Procedures

Each subject was asked to respond to a given concept by placing a check mark in one of seven positions of each of thirty bipolar scales. Each check mark was converted into a numerical value by assigning the most favorable position a value of one, the next most favorable position received a value of two, and so forth, until the least favorable position was valued as a seven. On the "good-bad" scale, for example, a check mark in the very good position was valued as a one, the quite good position received a two value, and so forth, until finally the very bad position received a value of seven.

The two primary statistical procedures that will be used in conjunction with the semantic differential in this paper are (a) Osgood's D Measure and (b) the Wilcoxon "T" test--otherwise known as Wilcoxon's matched pairs signed ranks test.

The D measure.--Earlier in this chapter it was said that "difference in the meaning between two concepts is then merely a function of the differences in their respective allocations within the same space" (5, p. 26). Distance is a measure of the degree to which the two concepts are congruent. Osgood, however, says that the traditional product-moment correlation coefficients cannot be used because distance (D) is a profile statistic.

He continues by saying,

What is required to express semantic similarity is some measure of relation that takes into account both the profile covariation and the discrepancies between the means of the profiles, thereby reflecting more fully the information available in the data (5, p. 91).

What he determined to be an appropriate measure is provided by the generalized distance formula of solid geometry. This measure is defined as

$$D_{ij} = \sqrt{\sum d_{ij}^2}$$

where D_{ij} is the linear distance between the points in semantic space representing the concepts i and j , and d_{ij} is the algebraic difference between the coordinates of i and j on the same dimension or factor or scale.

An example will help in the clarification of a D measure calculation. An individual is asked to judge three concepts using four scales or word pairs. The individual's raw scores could possibly look like those in Table I.

TABLE I
EXAMPLE SCORES ON A SEMANTIC DIFFERENTIAL TEST

Word Pairs	Concepts		
	A	B	C
1	3	7	4
2	6	2	1
3	5	5	2
4	4	3	6

To compute the D measure between concepts A and B in Table I, the values of B are subtracted from the values assigned to A for each word pair. The second step involves squaring differences and summing the squared differences:

$$(3-7)^2 + (6-2)^2 + (5-5)^2 + (4-3)^2 = 33.$$

The last step is to take the square root of the sum--which is the desired D measure or distance between the two concepts:

$$D = \sqrt{33} = 5.74.$$

Lamone summarized the usefulness of the D measure in the following manner:

The D measure is used to measure the similarity among several concepts as judged by an individual or group. The smaller the D between two concepts, the closer the concepts are in meaning. A D score of zero would indicate complete congruity. On the other hand, the larger a D score, the farther apart in meaning the two concepts are. Also, the D measure may be used to compare the degree of similarity between two groups of subjects [subjects'] perception of the same or different concepts. To measure a group's attitude toward a concept, the averages on each scale are computed for each concept. This average profile would then be used to indicate different or similar attitudes toward the same concept for two groups or several groups at the same time (2, pp. 41-42).

The Wilcoxon "T" test.--The Wilcoxon "T" test is a nonparametric statistical technique designed to allow comparisons of distributions of matched pairs of information. Examples of matched pairs would be (a) the same individual

tested under two conditions, or (b) pairs of different individuals matched on some basis of similarity before being tested (8, p. 216). The Wilcoxon "T" test will be used to statistically determine attitude differences between various paired groups of subjects based on their responses to a thirty-scale semantic differential. For a detailed description of the calculations involved in using the Wilcoxon "T" test, any good statistics text can be consulted; for example, see Spence (8, pp. 216-218), or Mendenhall (3, pp. 369-371).

Q-Sort

The Q-Sort methodology and techniques utilized in this study are primarily the results of one man's effort, William Stephenson. Stephenson was intent on improving the science of behavior by presenting Q-methodology as "a set of statistical, philosophy-of-science, and psychological principles ..." (9, p. 1).

Stephenson's primary interest was to make it possible to carry out studies

on a single or a few individuals and thus bring the methods of correlation and factor analysis under greater control. Such control would make these techniques more useful for intensive rather than extensive investigation and analysis.

He reasoned that this could be accomplished if, instead of giving people a few tests which measured characteristics, then correlating the tests and factoring the results, a few people could receive many tests or test items; each person's performance could then be factored and persons, rather than tests, correlated (7, p. 27).

The Q-sort technique basically involves some type of forced choice situation. A subject is normally provided with a group of descriptive items and is asked to rank the items in order to best describe his actual-self, ideal-self, or some defined other. After the two independent sorts have been made, attitudes--similar or different--can be identified through the use of correlation analysis.

Selection of Test Items

In April, 1976, fifteen Introduction to Business students participated in a pretest to help determine the products and product types to be used in the Q-sort. A list of nine products was provided to each participant. This list had been generated through the analysis of product advertisements directed toward businessmen from all types of media. Each subject was asked to add to this list any products felt to be characteristic of those purchased by a business executive. Each subject was then asked to rank all the products on their completed list--assigning the rank of one to the most descriptive item, the rank of two to the second most descriptive item, etc., until all items were ranked. "Most descriptive" is defined as that product most characteristic of a purchase made by a business executive--in the opinion of the individual subject.

From the analysis of the results of the pretest, the final list was composed of the following ten products which recieved the highest rankings:

Dark suit

Cosmetics (hair spray, after shave, etc.)

Fine wine

The Wall Street Journal

Expensive car

Golf clubs

Cigarettes/cigars

Attache case

Speed boat

Stereo equipment

Testing Procedure

The same ninety-three subjects responded in this part of the study as the semantic differential earlier in this chapter. Each subject was instructed, in writing, to rank the list of ten products two separate times: (a) as a business executive and (b) as the subject's ideal self. "Ideal self" purchases are defined as purchases the subject would like to make or be able to make five years after graduation. Only one set of instructions will serve as an example since both were very similar:

"Please arrange the products listed below to reflect how you feel they represent typical purchases made by business executives. (Number 1 = most representative and number 10 = least representative)

"Place the letter corresponding to your choice in the appropriate blank provided at the right.

"For example: If your choice for sixth most representative product were 'Speed Boat,' an 'A' would be placed in the blank marked '6.____,' i.e., '6. A.'"

	<u>Business</u> <u>Executive</u>
J. Dark Suit	1. _____
D. Cosmetics (Hair Spray, After Shave, etc.)	2. _____
F. Fine Wine	3. _____
H. <u>The Wall Street Journal</u>	4. _____
B. <u>Expensive Car</u>	5. _____
I. Golf Clubs	6. _____
G. Cigarettes/Cigars	7. _____
C. Attache Case	8. _____
A. Speed Boat	9. _____
E. Stereo Equipment	10. _____

The other set of instructions is found in Appendix A.

Statistical Procedures

The two independent sorts or rankings of each subject will be subjected to correlation analysis to determine the degree of congruency between each subject's ideal-self and his or her perception of a business executive. The correlation values will be used to operationally define the degree of influence that the business executive reference group has on the subject. (Of course, as with all studies of this nature, there will be many other non-controllable and unidentified influences.) The correlation values will be calculated using a statistical technique developed by Hilden for correlating sets of Q-Sorts (1). Hilden calculates the correlation value "r" by using the following formula:

$$r = 1.000 - \frac{(\text{sum of } d^2)}{368}$$

where d is equal to the difference (positive or negative)

between the rank values for the same product on the two independent sorts. A modification of Hilden's formula (where fifty products are ranked) is necessary in order to calculate "r" values using a product sample size of ten. The following formula provides the needed modification:

$$r = 1.000 - \frac{(\text{sum of } d^2)}{165}.$$

A group "r" is determined by calculating the average group rank for each product under two sort conditions, subtracting the two average ranks for each product, summing all the squared differences, and utilizing the above formula.

Once the "r" for each subject or group of subjects is determined, Hilden transforms the "r" into a "z" coefficient which can then be used to test for significance between "r" values (1, p. 11). According to Richmond, all inferential problems involving "r" should be handled by changing the "r" values into values of "z" prior to the performance of any additional statistical operation (6, pp. 465-468). These transformations can be easily performed using tables provided in most standard statistical texts. The reason for changing "r" to "z" values is that "z" values are basically normal in distribution and the standard error can be computed easily (6, pp. 465-468).

Sampling Methodology

The ninety-three subjects used in this study were all enrolled in Introduction to Business classes at

Tarrant County Junior College - Northeast Campus in Hurst, Texas.

The student body at Tarrant County Junior College - Northeast Campus is felt to represent a good cross section of the people of Tarrant County. The population centers of Arlington, Hurst-Euless-Bedford and Greater Fort Worth account for 81.72 per cent of the population of Tarrant County (4, pp. 22-26). During the Spring of 1976, 87.89 per cent of the students enrolled at TCJC - NE listed one of these three areas as their home (10).

TCJC - NE also attracted the following number of students from other Tarrant County towns: Azle--34, Burleson--23, Colleyville--22, Crowley--14, Grapevine--217, Haslet--3, Kennedale--2, Mansfield--12, Smithfield--146, and Watauga--95 (10).

A judgment sample of five classes of Introduction to Business students was used. Since the assignment of students to classes at the beginning of each semester is a rather random process itself, the judgment sample was felt to give a representative sample. Three night classes and two day classes were chosen and the test was administered during the regular class period for each class. The maximum time allowed for all subjects to complete the questionnaire was one hour and fifteen minutes; however, no one needed more than one hour.

The attendance at the five classes determined the total number of subjects used in the study. One hundred four students were given the questionnaire. Nine questionnaires either were done incorrectly or were incomplete in some way, and therefore, were not included as part of the study.

Statistical Methodology

The statistical methodology used in testing each of the hypotheses is discussed in this part of the study.

