

CHARITABLE HEALTH ORGANIZATION DONOR
BEHAVIOR: AN EMPIRICAL STUDY OF
VALUE AND ATTITUDE STRUCTURE

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PREFACE

This study explored factors that influence the donation behavior of individuals to a specific charitable health organization. The objective of the study was to identify and measure the relationships among the level of donation, the generalized values held by the individual, and the specific attitudes held by the individual toward the Oklahoma Lung Association. Data was gathered via a mail survey and the analysis was primarily accomplished through multiple regression and factor analysis.

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CHAPTER I

INTRODUCTION

Nature of the Problem

Behavior is complex and often confusing. For years, behavioral researchers have sought to increase the understanding of man by exploring the psychological variables that influence his behavior. Numerous models have been proposed which interrelate these variables. Most of the models explore the decision making process of the individual and their attention tends to be focused upon the attitude variable. For example, Allport (1) pointed out thirty years ago that attitude was indispensable to the psychology of personality. The concept of an individual's values has also been researched as an influence of behavior. At a more generalized level, values have long been held as underlying one's attitudes. Marketing is concerned specifically with consumer behavior and its relationship to the buying process. Most buyer behavior models have a decision making orientation with attitudes involved as a central concept. Generalized values are also included in the models but not as a dominant variable.

In spite of a long history of research focus, attitude research still faces theoretical and measurement difficulties. These difficulties include an imprecise concept and definition of attitude, insufficient attention and inconclusive results of the attitude-behavior mechanism and the inaccuracy of measuring instruments. For example,

some researchers feel attitude definition should be operational while others feel it should be formalized such as an organization of beliefs. Value systems have not been researched to any degree in comparison with attitude research. This dearth of background is not as big a handicap as it might appear because of the quality of work that has been done. There is disagreement about the structure of values and their relationship with attitudes, and the relationship of value systems and behavior is still a matter of controversy and one which needs clarification.

This paper explores the value-attitude-behavior relationship. The relationship is really three problems, i.e., attitude-behavior, value-attitude, and value-behavior. Of the three, the former has received the greatest attention (2). A myriad of papers have been completed on attitudes as a means of explaining behavior (1) (2) (3) (4) (5) (6) (7). The results of these studies are somewhat less than conclusive as to the role of attitudes in predicting or describing behavior. For example, the extent to which variables such as situational and perceptual factors mediate the ability of attitudes to explain behavior is not clear.

Most studies examining the value-attitude mechanism indicate a relationship between the two variables. However, the studies are not necessarily in harmony concerning the nature of the relationship. Many studies conclude that attitudes are intervening variables between values and resultant behavior. Few researchers have examined the value-behavior function. This is due in part to the theory that attitudes are better definers of behavior since they tend to be object or situation specific, while values are general in nature. The work completed on the value-behavior relationship indicates values have excellent potential as definers of behavior. For a number of years, these relationships have

been explored and used by marketing as aids in explaining buyer behavior.

An opportunity to examine the above relationships in a field environment was provided through the study of donation behavior of a charitable health organization, Oklahoma Lung Association. The Oklahoma Lung Association is an affiliate of the National Lung Association and has long been a pioneer and innovator of the voluntary health movement in the United States. Generally, this research dealt with the dollar donation to the Oklahoma Lung Association by various individuals, some being nondonors.

A few studies have been conducted concerning donation behavior. These have been primarily concerned with the socio-economic characteristics and awareness of donors to the March of Dimes and various state lung associations (8) (9) (10) (11) (12). The research findings of these studies indicate that significant differences do exist between donors and nondonors. There has been a lack of publications exploring the relationship between the donor and the nondonor in regard to their values and attitudes.

Using the Oklahoma Lung Association as a vehicle to empirically test theoretical concepts raises the question of the role of the non-profit organization in the area of marketing. The concept of using marketing techniques in nonprofit areas has existed for many years. The origin is obscure but Madison Avenue, USA indicated as early as 1958 that promotion, in general, and advertising, in particular, could be of critical value in the arena of politics (13,298). The attempts to include the nonprofit areas into the marketing profession are not as old nor as obscure. The integrated study of marketing in nonprofit

organizations is as new as 1969. The first basic contribution appeared in January, 1969, issue of the Journal of Marketing (14). The 1970 Fall conference of the American Marketing Association was based on the theme, "Broadening the Concept of Marketing;" and the July, 1971, issue of the Journal of Marketing devoted its entire issue to marketing in nonprofit organizations. However, it should not be concluded that all marketing theorists and practitioners agree with this formal movement of profit oriented marketing into nonprofit areas. Kotler seems to be the leading proponent of the broadening concept but has no published empirical results (14) (15) (16). Others have also made some positive contributions (17) (18) (19).

The nature of the marketing function in the nonprofit organization is similar to the profit orientation, in that the four elements of the marketing mix, communication, distribution, pricing, and product policy are evident (20,44). The nonprofit organization differs greatly, however, from the business in the way funds are generated and used. The nonprofit organization generates funds from donors and provides goods and services for clients. The benefactors and recipients are usually different parties. This makes the marketing situation much more complex and the measurement of success much more difficult.

The research within this paper indicates that marketing techniques can be transferred to the nonprofit charitable health organization. The intent of the paper was, therefore, to merge marketing theory and methodology with the behavioral dimensions of values and attitudes to explain donation.

Purpose of the Study.

The purpose of this dissertation was to present theoretically and measure empirically the relationship among the level of donation, the generalized values held by the individual and the specific attitudes held by the individual toward the Oklahoma Lung Association, its activities, and its health problems.

This exploration allowed evaluation of the hypothesized relationship that individual donation behavior is partially explainable by one's values and attitudes. It also allowed for the evaluation of the relative merits of using attitudes as a measure of behavior as opposed to values.

Accomplishment of this major purpose implied accomplishment of some important goals. These goals are:

1. Show that level of donation is a function of one's value importance system and also is a function of the individual's attitude toward the Oklahoma Lung Association.
2. Show that attitudes explain donor behavior better than values.
3. Reveal that specific values are related to specific attitudes.
4. Show that the individual's donation behavior is influenced by his situational experiences and perceptions.
5. To affirm the concept that marketing techniques and tools may be applied to nonprofit organizations.

The first four objectives are empirically tested. The fifth objective is not directly tested but conclusions are reached out of the attempt of the paper to employ a nonprofit organization as a data source.

General Overview of the Study

The study essentially consisted of taking measurements of three groups of respondents and analyzing the relationships among the groups. The three groups consisted of "heavy," "light," and "non" donors to the Oklahoma Lung Association. The modified technique used to measure the generalized values was adapted from Rokeach (21,168-178). The technique is self-administered and has been found empirically to be both a valid and reliable measure of generalized values. The approach used to measure the object attitudes was also adapted from Rokeach (22). It also is self-administered and has been found to be valid and reliable.

The data for the study came from two sources: (1) the files of Oklahoma Lung Association; and (2) a mail survey. The files contained the amount of the donation of all Oklahoma donors to the Oklahoma Lung Association and the survey revealed the values and attitudes of the respondents. The actual selection of the names used in the mail questionnaire was done via a stratified systematic probability basis. The frame for the donor sample was the Oklahoma Lung Association files and the nondonor frame was the telephone directory. The two samples were combined to form the sample population. The size of the sample, 2166 total names, was based on available resources, anticipated response, and analytical requirements. The lack of resources limited the size of the sample but there was a requirement for sufficient size for analyses by various multivariate techniques. Three methods of multivariate analyses, multiple regression, factor analysis, and canonical analysis were employed to explore the data.

Limits of the Study

The major limits of this dissertation involved the scope of empirical investigation. As is often the case, limited financial resources necessitated selection of respondents in less than a purely random manner. This limitation did not, however, prevent the testing of the hypotheses. The descriptive nature of some of the empirical results, also, did not preclude testing of the hypotheses as some of the hypotheses are indeed descriptive in nature.

The study was exploratory in nature. Its purpose was to uncover possible links between value systems, attitudes, and resultant behavior. Further, it should serve as an impetus to additional research in the area of nonprofit organizations and value-attitude systems. It is not necessarily implied that this study is one that others should follow. It is only implied that attempts must be made if nonprofit areas are to be fruitfully explored.

Plan of Action

Chapter II presents a review of theory and research in the problems of value and attitude measurement as well as the concepts and their relationships to behavior. Literature related to marketing in nonprofit areas in general is reviewed as well as literature which is related, particularly, to the Oklahoma Lung Association and charitable organization fund raising. Chapter III presents the research methodology. Chapter IV is the data and the analysis of the study results, and Chapter V contains the implications for further research, as well as the summary and conclusions.

CHAPTER II

RESEARCH IN NONPROFIT MARKETING, ATTITUDE

THEORY, AND VALUE SYSTEMS

The purpose of this chapter is to present the "state of the art" in order to position the work contained within this paper. Three areas will be covered: (1) concept of nonprofit marketing, (2) attitude theory, and (3) value systems. Coverage will be limited to the critical dimensions. Nonprofit marketing receives the least interest since little theory is involved. The nonprofit section includes the nonprofit concept, the nature of the function, and characteristics of the Oklahoma Lung Association. Background material on marketing studies completed in charitable health areas is also presented.

More depth is required to review the status of attitude theory. This section begins with an overall look at attitude definition using Allport's definition as a basis. The attitude-behavior relationship is discussed. Several measurement approaches exist and these are reviewed. The last part of the section presents marketing's uses of the attitude concept.

The value systems section follows a pattern similar to the attitude section. It includes discussions of definition, value-behavior relationship, measurement, and marketing uses. The value-attitude relationship is also reviewed. Rokeach is one of the few behavioral researchers who places values on the level of attitudes as a determinant of behavior. His concept of values and attitudes is emphasized throughout the chapter.

The Concept of Nonprofit Marketing

The suggestion by Kotler and Levy that the concept of marketing be broadened to include nonbusiness institutions has been extremely well received by the marketing community. The majority of published comments support the suggestion with vigor. This is not to insinuate that all agree with the nonbusiness or nonprofit movement, but only that little published criticism has been forthcoming. No doubt other critics exist but have not voiced their objections on the printed page. Charitable health organizations have been in the forefront as examples of where marketing could be of significant aid in improving efficiency. These examples are particularly heavy with emphasis toward fund raising and analysis of donor behavior. The Oklahoma Lung Association affords an unique opportunity for practical application of these suggestions.

It should be emphasized that no one has suggested that "marketing-like" activities do not exist outside the traditional marketing institutions. The main point is that the American Marketing Association definition of marketing excludes these activities: "The performance of business activities that direct the flow of goods and services from producer to consumer or user" (23).

The choice is whether to broaden the concept of marketing and define these activities as marketing. Kotler and Levy did not discover that these activities existed nor did the general idea of incorporating marketing's expertise into nonprofit areas originate with the Kotler and Levy pronouncement in 1969 (14). It is difficult, if not impossible, to determine the origin or initial application of the movement. As early as 1952, G. D. Wiebe (24) suggested that broad, social objectives

were not likely to be "sold" successfully unless the essential conditions for effective merchandising existed or at least could be made to exist. Wiebe demonstrated the importance of effective merchandising with four case studies built around constructive social goals. The four case studies, all nonprofit orientated, involved selling of war bonds, recruitment for civil defense, promotion of a juvenile delinquency documentary, and promotion of a televised senate committee hearing. The conclusions reached indicated that the successful programs had identified the market, the market needs, and had promoted a method of satisfying those needs. Subsequent publications such as Selling of the President, 1968, also suggested the need and use of marketing in the nonbusiness enterprise (25).

Kotler and Levy, however, appear to be the first to suggest an integrated marketing approach to the nonprofit area with the application of the marketing concept. They suggest that these areas be totally incorporated within a broad definition of marketing. This approach is highly acceptable, since all marketers do not use the same definition of marketing in its traditional meaning as a function of business management. The basic idea underlying the Kotler and Levy article is that institutions outside business such as government agencies, hospitals, school systems, and charitable organizations all perform the classic business functions of finance, production, personnel, purchasing, and marketing. These activities may not be recognized as such by the nonbusiness organization, but they are indeed business functions, therefore, these institutions perform "marketing-like activities." The organizations have products, even though they be undefined, and therefore, the managers of the organizations perform traditional marketing

functions of pricing, advertising, distributing, and personal selling. Given these similarities, "business marketing" can be applied to non-business areas.

Not everyone agrees that attempts should be made to include non-business organizations under the marketing umbrella. Luck (26) warns that the broadening of marketing may lead the discipline into diluting its efforts and indulge in complicating a field already beset with complications. Luck does not deny marketing's value to nonprofit organizations, but feels any contribution marketing makes should be on an individual, as opposed to a discipline basis.

Kotler and Levy feel that the crux of marketing lies in the general idea of exchange and customer satisfaction rather than in buying and selling. This is a broader definitional approach than the traditional and it also includes the idea of the marketing concept. This broad conception of marketing is called generic marketing and is based on the following definition. "Marketing is the set of human activities directed at facilitating and consummating exchanges" (16,12). Generic marketing is, therefore, available to all organizations facing problems of market response.

While Luck appears to stand alone, at least in the published articles, in his opposition to broadening the marketing concept, others have readily joined Kotler and Levy in their promotion of the expansion. The concern for "Quality of Life" as a 1970's goal may be the reason for such eager participation. Shapiro (17) (27) is very vocal in asserting that, although the marketing function differs among nonprofit organizations, certain business concepts can be adopted to enhance their operations. He identifies the nonprofit organization's principle

marketing tasks as resource attraction, resource allocation and persuasion. He also describes the influence and use of each of the various components of the marketing mix, communication, distribution, pricing, and product in the performance of these tasks.

Buzzell's presentation to the American Marketing Association in 1970 also lends credence to the broadening approach (18). He strongly advocates that efforts should be extended so that contributions to the effectiveness of nonprofit institutions will be maximized. He also feels that due to lack of understanding and experience with nonprofit organizations, first priority should be given to descriptive studies such as this paper.

Nature of the Nonprofit Function

Even with a limited background, the questions of whether a marketing function exists in nonprofit organizations, and should "business" marketing move into those areas, appear to be answered with positive affirmation. The nature of the function has also been described as similar to the business function i.e., marketing-like transactions exist. Business marketers have recently re-expressed the aim of marketing to be "the satisfaction of customer wants at a profit" which emphasizes the continued adjustment of their offerings to meet customers' needs. In other words, an exchange takes place. The nonprofit function also facilitates an exchange where marketing activities play a major role in efficiency.

The next query to be approached is, "How does the nonprofit organization's marketing function differ from the profit area function?" (14). The nonprofit organization differs greatly from the business in

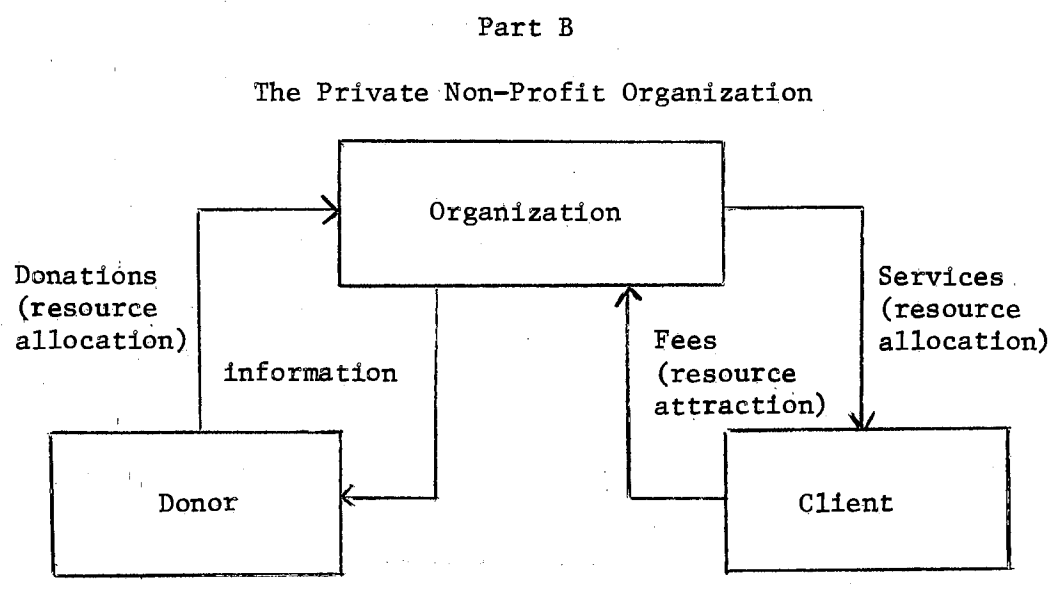
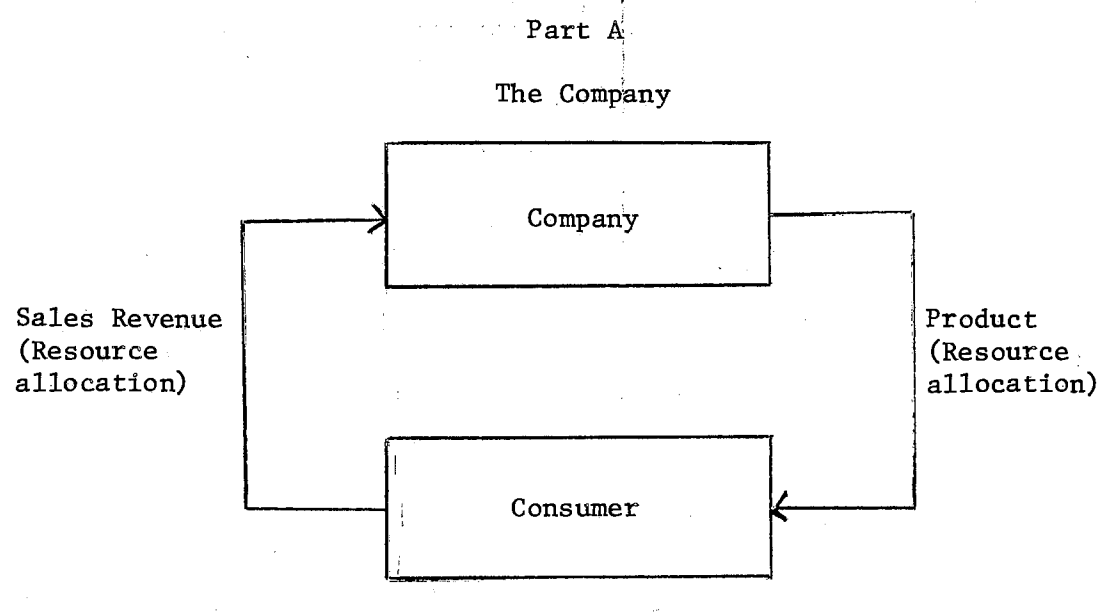
the way funds are generated and used. As just stated, the marketing task in the business sector is viewed as satisfying consumer wants, which in turn leads to company profitability.

This works because the firm has but one primary constituency to which it provides products and from which it receives funds. The nonprofit organization has two constituencies: clients to whom it provides goods and/or services, and donors from whom it receives resources (27,124).

Figure 1 indicates these basic differences.

The firm normally obtains its initial capital from investors and creditors, who envision some sort of monetary gains. Later the firm generates revenue through sales. The benefactor and the recipient of the nonprofit organization are usually different parties. This makes the marketing situation more complex and the measurement of success more difficult, but certainly not impossible nor without analogues in the business world. In the nonprofit organization the direct relationship and self-correcting mechanism of resource attraction and allocation is not typically present but this dichotomization probably gives the nonprofit organization flexibility; i.e., the approach it uses for the donors need not be the same as that used for clients. However, complexity has been introduced as two different functions are to be performed and two different "consumers" are to be satisfied. To complicate the situation further, activities which satisfy the client may meet with donor disapproval.

The success of the firm is relatively easy to measure. A review of profit growth or profitability relative to competition, or sales growth or sales relative to competition or several other measures are a good indication of success. The nonprofit organization resource attraction functions are analogous: if the donors donate, they are satisfied;



Source: Benson Shapiro, "Marketing in Nonprofit Organization," Marketing Science Institute, Cambridge, Mass., Sept., 1972, p. 8.

Figure 1. Company and Nonprofit Organization Funds Flow

if they do not donate, they are not satisfied. This is not the total measurement of success, however, since the nonprofit organization which receives large contributions may be a success in attracting donations, but not in satisfying its clients. Success toward the clients can only be measured in terms of the achievement of goals related to client satisfaction. The most difficult task, of course, would be the measurement of this client satisfaction. This paper deals only with resource attraction, thereby avoiding the difficulties of client satisfaction.

The theoretical bases for broadening the concept of marketing seems secure. There is a need now to examine available evidence of "broadening type" application.

Generic Concept Application to the General Nonprofit Area

Shapiro (17,3-4) refers to many articles indicating the scope of the broadening effects. These references include consumer views regarding hospitals, the development of techniques for marketing of proper nutrition practice, the advertising of "causes" such as the Audubon Society and the National Council of Negro Women and the determination of donor needs for higher education. The July, 1971, issue of the Journal of Marketing contains articles on health service marketing and population problems, recycling wastes as a channels-of-distribution problem and the potential role of marketing research in public policy. An excellent article by Simon (28) makes some "marketing correct" recommendations for family planning campaigns.

As can be seen, several application suggestions exist but little empirical work has been completed. One such study, however, was done

by Kassarijan (29) on the reaction of consumers toward incorporating ecology into marketing strategy. Another significant study was the analysis of the Louisiana model for family planning. The analysis reveals that the success of the model depends on:

- (a) defining the services needed by the customer,
- (b) defining the market target and use of market segmentation . . . the recognition of marketing as an integrated effort involving the design of a marketing mix (30,6-7).

Another study involving more depth of research and analysis was done on the tourism industry (31). The object of the research was to determine whether or not opinion leaders existed in the broad topic area of vacation travel. Once the individuals were identified, an attempt was made to profile these vacation travel opinion leaders on the basis of demographic, predispositional, psychographic, and vacation travel related variables. The analytical methods employed included factor analysis, intercorrelation of specific variables, cross classification and multiple regression. Using a mathematical approach, Blattberg and Stivors (32) presented a model in 1970 for the evaluation of the effectiveness of advertising used by public transportation companies.

Generic Concept Application to

Charitable Health Areas

As previously noted the charitable health area has been routinely suggested as a fruitful possibility for marketing application. Unfortunately, little published empirical work has been generated. Numerous articles refer specifically to fulfilling donor needs or determining donor motivation, but few studies delve into these areas. Motivation research indicates many people are guided by their own

self-interest when they make a donation; and this self-interest may include the individual's unconscious wish to impress the neighbors or to be well liked. Other motives for giving include buying a place in heaven, repentance for sins, insurance for good luck, personal sense of well-being, to do one's duty, or to be kind to the underdog (33).

People tend to give to those causes that have a personal or emotional meaning to them. The hierarchy of loyalties has been identified as follows:

- (1) The Church, (2) Fraternal organizations and other socially purposeful groups, with which the donor is associated, (3) Emotionally related organizations such as health groups with which the donor can identify present or prospective interest, (4) Obligatory commitments such as Community Chest, which the donor feels he has to support regardless of personal considerations (33,18).

Statements as the ones above appear to have little empirical validation. One validating study is Andrews' (34), Attitude Toward Giving. His net conclusion is that people give in order to get something; that is, there is an exchange. The exchange is the donation for an easement of guilt, fear or elation of pride. It should be noted that Andrews' study was published in 1963 and it is likely changes have occurred since that time. Even with this kind of information, little effort has been exerted to use it in concert with marketing technology. Fund raisers have studied the effectiveness of different promotional campaigns and techniques but no attempts, at say, market segmentation have been done.

Mindak and Bybee (9) indicate in their 1971 article that segmentation or identification of the "heavy giver" to the March of Dimes campaign could be an effective application of marketing concepts and tools to the nonbusiness enterprise. They found their biggest handicap in conducting marketing analysis for the March of Dimes was the lack of

primary research data about the "heavy giver," his demographic characteristics, the location and size of the market, and his basic motivation for giving or not giving. Although their study only searched for advertising appeals which would differentiate the changing image of the March of Dimes, the major recommendation was to move strongly toward the "heavy-user concept" in direct-mail advertising.

A major part of the Mindak and Bybee study revolved around the awareness of individuals of the March of Dimes program. This is a common approach for health organizations to take. Several studies, done for the Heart Association and the Tuberculosis Association, have centered around individuals' attitudes toward the organization, methods of fund raising, and concern over the diseases (8) (11) (12). Although each of these studies is a marketing attempt, the depth of the research and particularly of the analysis is somewhat shallow. The most comprehensive study provides the following illustration (10). The major task of an Oregon Lung Association paper was to obtain and analyze knowledge and opinions about air pollution, respiratory diseases, tuberculosis, and the image of the Oregon Lung Association. In the area of air pollution, items dealt with the pollution problem as perceived by the respondent, various approaches to abatement and the possible harmful effects of air pollution. Questions dealing with Chronic obstructive pulmonary diseases sought to ascertain knowledge and opinion on etiology, susceptibility, symptoms, prognosis and value of early detection. Tuberculosis questions were concerned with prevalence, etiology, transmission and treatment. The image questions determined the extent to which people were aware of the various programs and fund raising activities of the association. As can be seen, the survey was broad and

deep in nature. The mail questionnaire was sent to 4,800 contributors to the organization with a return of 34.64 percent.

No attempts, however, were made to test the significance of the data, or to correlate attitude with collected demographics. No attempts were made to relate level of donation with attitude or demographics. In short, no statistical analysis was done to test significance of the results. Other studies have used Chi Square as a test of significance on similar data, but that appears to be the extent of statistical analysis as well as attempts to identify the nature of the level of donation (13).

Characteristics of the Oklahoma Lung Association

The research within this paper deals with the Oklahoma Lung Association. The Oklahoma Lung Association is an affiliate of the National Lung Association. Organized in 1904 as the first national voluntary health organization, the National Lung Association has grown into a large federated body of local and state organizations. It has long been a pioneer and motivator of the voluntary health movement in the United States. The primary purpose of the organization is the advancement of scientific treatment, prevention and the eventual eradication of tuberculosis and the control of other respiratory diseases.

In order to achieve this primary goal, the organization engages in soliciting voluntary contributions from the general population. This fund raising is done by the local and state affiliates with assistance from the national organization. The Oklahoma Lung Association, therefore, controls its own fund raising campaigns but seeks guidance from

the National Lung Association as well as coordinating the campaign with other national affiliates.

Fund raising, in nonprofit organizations, typically takes a promotional approach emphasizing either advertising or personal selling. Fund raisers study the effectiveness of different promotional techniques and relay this information to the local campaigners. An example of careful promotional planning is found in the American Cancer Society's efforts to raise money for cancer research.

In their brochure directed to local units, they attempt to educate the volunteer and professional chapters on the handling of newspapers, pictures, company publications, radio and television, movies, special events, controversial arguments and so on (16,875).

The advertising campaign is generally used when the organization is attempting to generate many relatively small contributions from a large number of potential donors. The advertising typically uses the mass media, direct mail, or combination of both. The Heart Association, for example, uses both with its "Fight heart disease with a check and check-up" theme. The approach of the National Lung Association and the Oklahoma Lung Association is almost exclusively a direct mail campaign. Since 1907, the primary source of funds for the National Lung Association has been Christmas Seal contributions. The Christmas Seal program has grown from a single local association's use to where 2,500 affiliates of the National Lung Association send them out each year.

Each November the Oklahoma Lung Association sends to previous donors of the association Christmas Seals with a letter urging a continuation and an increase in donations. Seals are also sent to non-donors in an attempt to obtain new support. A series of follow-up letters are typically sent to the solicited individuals. The number of

follow-up letters depends on the level of past donation. The larger the donation the more follow-up. The names of previous contributors are taken from the files of the Oklahoma Lung Association while the telephone directory is normally used in obtaining the nondonors. No attempt is made to differentiate the messages to the solicited individuals, other than the quantity of the follow-up. The only other distinction made in the mailing is that the larger the previous contribution the more Christmas Seals included in the package. This is based on the theory that the more seals available, the larger the donation. In an effort not to waste the seals, the increase is sent only to the most "logical" prospects. Using this approach, \$265,487.36 of the 1971 total generated income of \$353,092.40 was obtained.

Fund-raising is a highly sophisticated job which includes many of the classic tasks of the business-oriented marketing. One of the first tasks should be determining if the "market" of donors have homogenous characteristics which put them into groups and determining which appeal will be most effective for each group. Different groups will be amenable to different approaches, because they have different needs which they want the exchange to satisfy. The Oklahoma Lung Association has never engaged in marketing research; therefore, they have never tried to separate or segment the donor market. The same appeal is applied to the historical donor and the nonhistorical donor.

This paper attempts to determine, if indeed, homogenous characteristics exist within donors, as well as nondonors, to the Oklahoma Lung Association. This research, therefore, attempts to partially explain donor behavior as it relates to their generalized value systems and to their specific attitudes towards the Oklahoma Lung Association.

Hopefully, this approach will lay a foundation for actual segmentation attempts of the donor market.

Attitude Theory

The study of attitudes has occupied a major share of attention in social psychology for several decades. The marketing's concern for attitude research has not existed as long but it has been, and still is, a viable topic for discussion and analysis. The subject has definitional problems as well as theoretical and measurement difficulties, but these handicaps have not deterred extensive investigation, both by marketing and social psychology.

Allport (1) pointed out, in his classic article over thirty years ago, that the concept of attitude is indispensable to social psychology and to the psychology of personality. The modern concept of attitude may be traced to three points of origin: (1) experimental psychology of the late nineteenth century; mostly laboratory investigations, (2) psychoanalysis, which emphasized the dynamic and unconscious basis of attitudes; and (3) sociology, wherein attitudes come to be recognized as the psychological representations of societal and cultural influence. The sociological approach is generally credited to Thomas and Znaniecki (21,110) in 1918 and set the state for attitudes becoming the central concept of social psychology.

Interest in attitude research has fluctuated since the 1920's. This variation in researchers' interest is, in part, due to the area's shortcomings. These shortcomings include the imprecise, and perhaps improper, conception and definition of attitude, the insufficient

attention and inconclusive results of the attitude-behavior mechanism, and the difficulty of measuring instruments.

Attitude Definition Status

McGuire (6) states that definitions tend to be stifling, but they help to focus the topic of conversion and limit its nature. During the past century, there have been myriad definitions and numerous analyses of definitions. Allport in 1935 reviewed sixteen definitions before venturing his own as the seventeenth. Nelson listed 30 definitions, and Campbell and DeFleur and Westie, among others, listed many more (6,142). Most of these definitions agree that attitude is a learned mental state that causes an individual to act toward an object, person, or concept in a manner that may be described as favorable or unfavorable. Allport regards the central thread running through the diverse definitions as a "preparation or readiness for response." His definition is widely accepted and is as follows,

An attitude is a mental and neutral state of readiness, organized through experience, exerting a directive or dynamic influence upon the individual's response to all objects and situations with which it is related (1,810).

Allport feels this definition is broad enough to cover the many kinds of attitudinal determinations which are recognized by psychologists and at the same time narrow enough to exclude those types of determinations which are not ordinarily referred to as attitudes. In fact, Allport purposely differentiates attitudes from other types of readiness such as habits, needs, wishes, desires, sentiments, concepts, and opinions.

Although Allport's definition is widely accepted, it is not accepted by all researchers. Sherif and Sherif define attitude

in a way that leads to definite research operations in assessing attitudes.

An attitude is the individual's set of categories for evaluating a domain of social stimuli (objects, persons, values, groups, ideas, etc.) which he has established as he learns about that domain (in interaction with other persons as a general rule) and which relate him to subsets within the domain with varying degrees of positive or negative affect (motivate emotion) (35,337).

Katz (36,459) states, "Attitude is the predisposition of an individual to evaluate some symbol or object or aspect of his world in a favorable or unfavorable manner." Fishbein (37,389) characterizes it as "a mediating evaluative response, that is, as a learned implicit response that varies in intensity and tends to 'mediate' or guide an individual's more overt evaluation to an object or situation." Rokeach's definition is, "An attitude is a relatively enduring organization of beliefs around an object or situation predisposing one to respond to some preferential manner" (21,112).

To further illustrate the diversity of approaches, Allport's definition is dissected into its five components providing a framework for reviewing questions that have arisen out of definitional endeavors (6,142-150).

1. Mental and neutral state. This phrase reflects that most theorists have chosen to use attitude as a mediating concept, an abstraction partially defined in terms of various antecedents, conditions, and consequent behavior, that is, attitude is an intervening variable. Thus, if attitude serves as an abstraction in a theory describing overt behavior, given some environment, the measurement of this abstraction may be done either phenomenologically or physiologically. Allport's phrase, "mental and neutral state" may refer to these two

approaches. The general discussion of these approaches and the specific attempts of measurement in both social psychology and marketing are reviewed later in this paper. The attempt here is to only indicate that various approaches do exist within one accepted definition.