Hypothesis 1

In the first hypothesis, the objective was to attempt to answer the question "Do reference groups act as a major source for the foundation of individual consumer behavior?" Osgood's D measure was used to test this hypothesis in conjunction with a Q-Sort testing and scoring technique developed by Hilden which was introduced earlier in this chapter.

First a D score for each of the subjects was obtained between the following concepts:

Ideal Self and Business Executives

Ideal Self and Conforming to Group Standards

Ideal Self and Self-Reliance.

This process allowed the identification and formation of two groups of individuals:

1. All individuals whose attitudes toward Ideal Self and Conforming to Group Standards were highly congruent and whose attitudes toward Ideal Self and Business Executives were also congruent. It was believed that individuals falling into this group would be very receptive to group influence because of their favorable attitude toward conforming to group standards. Members of this group were also defined as having a favorable attitude toward the business executive group. Group one members were, therefore, expected to have a Q-Sort correlation which was positive and significant.

2. All individuals whose attitudes toward Ideal Self and Self-Reliance were congruent but whose attitudes toward Ideal Self and Business Executives were not relatively congruent. Members of group two had a favorable attitude toward self-reliance which operationally defined a group that was relatively less responsive to group influence. Combined with a relatively negative attitude toward business executives, this group--which was not very responsive to group influence--was expected to have a Q-sort correlation which was significantly smaller than that of group one. Congruent attitudes were operationally defined as having a relatively small D measure, as was mentioned earlier in this chapter. Conversely, attitudes that are not congruent were defined as having a relatively large D measure.

In order to determine the level of congruence between different D measures, Osgood's reliability studies were

utilized. According to Osgood,

We have amassed a considerable amount of data on reliability. The evidence shows that for individual subjects a shift of more than two scale units probably represents a significant change or difference in meaning, For group data . . . , changes or differences in measured meaning as small as one-half of a scale unit are significant at the 5 per cent level. These levels of reliability should be satisfactory for most applications of the instrument (5, p. 328).

Individual D measures were ranked from smallest to largest for each of the following concept comparisons: (a) "Ideal Self" and "Business Executives," (b) "Ideal Self" and "Conforming to Group Standards," and (c) "Ideal Self" and "Self-Reliance." The three ranked lists of D measures were then analyzed to determine the most congruent D measure (the smallest number) in each list. All individuals whose D measure was (a) not more than two units larger than the smallest D measure between "Ideal Self" and "Conforming to Group Standards" and (b) not more than two units larger than the smallest D measure between "Ideal Self" and "Business Executives" were placed in group one. (The smallest or largest absolute number representing D measures always constituted the starting point for group formation with the following exception: if the smallest or largest D measure were so far removed from the remainder of the list as to prevent having a group of adequate size--for statistical purposes, the next smallest or largest D measure that would allow a group of adequate size was used.)

Group two was composed of individuals whose D measure was (a) not more than two units larger than the smallest D measure between "Ideal Self" and "Self-Reliance" and (b) more than two units larger than the smallest D measure between "Ideal Self" and "Business Executives."

Assume, for example, that the smallest D measure between "Ideal Self" and "Conforming to Group Standards" was 6.215 and the smallest D measure between "Ideal Self" and "Business Executives" was 8.315. Group one would contain only those individuals whose D measures for these two concept comparisons meet both of the following requirements:

1. The D measure between "Ideal Self" and "Conforming to Group Standards" is less than or equal to 8.215.
2. The D measure between "Ideal Self" and "Business Executives" is less than or equal to 10.315.

If the smallest D measure between "Ideal Self" and "Self-Reliance" were 7.100 and the smallest D measure between "Ideal Self" and "Business Executives" were 8.315, similar logic could be used to accumulate group two members. Group two would contain those individuals whose D measures meet both of the following requirements:

1. The D measure between "Ideal Self" and "Self-Reliance" is less than or equal to 9.100.
2. The D measure between "Ideal Self" and "Business Executives" is larger than 10.315.

Once the two groups were identified, product rankings of ten products--first ranked as the Ideal Self and then as the subject perceived that a Business Executive would rank them--were identified for each group and analyzed. The two independent sorts by each group were then subjected to correlation analysis to determine the degree of congruency. The correlation values were calculated using the statistical technique developed by Hilden for correlating sets of Q-Sorts.

It was expected that the two product rankings would be more congruent in group one than in group two; i.e., a significantly higher, positive correlation would be found between the product rankings in group one compared to group two.

Hypothesis 2

The objective of the second hypothesis was to determine if aspirational and dissociative reference groups serve as standards with which non-members can evaluate themselves and others. The three separate parts of this hypothesis are discussed below.

Hypothesis 2a.--The objective of part 2a was to test to determine if reference groups have a positive influence on consumer behavior when the consumer desires to belong to or has a favorable attitude toward the reference group in question. The methodology used here was very similar to

that in the first hypothesis. A D measure was obtained for all subjects comparing the concepts "Ideal Self" and the "favorable group" name supplied by the subject. A second D measure determined the congruence between "Ideal Self" and "Business Executives." Those subjects who had a high degree of congruence on both measures (i.e., a D measure not more than two units larger than the smallest D measure between (a) "Ideal Self" and the "favorable group" and (b) "Ideal Self" and "Business Executives") were identified and grouped together for analysis. The analysis involved the correlation of the product rankings as described in the first hypothesis.

It was expected that the correlation between the product rankings would be significant and positive for this group. In addition, a second group was used for this part of the second hypothesis in exactly the same manner and with the same expected results. This group consisted of all subjects who were majoring in business and had taken two or more business courses. This group was singled out because of the assumed influence that business executives might have over it.

Hypothesis 2b.--Part 2b of the second hypothesis tested to see if reference groups have a negative influence on consumer behavior when the consumer does not wish to be associated with the reference group in question. A D

measure was determined for all subjects comparing the concepts "Ideal Self" and the "unfavorable group" name supplied by the subject. Another D measure determined the congruence between "Ideal Self" and "Business Executives." Those subjects who had a low degree of congruence on both measures (i.e., a D measure greater than or equal to two units smaller than the largest D measure between "Ideal Self" and the "unfavorable group" and "Ideal Self" and "Business Executives") were identified and grouped together for analysis. The analysis involved the two Q-Sorts performed by each subject on a set of ten products. The Hilden technique of calculating correlation was again used as the statistical test. Significant, negative correlation between the product rankings was expected for this group.

A second test of Hypothesis 2b was made using a group of thirty subjects whose D measures were the largest of the entire sample when comparing "ideal Self" and "Business Executives." A large D measure operationally defined an unfavorable attitude toward the particular concept being measured. A significant, negative correlation between the two Q-Sorts was expected for this group also.

Hypothesis 2c.--The third part (2c) of the second hypothesis sought to determine if reference groups have any

effect on consumer behavior when the individual is unaware or has no perception of the particular group's behavior norms. In order to test this part of the hypothesis various groups were identified through common elements of biographical data, such as, sex, age, etc. The purpose was to define groups that possibly would not have a very clear perception of the behavior norms for a group of business executives. For purposes of clarification, these groups are referred to as "unaware" groups. The "unaware" groups studied were as follows:

1. Non-business majors
2. Subjects who have taken only one business course in college
3. Housewives
4. Subjects younger than twenty years of age.

A second type of group was established to test this part of the hypothesis. Each concept had thirty scales which were scored from one to seven--one was very positive and seven was very negative. The ends of each scale represented definite feelings or attitudes. In the middle of the seven step scale, the feelings or attitudes became very vague; therefore, each subject's average score on the concept "Business Executives" indicated either strong feelings (an average score closer to the low end of the scale or closer to the upper end of the scale) or vague or unclear feelings (an average score close to

the middle of the scale). With this in mind a group of subjects whose average score on this concept was close to the middle of the scale represented a group with relatively little perception of the behavior norms for the "Business Executives" reference group. This group was referred to as the "unclear" group. Each individual's "Business Executives" average score was calculated and ranked from smallest to largest. The average score was determined by summing each subject's thirty scale scores for the concept and dividing by thirty. The smallest and largest average scores determined the low and high ends of the scale. The middle of the scale was determined quite simply by summing the high and low values and dividing by two. One combination that was used to group these individuals utilized the ten lowest scores, the ten highest scores and the ten scores to the mean of the derived average scale.

The "unclear" group was studied to determine if there was any significant difference in the correlation values of the two Q-sorts performed by this type of group and by groups which had more definite attitudes about business executives. The "definite attitude" groups mentioned refer to those having an average score close to the low end of the scale (one group) or close to the high end of the scale (a second group). Correlation values were assigned according to Hilden's method for correlating sets of Q-sorts.

The correlation between the product rankings for each of the "unaware" groups mentioned earlier was expected to be significantly different than both

1. The group of subjects used in Hypothesis 2a (those who were felt to be positively influenced), and
2. The group of subjects used in Hypothesis 2b (those who were felt to be negatively influenced).

Similarly, in the second method for testing this hypothesis, it was expected that the correlation between the product rankings for the "unclear" group would be significantly different from both the "definite attitude" groups.

Hypothesis 3

The purpose for testing hypothesis three was two-fold:

1. To test to determine if aspirational and dissociative reference group influence would differ when compared with different consumer characteristics, and
2. To generate a great deal of information which could be analyzed in the current study and in future studies.

The number of groups used in this part of the study was dependent upon responses to the biographical data section of the questionnaire. Each group had a D measure between the following concept pairs:

Ideal Self and Conforming to Group Standards

Ideal Self and Business Executives

Ideal Self and Self-Reliance

Ideal Self and "Favorable Group Name" (supplied by subject)

Ideal Self and "Unfavorable Group Name" (supplied by subject)

"Favorable Group" and "Unfavorable Group"

Ideal Self and Myself As I Am.