2. Readiness to response. The theorists who accept "readiness to response" as a part of attitude definition are not homogenous in the approaches they take in trying to account for the relationship between attitudes and responses or behavior. In fact, at least five different methods can be enumerated under the general phrase, "readiness to response." (a) The positivistic approach avoids any defined constructs between attitude and response and attempts to define the direct relationship. (b) In the paradigmatic approach, one attitude is declared the paradigmatic attitude, or antecedent, and one response is the paradigmatic response, or consequent. Then all other attitudes are defined in terms of their relation with the paradigmatic attitude and all other responses are in terms of their participation in the paradigmatic response. (c) The mediationalist approach is probably the most popular. The attitude is viewed as a mediating construct working as an intervening variable between socially observable antecedent conditions leading to the attitudes and consequents following after it. (d) The class-inclusionist approach is an elaboration of the intervening variable method. Here mediating constructs exist on both the antecedent and consequent sides. Attitude, is thus, a compound mediating process including a covert response evoked by a variety of antecedents and its covert stimulus feedback that evokes the consequents. (e) The last approach, interactionist, takes into account the possible interaction of the antecedents and consequents, while using an intervening variable.

This concept reveals that the mediating attitude is determined not only by each antecedent in isolation, but also by higher-order effects involving interactions of the antecedent. This would postulate the possibility that different consequences are to some extent alternative modes of releasing the attitude in the form of behavior.

3. Organized. Two relevant questions arise regarding the contention that attitudes are organized. Is the single attitude made up of components having a certain characterized nature, or is there a characteristic structure within a set of several different attitudes. No definite answers have been accepted although work has been done to support both contentions (21) (37) (38) (39).

4. Through experience. Theorists are in general agreement that attitudes are learned through experience. There is some concern, however, that the agreement is so widespread that this issue may escape examination.

5. Exerting a directive and/or dynamic influence on behavior. The problem is whether attitudes steer one's energy into one kind of behavioral outlet, or at one target, as opposed to another. If attitudes are dynamic, they affect the magnitude of energy as well as the direction. Freud accepts the directive only approach, as do those theorists who use techniques which measure interests, values, etc. as only profiles.

Whether they agree with the dynamic aspects of the attitude or not, theorists seem to agree with its directive proportion. However, two different concepts arise when trying to discuss the functioning of the directives. Direction means the selection of an alternative. One thought is that attitudes operate selectively on the response side where

the decoding takes place; while the other thought would place the selection process on the reception side where the encoding takes place. The majority advocate the encoding side.

This lengthy discussion of how attitudes may be defined is an indication of the area's definitional problem. Even this discussion is heuristic and does not relate that the term can be given an operational definition in a given experiment.

It is unlikely that any one approach to defining attitudes will be superior to the others in all regards. There are numerous desiderata for such definitions--testability, parsimony, heuristic provocativeness, relatedness to other theoretical constructs, generality, etc.--and it is unlikely that one choice of definition will optimize all of them. Since importance of these criteria will vary with different aspects of the scientific enterprise, it may be convenient to allow somewhat different definitional tactics for different purposes (6,149).

Based on this philosophy of operational definition and on its basic agreement with general accepted theories of attitude, this paper uses Rokeach's definition and concept of the term (21). Since the Rokeach concept of value systems is used in this paper, his attitude concept gives an atmosphere of consistency.

The Rokeach Concept of Attitude

"An attitude is a relatively enduring organization of beliefs around an object or situation predisposing one to respond in some preferential manner" (21,122). Rokeach's definition is comprised of five components:

1. An attitude is relatively enduring.
2. An attitude is an organization of beliefs.
3. An attitude is organized around an object or a situation.

4. An attitude is a set of interrelated predispositions to respond.

5. An attitude leads to a preferential response.

These components are generally consistent with the Allport (40) concept although disagreement exists. For example, Rokeach feels attitude definition is independent of experience. A review of these components as they apply to the research within this paper is of value.

1. An attitude is relatively enduring. The term "relatively enduring" is not easily definable. It is not possible to set a standard by which the predisposition becomes an attitude based on some consistency or reliability measurement but the attitude itself is measurable.

2. An attitude is an organization of beliefs. In Rokeach's definition beliefs are stated as:

A belief is any simple proposition, conscious or unconscious, inferred from what a person says or does, capable of being preceded by the phrase "I believe that. . . ." The content of a belief may describe the object of belief as true or false, correct or incorrect; evaluate it as good or bad; or advocate a certain course of action or a certain state of existence as desirable or undesirable (21,113).

The research questionnaire structure had these characteristics.

Using this approach, a belief is held to have three components: cognitive, affective, and behavioral. In doing research on beliefs, it is difficult, if not impossible, to isolate one of these components and manipulate it independently from the others. Therefore, the operations by which beliefs are measured almost invariably yield a single score which is unlikely to reflect these three different components in any very precise fashion.

3. An attitude is organized around an object or a situation.

Rokeach refers to an attitude object as a static object of regard, concrete or abstract, such as a person, a group, an institution, or an issue. Situation refers to a specific situation, a dynamic event or activity, around which one organizes a set of interrelated beliefs about how to behave. The attitude objects in this research are specific health problems and the Oklahoma Lung Association. The situation is limited somewhat since only one method of donation collection is used. Situational factors are studied, however, in regard to how the Oklahoma Lung Association is viewed in relation to the general activity of charity donation.

4. An attitude is a set of interrelated predispositions to respond. As a predisposition to respond, the response must be some overt expression, either a verbal expression of an opinion or some non-verbal behavior. This response requirement indicates a behavioral aspect of the definition, i.e., a predisposition that does not lead to some response cannot be detected. This does not necessarily mean that all predispositions, within the interrelated set, are activated into a response by an attitude object or situation. Which ones are activated depend upon the situation within which the object is encountered. This would suggest that one's response to an institution, such as the Oklahoma Lung Association, would vary depending upon the situation. This suggestion is tested in one of the hypotheses when general donation situations are compared with specific situations.

5. An attitude leads to a preferential response. ~~Some disagree-~~ment exists as to the basis for the preferential response. Is the response based on liking or disliking or on good vs. bad? The problem

is that like-dislike and good-bad do not necessarily go together. For example, an individual may feel that smoking is bad, but still smoke as he likes it. The decision to smoke or not to smoke, the preferential response, is, therefore, a function of the relative strength of the evaluation of smoking and one's positive or negative feelings about the matter.

Rokeach's definition avoids the implication that the attitude predisposition is either affective or evaluative and assumes it may be one or the other or both. This paper, therefore, does not attempt to dissect the responses into their affective or cognitive components.

This review of Rokeach's concept of attitude leads to a statement of his differentiation of attitude from other concepts. The following are some of those concepts as viewed by Rokeach (21,123-126):

Belief systems--the total universe of a person's belief about the physical world, the social world and the self.

Value--a type of belief, centrally located within one's total belief system about how one ought or ought not to behave, or about some end-state of existence worth or not worth attaining.

Opinion--verbal expression of some belief, attitude, or value.

Faith--one or more beliefs a person accepts as true, good, or desirable, regardless of social consensus or objective evidence which are perceived as irrelevant.

Delusion--a belief held on faith judged by an external observer to have no objective basis and which is, in fact, wrong.

Stereotype--a socially shared belief that describes an attitude object in an oversimplified or undifferentiated manner.

As can be expected, the above approaches or definitions are not accepted by all theorists. For example, Thurstone and Chave (41,7) define opinion as a verbal expression of attitude while Rokeach has a broader concept.

In discussing the function of attitudes, Rokeach borrows heavily from Katz (42). Katz groups these functions according to their motivational basis: (1) adjustment, (2) ego-defensive, (3) value-expressive, and (4) knowledge. The four functions are not regarded as mutually exclusive or exhaustive. Some of a person's attitudes may serve one function, while others serve different functions. A given attitude may simultaneously serve several or all of these functions. Rokeach extends these functions as functions of the single belief, ideology, and belief system. Rokeach also notes that no objective measurement now exists that can precisely determine which function a particular attitude serves for a particular person or to what degree.

The Attitude-Behavior Relationship

One of the reasons that attitude research has been popular with social psychologists is the assumption that attitudes have a relationship with behavior. This does seem logical since attitudes are accepted as a predisposition to response. However, as early as 1934 there was published evidence to the contrary. In the 1930's LaPiere (43) took several extensive automobile trips with a Chinese couple and took notes regarding their treatment at hotels and restaurants. Later, he wrote to those establishments asking if they would accept Chinese guests. Over 90 percent of these responding said they would not, when in fact all had previously accommodated LaPiere's companions. His

conclusion was that factors other than attitudes toward race were the main determinents of significant variation in their reception.

In 1964, Festinger (44) was appalled at the dearth of studies relating attitude to behavior. The few relevant studies available showed that the "obvious" attitude-behavior relationship probably does not exist. Festinger's feeling is essentially that theorists have persuaded themselves that such a relationship exists and since it is so obvious little work is done on it or on the considerable technical difficulties of investigating it.

The most damaging study to the "attitude precedes behavior" concept is a 1969 study by Wickers (45). He reviewed thirty-three studies covering work performance, work absences, work resignations, providing public accommodations, agreeing to be photographed, participating in a civil rights discussion, making a commitment to interact, signing a petition, attending labor union meetings, cheating on examinations, voting in a student election, applying for public housing, and breast feeding. As can be seen, the studies covered a wide range of attitude objects and as can be expected the subject population, verbal attitude measures and overt behavioral measures were also wide in range and nature. As a whole these studies suggest that it is likely that attitudes will be unrelated or only slightly related to behavior. All of the studies did not report statistics of association, but in those studies using these statistics, rarely could as much as ten percent of the variance in behavior be explained by attitudinal data.

Many attitude researchers do not accept these critical statements. Their main argument is that additional factors need to be considered in predicting behavior. No systematic investigation, however, has been

made concerning these other sources of influence on behavior. Most works that have empirically studied other influences on attitude-behavior relationships have looked at one influence at a time. Wicker, (45,66-74) also, reviews some of these studies, relating to personal and situational factors in his 1969 article.

The personal factors are individual differences while the situational factors are extrapersonal or environmental. Research examining both of these influence on behavior has shown that predictions of behavior can be made more accurately from knowledge of the situation than from knowledge of individual differences. Intrapersonal variables become important as predictors when their interactions with situational influences on attitude-behavior relationships is as follows: "The more similar the situations in which verbal and overt behavioral responses are obtained, the stronger will be the attitude-behavior relationship" (45,69).

Although a variety of factors has long been suggested as influences on behavior, Fishbein (38) was the first to attempt to combine several factors into a systematic formulation. His theory identifies three kinds of variables that function as the basic determinants of behavior: (1) attitudes toward the behavior, (2) normative belief (both personal and social), and (3) motivation to comply with the norms. The importance of these three components to behavior is still to be tested. Most of the empirical studies to date have not centered around the normative-motivational aspect, but have been concerned only with the attitude toward the object. In fact, controversy has raged as to the nature and uses of these "expectancy-value models."

A review of this controversy about the models is found in the November, 1972, issue of the Journal of Marketing Research (39). This article basically discusses whether the empirical studies done by Sheth and Talazyk and by Bass and Talazyk are really adaptations of the Rosenberg and Fishbein models or "original" models. The Rosenberg (46) model was one of the first "expectancy value" type models. The conclusion of the article is that original models were produced by the authors. This is disputed by Sheth, Bass, and Talazyk; so the disagreement continues as to the exact nature of the model and how to measure "value importance" and "perceived instrumentality."

There is nothing particularly sacred about the "expectancy value" model apart from some evidence regarding their usefulness in attitude research. There is much to commend the development and testing of other models which offer certain advantages in behavior research. Following this line of reasoning, this study deals only with the importance of the values and with attitudes of the individuals. The paper makes no attempts to link "value importance" with "perceived instrumentality." It is assumed that the perception of the value obtained or instrumentality is the same across individuals.

Rokeach Attitude-Behavior Relationship

Rokeach feels very strongly that individuals do not act contrary to their attitudes. If negative correlations exist between a given attitude and behavior, the possibility always exists that some other attitude that was not measured may be congruent with behavior. The state of the present attitude theory does not provide rigorous criteria for determining if the researcher is dealing with one or more attitudes.

In fact, it appears that many attitudes may come into play since a preferential response toward an attitude object does not occur in a vacuum. It occurs within some social context about which the individual has attitudes. Rokeach would then postulate that a person's social behavior is mediated by at least two types of attitudes--one activated by the object, the other activated by the situation. Although the researcher could focus only on the "attitude-toward-object," some inconsistency would most likely be observed between attitude and behavior. This is Rokeach's explanation of studies not making accurate predictions regarding behavior.

Rokeach's formulation regarding the attitude-behavior relationship is thus; behavior is a function of the interaction between two attitudes: attitude-toward-object and attitude-toward-situation.

The recognition that two kinds of attitudes will cognitively interact with one another implies that they will have differing degrees of importance with respect to one another, thereby resulting in behavior that will be differentially influenced by the two kinds of attitudes. In one case an attitude object may activate relatively more powerful beliefs than those activated by the situation, thereby accounting for the generality of behavior with respect to an attitude object; on the other hand, the situation may activate the more powerful beliefs thereby accounting for the specificity of behavior with respect to an object attitude (21,128).

No direct empirical attempt is made by Rokeach to separate the two types of attitudes, thus no empirical attempt is made to determine the relative strengths. He does propose a model, however, which shows the nature of the interaction. This model is a modification of a belief congruity model first presented by Rokeach and Rothmas (47). It was not the function of this paper to test this model. The discussion is

presented only to illustrate the complexity of the attitude-behavior relationship and the difficulty of attitude measurement.

Attitude Measurement

Since attitude has some conceptual disagreement, it is logical to expect some disagreement on what and how to measure it. Probably, the best review of these difficulties is Scott's "Attitude Measurement" (7). What properties of attitude should be measured often becomes a matter of convenience. Various properties suggested by recent theoretical formulations include the following (7,206-208).

1. Direction--positive or negative feeling, appraisals, or tendencies (favorableness or unfavorableness).
2. Magnitude--degree of favorableness or unfavorableness.
3. Intensity--strength of feeling associated with an attitude.
4. Saliency--prominence of an attitude or readiness with which a person expresses it.
5. Ambivalence--degree to which both positivity and negativity exist.
6. Affective saliency--degree to which the person's view of the object is dominated by affective content.
7. Cognitive complexity--elaboration of the cognitive component of an attitude.
8. Overtness--prominence of the cognitive component.
9. Embeddedness--degree of isolation from other variables versus connectedness with other variables.
10. Flexibility--ease with which an attitude may be modified by a variety of pressures.

11. Consciousness--a range of availability of awareness of the attitude.

At one time or another, all of these concepts about attitudes have been "measured" with varying degrees of success. In actuality, few of the concepts have been operationalized satisfactorily, i.e., connected to numbers. Most researchers have been concerned with measuring only two of these properties, direction, and magnitude. Systematic theories of psychological measurement have generally focused on magnitude.

Scott separates the procedures of attitude assessment into two stages; administering and scoring. The discussion that follows is based primarily on this division.

Administration

Since an attitude is a hypothetical construct, it cannot be measured directly, but must be inferred from the subjects' responses. Instruments for measuring attitudes are commonly classified according to the types of responses. These responses are usually guided in some way by a standardized stimulus to elicit an attitude without having the attitude changed at the same time. Usually these responses are verbal or written. As could be anticipated, the complexity of the situation could be overwhelming, but most researchers do not venture beyond fairly simple response formats.

1. Method of single stimuli. The respondent is given a series of statements, one at a time, to which he accepts or rejects. The degree of acceptance or rejection may be determined with questions such as, "How likely do you believe that gasoline will be rationed--very likely, somewhat likely, quite unlikely, or almost impossible?"

2. Method of forced choice between pairs. The individual is required to choose which statement, between two statements, is most acceptable.

3. Method of multiple choice. A set of statements is presented to the individual and he is asked to distinguish two or more degrees of acceptability among them. This may be done, for example, with a set of statements which are graded "a priori" along a single dimension.

4. Indirect measures. The techniques above are the most commonly used attitude measurements; however, their use assumes the self-awareness of the individual and the readiness to communicate this verbally. In other words, it is assumed that the respondent's meaning attributed to the statements presented and the meaning he intends to convey are similar to the meanings intended and inferred by the investigator. There are some situations where a researcher may feel this common intent does not exist. This may be due to lack of ability to understand or unwillingness to verbally communicate on the part of the respondent. One way to overcome this problem is to present stimulus items that will be understood by the subject in a way different from the researcher's intent.

One such approach is a presentation of pictured objects to which the individual states a preference and the researcher interprets the reaction as an indication of an attitude toward a particular class to which the object may be assigned. The usefulness of the indirect measurement is largely dependent upon the skill of the researcher as an interpreter and upon the respondent's ability to use logical reasoning and make discriminations.

5. Physiological measures. Another possible approach is to bypass the individual's introspection and verbal communication altogether. One may measure the heartbeat, galvanic skin response, pupil dilation, etc., while the subject is viewing, thinking about, or interacting with the object. This method is somewhat unique and most likely, due to its complexity, would be used in conjunction with other methods.

6. Overt behavior. A sample of the behavior to be predicted is felt by some to be an appropriate measure of an attitude. An example would be role-playing, where the individual would be asked to make believe he is relating to the critical object under defined circumstances.

This paper has avoided the "gray" areas of attitude measurement administration by using a single stimuli approach. This method has vast popularity and is accepted as viable and as reliable as any available.

Scoring

Responses received in the test administration must be converted into scores by means of some scale representing that property of the attitude which is of interest.

The property of direction is typically represented on a two- or three-point scale, whose categories are defined as favorable, unfavorable, and (perhaps) neutral. The property of magnitude may be represented dichotomously (by the categories present and absent), or with a more finely articulated verbal scale (such as very favorable, moderately favorable, slightly favorable and not favorable); or with a set of numbers that are intended to represent finer gradations (7,217-218).

The discussion below is restricted to the "direct" measures as opposed to the physiological or overt measures.

The "direct" technique is so called if the individual is subjected to a request for his attitude on a topic. These techniques have been

and probably will continue to be the most widely used for reasons stated above. Many studies measuring attitude have not used a standardized or tested instrument. Shaw and Wright (48) emphasize that far too many researchers are not careful enough in selecting a viable technique to test their hypothesis. They also warn that direct tests found in the literature should not be used as measures of individual attitude, but used for group comparisons. With the above restrictions, the following methods of direct scoring are discussed.

1. Thurstone scales. One of the earliest attitude scales was developed by Thurstone and Chave (41). The method represents an attempt to approximate interval scales, i.e., distances between points on the measurement which are known and on which equal numerical distances represent equal distances along the continuum being measured. Such a scale enables the researcher to compare differences or changes in attitude, since the difference between a score of three and seven is equivalent to the difference between a score of six and ten and to any difference between any two scores that are four points apart.

The Thurstone type approach is a series of statements positioned on a favorable-unfavorable scale. The position of each statement on the scale is determined by expert classification. The subjects are asked either to check each statement with which they agree or to check the two or three items that are closest to their position. The scale values are not shown to the respondent and the statements are usually arranged in random order.

Several objections have been raised against the Thurstone-type scale. The validity of this procedure for constructing a scale with equal intervals rests with the assumption that the experts can make

social judgments unaffected by their attitude on the issue. Several investigators have checked this assumption and found it to be accurate, while others suspect its validity (35, 343).

A second criticism is an individual score is the mean or median of the scale values of several items and essentially different attitudinal patterns may be expressed in the same score. This criticism, however, is not unique to this scale as shown below in Likert-type scales. The scaling method itself is no longer in wide use, due to the criticisms and the ease of other approaches.

2. Likert scales. Undoubtedly, the most common attitude scale in use grows out of the work of Likert (49). Like the Thurstone scale, the individual is asked to react to a series of items regarding a subject. No attempt is made, however, to find statements that will be distributed evenly over a scale. Only items that seem to be either definitely favorable or unfavorable to the object are used. Rather than checking only those statements with which he agrees, the respondent indicates his agreement or disagreement with each item. Each response is given a numerical score indicating its favorableness or unfavorableness. The algebraic summation of the scores of the individual's responses to all the separate items gives his total score, which is interpreted as representing his position or attitude toward the object. With the Likert-type scale it is common for the subject to respond to each item in terms of several degrees of agreement or disagreement, for example (1) strongly agree, (2) agree, (3) undecided, (4) disagree, (5) strongly disagree.

In comparing the Likert-type scale with the Thurstone, several advantages are found. First, it permits the use of items that are not

manifestly related to the attitude being studied. The use of judges by Thurstone limits the items included. Second, it is easier to construct. Third, it is logically more reliable because the number of possible alternative responses is increased.

The Likert-type scale does not claim to be more than an ordinal scale. It does not provide a basis, other than if it is assumed, for saying how much more favorable one is from another. As has been pointed out, there is also some question as to whether Thurstone scales really meet the criterion for interval scales. Another disadvantage of the Likert-type scale (as with the Thurstone scale) is that often the total score of an individual has little clear meaning, since many patterns of response to the various items may produce the same score. Despite this problem, pragmatically the scores on the Likert-type questionnaire often provide the basis for a rough ordering of people on the characteristic being measured.

3. Other scales. Cumulative scales, like the Thurstone and Likert, are made up of a series of items with which the subject indicates agreement or disagreement. In a cumulative scale the items are related to one another in such a way that the individual replying favorably to statement one also replies favorably to statement two, etc. The result is that all individuals who answer a given statement favorably should have higher scores on the total scale than those answering unfavorably. The total score is computed by counting the number of statements answered favorably. The social-distance scale is another example of this technique. The respondent is asked to indicate, from a list of relationships, the relationships for a specified group to which

he would be willing to admit members. The attitude is measured by the closeness of the relationship he is willing to accept.

Another cumulative approach, scale analysis or scalogram, was first developed by Guttman (50). This technique ascertains whether the attitude actually involves only a single dimension and is based on the reproducibility of the scale. In practice, it is difficult to meet this criterion of reproducibility; consequently, its value is somewhat lessened. The method does have the advantage of an orderly procedure for ranking individuals; however, there is no guarantee that the scoring procedures developed on one study will be applicable to another study (51).

The semantic differential developed by Osgood, Suci, and Tannebaum (52) has also frequently been applied to attitude study. The technique is a series of rating scales, typically with seven points from which the subject chooses one for each scale. The subject is presented with a concept or set of concepts and he rates each one on the seven point scale whose extremes are labeled with adjectives. In attitude research the adjectives are usually evaluative. After the individual has rated the concept, the attitude is inferred by the direction and polarity of the ratings.

The semantic differential is easy to assemble and to score. Its disadvantages lie in the difficulty of interpretation. For example, some evidence indicates that the bipolar adjectives suitable for one attitude object or concept may not mean the same thing when applied to another object.

The above discussion has reviewed the most widely accepted techniques for attitude scoring. Other specific methods exist but, in

general, they are adaptations of the above. The technique used within this paper is a Likert-type scale. This selection is primarily based on two factors: (1) the advantages of the approach as outlined above, and (2) Rokeach uses this type of scale in scoring his studies.

Attitude Research in Marketing

It is highly improbable and most unsuitable for this paper that a detailed review of all the marketing uses of the attitude concept be presented. It is desirable, however, to review a few general areas of marketing usages so as to indicate the breadth and depth of the adaptation. For example, specific operational definitions of attitude have been used as a basis for market segmentation. Consumers have been grouped based on their attitude towards brands, products, and companies and toward the act of purchasing the given brand or product. Hughes (53) believes that marketing strategies based on attitude measurement are logical extensions of two well-known marketing practices--the marketing concept and market segmentation. The marketing concept begins with identification of the needs of the consumer and market segmentation attempts to develop product and promotional strategies that meet the needs of homogenous subsets of the market. The marketer recognizes that consumers buy to meet social-psychological as well as physical needs; therefore, the marketer has attempted to explain buying behavior with measures of consumer attitude and then develop marketing strategies based on these measures.

Virtually every marketing study that has looked at product or brand attitude and product or brand choice behavior together has concluded that a relationship exists; however, most papers do not provide

sufficient basis for evaluating the results. Only a few studies report direct evidence on the link between attitudes and responses to marketing stimuli. Achenbaum reports that in more than twenty-five studies on a large variety of products, "There is a direct relationship between attitudes and usage behavior. . . . The more favorable the attitude, the higher the incidence of usage. . . ." (54,112).

Similarly, Assael and Day (55), using time-series data on several products, conclude that changes in attitude are related to subsequent behavioral changes and are effective explanatory variables of variance in market share brands. No one set of attitudes has been found universally applicable to all products. Each product category appears to have its own unique set of factors by which people evaluate the desirability of the product.

Marketing is aware that the key for using attitude as the base for analysis is the link between attitude and usage behavior. Knowing different attitudinal and usage segments enables the firm to concentrate its efforts on those with positive attitudes. Alternatively, if a firm identifies the attitude of nonusers and these attitudes are not central to the value systems of their holders, promotional campaigns could be designed aimed at persuading the nonusers to change attitude. As stated previously, outside influences may intervene to induce a person to act in a manner not predicted by his behavior. Marketing has looked at a variety of these factors such as exposure to new information, opportunity to make brand choice, the influence of competing brands, the effect of store environment, price and financial constraints and family decision processes (56).

In attempting to overcome the attitude-behavior linkage problem, some marketers have turned to using intentions as an intervening variable between attitude and behavior. However, intentions predict behavior only to the extent that outside moderating influences are absent or at a minimum. The same problems, therefore, tend to exist with behavior intentions as with attitude itself.

The consumer has been studied for many years in many ways for many reasons. This has led to a proliferation of theoretical concepts and empirical data. In order to overcome the serious problems of unrelated studies, a few researchers have tried to relate the knowledge of the consumer, uncovered by various disciplines, into comprehensive models of consumer behavior. The foremost of these attempts has been made by Howard and Sheth and Nicosia (57) (58). Both include attitude as an integral part of their models.

The Howard-Sheth model, rooted in learning theory, begins as a felt need or drive which is triggered by a cue. The triggering cue activates the choice process which is affected by the state of predisposition to buy the product under consideration. The concept of predisposition is used to refer to a latent attitude about the utility of an alternative or group of alternatives to satisfy the drive. It is affected by favorableness of past decision evaluation, the more favorable the experience in the past, the greater the likelihood that the product will be repurchased.

Sheth developed a forced-choice attitude scale based on the Howard-Sheth model, and compared the attitude scores, at the aggregate level, between a well-known product and a less familiar product. The results

strongly suggest that attitude is positively related to product familiarity (59).

Nicosia uses flow charting to designate elements and relations. He has four basic fields. As a message, such as advertising (subfield one) reaches the consumer, it serves as an impact to subfield two, which is composed of the consumer's psychological attributes. As the message is received and acted upon the output is an attitude toward the product, which serves as an input to field two. Field two is a search and evaluation of the product and its alternatives. This attitude is characterized by two qualities (1) the scope is general, i.e., its precepts may cover several brands in the same product class, and (2) the dynamic state of the attitude is in a state of slight disequilibrium. This unsteady state of the attitude causes the individual to reduce the disequilibrium by searching, either consciously or unconsciously, for information about the object.

As can be seen, marketing is deeply involved with the concept of attitude. Myriad of independent studies involving attitude have been published, as well as comprehensions models of consumer behavior. As in the social-psychological discipline, marketing's attitude research is not without controversy or problems as evidenced by the "expectancy-value model" debate (39). This section has only attempted to indicate the significance that attitude concept plays in marketing.

Value Theory and Measurement

There has been a pronounced tendency over the last fifty years to under-emphasize the study of values in relation to the attention paid the theory and measurement of attitudes. This lack of attention is

probably not due to any deep conviction that attitudes are more important determinants of behavior than are values, but rather due to the rapid advancement of attitude research methodology and the lack of consensus on a conceptual framework within which accumulative research on values could occur. The lack of comparative interest is difficult to explain given the widely-accepted view that values, however difficult to define or to measure, play perhaps a more central and dynamic role than attitudes within the individual's cognitive-affective system.

This is not to imply that work has not been done on values, but to allude to the quantity and quality of the research in comparison to the attitude concept. This section will review that value research dealing with definitional problems, measurement approaches, value-attitude-behavior relationships and marketing's use of values.

Value Definition Status

Some researchers refer to individuals as "having values" in the sense of standards or tendencies of choice. Others refer to the objects which people seek as "values." Finally, some consider values as a kind of object in themselves. In other words, there are "valued objects or attributes" and there are "value-standards" of people. This paper views values as the latter.

It is quite common, especially in the social sciences to refer to values either as being possessed by the individual or being shared within a group. To be consistent with the concept of attitude advocated by this paper, value refers to an attribute of individuals.

A popular definition of value is espoused by Kluckhohn.

A value is a conception, explicit or implicit, distinctive of an individual or characteristic of a group, of the desirable which influences the selection from available modes, means, and ends of action (60,395).

This view holds that values are not directly observable, but are based upon what is said and done by the individual. Implicit values are known only to the subject; explicit values are sufficiently verbalized that the outside observer can make judgments about them. This distinction is highly arbitrary and this relationship between the two types of values is not clear.

Another definition identifies values as preferences, desires, motives, or interests. This approach defines values as "desiderata," i.e., anything chosen or desired by someone (61,310). Kluckhohn disagrees by stating that a value is more than a preference or something desirable; it must be morally justified as preferential or desirable. When values are designated as preferences, it may mean "all preferences" or just "basic preferences." Those who define values as "all preferences" must deal with the problem of multiplicity. Dodd (62) speaks of the thousands of values possessed by man based on his almost infinitely varied wants and preferences. The basic approach is to distinguish "basic values" for this myriad of specific wants and preferences. These "basic values" are assumed to be a relatively small number of general principles which underline specific verbal or behavioral responses. It is also felt these values are relatively stable. This approach appears to have merit since thousands of values are neither practically or scientifically manageable.

There are basically two ways to identify these basic values. One is to ask individuals to verbalize the general standards which underline

specific behavior; the other is to obtain large sets of verbal data and mathematically analyze it to determine which standards tend to vary together. The first approach reduces multiplicity by grouping together concepts of similar meaning, thereby achieving any desired level of fewness and generality. The second approach allows examination of specific choices which tend to appear together, i.e., sets of items to which large numbers of individuals respond alike. These items empirically form a positive related cluster. Factor analysis represents a formal mathematical attempt to identify underlying factors among such clusters. The naming of the factors is a problem as is the cluster itself. That is, does the ready-made abstraction correspond to groups of similar-behavior people?

Another major conception problem with values is the influence of other individual characteristics upon the value system.

Value orientations are complex but definitely patterned principles resulting from the transactional interplay of these analytically distinguishable elements of the evaluation process--the cognitive, the affective, and the directive elements--which give order and direction to the ever-flowing stream of human acts and thoughts as these relate to the solution of "common human" problems (63,4).

This quote refers to such elements as needs, motives, perceptions, etc. and although it is indicated that these elements are analytically distinguishable, no research instruments distinguish them. The problem of the relationship among these elements is, therefore, not solved.

It is easily seen that several conceptual problems exist with the study of values. No consensus exists as to the optimal approach, indeed, such an approach may not be available. Considering the background of data and the need to be consistent, Rokeach's concept of value was selected as the approach within this paper.

The Rokeach Concept of Value

Rokeach feels that the concept of value should be placed ahead of the concept of attitude as the focal point of social psychology. This feeling is fostered by the contention that values are a more dynamic concept since they have strong motivational components as well as cognitive, affective, and behavioral components. Values also are determinants of attitudes as well as behavior and since a person possesses considerable fewer values than attitudes, then the value concept provides the more economical analytic tool for describing and explaining similarities and differences between individuals. Also values have been a center of attention across many theoretical disciplines, philosophy, education, political science, economics, anthropology and theology as well as psychology and sociology. Attitudes have been focused upon only by psychology and sociology.

Values, according to Rokeach, have to do with conduct and end-state of existence.

To say a person has a value is to say that he has an enduring belief that a specific mode of conduct or end-state of existence is personally and socially preferable to alternative modes of conduct or end states of existence. Once a value is internalized it becomes, consciously or unconsciously, a standard or criteria for guiding action, for developing and maintaining attitudes toward relevant objects and situations, for justifying one's own and others' actions and attitudes, for morally judging self and others, and for comparing self with others. Finally, a value is a standard employed to influence the values, attitudes, and actions of at least some others. . . . (21,159-160).

This definition of value is very compatible with Kluckhohn's.

Given this definition, values differ from the Rokeach definition of attitude in several important aspects. An attitude is several beliefs aimed at a specific object or situation. A value is a single

belief that guides actions or judgments and cuts across specific objects or situations and beyond immediate goals to more ultimate and end-states of existence. Rokeach also feels that a value, unlike an attitude, is an imperative to action. Finally, a value is a standard to guide actions, attitudes, comparisons, evaluations, and justification of self and others.