The current testing of this hypothesis involved a detailed analysis of the group D measures between "Ideal Self" and "Business Executives" only. Where pertinent information was discovered regarding any other concept pair mentioned above, brief comments were made with respect to specific groups. Examples of biographical groups used in this part of the study were those people responding as

1. Male
2. Female
3. Day student
4. Night student.

Each group's D measure was a measure of attitude; therefore, when two groups' D measures for the same concept were very similar, their attitude toward that concept was considered to be similar. Similarity or congruence of group D measures was determined by using the Wilcoxon "T" test for significant differences. Once attitudes were determined to be similar or different, the Q-Sort rankings of the various paired groups were analyzed and correlated using

Hilden's methodology. It was expected that groups with similar attitudes would rank the products in basically the same manner--i.e., there would be no significant difference in the correlation between the two Q-Sorts. The opposite result was expected for groups with dissimilar attitudes--i.e., there would be a significant difference in the correlation between the Q-Sorts.

Computational Format

This study involved the responses of ninety-three subjects. For each subject, 249 items of information were recorded on data processing cards. There were thirty-one possible items of biographical data. In order to handle the volume of groupings and computations, an IBM 360 Model 50 data processing system was used. The Data Systems Library at Tarrant County Junior College - Northeast Campus provided a program to calculate information needed for "Wilcoxon's matched pairs signed ranks test." A program was written to compute individual and group D measures between concepts. Another program was set up to tabulate the Q-Sort information and to calculate correlation values according to the technique developed by Hilden. The second and third programs mentioned were written by Data Systems personnel at TCJC-NE. All programs were written using Fortran IV.

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CHAPTER IV

THE RESULTS OF THE STUDY

The objective of this chapter is to present and discuss the statistical analysis of the hypotheses used in the study. Each hypothesis will be investigated in the order of presentation in Chapter I. The analysis of data was conducted in accordance with the methodology outlined in Chapter III.

Evaluation of Hypotheses

Hypothesis 1

Hypothesis 1 is as follows: Reference groups are major sources for the foundation of individual consumer behavior. A person's perception of himself is made apparent through the expression of attitudes, values, and norms. Reference groups help to identify and strengthen certain values, norms, and attitudes within the individual. Thus, the way a consumer behaves is related to his (and his reference group's) values, norms, and attitudes regarding specific products and product uses.

In order to test this hypothesis, two groups of subjects were identified. Group one consisted of individuals who had congruent attitudes toward the concept of conforming

to group standards and toward the concept of business executives. Group two was made up of individuals who held congruent attitudes regarding the concept of self-reliance but non-congruent attitudes toward the concept of business executives. Similar or congruent attitudes are operationally defined as having a relatively small D measure when comparing a given concept with the concept of ideal self. Osgood's D measure is an attitude measure and was discussed in detail in Chapter III.

Once the two groups were identified, it was expected that group one (n = 17: where n is the number of subjects in the group) would have a more favorable attitude toward a specified group of consumer products than would group two (n = 6). This part of the testing of Hypothesis 1 utilized a statistical technique called Q-Sort. Product rankings of ten products--first ranked as the "Ideal Self" would, and then as the subject perceived that a "Business Executive" would rank them--were performed by each group. The two independent sorts by each group were then subjected to correlation analysis to determine the degree of congruency. A significantly higher, positive correlation was expected between the product rankings in group one compared to group two.

The first null hypothesis to be tested was that there was no correlation between each group's product rankings. The alternate hypothesis was that there was

a positive correlation between each group's product rankings. The hypotheses for each group were

$$H_0 : r = 0$$

$$H_1 : r > 0.$$

Hilden (1) developed a statistical technique for correlating sets of Q-Sorts which was mentioned earlier in this paper. His method utilized a list of fifty items which were to be ranked. A modification in the original work by Hilden was necessary in order to statistically deal with a ranking list of ten items (refer to Appendix B for information regarding the modification).

Group one revealed a correlation coefficient of .51 which is not statistically significant. Group two had a correlation coefficient of .12 which is not statistically significant. Therefore, based on the low level of correlation for each group, the null hypothesis of no correlation between each group's product rankings is retained.

With the knowledge that both groups demonstrated a statistically insignificant correlation between the product rankings, the second null hypothesis was tested: the correlation coefficient for group one was not significantly different from the correlation coefficient for group two. The alternative hypothesis was that group one had a significantly higher correlation coefficient than group two. The hypotheses were

$$H_0 : r_1 = r_2$$

$$H_1 : r_1 > r_2.$$

A modification in the original work by Hilden was necessary in order to compare two Z scores and determine the level--if any--of significant difference. Reference may be made to Appendix C for an explanation of the method of modification.

In order to be significantly different, group one's Z score would need to be .87 or 1.23 more than the Z score for group two. These differences would represent a significance level of .05 or .01, respectively, under the condition of a one-tail test.

The calculated Z score differences between group one and group two was .82; therefore, the null hypothesis of no significant difference between the correlation coefficients of group one and group two is retained.

The impact that this finding suggests for marketing and especially advertising could be quite significant. The implication is that, according to this study, individuals who tend to value their own opinion (self-reliant individuals) and other individuals who tend to seek conformity do not differ significantly in their buying behavior. This suggests that the advertiser could possibly direct advertising efforts not in two seemingly opposite directions but in one somewhat compromising direction.

Further analysis tends to support the conclusion that secondary reference groups do not appear to significantly affect consumer behavior when conformity to group

standards and self-reliance are the characteristics used to distinguish the separate groups. Other grouping methods could possibly result in different conclusions.

Hypothesis 2

Hypothesis 2 states that aspirational and dissociative reference groups serve as standards with which non-members can evaluate themselves and others. This hypothesis is divided into three subordinate hypotheses which will be explored first and their outcomes will serve as the overall test of Hypothesis 2 itself.

Hypothesis 2a.--As presented earlier in this paper, Hypothesis 2a states that reference groups have a positive influence on consumer behavior when the consumer desires to belong to the reference group in question. In accordance with the methodology described in Chapter III under Hypothesis 2, a group of sixteen subjects was chosen to test this part of the hypothesis. Basically this group consisted of individuals who had a very positive attitude toward the "Business Executive" group as indicated by their small D measures (attitude measures) which resulted from responses to a Semantic Differential questionnaire.

It was expected that the correlation between the product rankings would be significant and positive for this group. The null hypothesis was that there was no correlation between the ranking of products by this group.

The alternate hypothesis was that the correlation between the two rankings was significant and positive. The null and alternate hypotheses were

$$H_0 : r = 0$$

$$H_1 : r > 0.$$

Using a one-tail test and Hilden's modified technique involving Q-sorts, a correlation coefficient of .23 was established. A correlation coefficient of .55 is necessary to establish significance at the .05 level; therefore, the null hypothesis of no correlation is retained. The alternate hypothesis that a significant, positive correlation exists is rejected.

An additional test was used in this part of the second hypothesis. A group of subjects who were majoring in business and had taken at least two business courses (including the Introduction to Business course they were currently completing) was identified and tested. This group ($n = 56$), it was assumed, would demonstrate a great deal of reference group influence generating from the "Business Executives" group. The null hypothesis was stated as follows: there is no correlation between the product rankings for this group. The alternate hypothesis was that the correlation between the two rankings was positive and significant. In statistical form, these hypotheses were

$$H_0 : r = 0$$

$$H_1 : r > 0.$$

The calculated correlation coefficient of .09 was not enough to demonstrate a significant difference; therefore, the null hypothesis of no correlation between the product rankings by this group is retained. The alternate hypothesis of a positive and significant correlation between the rankings is rejected.

Those subjects responding as business majors were further divided into different groups according to the number of business courses each subject had taken (including the Introduction to Business Course being completed when the study was administered). The groups were designated in the following manner: group one - only one course; group two - two courses; group three - three or four courses; group four - five or six courses; and group five - more than six courses.

Group one (n = 22) had a correlation coefficient of .72 between the product rankings--the highest correlation of any group. Groups two (n = 20), three (n = 23) and four (n = 8) had correlation coefficients of .10, .12 and .05 respectively. Those students having had more than six business courses--group five (n = 5)--had a correlation coefficient of .25. Only one of these correlation coefficients, .72 (group one), was significant. It was significant at the .01 level using a one-tail test for significance.

The findings of Hypothesis 2a tend to suggest that positive secondary (aspirational) reference group influence is not significantly related to consumer behavior. With only one exception, no significant correlation was found among the several groups tested. One implication for practical marketers could be that secondary, positive reference group appeals in advertising must arouse very strong, emotional feelings inside the consumer before the desired effectiveness can be obtained. Even though the consumer may be favorably attracted to a particular reference group, the influence exerted by that group in the product selection process may be minimized by other market variables such as price and competitive products.

Hypothesis 2b.--Hypothesis 2b states that reference groups have a negative influence on consumer behavior when the consumer does not wish to be associated with the reference group in question.

A group of ten subjects was identified who met the requirement for testing this part of the hypothesis as described in Chapter III: Statistical Methodology. These subjects were chosen because of their unfavorable attitude toward business executives as measured by the semantic differential. Each subject had a large D measure between (a) "Ideal Self" and "Business Executives" and (b) "Ideal Self" and an "unfavorable group" name supplied by the

subject. A significant, negative correlation between the two product rankings was expected for this group. The null hypothesis anticipated no correlation between the product rankings. The alternate hypothesis was that there would be a significant, negative correlation between the product rankings. The null and alternate hypotheses were

$$H_0 : r = 0$$

$$H_1 : r < 0.$$

Using a one-tail test, a correlation coefficient of .41 was calculated for this group which was not significant at either the .05 or .01 level. Also, the correlation was positive rather than negative.

The null hypothesis of no correlation is retained due to the low level of correlation found. The alternate hypothesis is rejected since the direction of the correlation was positive rather than negative and no significant difference was found.

A further investigation of Hypothesis 2b was conducted using the entire sample of ninety-three subjects. Subjects were assembled into three groups according to their attitude toward business executives. The attitude measure was an Osgood D measure which compared the two concepts "Ideal Self" and "Business Executives." As explained in Chapter III of this paper, a low or small D measure between two concepts indicates a congruence or similarity of attitudes toward the two concepts. Similarly, a large D measure

indicates attitudes that are not similar or congruent. Most people, it is believed, have a positive or favorable attitude toward themselves; therefore, "Ideal Self" appears to be a good concept with which to compare attitudes toward other concepts.

Group one consisted of those thirty individuals whose \underline{D} measures were the lowest of all the sample subjects. This group was operationally defined as having the most favorable attitude toward business executives. Group two was made up of thirty-three subjects whose \underline{D} measures fell between the low scores of group one and the high scores of group three. Group three members represented the thirty largest \underline{D} measures. This group was operationally defined as having the least favorable attitude toward business executives.

It was expected that, of the three groups, group three would have the lowest correlation between the two product rankings. The null hypothesis was that there was no significant difference between the correlation coefficients of the three groups. The alternate hypothesis was that the correlation coefficient for group three was significantly smaller than that of group one and group two. The hypotheses were

$$H_0 : r_1 = r_2 = r_3$$

$$H_1 : r_1 = r_2 > r_3.$$

Correlation coefficients for each group's product rankings were calculated to be .47, .38 and .31 for

groups one, two and three respectively. Using Hilden's methodology and a one-tail test for significance, none of the correlation coefficients for groups one, two or three were significant.

In order to determine the significance of the difference between two correlation coefficients, Hilden's methodology was again consulted (see Appendix C). The procedure, in basic terms, converts correlation coefficients into Z scores which are then placed in the formula found in Appendix C. The difference between two Z scores can then be used to determine significance.

Using a one-tail test for significance, a difference between Z scores of .87 and 1.23 is significant at the .05 and .01 levels respectively. The difference between the Z scores of group one and group two, group two and group three, and group one and group three was .206, .148 and .354 respectively. Since there was no significant difference between the three groups of subjects, the null hypothesis is retained. The alternate hypothesis that group three has a significantly lower correlation than the other two groups is therefore rejected. Observing the raw correlation coefficients revealed the expected downward trend; however, significant statistical difference could not be proven.

Marketing practitioners would perhaps see a familiar problem in the findings presented in this part of the

study: the unreliability of consumers. This part of the study implies that marketing researchers may obtain attitude measurements or assessments of a negative nature; however, the usefulness of this type of apparent reference group influence is very speculative at best and non-existent in this section of the current study.

On the positive side, it is perhaps very possible that future research in the area of the downward trend in correlation coefficients--that was found to exist in negative reference group influence--could more closely identify any resulting relationship with consumer behavior.

Hypothesis 2c--Hypothesis 2c states that reference groups have no effect on consumer behavior when the individual is unaware or has no perception of the particular group's behavior norms.

In order to test this hypothesis, several groups were identified which possibly would not have a very clear perception of the behavior norms for a group of business executives. Four such groups were chosen from the biographical data classifications provided on the questionnaire for this study. The four groups which were operationally defined as being unaware of the behavior norms of the business executive reference group were (a) non-business majors (n = 15), (b) subjects who indicated having taken only one business course in college

(n = 37), (c) housewives (n = 9), and (d) subjects younger than twenty years of age (n = 15).

The null hypothesis for each of the four groups mentioned was that there was no correlation between the group's product rankings. The alternate hypothesis was that there existed a significant, positive correlation between the product rankings of the individual groups. The following hypotheses apply to each of the four groups:

$$H_0 : r = 0$$

$$H_1 : r > 0.$$

Correlation coefficients of .55 and .71 were necessary to determine significance at the .05 and .01 levels respectively using a one-tail test. Two of the four groups had correlation coefficients which were significant at the .05 level: subjects who indicated having taken only one business course in college (.69) and housewives (.57). The null hypothesis of no correlation is therefore rejected for these two groups. The alternate hypothesis of a positive correlation is retained. Non-business majors (.003) and subjects under twenty years of age (-.115) were found to have no significant correlation. The null hypothesis of no correlation is retained for these two groups and the alternate hypothesis of positive correlation is rejected.

It was further expected in Hypothesis 2c that each of the four groups would have correlation coefficients

which would be significantly different from both groups utilized in Hypothesis 2a and 2b.

Hypothesis 2a operationally defined two groups that were influenced by the "Business Executives" reference group in a favorable manner. Neither group, however, had a significant correlation coefficient between the two product rankings-- .23 and .09. In order to test for significant difference between correlation coefficients, Hilden transforms correlation coefficients to Z scores (see Appendix C).

The null hypothesis was that there was no significant difference between the correlation coefficients of the four "unaware" groups of Hypothesis 2c and those of the two groups tested in Hypothesis 2a. The alternate hypothesis was that there was a significant difference between the manner in which these two types of groups ranked the products in the Q-Sort. These hypotheses were

$$H_0 : r_a = r_b = r_c = r_d = r_1 = r_2$$

$$H_1 : r_a = r_b = r_c = r_d \neq r_1 = r_2$$

where groups a, b, c and d are the "unaware" groups of Hypothesis 2c and groups one and two are the "influenced" groups of Hypothesis 2a.

In a one-tail test of significance between two correlation coefficients, differences between transformed Z scores of .87 and 1.23 are needed at the .05 and .01 levels respectively. A two-tail test requires Z score differences

of 1.04 and 1.37 for significance at the .05 and .01 levels respectively.

No significant differences were found between the two correlation coefficients of Hypothesis 2a: a difference between Z scores of .143 was calculated. Table XX shows no significant differences between Hypothesis 2c Z scores at either the .05 or .01 levels under the requirements of a two-tail test. Finally, Table XXI reveals no significant differences between the Z scores of Hypothesis 2a and Hypothesis 2c; therefore, the null hypothesis of no significant difference between the correlation coefficients of Hypothesis 2c and Hypothesis 2a is retained (see Tables XX and XXI in Appendix G). The alternate hypothesis of a significant difference between the two types of groups above is rejected.

Hypothesis 2b operationally defined two groups that were negatively influenced by the "Business Executives" reference group. Both groups, however, showed a positive correlation between their ranking of product purchases they would like to make and product purchases they felt were characteristic of business executives. The two correlation coefficients were .41 and .31 which were not significant at either the .01 or .05 level using a one-tail test of significance.

As mentioned earlier, it was expected that each of the four "unaware" groups of Hypothesis 2c would have

correlation coefficients which would be significantly different from those of the two groups identified in Hypothesis 2b. The null hypothesis was that there was no significant difference between the correlation coefficients of the four "unaware" groups of Hypothesis 2c and those of the two negatively influenced groups of Hypothesis 2b. The alternate hypothesis was that there was a significant difference in the correlation coefficients of the two types of groups. The null and alternate hypotheses were

$$H_0 : r_a = r_b = r_c = r_d = r_3 = r_4$$

$$H_1 : r_a = r_b = r_c = r_d \neq r_3 = r_4$$

where groups a, b, c, and d are the "unaware" groups of Hypothesis 2c and groups 3 and 4 are the negatively influenced groups of Hypothesis 2b.

A difference of .115 between the two Z scores of Hypothesis 2b revealed no significant difference between the two correlation coefficients; therefore, $r_3 = r_4$. Table XX shows no significant difference between the Z scores of Hypothesis 2c under the requirements of a two-tail test; therefore, $r_a = r_b = r_c = r_d$. Table XXII contains no significant differences between Z scores; therefore, the null hypothesis of no significant difference between the correlation coefficients of Hypothesis 2c and Hypothesis 2b is retained (Tables XX and XXII are in Appendix G).

In order to further test Hypothesis 2c, all ninety-three subjects were ranked according to their average score on the concept of "Business Executives." According to the statistical methodology outlined in Chapter III of this paper, three groups were then identified. The average scores on the concept of "Business Executives" ranged from 1.4 to 4.0; therefore, (a) scores between 1.0 and 2.0 operationally defined the low (positive attitude) scores, (b) scores between 2.0 and 3.0 operationally defined the middle (unclear) scores, and (c) scores between 3.0 and 4.0 operationally defined the high (negative attitude) scores.

The lowest ten scores were those closest to 1.4 which was the lowest individual score. The middle range was defined as being between scores of 2.0 and 3.0. The mean of the middle range was calculated to be 2.5; therefore, those ten scores closest to 2.5 were selected as the middle group. Finally, the highest ten scores were those closest to 4.0 which was the highest individual score.

Group one consisted of the ten subjects who had the lowest scores--which operationally defined a relatively positive attitude toward business executives. Group two contained those ten subjects whose scores were nearest to the mean of the middle scores: these subjects were operationally defined as having a vague or unclear attitude

toward the "Business Executive" reference group. Group three was made up of the ten individuals who had the highest numerical scores--which operationally defined a relatively negative attitude toward business executives.

It was expected that the correlation between the product rankings for group two would be significantly different from that of both group one and group three. First, each group was tested to determine whether there was a significant correlation between the product rankings. The null hypothesis for testing each group was that there was no correlation between the product rankings. The alternate hypothesis was that there was a significant correlation between product rankings: a significant, positive correlation for group one, a significant correlation for group two, and a significant, negative correlation for group three. The hypotheses were

<u>Group One</u>	<u>Group Two</u>	<u>Group Three</u>
$H_0 : r = 0$	$H_0 : r = 0$	$H_0 : r = 0$
$H_1 : r > 0$	$H_1 : r \neq 0$	$H_1 : r < 0.$

Using Hilden's technique and a one-tail test of significance, the calculated correlation coefficient for group one--.64--was significant at the .05 level. The null hypothesis of no correlation between the product rankings of group one is therefore rejected. The respective alternate hypotheses of a significant, positive correlation for group one is retained.