The distinction between preferable modes of conduct and preferable end-states of existence is the distinction between values representing means and ends, i.e., between instrumental and terminal values. An instrumental value refers to the way one leads his life and takes the following form: "I believe that such-and-such a mode of conduct is personally and socially preferable in all situations with respect to all objects." A terminal value refers to life's goals and takes the form: "I believe that such-and-such an end-state of existence is personally and socially worth striving for." Only those words or phrases that can be meaningfully inserted into these sentences are values (21,160-161).

Using the "basic value" approach, Rokeach examined a large set of values and operationally generated 36 values. These are listed in Table I (64,25). A limit of 36 was imposed for empirical purposes because it was felt that any more would be a burden for the respondent. The list of terminal values was shortened from hundreds of values obtained from various literature sources. The elimination process was based on whether the terms were synonymous and whether they represented actual end-states of existence. The selection of the instrumental values began with a list of 555 personality trait words evaluated by Anderson (65). The Anderson list was taken from a larger list of

TABLE I
 TERMINAL AND INSTRUMENTAL VALUES

Terminal Values	Instrumental Values
A Comfortable Life (a prosperous life)	Ambitious (hard-working, aspiring)
An Exciting Life (a stimulating, active life)	Broadminded (open-minded)
A Sense of Accomplishment (last contribution)	Capable (competent, effective)
A World of Peace (free of war and conflict)	Cheerful (lighthearted, joyful)
A World of Beauty (beauty of nature and the arts)	Clean (neat, tidy)
Equality (brotherhood, equal opportunity for all)	Courageous (standing up for your belief)
Family Security (taking care of loved ones)	Forgiving (willing to pardon others)
Freedom (independence, free choice)	Helpful (working for the welfare of others)
Happiness (contentedness)	Honest (sincere, truthful)
Inner Harmony (freedom from inner conflict)	Imaginative (daring, creative)
Mature Love (sexual and spiritual intimacy)	Independent (self-reliant, self-sufficient)
National Security (protection from attack)	Intellectual (intelligent, reflective)
Pleasure (an enjoyable, leisurely life)	Logical (consistent, rational)
Salvation (saved, eternal life)	Loving (affectionate, tender)
Self-Respect (self-esteem)	Obedient (dutiful, respectful)
Social Recognition (respect, admiration)	Polite (courteous, well-mannered)
True Friendship (close companionship)	Responsible (dependable, reliable)
Wisdom (a mature understanding of life)	Self-Controlled (restrained, self-disciplined)

18,000 trait names proposed by Allport and Odbert (66). Using only positively evaluated words from Anderson's list, Rokeach selected 18 values as modes of conduct. These values were judged to be minimally intercorrelated, and important across culture, status, and sex.

In considering the value system of the individual, Rokeach feels, as do other researchers, that values are organized into hierarchical structures. Given both terminal and instrumental values, two separate value systems may be present with the individual, each system with a ranking-order of the value along a continuum of importance. Both systems are functionally and cognitively connected and both systems are correlated with many attitudes toward specific objects and situations. Conflict may exist within the system, wherein an individual cannot behave congruently with all of his values. The individual must make a choice as to which values take precedence. The value system, therefore, represents a learned organization of rules for making choices and resolving conflicts between modes of behavior or between end-states of existence.

Value-Attitude-Behavior Relationship

To state that the value-attitude-behavior relationship has received less than adequate empirical support from researchers would be an understatement of the first magnitude. The relationship really is three problems, i.e., attitude-behavior, value-attitude, and value-behavior. Of the three, the former has received the most inquiry and has been previously discussed. Most studies indicate a thread of commonality between attitudes and values, although they are not necessarily in harmony. A given value can lead to different and even

opposite attitudes in the same person. For example, the need for achievement may yield a belief in one's right to individual betterment through competition, as well as a belief in the necessity to work with others co-operatively. Given this relationship, some researchers contend it is difficult if not impossible to separate attitudes and values.

One of the first studies to clearly formulate the functional and cognitive relationship between values and attitudes was done by Woodruff and Divesta (67). They used terminal type values in their analysis of 84 college students. Woodruff's own value scale was used to measure values while a Thurstone scale measured attitudes. The conclusions reached supported the logic that one's attitude toward a specific object or condition in a specific situation seemed to be a function of the way one conceives that object as it affects his most important values.

Smith (68) was also interested in the value-attitude relationship and particularly in the specific conditions under which values become determinants of attitudes. He accepted the theory that values contribute to the shaping of cognitive experience and since attitudes are central to that experience, values influence the character and structure of attitudes. His major empirical concern was to identify the conditions necessary for one's values to exert that influence. The conclusions reached by Smith were that a person will tend to perceive and judge the focus of an attitude in terms of his values to the extent that

- (a) the value is important to him, occupying a central position in his hierarchy;
- (b) the information available to him about the focus contains a basis for engaging the value; and
- (c) the scope of the value and of the person's interests is broad enough to extend to the focus of the attitude (67,486).

Another study done by Scott (69) was concerned with the structure of a cognitively consistent attitude. His theory of a consistent attitude is based on the degree to which the values on which the attitude rests are not inherently contradictory and the situation is clearly perceived in relation to the values. These three studies are cited, not to be a general review of the value-attitude literature, but to reveal the nature of the study and to indicate a consensus of researchers' opinions that the relationship exists.

There is also a majority opinion that values have a functional relationship to behavior. However, most studies do not view values as acting directly upon behavior. Instead, the relationship extends through attitudes as an intervening variable. For this reason, few studies go beyond studying the value-attitude relationship with an assumption that behavior is affected. Yet, there is literature devoted to the "direct" theory.

Williams (72) feels that given the existence or nonexistence of a value at one period, it is possible to predict a behavior in a subsequent period under identical conditions. He would treat the value as an intervening variable within the black box of an individual. In answer to the question as to whether values cause behavior, the answer is an empirical one defined under specified conditions. Williams offers no empirical evidence to support either approach.

The Rokeach Concept of the Value-Attitude-Behavior Relationship

A major proponent of empirical explanation of the value-attitude-behavior relationship is Rokeach. He is the most vocal of the advocates of value-attitude and value-behavior relationships.

Rokeach feels that one's attitudes are connected to the instrumental values and that these values are in turn functionally connected with the terminal values. This system is more or less internally consistent and will determine behavior. Within this value-attitude system are at least four subsystems (21,162).

1. Several beliefs may be organized to form a single attitude focused on a specific object or situation.
2. Two or more attitudes may be organized to form a larger attitudinal system.
3. Two or more values may be organized to form an instrumental value system.
4. Two or more values may be organized to form a terminal value system.

Connected with these subsystems are at least three additional kinds of cognitions or beliefs that are continually fed into the value-attitude system, thereby making the system dynamic.

5. The cognitions a person may have of his own behavior.
6. The cognitions he may have of the attitudes, values, motives, and behavior of significant others.
7. The cognitions he may have about the behavior of physical objects.

As developed earlier, behavior may be a function of at least two attitude categories: attitudes toward the object and attitudes toward the situation within which the object is encountered. These two attitudes interact and behavior is a function of the relative importance of the attitudes in the context of the interaction. Values also interact with the attitudes and, therefore, play a part in determining behavior.

Each of the two activated attitudes is functionally connected to a subset of instrumental and terminal values, which are activated by the attitudes. Behavior becomes a function of the relative importance of the two attitudes which are in turn a function of the relative importance and number of instrumental and terminal values activated by the object attitude as compared with the relative importance and number of instrumental and terminal values activated by the situational attitude.

Especially relevant to this theory of organization are the results of empirical studies done on the relation between values and behavior, and between values and attitudes. Some statistically significant results concern religious and political values.

During the presidential campaign of 1968, Rokeach gathered data from 1400 respondents in an attempt to determine whether a particular presidential candidate attracted supporters having a particular system of values. There was also an interest in ascertaining whether certain values were more predictive than others of candidate preference. Because of the nonparametric nature of the data, statistical data significant for each value was determined by Kruskal-Wallis one-way analysis of variance. Presidential preference was elicited over groups supporting each of the seven possible candidates along with the terminal and instrumental values of the respondents. Of the 18 terminal values eight showed significant differences among the seven candidates beyond the .05 level; of the instrumental values six showed comparable levels of significance (64). Rokeach feels this is an indication of the value-attitude relationship.

The study also tried to view foreign policy, civil rights, economic security, and religious differences among the candidates as reflected

in the respondents' values. The terminal value world at peace significantly differentiated Democrats from Republicans. Equality divided the groups along liberal-conservative lines, as did salvation. The two instrumental values that differentiated most reliably among the seven political preference groups were clean and obedient. Despite these differences, it was concluded that all seven groups were remarkably alike in their systems of values. The major differences observed seemed to be primarily in the judged importance of a relatively few values.

In another political study using the same approach, Rokeach found significant relationships between two distinctively political terminal values, equality and freedom, and attitude and behavior toward civil rights demonstrations (21,169). Those respondents who were "sympathetic" and had participated in civil rights demonstrations ranked freedom first on the average and equality third; those "sympathetic, but not having participated" ranked freedom first and equality sixth. Those "unsympathetic" ranked freedom second and equality eleventh.

A religious study found that the rank-ordering of a single terminal value, salvation, highly predicted church attendance. College students who went to church "once a year," or "never" typically ranked salvation last. In a descriptive study, salvation was ranked first by Lutheran ministers, by students attending a Calvinist college, and by students expressing a religious preference, but was consistently ranked last by students not expressing any preference.

Another study done by Rokeach, compared the value systems of a police force with a representative sample of black and white Americans. The results support the hypotheses that personality factors and social backgrounds are more important than occupational socialization in

understanding police value systems. The police values were not necessarily representative of American value patterns. Twenty-one of the thirty-six values showed consistent differences, most of them statistically significant, between the police and the national sample of blacks and whites. The police tended to be more concerned about personal values and less concerned about social values (71). Again, Rokeach views this as a relationship between generalized values and behavior.

Value Measurement

The above discussion has pointed out that researchers may be referring to different concepts when they speak of values. Thus, it is logical to expect that a variety of measurement techniques would exist. A review of the value measurement area is in order.

1. The most direct approach to value measurement is to record explicit abstract value statements as exemplified by the "Inventory of Student's General Goals in Life" (72). In this instance, twenty highly general goals are presented in a long series of paired comparisons. Students are asked which goal in each pair they consider more important. The coverage of values in the Inventory is rather arbitrary as intellectual, aesthetic and other general values appear to be omitted. In a similar view, Allport, Vernon, and Lindzey (73) have a questionnaire with thirty agree-disagree items and fifteen multiple alternative items. Answers are combined to give six value scores. A third typical direct approach is exemplified by the "Ways to Life" questionnaire. Thirteen ways of life are described and respondents rate each "Way" on a seven point scale indicating their degree of liking or disliking (74).

A more systematic method of presenting abstract value components to respondents includes a set of situations covering various areas. In each area three alternative directives are offered. The alternatives take the form of short paragraphs, expressing what some people said or did about a situation. The results of the rankings are expressed as a value profile (75). It is also possible to measure values through open-ended questions. Although the wording of the responses are diverse, it is possible to get reasonably high agreement within specified categories. The disadvantage of this technique is in the determination of the categories.

A useful method of measuring values applicable to particular areas of life was developed by Cornell University. Criteria of employment is rated as to importance, relevance, and tastefulness. Those rated as highly important are then ranked in numerical order of importance. This provides an absolute rating; it also ranks the top few criteria without the burden of having to rank a long list (76). This method has only been used in the employment area.

The abstract value-criteria for value measurement has had both success and failure in trying to predict specific behavior. More studies will be needed before it will be possible to predict in what areas or situations this approach will be most fruitful.

2. A second approach is the use of specific evaluative statements as indicators of basic values. Instead of asking individuals for their general goals in life, or for the attributes of an ideal job etc., the individuals are asked long lists of specific questions and an attempt is made to derive general underlying values from the responses.

One such technique consists of "like-dislike" responses to a list of 300 activities. These activities are selected to represent 32 basic needs of the individual. Whether they form 32 clusters or factors corresponding to the hypothesized basic needs is not known (77).

Another technique uses an element of moral approval or disapproval. The respondent is asked to agree or disagree with a set of 100 items. Many of the items do not express a value judgment but take the form of factual beliefs. These beliefs, while they may be empirically related to values, are not in the form of preference or obligation. This kind of bizarre approach was intended to measure values of the "stereopath," a pattern of American fundamentalism.

Another method is the "story" technique. The individual responds quite superficially to an abstract situational question. The feeling is that some concepts are too abstract to ask about directly, so a more concrete situation is related in a story. In each situation the respondent is asked to approve or disapprove the action taken in the story on a four point scale (77).

3. A third approach is the solicitation of statements about future or hypothetical behavior. Theoretically, this approach is closer to behavior because the respondent is confronted with hypothetical but realistic situations and is asked how he thinks he would behave. Not many studies of this type are available due to the difficulty of administration. An example of the approach is The Cooperative Study of Evaluation in General Education (72). The instrument did not achieve high reliability and further work is needed to lend credence to it.

4. The fourth possible approach is observation of actual behavior. If basic values are influencers of the individual's behavior, as opposed

to purely verbal responses of an interview or a test, the most valid way to measure the value appears to be the actual behavior. The major problem with this approach is that behavior is influenced by situational factors as well as the internal disposition of the person. Furthermore, the internal predisposition includes not only values but other factors such as attitudes. Data collection is also a problem. Because of these limitations little work has been exerted in this area.

This discussion has shown that in some cases abstract standards, which people verbalize, are related to actual behavior. It has also been shown that other techniques may yield useful results. With any approach there are the questions of what values to include, how should they be combined into factors, how should they be weighed, and how much reliability should be demanded. The answers to these questions are not clear, as indicated by the breadth of the studies reviewed.

The Rokeach concept of values has previously been discussed. The measurement is done with a hierarchy or rank-ordering of both terminal and instrumental values along a continuum of perceived importance. Each value is presented to the respondent as shown in Table I. Instructions are given to direct the respondent to "arrange them in order of importance to you, as guiding principles in your life." Since all the values are socially desirable, it is expected that a majority of the subjects report that the ranking is difficult and that they have little confidence in the reliabilities of their work. Test-retest measurements, however, indicate this skepticism is unfounded.

As can be seen, the Rokeach approach is viable. The selection of the values has been purposeful and the measurement technique has achieved good results. The major difficulty is the administration of

the measurement. Empirical studies using this approach use field interviews as the means of generating responses. The value of the field interview is easily recognizable given the difficulty of a ranking system. The problem of the field interview is the time and funds in finding and training interviewers and in the actual questioning of the respondents.

Value Research in Marketing

Marketing's use of the value concept is mostly restricted to the value-attitude relationship. The concept of an individual holding values that influence buying behavior is readily attested to by the marketing literature. Attempts to show this relationship as an existing direct relationship are almost nonexistent. References to values, tend to be as an influence upon intervening variables or characteristics. The nature of this influence is seldom defined as it is not the main variable of interest. The variables of interest tend to be such factors as attitude, social class and life style.

An example of the use of value as a factor in the study of marketing attitude research is the value-expectancy models. Sheth and Talarzyk (78), using a Rosenberg-type model, express an attitude as the summated product of the perceived instrumentality of the attitude object toward attaining or blocking the goal or value and value importance to an individual of the goal or value. The concept of value is not explored other than as a component of attitude. Bither and Miller (79) also use this type of approach.

A classic article by Levy (80) proposes social class and consumer behavior as having a direct relationship. Proposed as underlying many

of the differences among social classes as consumer groups is the differences in values. The main thrust of the paper is not values as behavior determinants, but values as one of many influences upon social class which relate to consumer behavior.

The concept of life style is recognized by both sociology and marketing as an important determinant of behavior. Life styles generally reflect the overall manner in which people live and spend time and money. Life styles have been measured in two general ways. One way is by an individual's activities, interests, opinions, and values. The use of activities, interests, and opinions (AIO) is well established in the marketing literature (81,59). The use of values as a measure of life style is relatively new.

Using values as a measure of life style indicates its influence on the variable of interest. However, if values are the only variables measured, then it can be viewed as a direct attempt to establish value-behavior patterns. Using the Rokeach value concept, Roman (81,59) found significant differences in the values of various groups. For example, highly health-conscious women rated "happiness and responsibility" higher than the not-so-health-conscious women. These women also had considerably lower ratings for a "world of beauty," "wisdom," "imagination," and "forgiveness." Based on the data differences in the profile of the terminal and instrumental values, groups with different preferences were found for various product concepts. This study is the best example of the direct use of values by marketing.