A two-tail test was employed in determining that the correlation coefficient for group two--.22--was not significant. The null hypothesis of no correlation between product rankings of group two is retained and the alternate hypothesis of a significant correlation is rejected.

The calculated correlation coefficient between product rankings for group three was .19--which, when using a one-tail test, was not significant. The null hypothesis of no correlation is therefore retained. The alternate hypothesis of a negative correlation, however, cannot be retained since the calculated correlation coefficient is positive.

Second, Q-Sort correlations of groups one, two, and three were compared to test for significant difference. It was expected, as stated earlier, that the correlation between product rankings for group two would be significantly different from that of both group one and group three. The null hypothesis was that there was no significant difference between the product rankings of group two and group one and between those of group two and group three. The alternate hypothesis was that there was a significant difference between the Q-Sorts of group two and group one and between the Q-Sorts of group two and group three. The hypotheses were:

<u>Part One</u>	<u>Part Two</u>
$H_0 : r_2 = r_1$	$H_0 : r_2 = r_3$
$H_1 : r_2 \neq r_1$	$H_1 : r_2 \neq r_3$

where: r_1 = Q-Sort correlation coefficient for group one
 r_2 = Q-Sort correlation coefficient for group two
 r_3 = Q-Sort correlation coefficient for group three.

Using a two-tail test of significance, Z score differences of 1.04 and 1.37 are significant at the .05 and .01 levels respectively. Calculated Z score differences were found to be (a) group two and group one---.554, and (b) group two and group three--.030. The null hypothesis of no significant difference between group two and either of the other two groups is retained. The alternate hypothesis of a significant difference between the Q-Sort of group two and either of the other two groups is rejected.

From the marketer's standpoint, the three tests of Hypothesis 2c discussed above come to perhaps the same conclusion. Hypothesis 2c stated that aspirational and dissociative reference groups have no relationship with consumer behavior when the individual is unaware or has no perception of the particular group's behavior norms. Results of testing Hypothesis 2c tend to conclude the overall acceptance of this hypothesis.

Hypothesis 3

Hypothesis 3 states that aspirational and dissociative reference group influence will differ when compared with different consumer characteristics such as sex, age, occupation, family size, and income level.

Subjects were grouped according to biographical data such as age and sex. A \underline{D} measure was calculated for each group between the concepts "Ideal Self" and "Business Executives." Each group's \underline{D} measure represents a measure of attitude; therefore, when two groups' \underline{D} measures for the same concept are very similar, their attitude toward that concept is operationally defined to be the same (Appendix F contains the entire list of group \underline{D} measures). Similarity or congruence of group \underline{D} measures were determined by using the Wilcoxon "T" test for significant differences. Once attitudes were determined to be similar or different, Q-Sort rankings of the various paired groups were analyzed and correlated using Hilden's methodology.

It was expected that groups with similar attitudes would rank the products in the two Q-Sorts in basically the same order. It was also expected that groups whose attitudes were significantly different would have Q-Sort correlation coefficients that would be significantly different. The null hypothesis was that there is no significant difference between the correlation coefficients of groups that are operationally defined as having similar attitudes. The alternate hypothesis was that there is a significant difference between correlation coefficients of groups that have similar attitudes. The hypotheses for each pair of groups to be tested were

$$H_0 : r_1 = r_2$$

$$H_1 : r_1 \neq r_2.$$

Groups with similar attitudes should have correlation coefficients which cause the null hypothesis to be retained. The null hypothesis should be rejected when significantly different groups perform the two Q-Sorts in a similar manner.

Using a two-tail Wilcoxon "T" test of significance, calculated Z values of 1.96 and 2.58 are necessary for defining significant difference at the .05 and .01 levels respectively. Out of forty-six paired groups, sixteen were found to be not significantly different--similar attitudes toward "Ideal Self" and "Business Executives" were operationally defined (details for this discussion can be found in Appendix D).

For each of the above sixteen pairs of groups, a Q-Sort correlation coefficient was calculated using Hilden's technique. A two-tail test of significance necessitated differences between transformed Z scores of 1.04 and 1.37 at the .05 and .01 levels respectively. There was no significant difference found between the Q-Sorts of any of the sixteen pairs of groups (Appendix D may be consulted for additional details). The null hypothesis of no significant difference between Q-Sort correlation coefficients is therefore retained.

Thirty of the forty-six paired groups, using Wilcoxon's "T" test, were found to be significantly different --their attitudes toward "Ideal Self" and "Business

Executives" were dissimilar. Twenty-three of the thirty pairs were significantly different at the .01 level and seven were different at the .05 level. As Appendix E reveals, there was only one significant difference found between the Q-Sorts of any of the thirty group pairs. The one significant difference at the .05 level (Z score difference of 1.141) was found when comparing the Q-Sort rankings of age groups (a) under twenty (n = 15) and (b) over forty-five (n = 7).

When comparing the above age groups, the null hypothesis of no significant difference between the Q-Sort correlation coefficients is rejected. These two groups appear to share the same attitude toward "Business Executives" but not the same attitude toward consumer products associated with business executives.

The data concerning the remaining twenty-nine of the thirty group pairs, that demonstrated dissimilar attitudes toward "Ideal Self" and "Business Executives," indicates that the null hypothesis of no significant difference between the Q-Sort correlation coefficients should be retained. The null hypothesis is retained and the alternate hypothesis of a significant difference is rejected.

From a marketing researcher's or advertising researcher's perspective, the findings presented in Hypothesis 3 could possibly be of great value--if they

could be validated through additional research. The results tend to suggest that consumers with positive attitudes toward a particular reference group will express that favorable attitude and demonstrate the same attitude in their buying behavior. Also suggested by the outcome of Hypothesis 3 is that consumers with negative attitudes toward a reference group will express that negative attitude but will tend to demonstrate a more positive attitude in their buying behavior.

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CHAPTER V

SUMMARY, CONCLUSIONS AND IMPLICATIONS, AND SIGNIFICANCE

Summary

The purpose of this study was to investigate the effects of aspirational and dissociative reference group influence on consumer behavior. To carry out the investigation, the following hypotheses were formulated:

1. Reference groups are one of the major sources for the foundation of individual consumer behavior. A person's perception of himself is made apparent through the expression of attitudes, values, and norms. Reference groups help to identify and strengthen certain values, norms, and attitudes within the individual. Thus, the way a consumer behaves is related to his (and his reference group's) values, norms, and attitudes regarding specific products and product uses.

2. Aspirational and dissociative reference groups serve as standards with which non-members can evaluate themselves and others.

- a. Reference groups have a positive influence on consumer behavior when the consumer desires to belong to the reference group in question.

b. Reference groups have a negative influence on consumer behavior when the consumer does not wish to be associated with the reference group in question.

c. Reference groups have no effect on consumer behavior when the individual is unaware or has no perception of the particular group's behavior norms.

3. Aspirational and dissociative reference group influence will differ when compared with different consumer characteristics, such as sex, age, occupation, family size, and income.

A review of the literature revealed a great deal of research in the area of small, face-to-face group influence; however, even though intuition would assume a great deal of secondary or non-face-to-face group influence, there was a severe shortage of research in the secondary-group influence area.

A sample of ninety-three students at Tarrant County Junior College - Northeast Campus in Hurst, Texas, was used in the study. Each subject submitted responses to a thirty scale semantic differential which measured attitude toward several specific concepts. Similar subject attitudes (similar semantic differential scores for a particular concept) was one method used to determine the various groupings in the study. Other groupings were arranged according to common biographical data responses--such as sex, age and college major.

Once the subjects were grouped, assumptions were made--in the form of the hypotheses mentioned earlier, and two Q-Sorts performed by each individual were analyzed. The results of the Q-Sorts served as the test to "accept" or "reject" the hypotheses of the study.

Conclusions and Implications

Conclusions to be derived from each of the hypotheses in the study are discussed in this section.

Hypothesis 1

The objective of the first hypothesis was to answer the question, "Do reference groups act as a major source for the foundation of individual consumer behavior?" In order to test this hypothesis, two groups were identified: (a) a group whose attitude toward "Business Executives" was positive and favorably related to the concept of "Conforming to Group Standards," and (b) a group whose attitude was positive toward "Self-Reliance" but relatively negative toward "Business Executives."

The people in group a were operationally defined as being more receptive to reference group influence than those people in group b. When the Q-Sorts for these two groups were correlated, no significant difference was found. Therefore, regarding Hypothesis 1, this research finding suggests that different attitudes toward conformity and self-reliance have no significant relationship with the type of

products purchased. The influence exerted by the reference group--in this example, "Business Executives"--had no significant relationship with the behavior of either group.

The findings presented in this part of the study appear to support a theory that rejects the significance of reference group influence on consumer behavior. This would tend to imply that marketers would be equally successful whether they chose to utilize reference group appeal in their advertising or not. Perhaps, on the other hand, conformity and self-reliance are not sufficiently differentiated and are inadequate in terms of separating two distinct, opposite reference group characteristics. If this were the situation, additional research might possibly discover some significant reference group influence on consumer behavior.

Hypothesis 2

Hypothesis 2 was divided into three subordinate hypotheses in order to determine whether aspirational and dissociative reference groups serve as standards with which non-members can evaluate themselves and others.

Hypothesis 2a.--Two separate tests were used to investigate whether reference groups have a positive influence on consumer behavior when the consumer desires to belong to the reference group in question.

First, a group of favorably influenced subjects--grouped according to their small D measures between "Ideal Self" and "Business Executives," was identified and Q-Sort analysis was performed. A positive correlation (.23) between Q-Sorts was found; however, it was not significant.

Second, a group of business majors with at least two business courses completed was identified and tested. A significant, positive Q-Sort correlation was expected but was not obtained.

Results of both tests of Hypothesis 2a tend to support the conclusion that consumers who desire to belong to or identify with a particular reference group do not think of themselves as behaving in a manner very similar to members of that reference group.

The results of testing Hypothesis 2a appear to suggest that aspirational reference groups are not related to the behavior of specific consumers. One of the implications for marketing is that even though the consumer may be favorably attracted to a particular reference group, the influence exerted by that group in the product selection process may be minimized by other market variables such as price and competitive products.

Hypothesis 2b.--Two methods of grouping subjects were used to test whether reference groups have a negative

influence on consumer behavior when the consumer does not wish to be associated with the reference group in question.

Through the use of D measures, a group of subjects who held unfavorable attitudes toward business executives was identified. It was expected that their Q-Sort correlation would be significant and negative. The correlation was neither significant nor negative (.41).

A second "unfavorable attitude" group was identified which consisted of those thirty subjects who had the largest numerical D measures, between "Business Executives" and "Ideal Self," of the total sample. In comparison to the thirty subjects with the smallest D measures and the thirty-three subjects with D measures between the highest and the lowest groups of thirty, the "unfavorable attitude" group was expected to have the lowest Q-Sort correlation. No significant difference was found between the three groups' Q-Sort correlations.

Even if a consumer wishes to dissociate himself from a particular reference group, the findings of this part of the study tend to support the conclusion that negative reference group influence will not be transferred to consumer purchasing behavior.

A market researcher, for example, could conduct a consumer survey regarding products ranging from those highly socially acceptable to those almost totally socially unacceptable. The negative reference group for this example would be any such group that would approve of the socially

unacceptable products. The researcher, as implied by the findings of this part of the study, could get responses from the consumer indicating the unacceptability of a product due to the influence of a negative reference group; however, it appears that the consumer will not necessarily avoid buying that product once he is in the marketplace.

A possible implication for the advertiser--based on the finding just discussed--might be that the more inconspicuous a consumer product is the less influence a negative reference group has on the buyer; therefore, additional potential customers could possibly exist on the fringe of an established market for a type of product who would perhaps buy those items in the product line which were inconspicuous in their use or consumption. This concept could possibly be developed into a separate market segment for the product line in question.

Hypothesis 2c.--Hypothesis 2c stated that reference groups have no effect on consumer behavior when the individual is unaware or has no perception of the particular group's behavior norms.

Four groups--grouped according to common biographical data, such as age and sex--were operationally defined as being unaware of the behavior norms of the business executive reference group. It was expected that each of these four groups would have a Q-Sort correlation which would be significantly different from both groups used in Hypothesis

2a and both groups in Hypothesis 2b. No significant differences were found between the Q-Sort correlations mentioned above.

A further test of Hypothesis 2c was made. In order to identify a group of unaware subjects, all subjects were ranked according to their average score on the concept "Business Executives." Low and high scores were operationally defined as definite attitude scores--i.e., low scores represented positive or favorable attitudes and high scores represented negative or unfavorable attitudes. Scores clustered about the mean of the ranked list operationally defined those subjects with vague or unclear attitudes toward business executives. A significantly different Q-Sort correlation was expected for the ten subjects closest to the mean when compared with the lowest ten scores and the highest ten scores. No significant statistical difference was found at either the .01 or .05 level.

The findings of this part of the study tend to support the conclusion that lack of knowledge about a group's behavior norms has no significant effect on consumer behavior. Additionally, the results of this part of the study tend to imply that aspirational and dissociative reference group influences are not major factors in consumer behavior--if they exist at all. Perhaps an implication for marketers would be the need for more "educational information" (information about the habits,

norms and life styles of particular reference groups) in advertisements which utilize the positive or negative appeal of belonging to or associating with certain groups of people. In doing this, target markets could possibly be more closely defined and advertising dollars more efficiently spent.

On the other hand, an implication for practical marketers could be the total elimination of "secondary reference group influence" in advertising appeals. In view of the findings--lack of knowledge about a group's behavior norms apparently has no significant relationship with consumer behavior--marketing management could conceivably benefit much more by directing more funds and energies toward other advertising appeals, such as primary reference group influence, product quality and product uses.

Hypothesis 3

Hypothesis 3 stated that aspirational and dissociative reference group influence would differ when compared with different consumer characteristics such as sex, age, occupation, family size, and income level.

Subjects were placed in forty-six groups according to biographical data such as sex, various age ranges and income levels. Similar attitudes toward "Business Executives" were determined by group D measures and the Wilcoxon "T" test. Once attitudes were determined to be similar or

different, Q-Sort rankings of the various paired groups were analyzed and correlated.

It was expected that groups with similar attitudes would rank the products in the two Q-Sorts in the same relative order. It was also expected that groups whose attitudes were significantly different would have significantly different Q-Sort correlations. Sixteen of the forty-six paired groups, using the Wilcoxon "T" test, were found to be not significantly different--i.e., having a similar attitude with the other paired group. No significant difference was found between the Q-Sorts of any of the sixteen pairs of groups (see Appendix H for group pairs). This portion of the findings under Hypothesis 3 tends to support the conclusion that groups with similar attitudes toward particular reference groups will behave in a similar fashion regarding consumer purchases.

An implication for marketers appears to be that aspirational and dissociative reference group influence can play a major role in successful advertising under the condition that consumer group attitudes can be uncovered. Once uncovered--as the findings just discussed tend to indicate--similar group attitudes could be used to develop promotional plans utilizing such things as group endorsements and television and radio appearances by group members.

Thirty of the forty-six paired groups, using Wilcoxon's "T" test, were found to be significantly different--their attitudes toward "Ideal Self" and "Business Executives" were dissimilar. No significant difference was found between the Q-Sorts of twenty-nine of the thirty pairs of groups (see Appendix I for group pairs). This finding does not support the conclusion that groups with different attitudes regarding particular reference groups tend to behave differently when purchasing consumer products.

The practical aspect of this part of the study results tends to indicate that marketing people cannot place much reliance on consumers' reactions regarding attitude questions concerning negative reference group influence. An implication might be that more emphasis and effort should be devoted to pursuing a positive reference group appeal in promotional material. Many factors are at work in a buying decision which could influence the "reason" for a specific behavior. Social acceptance is one overriding influence which could cause a consumer to justify a purchase as resulting from a positive reference group influence rather than reacting to a negative reference group influence. For example, a consumer aspiring to belong to the number one country club in a given city may shop in certain quality clothing stores instead of others because that is where the country club people shop, not because "ordinary" people shop in the other quality clothing stores.

The findings of Hypothesis 3 suggest that positive or favorable reference group influence in consumer behavior is expressed through attitudes and demonstrated through behavior. Non-positive or unfavorable reference group influence, however, appears to be expressed through attitudes, but not demonstrated in actual consumer behavior.

Attitude is not inconsistent with behavior; however, no causal relationship can be said to exist from the results of this study--i.e., no direct linkage was made between attitude and behavior.

Significance

The primary significance of this paper would appear to be to the advertising manager in the overall area of marketing. Market researchers could also possibly benefit from this research.

The purposes of advertising are many. Basically, however, the desired end result of advertising is the sale of a product or service which will satisfy some consumer need. Consumer needs are very often quite difficult to identify--both for the marketer and the consumer himself. For this reason, various indirect attitude measuring instruments have been developed with the assumption that some relationship between attitude and consumer behavior exists.

This paper attempted to focus on attitudes toward two particular types of reference groups and the resulting

relationship with consumer behavior. The advertiser and market researcher can possibly use the findings of this study as a basis for immediate practical application. On the other hand, this research can conceivably serve as a stepping stone to more detailed and specific studies of secondary reference group influence on consumer behavior. In future research of the nature undertaken and discussed in this study, Q-Sort analysis using as many as fifty products should possibly be considered. The ten products used in this study tended to raise the significant correlation values--as will any small sample.

For the practical marketer, this paper offers the following results--as they pertain to this study only:

1. A marketer should always be aware that the attitude expressed by a consumer is not always going to be indicative of what the consumer will or will not do in a buying situation.

2. It would appear that consumers engage in behavior of a specific nature due to the influence of positive or aspirational reference groups more often than as a direct response to negative or dissociative reference groups. The end result in either situation may conceivably be the same; however, the reasons for the behavior could be totally different--which is a primary reason for interest in studying consumer behavior.

3. By knowing as much demographic information as possible about the target market, the advertiser can create promotions that will possibly attract not only those consumers actually in the market but also those who would aspire to be or "consider" themselves unofficially in that market. This conclusion is presented with the understanding that even though significant correlations between attitude and behavior were few, the overall trend was that of a positive correlation.

4. Attitude is not inconsistent with behavior; however, no causal relationship can be said to exist from the results of this study--i.e., no direct linkage was made between attitude and behavior.

The findings of this study--it is hoped--will contribute some additional support for further study in the area of secondary reference groups and their relationships --if any--to consumer behavior.

APPENDICES

APPENDIX A

Appendix A presents the instructions for the semantic differential and the Q-Sort. It also presents a copy of the biographical data questionnaire used in this study.

SEMANTIC DIFFERENTIAL INSTRUCTIONS

The purpose of this study is to measure the meanings of certain things to various people. I would like you to tell me what certain things mean to you. On each page of this booklet you will find a different concept to be judged. Under each concept you will find a list of words arranged in pairs to help make your evaluation easier and more meaningful.

You are to use these word scales in the following manner:

If you feel that the concept at the top of the page is very closely related to one end of the scale, you should place your check-mark as follows:

fast X : ___ : ___ : ___ : ___ : ___ : ___ slow

or

fast ___ : ___ : ___ : ___ : ___ : ___ : X slow

If you feel that the concept is quite closely related to one or the other end of the scale (but not extremely), you should place your check-mark as follows:

dangerous ___ : X : ___ : ___ : ___ : ___ : ___ safe

or

dangerous ___ : ___ : ___ : ___ : ___ : X : ___ safe

If the concept seems only slightly related to one side as opposed to the other side (but is not really neutral), then you should check as follows:

small ___ : ___ : X : ___ : ___ : ___ : ___ large

or

small ___ : ___ : ___ : ___ : X : ___ : ___ large

The direction toward which you check, of course, depends upon which of the two ends of the scale seem most characteristic of the concept you are judging.