Another study tried to identify markets by the values of their members (82). Values such as traditionalism, home-centered, bargain seeking, and sociability revealed market segments. For instance, there

is the segment of placid-traditional housewives whose values are traditional and home-centered, who are uninterested in glamour or cosmetics, who are unsociable, unexperimental, and disinclined to seek bargains. The two leading brands of an unidentified household product received a large percentage of their market share from this segment. It could be argued that the concepts above are not values, but really more attitudinal in nature.

Comprehensive models of consumer behavior refer to values but not as direct influence upon behavior. Howard and Sheth (57) use values as they aid in the function of attitudes in their learning subsystem and attitudes are defined as having a value-expressive function. In this model, values are also used to aid internalization of communication, i.e., the buyer adopts a point of view because he finds it useful in the solution of a problem because his value system demands it. Engel, Kollat, and Blackwell (17) use cultural values as constraints in the decision process; however, these are viewed as external over which little control is exerted. Values are indirectly included in the central control unit as influences on attitudes. These attitudes also have value-expressive functions. Nicosia (58) does not refer to values directly but refers to a group of social psychology variables which aid in attitude formation.

This chapter has attempted to present the current status of value and attitude research. This was done to position the work within this paper. Values and attitudes were shown to have conceptual and definitional problems. The attitude-behavior mechanism has been empirically verified, but not to all researchers' satisfaction. The benefit of studying the value-behavior relationship is questioned. The

intercorrelation of values and attitudes is yet an area of little investigation. The instruments to measure values and attitudes are varied and tend to be operational in nature. Yet, there tends to be agreement among marketers that values and attitudes represent a prime target for research because of the assumption that a change in these variables will change behavior. Many studies may lack verification because of noninvestigation of external variables as they influence values and attitudes. This paper will try to research some of these variables, e.g., situational factors.

As stressed within the chapter, Rokeach's concept of values and attitudes will be used to empirically test the hypotheses. This is done to maintain an air of consistency while using accepted theoretical constructs.

CHAPTER III

RESEARCH METHODOLOGY

The research design described in this chapter provided the basis for an examination of the relationships among the level of donation of the individual, the generalized values held by the individual and the specific attitudes held by the individual toward the Oklahoma Lung Association. This design allowed evaluation of the hypothesized relationship that individual donation behavior is partially explainable by one's values and attitudes. It also allowed for the evaluation of the relative merits of using attitudes as a measure of behavior as opposed to values, while showing the intercorrelation of the two variables. Lastly, it is shown that situational experiences and perceptions influence one's attitude.

The study was based on a mail survey of the population of Oklahoma. The questionnaire was self-administered and included measures of one's value system, attitudes, health, and health organization experiences, and selected personal characteristics.

Hypotheses

Four specific hypotheses were tested, a major hypothesis and three auxiliary hypotheses. They were as follows:

Major Hypothesis: The level of donation, i.e., behavior, is a function of one's value importance system as measured by the "Rokeach Inventory File;" and also, is a function of the

individual's attitude toward the Oklahoma Lung Association as measured by specific object belief scores.

Auxiliary Hypotheses:

1. Attitudes account for a greater percentage of variance among donor behavior level, level of donation, than do values.
2. Situational experiences and perceptions mediate attitudes toward the Oklahoma Lung Association thereby enhancing the ability of attitudes to explain donor behavior.
3. Specific values correlate with specific attitudes forming a complex, illustrating the interrelationship of the variables influencing behavior.

All four hypotheses relate strongly to value and attitude theory.

The major hypothesis is a direct examination of the widely held belief that attitudes and values influence behavior. The first auxiliary hypothesis grows from the theory that attitudes explain behavior better than values since they are more object specific and closer in time and experience to the actual behavior. The second auxiliary hypothesis tests the proposition held by Rokeach, Fishbein, Rosenberg and others that attitudes and attitude structure relate to the situational environment in which the attitudes are formed and expressed. The final hypothesis proposes that values and attitudes are not independent of one another.

As in all empirical studies, limitations exist. Limited financial resources necessitated selection of respondents in less than a purely random manner. Lack of data regarding donation behavior to alternative organizations was a severe analytical limitation. However, these limitations did not prevent the testing of the hypotheses with subsequently broad influences. The study was exploratory in nature and, as is often the case, exploratory studies tend to be descriptive.

Data Source

The data for the study came from two sources: the files of the Oklahoma Lung Association and a mail survey. The files of the Oklahoma Lung Association yielded a partial list of those surveyed and the donation behavior for current supporters of the organization. The files contain the name, address, and amount of the donation of all Oklahoma donors to the Oklahoma Lung Association. Located in both Tulsa and Oklahoma City, the donations recorded were physically divided by the local offices into "special" and "general" donors. Any donation of \$10 or more was designated as a "special" or "heavy" donation. The Oklahoma City "general" file contained approximately 125,446 donors while the "special" file had 6,695 donors. The smaller Tulsa office had specials totaling 3,111 names, with the general file totaling 44,165 names. Each file was arranged alphabetically according to counties. Within each county, cities were alphabetized then arranged according to Zip Code.

Probability sampling using systematic sampling methods was utilized for each office and file in the respective offices. The sampling interval differed over files due to variable population sizes. Random starting points were generated for each of the four sampling problems.

The nondonor sample was drawn from telephone directories matched to the counties of residence for donor subjects. This matching was done as an attempt to hold as many variables as possible constant. Counties were used, as opposed to Zip Codes, because of the organization of directories. The telephone directories available for each city provided the sampling frame within a county. The county population was determined from census data and the necessary sample size for the county.

was proportionate to that drawn from the organization files. Systematic sampling with a random starting point was used in each county.

The sample size for the study was 2166 families. This was based on available resources, anticipated response, and analytical requirements. A telephone survey recently conducted for the Oklahoma Lung Association had shown that a higher response could be anticipated from heavy donors as opposed to light and nondonors (8). Using this information and the results of a mail questionnaire by the Oregon Lung Association, it was felt that 40% of the heavy, 30% of the light, and 20% of the nondonors would respond (11). It was deemed desirable to have approximately the same number of respondents in each of the subject categories. Therefore, the sample size varied within the donation categories. The sample sizes and return rates are shown in Table II for the three donor populations.

TABLE II

SAMPLE PROCESS

	Heavy Donors	Light Donors	Nondonors	Total
Sample Size	500	666	1000	2166
Number Returns	162	200	154	516
Response Size	32.4%	30.0%	15.4%	23.4%

The frame used for the sample has some weaknesses in that the Oklahoma Lung Association does all of its mass appealing for funds via the mail. They do not solicit the total population of Oklahoma nor do they maintain records of all those solicited. Only individuals with positive responses to the appeal are recorded in their files. Thus, for the purposes of this study, there was no distinction made between solicited nondonors and nonsolicited nondonors. Any individual not appearing on the names drawn from the files was classified as a nondonor.

Each subject drawn for the sample was sent a mail questionnaire at one mailing. No follow-up correspondence was sent due to limited financial resources and adequate response to the initial mailing. This adequate response is reflected in the above table when compared to the anticipated response previously stated.

The Measurement

A key measure in the study was the dollars donated to the Oklahoma Lung Association in the previous year by each respondent. This data was available from the files of the organization. The other data by which to test the hypotheses were drawn from a self-administered questionnaire as illustrated in Appendix A. Each is discussed separately to accentuate its relevance to the overall study. It should be noted that the questionnaire refers to the Oklahoma Tuberculosis and Respiratory Disease Association. Since the administration of the questionnaire, the name of the organization has been changed to the Oklahoma Lung Association.

The first group of questions elicited the generalized value systems of the respondents. These twenty-six values were divided into thirteen

instrumental and thirteen terminal values. This division and selection of values was based on the "Rokeach Inventory File" as discussed in Chapter II. Rokeach's inventory file has eighteen instrumental values and eighteen terminal values. However, five values were eliminated from each of the original listings as unlikely on an a priori basis to influence the behavior of interest, i.e., donation to the Oklahoma Lung Association. For example, National Security was not used as a terminal value. The specific deletions were based on the literature indicating values least likely to play a role in donation behavior.

The second group of questions (pages two and three) considered the attitudes toward the organization, its activities, and related health problems. According to Rokeach, an attitude is a relatively enduring organization of beliefs around an object. Thus, the questions were belief-type questions concerning the Oklahoma Lung Association. The questions reflected beliefs about the degree of concern people should exhibit toward various diseases, the contribution the Oklahoma Lung Association is making toward the solution to these problems, the actual and ideal use of funds, and overall evaluations of the organization.

Page four contained measures on key situational and personal characteristics. The initial question concerned donation behavior toward various organizations. Then questions were asked concerning a situational perception regarding which diseases were perceived as likely to be contracted, and/or had been contracted by friends or relatives. Finally, the demographics of respondents were measured although these were not used in this study as they did not relate to the stated hypotheses.

The value and attitude questions used a seven point Likert-type scale as the actual response instrument. This type of scale is very commonly used in attitude research. However, it deviates from the original "Rokeach Inventory File" measurement. As reported previously, Rokeach used a ranking system for both the instrument and terminal values. This alteration from Rokeach's method was made for two primary reasons. First, Rokeach employed the personal interview as the surveying technique which helps overcome the complexity of a ranking system while this study used the mail survey. Second, the scaling technique used in this study allowed for more varied analysis techniques to be used since interval scaled data was generated. The responses regarding situational experiences and perceptions were measured by a variety of methods.

Analytic Methods

The data evaluation consisted of a number of forms of statistical analysis. Multiple regression was employed to test the major hypothesis as well as auxiliary hypotheses one and two. Canonical analysis was the primary tool for evaluation of the third auxiliary hypothesis. Factor analysis of the values and attitudes along with simple arithmetic means and standard deviations of both variables also formed a part of the evaluation.

The techniques of regression analysis provide a mathematical procedure which statistically relates variables so that the dimensions of one variable can be described on the basis of the dimensions of other variables. In this study the dimensions of donation behavior were described by the dimensions of values and attitudes. For the major

hypothesis and auxiliary hypothesis one, three regression models were generated, each with level of donation as the dependent variable. The first regression used both values and attitudes as the independent variables. The second regression used attitudes as the independent variables, while the last one employed values as the independent variables. The resulting regressions yielded R^2 's or coefficients of determinant. This coefficient measured the total variation in the dependent variable, level of donation, that is accounted for by changes in the independent variables, values and/or attitudes. The significance of the variables included in the regressions were statistically tested by standard t scores. This procedure tested the major hypothesis' contention that behavior is a function of values and attitudes. A straight forward comparison of the resultant coefficients of determinant generated from regression models two and three sufficiently evaluated the first auxiliary hypothesis.

To assist in the explanation of the two above hypotheses, the means and standard deviations of the independent variables were calculated and presented. Also in an attempt to aid explanation, factor analysis computations were made. Factor analysis is a multivariate statistical technique concerned with the interrelationships among a total set of variables. Two factor analyses calculations were made. One used values as the variables; the other used attitudes. This was done to illustrate the intercorrelation of the variable sets, to show that several underlying factors exist, and to reveal that the regressions drew the significant variables from these factors.

Regression analysis was also used to evaluate auxiliary hypothesis two. The total sample was split based on the respondent's situational

experience or perception. After the division was made, regression equations were generated using level of donation as the dependent variable and attitudes as the independent variables. Two regression equations were developed for each situational variable, i.e., number of organizations to which donations were given, the likelihood of contracting a disease, and the actual experience of close individuals having had the disease. This approach was taken, not so much to show an increase in explanation of the dependent variable, but to reveal that different variables are significant when based partly on perception and experience.

The third auxiliary hypothesis was evaluated by canonical analysis. The significance of each canonical coefficient index was tested by Bartlett's "chi square" test.

This chapter has put forth the research methodology use to test the relationships indicated in the hypotheses. The next chapter presents the data that resulted from this methodology and an analysis of the data utilizing the statistical techniques discussed as well as established theory.

CHAPTER IV

RESULTS OF THE EXPERIMENT

The data and analysis presented in this chapter is organized around the statistical testing of the hypotheses posed in Chapter III. First, the means and standard deviations of the measured variables are presented. Then data are presented describing the intercorrelations among values, attitudes, and donations. This establishes a background for testing the various hypotheses. The tests of the major and auxiliary hypotheses are then presented via canonical and regression analyses with factor analysis used to aid interpretation.

The Descriptive Statistics

Means and Standard Deviations of the Variables

The means and standard deviations provide a useful starting point for analyzing the data. Tables III and IV present the means and standard deviations of the values and attitudes. The arithmetic means tended to cluster toward the agreement end of the rating side. This is particularly true for the values. The scale ranged from one to seven, with one being strong agreement with the statement presented and seven being strong disagreement. The means for the values range from 1.218 (Responsible) to 2.789 (Social Recognition). Only nine of the twenty-six means were above 2.000. The standard deviations also tended to be small, ranging from .612 (Honest) to 1.563 (Salvation). Only three of

TABLE III
MEANS AND STANDARD DEVIATIONS OF VALUES

Values	Mean	Standard Deviations
Instrumental		
Ambitions	1.668	.861
Broadminded	1.888	.906
Cheerful	2.081	.976
Courageous	1.695	.912
Forgiving	1.860	1.000
Helpful	2.002	.946
Honest	1.239	.612
Imaginative	2.570	1.154
Loving	2.048	1.071
Obedient	2.093	1.116
Polite	1.806	.869
Responsible	1.218	.683
Self-Controlled	1.667	.875
Terminal		
Comfortable Life	2.357	1.028
Sense of Accomplishment	1.967	1.008
Equality	2.281	1.296
Family Security	1.453	.728
Freedom	1.602	.867
Happiness	1.715	.832
Inner Harmony	1.766	.962
Pleasure	2.771	1.200
Salvation	1.957	1.563
Self-Respect	1.430	.721
Social Recognition	2.789	1.237
True Friendship	1.947	.927
Wisdom	1.672	.850

TABLE IV
MEANS AND STANDARD DEVIATIONS OF ATTITUDES

Attitudes	Mean	Standard Deviations
Concern		
Tuberculosis	2.253	1.349
Emphysema	1.820	1.154
Chronic Bronchitis	2.194	1.227
Asthma	2.148	1.212
Smoking	1.752	1.268
Air Pollution	1.939	1.297
Contribution Towards Cure		
Tuberculosis	2.436	1.454
Emphysema	2.459	1.410
Chronic Bronchitis	2.620	1.392
Asthma	2.628	1.403
Contribution to Halt		
Smoking	2.645	1.704
Air Pollution	2.667	1.583
Donation Should Support		
Medical Research	1.703	1.175
Education (M.D.)	3.360	2.017
Education (Public)	2.289	1.306
Health Care	2.378	1.609
Use of Funds		
Medical Research	3.547	1.821
Education (M.D.)	3.225	1.608
Education (Public)	3.258	1.618
Health Care	3.436	1.611
General Evaluation		
Rating of Oklahoma Lung Association	2.867	1.576
Administrative Costs	3.107	1.647
In-State Activity	3.255	1.631

the twenty-six standard deviations were above 1.200. This apparent homogeneity of expressed values was somewhat surprising and indicated probable stereotypes of what is important in life.

The means and standard deviations of the attitudes showed a greater degree of variability than values. They ranged from 1.703 (Donation Should Support Medical Research) to 3.547 (Enough Funds Used on Medical Research). In contrast to the values, most of the attitude means were above 2.000, with only four being below 2.000 while seven were over 3.000. The standard deviations, while still relatively narrow in range, were larger than with values. All of the deviations are between 1.000 and 2.000 except one, (Should Support Education of Medical Doctors, 2.017).

Correlation Between Variables

When the relationship between a set of independent variables and a dependent variable is to be analyzed via multivariate techniques, a good starting point in that analysis is the correlation matrix. It indicates the simple linear relationship between the dependent variable and each independent variable. Also, any intercorrelations among independent variables can be noted as guides to interpretation.

The correlation coefficients for donation level and values and attitudes are presented in Table V. As can be readily seen, the correlations are generally weak throughout both the values and the attitudes. For the values, they ranged from .003 (responsible) to .145 (happiness).

A non-zero correlation is likely to appear in an analysis even when no true relationship exists. Thus, the null hypothesis that each correlation is zero in the population was tested. Looking to Table V, only

TABLE V
VALUES AND ATTITUDES--DONATION LEVEL
(CORRELATION COEFFICIENTS)*

Values	Coefficient	Attitudes	Coefficient
Ambitious	.055	Concern	
Broadminded	.019	Tuberculosis	-.040
Cheerful	.031	Emphysema	-.042
Courageous	-.019	Chronic Bronchitis	-.029
Forgiving	.025	Asthma	-.045
Helpful	.005	Smoking	.068
Honest	-.022	Air Pollution	.010
Imaginative	-.030		
Loving	.052	Contribution Towards	
Obedient	.019	Cure	
Polite	.016	Tuberculosis	-.091
Responsible	.003	Emphysema	-.046
Self-Controlled	-.020	Chronic Bronchitis	-.052
Comfortable Life	.043	Asthma	-.957
Sense of Accom-			
plishment	-.004	Contribution to Halt	
Equality	-.016	Smoking	-.065
Family Security	-.016	Air Pollution	-.059
Freedom	-.087***		
Happiness	.145**	Donation Should	
Inner Harmony	.050	Support	
Pleasure	.097***	Medical Research	.118**
Salvation	.126**	Education (M.D.)	.031
Self-Respect	.047	Education (Public)	-.080
Social Recognition	.081	Health Care	.010
True Friendship	.081		
Wisdom	-.011	Use of Funds	
		Medical Research	.035
		Education (M.D.)	.024
		Education (Public)	.014
		Health Care	-.036
		General Evaluation	
		Rating of OLA	-.046
		Administrative	
		Costs	.141**
		In-State Activity	.105***

*Sample size varied among correlations, 403 to 508.

**Significant at .01 level.

***Significant at .05 level.

two correlations including values and two including attitudes are significant at the .01 level, i.e., "Happiness," "Salvation," "Donation Should Go To Medical Research," and "Administrative Costs." At the .05 level two additional value correlations are significant, "Freedom" and "Pleasure" along with one attitude, "In-State Activity." Although statistically significant, this is not explanatory as the correlation of the variables with donation is still relatively weak varying from .087 to .145.

The examination of the simple correlations between values, attitudes, and donation level yielded generally weak correlations. It should be anticipated that any regression analysis using donation level as the dependent variable with values and/or attitudes as the independent variables will tend to include the values and attitudes listed as significant above.

The next preliminary question to ask concerns the intercorrelations between the values and attitudes themselves. This is integral to subsequent interpretation of regression results. A correlation of values with values, attitudes with attitudes, and values with attitudes yields a 49 x 49 matrix. This matrix is found in Appendix B. As can be seen, there is a high degree of intercorrelation at the .01 level. For example, the correlation of the value, "ambitious," is significant at this level with twenty-three values and sixteen attitudes. The values tend to exhibit higher correlation with themselves as opposed to correlation with attitudes. The pattern of the value-value correlations is very consistent in that only one value, "Comfortable Life," has less than twenty correlations not significant at the .01 level. The same is true with the value-attitude correlation in that only "Broadminded" and

"Honest" have less than ten correlations at the .01 level. The attitude-attitude relationships are also consistent. Again at the level, only one attitude, "Administration Costs," has coefficients significant with less than twelve other attitudes.

It should be noted that the correlations are not extremely high but that the significance at the .01 level is more a function of the sample size than the coefficient. A correlation coefficient is determined significant when it is as low as .121 ("Imaginative" with "Air Pollution"). There are some extremely high correlations, for example .959 ("Chronic Bronchitis" with "Asthma") and the correlations within attitudes tend to be higher than within values.

The preceding discussion was offered to show that generally weak correlations exist between values and attitudes. It also was offered as a warning that some correlation exists among the values and attitudes. A goodly number of the relationships are deemed significant even though they are generally low. These relationships must be considered when techniques, such as multiple regression, are employed.

This section was presented to give background for the testing of the hypotheses, to state some of the data problems that may occur, and to give insight to possible results.

Testing the Hypotheses

This section presents the results of the testing of the major and three auxiliary hypotheses.

Major Hypothesis

To test the general hypothesis and to aid in interpretation of the results, several regression equations were calculated as well as two factor analyses computations. All regressions used donation level as the dependent variable. The first used both values and attitudes as the independent variables, the second used values only, the third used attitudes only. One of the factor analysis computations used values as the variables, while the other used attitudes.

Major Hypothesis: The level of donation, i.e., behavior, is a function of one's value importance system as measured by the "Rokeach Inventory File;" and also, is a function of the individual's attitude toward the Oklahoma Lung Association as measured by specific object belief scores.

As a test of the hypothesis, stepwise multiple regression analysis was used with the donation level as the dependent variable and values and attitudes as the independent variables. The results of the analysis are presented in Table VI. The regression analysis yielded eleven independent variables. An entry rule was used in the stepwise routine that allowed the inclusion of only those variables that significantly reduced the unexplained variation at the 0.1 level. The variables are listed in the order of their inclusion in the model.

The coefficient of determination for the equation was .241. Also, the marginal increase in R^2 is indicated for each variable. Finally, the beta values of the entered variables as well as the computed t scores are given. The null hypothesis, $H_0: B = 0$, was rejected for all values at the .05 level and for all but three variables at the .01 level.

When relating the results of this analysis to the correlation data presented previously, it is recalled that weak simple correlation

TABLE VI
REGRESSION ANALYSIS--VALUES AND ATTITUDES

Variable	R ²	Increase in R ²	Beta Value	t
Happiness	.053	.053	2.494	4.147*
Contribution Toward TB Cure	.092	.039	-1.829	-3.345*
Administrative Costs	.120	.028	0.792	2.862*
Helpful	.140	.020	-1.203	-2.377*
Salvation	.163	.023	1.042	3.397*
Family Security	.180	.017	-1.197	-1.889**
Donation Should Support Medical Research	.196	.016	1.018	2.808*
Donation Should Support Education (Public)	.209	.013	-0.894	-2.531*
Contribution Toward Emphysema Cure	.221	.012	1.078	1.936**
Concern for Asthma	.230	.009	-1.065	-2.372*
Concern for Smoking	.241	.011	3.709	1.907**

*Significant at .01 level.

**Significant at .05 level.

existed between the donation level and the independent variables, values, and attitudes. Thus, the relatively low multiple R of the variables was not unexpected. Also, intercorrelations did exist between and within the values and attitudes. This influences the order of entry of the variables in the stepwise regression; that is, variables which provide the greatest individual increase in the R^2 were not always entered in sequence. The multicollinearity due to the intercorrelation also hampers the interpretation of the regression results. Factor analysis has been used to aid in the analysis of the result. Its primary purpose was the resolution of the set of observed variables, values, and attitudes, in terms of new categories called factors. Factor analysis results are presented later as not to hamper the flow of the paper.

Value-Attitude Analysis

Rokeach views values and attitudes as uniquely different levels of abstraction. Utilizing this viewpoint to promote understanding of the above analysis, two additional regression models were calculated. Both used donation level as the dependent variable. The first used values as the dependent variables while the second used attitudes.

Value Regression Analysis. The results of using values as the independent variables are presented in Table VII. Using the entry rule previously stated, four independent variables were generated by the analysis. Again, the variables are listed in the order of their inclusion in the model. The coefficient of determination was .062. The beta coefficients were all significant at the .05 level with three

significant at .01. It should be noted that the value variables entered in this regression were the same as entered in the regression using both values and attitudes with one exception. The previous model included "Polite" while this model entered "Helpful." The significance of this exchange is most likely not of great importance due to similarity of terms.

TABLE VII
REGRESSION ANALYSIS--VALUES

Variable	R ²	Increase in R ²	Beta Value	t
Happiness	.025	.025	2.017	3.663*
Family Security	.039	.014	-1.497	-2.519*
Salvation	.031	.012	0.749	2.764*
Polite	.062	.011	-1.197	-2.267**

*Significant at .01 level.

**Significant at .05 level.

Value Factor Analysis. Since there is some correlation between the independent variables, it was desirable to conduct factor analysis of the values. Table VIII gives the rotated factor matrix of the value variables using a varimax rotation. The rotation was terminated at the last factor with an eigenvalue in excess of 1.0. Table VII presents the factor's eigenvalues as well as the cumulative percentage of the

TABLE VIII
 ROTATED FACTOR MATRIX--VALUES

Variable/Factor	1	2	3	4	5	6
Ambitious	-.015	.300	-.454	-.146	-.112	.493
Broadminded	.627*	.248	-.074	.144	.251	.199
Cheerful	.621*	.208	-.038	-.343	.054	.275
Courageous	.623*	.018	-.221	.024	.255	.075
Forgiving	.726*	-.055	-.130	-.322	.092	.046
Helpful	.675*	.091	-.321	-.120	.044	.061
Honest	.242	-.050	-.743*	.025	.078	-.107
Imaginative	.302	.027	.044	-.005	.123	.749*
Loving	.535*	-.008	-.073	-.270	.126	.485
Obedient	.347	.141	-.428	-.458	.043	.363
Polite	.333	.177	-.532*	-.372	.052	.196
Responsible	.124	.039	-.736*	-.179	.169	.085
Self-Controlled	.175	-.100	-.413	-.367	.159	.398
Comfortable Life	.089	.753*	-.099	-.106	.133	.152
Sense of Accomplishment	.003	.326	-.140	.247	.430	.475
Equality	.443	.208	-.146	.003	.558*	.182
Family Security	.042	.078	-.141	-.167	.580*	.083
Freedom	.151	.143	.010	-.100	.673*	.099
Happiness	.100	.348	-.055	-.545*	.361	.165
Inner Harmony	.081	.274	.046	-.517*	.531*	-.076
Pleasure	.179	.754*	.095	-.022	.105	-.036
Salvation	.123	.120	-.211	-.669*	.093	-.025
Self-Respect	.147	.142	-.419	.006	.431	.070
Social Recognition	.221	.739*	-.104	-.022	.172	.024
True Friendship	.366	.255	-.136	-.350	.253	.110
Wisdom	.311	.011	-.162	-.221	.481	.274
Eigenvalues	7.639	2.040	1.472	1.372	1.251	1.128
Cumulative Percentage of Eigenvalues	.294	.372	.429	.482	.530	.575

*Loadings over .5 within factors.

eigenvalues. The six factors, therefore, account for 57.5 percent of the total variance of the 26 variables.

Within the six factors, all variables loaded on each factor with the range being quite large. For example, factor one ranged from .003 (Sense of Accomplishment) to .726 (Forgiving). If the high load items on a factor are thought of as a group, the highest loaded variables are the best instances of whatever it is that holds the group together. Using loadings in excess of .5 as indicants of factor definers, factor one has six high load variables: "Broadminded," "Cheerful," "Courageous," "Forgiving," "Helpful," and "Loving." The dimension that holds this group together is not readily apparent. This is also true with the other factors; however, Table IX is a logical interpretation of each factor. There is some structural pattern in that instrumental values did not load heavily with terminal values. Seven variables were not highly loaded with any factor while one variable, "Inner Harmony," loaded heavily with both factors four and five.

TABLE IX

FACTOR DIMENSIONS--VALUES

Factor	Dimension
1	Extrovert, Liberal
2	Peer Orientation (good life)
3	Peer Orientation (solid citizen)
4	Spiritual Peace
5	Temporal Peace
6	Imaginative

When relating these factors to the regression using values as the dependent variables, it is found that only three of the six factors are represented in the regression (Table X). Values "Happiness" and "Salvation" came from factor four (Spiritual Peace). One, "Polite," came from factor three (Peer Orientation--Solid Citizen), and one "Family Security," from factor five (Temporal Peace). Based on the Rokeach concept of values, it is not expected that all factors would be represented in the regression model. Specific values are activated by specified situations. It is important to note that the factors represented, "Spiritual Peace," "Peer-Oriented--Solid Citizen," and "Temporal Peace" are the factors expected to enter based on the theories of why people donate to charitable organizations.

TABLE X
COMPARISON OF FACTOR AND REGRESSION ANALYSES--VALUES

Factor	Values as Dependent Variables	Values and Attitudes as Dependent Variables
1. Extrovert, Liberal		Helpful
2. Peer Orientation (good life)		
3. Peer Orientation (solid citizen)	Polite	
4. Spiritual Peace	Happiness, Salvation	Happiness, Salvation
5. Temporal Peace	Family Security	Family Security
6. Imagination		

The results are the same (Table X) when comparing the entered factors to the values-attitudes regression (Table VI) except for the previously noted exchange of "Polite" and "Helpful." "Helpful" comes from factor one (Extrovert, Liberal). This factor is also one which would be expected to enter into explanation.

Attitude Regression Analysis. Table XI presents the regression model using attitudes as the independent variables. The model yielded seven attitude variables using the entry rule stated above. The coefficient of determination was .127. All of the beta coefficients were statistically significant at the .01 level except one which was significant at the .05 level. It should be noted that the attitude variables entered in this regression were the same as entered in the regression using both values and attitudes with one exception. The previous model included "Concern for Emphysema" while this model entered "Concern for Chronic Bronchitis." This is not a significant difference as the two variables are highly intercorrelated.

Attitude Factor Analysis. Since some correlation exists between the attitude variables, a factor analysis was conducted on the attitudes. The rotated factor matrix is given in Table XII. Using a varimax procedure, the rotation was terminated at the last factor with an eigenvalue above 1.0. The table also presents the eigenvalues and the cumulative percentage of the eigenvalues. The six factors generated explain 72.2 per cent of the total variance of the attitude variables.

As with the factor analysis of the values, the range of the factor loadings was quite large. For example, factor one ranges from .008 (Administrative Costs) to .899 (Contribution Towards Cure of

Chronic Bronchitis). Using loadings above .5 as indicants of factor definers, the underlying dimensions of the factors emerge quite nicely. This is due, in large measure, to structure of the questions. Factor five breaks this pattern somewhat by including "Education (Public)" with "Concern Toward Smoking and Air Pollution." However, this is explainable when the advertising campaigns used to alert the population about the dangers of smoking and air pollution are equated with public education. Table XIII gives the logical interpretation of each factor.

TABLE XI
REGRESSION ANALYSIS--ATTITUDES

Variable	R ²	Increase in R ²	Beta Value	t
Administrative Costs Contribution Toward	.031	.031	0.804	2.948*
TB Cure	.053	.022	-1.695	-3.429*
Donation Should Support Medical Research	.073	.020	1.116	3.064*
Contribution toward CB Cure	.089	.016	1.267	2.456*
Concern for Smoking	.098	.009	1.151	3.045*
Concern for Asthma	.116	.018	-1.044	-2.435*
Donation Should Support Education (Public)	.127	.009	-0.659	-1.888**

*Significant at .01 level.

**Significant at .05 level.

When relating the factor analysis to the regressions previously presented, it was found that five of the six factors were represented in

TABLE XII
 ROTATED FACTOR MATRIX--ATTITUDES

Variable/Factor	1	2	3	4	5	6
Concern						
Tuberculosis	.185	-.775*	.060	.021	.200	.225
Emphysema	.172	-.813*	.042	.044	.209	.023
Chronic Bronchitis	.191	-.885*	.061	.036	.075	.147
Asthma	.147	-.857*	.125	.084	.206	.106
Smoking	.126	-.378	.022	.101	.751*	-.033
Air Pollution	.142	-.419	.117	.036	.647*	-.065
Contribution Towards Cure						
Tuberculosis	.832*	-.219	.175	.038	.044	.143
Emphysema	.866*	-.251	.172	.082	.091	.097
Chronic Bronchitis	.899*	-.252	.251	.007	.050	.102
Asthma	.893*	-.242	.160	.038	.062	.078
Contribution to Halt						
Smoking	.678*	.049	.080	.013	.492	.110
Air Pollution	.708*	-.010	.142	.029	.459	.075
Donation Should Support						
Medical Research	.075	-.142	.118	.090	.005	.629*
Education (M.D.)	.137	-.050	.058	.078	.149	.804*
Education (Public)	.266	-.150	.183	-.054	.557*	.272
Health Care	.274	-.328	.139	.124	-.128	.482
Funds Use						
Medical Research	.142	-.152	.809*	-.036	.037	.048
Education (M.D.)	.147	-.081	.817*	.056	.004	-.070
Education (Public)	.167	-.018	.761*	.023	.054	.210
Health Care	.159	-.019	.779*	-.111	.172	.139
General Evaluation						
Rating of OLA	.566*	-.057	.471	.008	.172	.211
Administrative Costs	.008	-.050	.038	.910*	-.057	.083
In-State Activity	.114	-.092	.098	.873*	-.008	.147
Eigenvalue	8.011	2.642	1.962	1.707	1.238	1.037
Cumulative Percentage of Eigenvalues	.248	.463	.549	.623	.674	.722

*Loading over .5 within factors.

each regression equation. This is shown in Table XIV. Neither regression model entered a variable from factor three, "Usage of Funds (actual)." This may have been due to the knowledge requirement regarding the actual usage of funds.