If you consider the concept to be neutral on the scale, both sides of the scale equally associated with the concept, or if the scale is completely irrelevant, unrelated to the concept, then you should place your check-mark in the middle space:

sweet ___ : ___ : ___ : X : ___ : ___ : ___ sour

Q-SORT INSTRUCTIONS: PART A

Please arrange the products listed below to reflect whether or not they represent what you would ideally like to have five years after graduation. (Number 1 = most representative and number 10 = least representative)

Place the letter corresponding to your choice in the appropriate blank provided at the right.

For example: If your choice for second most representative product were "Fine Wine", an "F" would be placed in the blank marked "2.____," i.e., "2. F."

	<u>Ideal Self</u>
B. Expensive Car	1. _____
G. Cigarettes/Cigars	2. _____
A. Speed Boat	3. _____
J. Dark Suit	4. _____
D. Cosmetics (Hair Spray, After Shave, etc.)	5. _____
F. Fine Wine	6. _____
C. Attache Case	7. _____
E. Stereo Equipment	8. _____
I. Golf Clubs	9. _____
H. <u>The Wall Street Journal</u>	10. _____

Q-SORT INSTRUCTIONS: PART B

Please arrange the products listed below to reflect how you feel they represent typical purchases made by business executives. (Number 1 = most representative and number 10 = least representative)

Place the letter corresponding to your choice in the appropriate blank provided at the right.

For example: If your choice for sixth most representative product were "Speed Boat", an "A" would be placed in the blank marked "6.____," i.e., "6. A."

	<u>Business Executive</u>
J. Dark Suit	1. _____
D. Cosmetics (Hair spray, after shave, etc.)	2. _____
F. Fine Wine	3. _____
H. <u>The Wall Street Journal</u>	4. _____
B. <u>Expensive Car</u>	5. _____
I. Golf Clubs	6. _____
G. Cigarettes/Cigars	7. _____
C. Attache Case	8. _____
A. Speed Boat	9. _____
E. Stereo Equipment	10. _____

BIOGRAPHICAL DATA SHEET

Please complete the following by placing a checkmark in the appropriate space:

1. Your Sex: (a) Female
 (b) Male
2. Your Marital Status: (a) Married
 (b) Single
3. Your Age Range: (a) Younger than 20
 (b) 20 to 30
 (c) 31 to 45
 (d) 46 and Older
4. Your Major in College: (a) Business Related
 (b) Non-Business Related
5. Your Occupation: (a) Housewife
 (b) Professional and Technical
 (c) Manager, Proprietor
 (d) Clerical, Sales
 (e) Other (please specify)

6. Size of Family Presently Living in Your Household:
 (a) 1
 (b) 2
 (c) 3-4
 (d) 5 or More
7. Approximate Total Income of Your Household:
 (a) Less than \$10,000
 (b) \$10-\$15,000
 (c) \$15-\$20,000
 (d) \$20-\$25,000
 (e) Over \$25,000
8. Including Introduction to Business, how many business related courses have you completed in college?
 (a) One
 (b) Two
 (c) Three-Four
 (d) Five-Six
 (e) More Than Six

9. You Are: (a) A Day Student
 (b) A Night Student

THANK YOU VERY MUCH!

APPENDIX B

SIGNIFICANT "Z" VALUES

Hilden* established significance values for the correlation coefficient and the Z coefficient at the .05 and .01 levels based on a sample size of fifty--i.e., fifty items were ranked from least desired to most desired under two different sets of instructions and then correlated. In order to determine the appropriate significance values for a sample size of ten, the following test statistic was employed.

The test statistic was the normal deviate, Z, in which

$$Z = \frac{z_r - Z_r}{\sqrt{\frac{1}{n-3}}}$$

where: z_r = the transformed value of the sample r, and
 Z_r = the transformed value of the population correlation coefficient specified under the null hypothesis.**

Using the above formula, a sample size of ten, and $Z_r = 0$, significant values of z_r can be calculated at the

*Arnold H. Hilden, "Manual for Q-Sort and Random Sets of Personal Concepts," paper prepared at Washington University, St. Louis, Missouri, 1954.

**Audrey Haber and Richard P. Runyon, General Statistics, (Reading, 1969), p. 196.

.05 and .01 levels. Z is significant at the .05 and .01 levels when it has a value of 1.96 and 2.58 respectively. Substituting this information into the above formula, a z_r of .741 ($r = .63$) is significant at the .05 level and a z_r of .975 ($r = .75$) is significant at the .01 level when using a two-tail test of significance.

A one-tail test of significance would require a z_r of .622 ($r = .55$) and .879 ($r = .71$) to be significant at the .05 and .01 levels respectively--the respective Z values would be 1.645 and 2.326.***

***John T. Roscoe, Fundamental Research Statistics for the Behavioral Sciences, (New York, 1969), p. 147.

APPENDIX C

DETERMINING SIGNIFICANCE BETWEEN TWO CORRELATION COEFFICIENTS

In order to determine the significance of the difference between two correlation coefficients, Hilden* used a technique that can be found in current statistics texts. For example, see Garrett and Woodworth.**

The formula and a brief explanation are presented below:

$$\frac{z_1 - z_2}{\sqrt{\frac{1}{n_1 - 3} + \frac{1}{n_2 - 3}}}$$

where: z_1 = the transformed value of the correlation coefficient for one group,
 z_2 = the transformed value of the correlation coefficient for a second group,
 n_1 = the number of pairs of products to be ranked by one group, and
 n_2 = the number of pairs of products to be ranked by a second group.

*Arnold H. Hilden, "Manual for Q-Sort and Random Sets of Personal Concepts," paper prepared at Washington University, St. Louis, Missouri, 1954.

**Henry E. Garrett and R. S. Woodworth, Statistics in Psychology and Education, (New York, 1966), pp. 241-243.

Using the above formula, significant differences between correlation coefficients can be calculated at the .05 and .01 levels for both one-tail and two-tail tests. With $n = 10$ for both groups and in order to be significantly different at the .05 and .01 levels, the difference between z_1 and z_2 would need to be 1.04 and 1.37 respectively for a two-tail test. A one-tail test would require the difference between z values to be .87 and 1.23 at the .05 and .01 levels respectively.

APPENDIX D

CALCULATED Z VALUES FROM THE WILCOXON "T" TEST TO DETERMINE SIGNIFICANT DIFFERENCE BETWEEN D MEASURES OF VARIOUS BIOGRAPHICALLY PAIRED GROUPS

The Data Systems Library at Tarrant County Junior College - Northeast Campus provided a program to calculate information needed for Wilcoxon's matched pairs signed ranks test.

The D measure comparing "Ideal Self" and "Business Executives" for every biographical group in the study was analyzed and compared with other similar group classifications to determine any existing correlation. The Wilcoxon test produced a Z score for each pair of groups studied. Z scores of 1.96 and 2.58 indicated a significant difference between D measures at the .05 and .01 levels respectively using a two-tail test of significance.

The following information is presented in table form to summarize the findings of the Wilcoxon test. Thirty significant differences and sixteen non-significant differences were found.

TABLE II

COMPARATIVE D MEASURES ACCORDING TO SEX
EXPRESSED AS Z SCORES

Sex \ Sex	Male	Female
Male	.00	
Female	-2.67	.00

TABLE III

COMPARATIVE D MEASURES ACCORDING TO MARITAL
STATUS EXPRESSED AS Z SCORES

Marital Status \ Marital Status	Married	Single
Married	.00	
Single	-1.10	.00

TABLE IV

COMPARATIVE \bar{D} MEASURES ACCORDING TO AGE
EXPRESSED AS Z SCORES

Age \ Age	Under 20	20-30	31-45	Over 45
Under 20	.00			
20-30	-.62	.00		
31-45	-2.93	-3.20	.00	
Over 45	-3.22	-3.28	-.58	.00

TABLE V

COMPARATIVE \bar{D} MEASURES ACCORDING TO COLLEGE MAJOR
EXPRESSED AS Z SCORES

Major \ Major	Business Related	Non-Business Related
Business Related	.00	
Non-Business Related	-2.94	.00

TABLE VI

COMPARATIVE \bar{D} MEASURES ACCORDING TO OCCUPATION
EXPRESSED AS Z SCORES

Occupation \ Occupation	Housewife	Professional	Manager	Sales	Other
Housewife	.00				
Professional	-3.20	.00			
Manager	-3.18	-.05	.00		
Sales	-3.75	-.09	-.81	.00	
Other	-3.67	-.85	-1.83	-1.15	.00

TABLE VII

COMPARATIVE \bar{D} MEASURES ACCORDING TO THE SIZE
OF THE FAMILY EXPRESSED AS Z SCORES

Size \ Size	One	Two	Three-Four	Over Four
One	.00			
Two	-3.57	.00		
Three-Four	-2.12	-3.35	.00	
Over Four	-2.73	-.79	-1.15	.00

TABLE VIII

COMPARATIVE D MEASURES ACCORDING TO INCOME
EXPRESSED AS Z SCORES

Income* \ Income*	Under 10	10-15	15-20	20-25	Over 25
Under 10	.00				
10-15	-2.44	.00			
15-20	-.98	-1.18	.00		
20-25	-4.55	-4.70	-4.25	.00	
Over 25	-2.23	-2.87	-2.65	-4.54	.00

*Income is in thousands of dollars.

TABLE IX

COMPARATIVE D MEASURES ACCORDING TO STUDENT
CLASSIFICATION EXPRESSED AS Z SCORES

Student \ Student	Day	Night
Day	.00	
Night	-.12	.00

TABLE X

COMPARATIVE D MEASURES ACCORDING TO THE NUMBER
OF BUSINESS COURSES TAKEN
EXPRESSED AS Z SCORES

Courses \ Courses	1	2	3-4	5-6	Over 6
1	.00				
2	-2.40	.00			
3-4	-2.55	-3.83	.00		
5-6	-4.10	-2.17	-4.25	.00	
Over 6	-.89	-1.12	-2.72	-2.25	.00

APPENDIX E

DIFFERENCES BETWEEN Z SCORES OF VARIOUS BIOGRAPHICALLY
 PAIRED GROUPS USING THE HILDEN TECHNIQUE

TABLE XI

Z SCORE DIFFERENCES ACCORDING TO SEX

Sex	Male z = .510	Female z = -.090
Male z = .510	.000	
Female z = -.090	.600	.000

TABLE XII

Z SCORE DIFFERENCES ACCORDING TO MARITAL STATUS

Marital Status	Married z = .590	Single z = .050
Married z = .590	.000	
Single z = .050	.540	.000

TABLE XIII

Z SCORE DIFFERENCES ACCORDING TO AGE

Age \ Age	Under 20 z = -.121	20-30 z = .321	31-45 z = .343	Over 45 z = 1.020
Under 20 z = .121	.000			
20-30 z = .321	-.442	.000		
31-45 z = .343	-.464	-.022	.000	
Over 45 z = 1.020	-1.141	-.699	-.677	.000

TABLE XIV

Z SCORE DIFFERENCE ACCORDING TO COLLEGE MAJOR

Major \ Major	Business Related z = .400	Non-Business Related z = .003
Business Related z = .400	.000	
Non-Business Related z = .003	.397	.000

TABLE XV

Z SCORE DIFFERENCES ACCORDING TO OCCUPATION

Occupation \ Occupation	Housewife z = .648	Professional z = .590	Manager z = .224	Sales z = -.299	Other z = .648
Housewife z = .648	.000				
Professional z = .590	.058	.000			
Manager z = .224	.424	.366	.000		
Sales z = -.299	.947	.889	.523	.000	
Other z = .648	.000	-.058	-.424	-.947	.000

TABLE XVI

Z SCORE DIFFERENCES ACCORDING TO
SIZE OF FAMILY

Size \ Size	One z = .181	Two z = .420	Three-Four z = .288	Over Four z = .094
One z = .181	.000			
Two z = .420	-.239	.000		
Three-Four z = .288	-.107	.132	.000	
Over Four z = .094	.087	.316	.194	.000

TABLE XVII

Z SCORE DIFFERENCES ACCORDING TO INCOME

Income* \ Income*	Under 10 z = .266	10-15 z = .510	15-20 z = .377	20-25 z = -.200	Over 25 z = .366
Under 10 z = .266	.000				
10-15 z = .510	-.244	.000			
15-20 z = .377	-.111	.133	.000		
20-25 z = -.200	.466	.710	.577	.000	
Over 25 z = .366	-.100	.144	.011	-.566	.000

*Income is in thousands of dollars.

TABLE XVIII

Z SCORE DIFFERENCES ACCORDING TO
STUDENT CLASSIFICATION

Student \ Student	Day z = .366	Night z = .321
Day z = .366	.000	
Night z = .321	.045	.000

TABLE XIX

Z SCORE DIFFERENCES ACCORDING TO THE NUMBER
OF BUSINESS COURSES TAKEN

Courses Courses	1 z = .848	2 z = .106	3-4 z = .158	5-6 z = .052	Over 6 z = .152
1 z = .848	.000				
2 z = .106	.742	.000			
3-4 z = .158	.690	-.052	.000		
5-6 z = .052	.796	.054	.106	.000	
Over 6 z = .152	.696	.046	.006	-.100	.000

APPENDIX F

GROUP D MEASURES COMPARING THE CONCEPTS "IDEAL SELF" AND
"BUSINESS EXECUTIVES" RANKED FROM SMALLEST TO LARGEST

<u>D Measure</u>	<u>Group</u>
1. 7.100	Age: 46 and Older
2. 7.238	Occupation: Housewife
3. 7.839	Income: Over \$25,000
4. 8.025	Family Size: Two
5. 8.111	Occupation: Manager
6. 8.131	Business Courses Taken: Three- Four
7. 8.632	Business Courses Taken: One
8. 8.672	Income: Under \$10,000
9. 8.720	Age: 31 to 45
10. 8.864	Sex: Female
11. 8.868	Income: \$15,000 - \$20,000
12. 8.985	Student: Night
13. 8.991	Marital Status: Married
14. 9.095	Major: Business Related
15. 9.108	Family Size: Five or More
16. 9.112	Occupation: Sales, Clerical
17. 9.299	Sex: Male
18. 9.307	Age: Under 20
19. 9.342	Major: Non-Business Related
20. 9.395	Student: Day
21. 9.410	Marital Status: Single
22. 9.455	Occupation: Professional, Technical
23. 9.507	Income: \$10,000 - \$15,000
24. 9.547	Family Size: Three-Four
25. 9.578	Age: 20 to 30
26. 9.895	Occupation: Other
27. 9.897	Business Courses Taken: Over Six
28. 10.102	Business Courses Taken: Two
29. 10.206	Family Size: One
30. 11.456	Business Courses Taken: Five- Six
31. 11.668	Income: \$20,000 - \$25,000

APPENDIX G

TABLE XX

DIFFERENCES BETWEEN Z SCORES OF FOUR "UNAWARE"
GROUPS IN HYPOTHESIS 2c

	Group One ^a z = .003	Group Two ^b z = .848	Group Three ^c z = .648	Group Four ^d z = -.121
Group One z = .003	.000			
Group Two z = .848	-.845	.000		
Group Three z = .648	-.645	.200	.000	
Group Four z = -.121	.124	.969	.769	.000

^aGroup One = Non-business majors.

^bGroup Two = Subjects who have taken only one business course in college.

^cGroup Three = Housewives.

^dGroup Four = Subjects younger than twenty years of age.

TABLE XXI

Z SCORE DIFFERENCES BETWEEN FOUR "UNAWARE"
 GROUPS IN HYPOTHESIS 2c AND TWO
 "FAVORABLY INFLUENCED" GROUPS
 IN HYPOTHESIS 2a

Hypothesis 2a \ Hypothesis 2c	Group A* z = .234	Group B** z = .091
Non-business majors z = .003	.231	.088
One business course z = .848	-.614	-.757
Housewives z = .648	-.414	-.557
Under 20 years of age z = -.121	.355	.212

*Sixteen subjects whose response to the semantic differential indicated a very positive attitude toward the "Business Executive" group.

**Subjects who were majoring in business and had taken at least two business courses in college (including the Introduction to Business course they were currently completing).

TABLE XXII

Z SCORE DIFFERENCES BETWEEN FOUR "UNAWARE" GROUPS
IN HYPOTHESIS 2c AND TWO "UNFAVORABLY INFLUENCED"
GROUPS IN HYPOTHESIS 2b

Hypothesis 2b \ Hypothesis 2c	Group A* z = .436	Group B** z = .321
Non-business majors z = .003	.433	.318
One business course z = .848	-.412	-.527
Housewives z = .648	-.212	-.327
Under 20 years of age z = -.121	.557	.442

*Subjects whose response to the semantic differential indicated a relatively negative attitude toward "Business Executives" as a group.

**Thirty individuals with the largest D measures--which operationally defined the group with the least favorable attitude toward business executives.

APPENDIX H

GROUP CLASSIFICATIONS WITH SIMILAR ATTITUDES TOWARD
"BUSINESS EXECUTIVES" AND "IDEAL SELF"

Married vs. Single
Age: Under 20 vs. 20 to 30
31 to 45 vs. Over 45
Occupation: Professional vs. Manager
Professional vs. Clerical, Sales
Professional vs. Other
Manager vs. Clerical, Sales
Manager vs. Other
Clerical vs. Other
Family Size: Two vs. Over Four
Three vs. Over Four
Income: Less Than \$10,000 vs. \$15,000 to \$20,000
\$10,000 to \$15,000 vs. \$15,000 to \$20,000
Business Courses Taken: One vs. Over Six
Two vs. Over Six
Student: Day vs. Night

APPENDIX I

GROUP CLASSIFICATIONS WITH DISSIMILAR ATTITUDES
TOWARD "BUSINESS EXECUTIVES" AND "IDEAL SELF"

Sex: Male vs. Female

Age: Under 20 vs. 31 to 45

Under 20 vs. Over 45

20 to 30 vs. 31 to 45

20 to 30 vs. Over 45

Major: Business Related vs. Non-Business Related

Occupation: Housewife vs. Professional

Housewife vs. Manager

Housewife vs. Sales

Housewife vs. Other

Family Size: One vs. Two

One vs. Three to Four

One vs. Over Four

Two vs. Three to Four

Income: Under \$10,000 vs. \$10,000 to \$15,000

Under \$10,000 vs. \$20,000 to \$25,000

Under \$10,000 vs. Over \$25,000

\$10,000 to \$15,000 vs. \$20,000 to \$25,000

\$10,000 to \$15,000 vs. Over \$25,000

\$15,000 to \$20,000 vs. \$20,000 to \$25,000

\$15,000 to \$20,000 vs. Over \$25,000

\$20,000 to \$25,000 vs. Over \$25,000

Business Courses Taken: One vs. Two
One vs. Three to Four
One vs. Five to Six
Two vs. Three to Four
Two vs. Five to Six
Three to Four vs. Five to Six
Three to Four vs. Over Six
Five to Six vs. Over Six

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