TABLE XIII
FACTOR DIMENSIONS--ATTITUDES

Factor	Dimension
1	Rating of Organization
2	Concern for disease
3	Usage of funds (actual)
4	Effectiveness of funds
5	Concern for disease promoters
6	Usage of funds (desired)

Two factors, "Rating of Organization" and "Concern for Disease Promoters," entered two attitude variables. The factor representation in the two regressions was the same except for the previously stated exchange of chronic bronchitis for emphysema. Chronic bronchitis and emphysema are from the same factor. The entry of a variable from a given factor probably negates the subsequent entry of others from that factor in a stepwise procedure due to high intercorrelation.

This section, value-attitude analysis, has been given to aid the analysis of the general hypothesis. The regression model using values and attitudes as the independent variables is difficult to interpret

because of low correlation between donation level and the independent variable. The difficulty is increased because of multicollinearity. The factor analyses indicate that various latent dimensions exist and the dimensions are represented in the regression model.

TABLE XIV
COMPARISON OF FACTOR AND REGRESSION
ANALYSES--ATTITUDES

Factor	Attitudes as Dependent Variables	Values and Attitudes as Dependent Variables
1. Rating of Organization	Contribution Toward TB Cure Contribution Toward CB Cure	Contribution Toward TB Cure Contribution Toward Emphysema Cure
2. Concern for Disease	Concern for Asthma	Concern for Asthma
3. Usage of Funds (actual)		
4. Effectiveness of Funds	Administrative Costs	Administrative Costs
5. Concern for Disease Promoters	Concern for Smoking Donation Should Support Education (Public)	Concern for Smoking Donation Should Support Education (Public)
6. Usage of Funds (desired)	Donation Should Support Medical Research	Donation Should Support Medical Research

Major Hypothesis Analysis--Theoretical Aspects

It is recalled that eleven values and attitudes entered in the general regression model. The total explained variance was .241. When

attitudes were used alone in the regression, seven attitudes were entered with $R^2 = .127$. With values alone, four variables were entered and the $R^2 = .062$. The implications of these results are discussed prior to moving to other hypotheses.

The explained variance is relatively low in all of the models. This is somewhat due to the behavioral nature of the study. Other factors that influence donation behavior are situational and perceptual variables. This is particularly true when referring to attitudes. Two such factors are the perceptions regarding the likelihood of contracting specific diseases and the experience of having had the disease or someone in your family having had the disease. These variables will enter into the analysis as other hypotheses. They will be discussed in more detail later.

The low coefficients of determination do not indicate a very significant linear relationship between the sets of variables. By breaking the donation levels into nondonors, light donors, and heavy donors and looking at their mean scores, a nonlinear relationship is revealed (Tables XV and XVI). The means are only presented to give a feel for the linearity of the data. However, it should be recognized that the means may give a better view of direction than the beta signs due to the high intercorrelation of the independent variables.

From Table XV, it is seen that no real attitude linearity exists but rather a mixture of nonlinear relationships. Therefore, the low R^2 is not so surprising. The low R^2 , when values were used, was even less surprising since generalized values were employed. It was expected that specific values would relate to donation behavior, but it was unlikely that specific values would relate to specific donation

TABLE XV
MEAN ATTITUDE SCORES

Attitude	Nondonor	Light Donor	Heavy Donor
Concern			
Tuberculosis	2.5	2.1	2.2
Emphysema	1.9	1.8	1.8
Chronic Bronchitis	2.2	2.2	2.2
Asthma	2.2	2.2	2.1
Smoking	1.8	1.7	1.8
Air Pollution	1.9	1.9	2.0
Contribution Towards Cure			
Tuberculosis	2.8	2.2	2.3
Emphysema	2.7	2.3	2.4
Chronic Bronchitis	2.9	2.5	2.6
Asthma	2.9	2.5	2.5
Contribution to Halt			
Smoking	2.9	2.6	2.5
Air Pollution	2.9	2.5	2.6
Donation Should Support			
Medical Research	1.7	1.6	1.9
Education (M.D.)	3.4	3.2	3.5
Education (Public)	2.5	2.2	2.2
Health Care	2.4	2.3	2.5
Funds Use			
Medical Research	3.5	3.4	3.7
Education (M.D.)	3.3	3.1	3.3
Education (Public)	3.4	3.1	3.3
Health Care	3.6	3.4	3.4
General Evaluation			
Rating of OLA	3.2	2.7	2.8
Administrative Costs	3.2	2.8	3.4
In-State Activity	3.5	2.9	3.5

TABLE XVI
MEAN VALUE SCORES

Value	Nondonor	Light Donor	Heavy Donor
Instrumental			
Ambitions	1.7	1.7	1.7
Broadminded	1.9	1.8	2.0
Cheerful	2.1	1.9	2.2
Courageous	1.7	1.7	1.7
Forgiving	1.9	1.8	2.0
Helpful	2.1	1.9	2.1
Honest	1.3	1.2	1.2
Imaginative	2.7	2.5	2.5
Loving	2.1	2.0	2.1
Obedient	2.2	2.0	2.2
Polite	1.8	1.7	1.9
Responsible	1.3	1.3	1.4
Self-Controlled	1.8	1.6	1.7
Terminal			
Comfortable Life	2.4	2.3	2.4
Sense of Accomplishment	2.0	1.9	2.0
Equality	2.3	2.2	2.4
Family Security	1.5	1.5	1.4
Freedom	1.8	1.6	1.7
Happiness	1.6	1.7	1.9
Inner Harmony	1.8	1.7	1.9
Pleasure	2.6	2.8	2.9
Salvation	1.9	1.7	2.3
Self-Respect	1.4	1.4	1.5
Social Recognition	2.7	2.6	3.0
True Friendship	1.9	1.8	2.9
Wisdom	1.7	1.6	1.7

behavior, i.e., donation to a particular organization. No general donation data was generated, i.e., no information was gathered on the individual's donation level to any charity other than the Oklahoma Lung Association. Some data on to whom individuals gave was collected, but not the amounts. The problem was one of credibility, i.e., would individuals accurately report to whom they gave and how much. The low explained variance is also aided by looking at the mean value scores of the three donor groups (Table XVI). This data supports the previous observation about the lack of variability in the value responses. These means consistently show a light-non-heavy pattern, i.e., values are more important to light donors than heavy donors with the nondonors somewhere in between. Close similarity of the means across the three groups indicates a trend to view values alike whether a donation is made to the Oklahoma Lung Association or not.

It is now appropriate to attempt to explain why certain variables entered into the regression equations as significant and the relationship of the variables within the equation. These interpretations are based on logic and the theory developed in Chapter II.

The Value Variables

1. Happiness (contentedness): The relationship indicated within the regression models is that the higher the donation the less important "Happiness." The individuals may be identifying "Happiness" with personal happiness and do not wish to link it with morbidity. This is consistent with the theory that individuals give because they feel guilty about their good health while others have failing health.

2. Family Security (taking care of loved ones). This variable relates very strongly to the diseases mentioned, particularly the readily identifiable tuberculosis which requires considerable patient care. The higher the donation, the more important the value.

3. Helpful (working for the welfare of others). The same logic applied to "Family Security" applies here as the larger the donation the more important working for others becomes. The major distinction is "Helpful" is an instrumental or mode of conduct value, while "Family Security" is a terminal or goal in life value.

4. Salvation (saved, eternal life). Another accepted theory of donation is the donor's desire to "lay up treasures in heaven" by aiding his fellowman. Contrary to expected results, the higher the donation, the less important this variable. It may be that the donations are going to the church rather than to this specific organization. No data were available to test this view. Another explanation is again related to the diseased and suffering of loved ones which may have decreased belief in a supreme being. It also may be due to a lack of desire by the respondents to equate their donation with their own reward. i.e., guilt association.

The Attitude Variables

1. The Oklahoma Lung Association spends too much of its funds on administrative costs such as salaries, rent, utilities. Misuse of donations is the most frequently heard criticism of charitable organizations. The relationship indicated within the equations is that the higher the donation the less agreement with this statement. This is very logical and consistent with justification of donation. It is very

common for individuals to seek mental and verbal reinforcement for activities performed. This is similar to reduction of cognitive dissonance. Using the mean scores, it is interesting to note that light donors did not feel as positive about administrative costs as did the heavy donors. This possibly relates to an emotional factor or to some knowledge factor.

2. The Oklahoma Lung Association is currently making a significant contribution to the development of a cure for tuberculosis. Tuberculosis is the most visible to the public of the diseases mentioned in the questionnaire and it also was the most obvious in being related to the organization of interest in the questionnaire. Its inclusion was, therefore, a function of high identification of the disease and high relationship of the disease to the organization. The higher the donation the more agreement with the statement. The older, more established donors still relate the organization to tuberculosis. Others withhold large donations because they feel that tuberculosis is arrested and believe that the money should be shifted to other areas.

3. I believe that most of any donation to the Oklahoma Lung Association should go to the support of medical research. Medical research comes to the forefront when diseases are mentioned because of the desire of most individuals to relieve the dangers of the diseases. All charitable health organizations in recent years have emphasized the role research plays in donation usage. Contrary to what one would expect, the higher the donation the less agreement with the belief. This is most likely a phenomenon of the Oklahoma Lung Association and not common to all health organizations. It may be an extension of the knowledge factor and the identification of the organization with

tuberculosis, i.e., a belief that tuberculosis has been alleviated to a great degree and the need is not medical research but some other usage such as education of the public regarding how to void the disease.

4. I believe that most of any donation to the Oklahoma Lung Association should go to the education of the public about the dangers of lung diseases. Again, in response to promotion regarding lung diseases, this variable has high public visibility. Its inclusion was, therefore, not too surprising. The higher the donation the more agreement that funds should support the education of the public. The feeling seems to be dominant that lung diseases may be self preventive and treatable. This supports the above statement that medical research may not be the primary concern of the donor to the Oklahoma Lung Association.

5. People, in general, should be more concerned about smoking as a health problem. No other health question has generated more controversy in recent years than smoking. This controversy dictates the inclusion of this variable. The larger the donation the less agreement that smoking is a health problem. The explanation of this relationship could be varied as smoking has been demonstrated to be an emotional question. No smoking data was gathered in this sample but in a sample drawn from the population it was found that donors tended to be heavier smokers than nondonors (8). This was based on demographics, in that the donors to the Oklahoma Lung Association tend to be older than nondonors. Those who smoke tend to find it difficult to express concern over their actions. This smoking variable has the opposite relationship to donation level than does the public education variable. This would tend to indicate that smoking is not equated with lung diseases.

6. People, in general, should be more concerned with asthma as a health problem. Other than tuberculosis, asthma is the most visible of the diseases presented in the questionnaire; however, it does not receive as much notoriety as other diseases. The higher the donation the more agreement with the statement. Individuals that contribute to the Oklahoma Lung Association would feel that others should share their concern over the diseases affected by the Oklahoma Lung Association.

7. The Oklahoma Lung Association is currently making a significant contribution to the development of a cure for chronic bronchitis. Chronic bronchitis was included in "attitude only" regression, while emphysema was included in the total sample regression. Both were included in the same factor and have similar positions in public identification and concern. The inclusion of the variables may be due to current emergence of the public identification of the diseases. This is based primarily on promotion. In contrast to the tuberculosis variable, the higher the donation the less agreement with the contribution statement. Again, this is a function of actuality of knowledge as these diseases have not been arrested as has tuberculosis. Also, the Oklahoma Lung Association is not as readily identifiable with these diseases as is tuberculosis.

Auxiliary Hypothesis One

The two regression models previously computed (one used values as the independent variables, the other used attitudes) were used to analyze auxiliary hypothesis one.

Auxiliary Hypothesis One: Attitudes account for a greater percentage of variance among donor behavior, level of donation, than do values.

The value model yielded a coefficient of determination of .062, and the attitude model yielded .127. A direct comparison of the coefficients shows that attitudes do account for a greater percentage of variance. The test to determine significant differences between R^2 values is computed using the correlation coefficient, R . To determine whether two correlation coefficients R_a and R_v , drawn from samples of sizes N_a and N_v respectively, differ significantly from each other, Z_a and Z_v corresponding to R_a and R_v are computed using

$$Z = 1.1513 \log \left(\frac{1+R}{1-R} \right).$$

The test statistic $z = \frac{Z_a - Z_v - (\mu_{z_a} - \mu_{z_v})}{\sigma_{z_a - z_v}}$ is used where

$$\mu_{z_a - z_v} = \mu_{z_a} - \mu_{z_v} \quad \text{and} \quad \sigma_{z_a - z_v} = \sqrt{\sigma_{z_a}^2 + \sigma_{z_v}^2} =$$

$$\sqrt{\frac{1}{N_a - 3} + \frac{1}{N_v - 3}} \quad \text{is normally distributed (83,247).}$$

The results were as follows:

$$R_a = .127 = .3564$$

$$R_v = .062 = .2490$$

$$Z_a = 1.1513 \log \left(\frac{1 + .3564}{1 - .3564} \right) = .3726$$

$$Z_v = 1.1513 \log \left(\frac{1 + .249}{1 - .249} \right) = .2543$$

$$N_a \text{ and } N_v = 516$$

$$\sigma_{z_a - z_v} = \sqrt{\frac{1}{516 - 3} + \frac{1}{516 - 3}} = .0624$$

Now testing $H_0 : \mu_{z_a} = \mu_{z_v}$

$$z = \frac{.3726 - .2543 - 0}{.0624} = 1.8958$$

The hypothesis H_0 is therefore rejected at the .058 significance level.

Auxiliary Hypothesis Two

Theoretically, the perceptions and experiences of the individual influence one's attitude, thereby affecting explanation of behavior. Auxiliary hypothesis two is an attempt to examine this relationship.

Auxiliary Hypothesis Two: Situational experiences and perceptions mediate attitudes toward the Oklahoma Lung Association, thereby enhancing the ability of attitudes to explain donor behavior.

Two perception variables and one experience variable were chosen to examine this influence. The perceptions were (1) how the individual perceived the likelihood of contracting one or more of the diseases with which the Oklahoma Lung Association is concerned, i.e., tuberculosis, chronic bronchitis, emphysema, and asthma; and (2) how the individual perceived the Oklahoma Lung Association in relationship to other charitable organizations to which donations could be given. This perception may also be viewed as generalized behavior as it relates to donation behavior to all charities. The experience concerned whether the respondent had close friends or family members who had contracted tuberculosis, chronic bronchitis, emphysema, or asthma. Regression was the analysis tool on the three variables. The resultant R^2 s and variables included in the models indicated that attitudes are influenced by perceptions and experiences.

Experience as a Mediator. The respondents were asked, "Which of the following have close friends or members of your family contracted?" Included in the list were the four diseases with which the Oklahoma Lung Association is concerned. The total sample was split into two groups based on the responses regarding these diseases. One group contained the individuals with no disease experience. The other group consisted of individuals with experience with at least one of the diseases. Separate regression models were constructed for the two groups, each using level of donation as the dependent variable and attitudes as the independent variables. The results of the regression appear in Table XVII:

The analysis served two primary purposes. First was an indication of the increased explanation provided by the division of the sample into homogeneous subsets. The second purpose was to accentuate the differences in variables that enter the model based on the experience. An increase did occur in the explained variation for the no contraction sample. The total sample had yielded an R^2 of .127; while the R^2 for no contraction was .184 with four less variables in the model. With contraction a decrease in R^2 to .096 was incurred.

The difference between the no contraction R^2 of .184 and the contraction R^2 of .096 indicates the role of experience in attitude formation. Those individuals with contraction probably have an "emotional halo effect" surrounding donation behavior. This partially explains the low correlation between donation behavior and evaluative attitudes. Illness experiences partially override the other dimensions of attitude. In contrast, the increase in R^2 from .127 to .184 reflects

a commonality of criteria by which to assess the monetary support due the organization.

TABLE XVII
REGRESSION ANALYSIS--EXPERIENCE

Variable	Cumulative R ²	Beta Value	t
No Contraction Model			
Donation Should Support Medical Research	.086	1.424	3.350*
Contribution Toward TB Cure	.153	-1.208	-3.038*
Administrative Costs	.184	0.832	2.082**
Contraction Model			
Concern for Smoking	.028	1.735	3.527*
Concern for Asthma	.058	-1.364	-2.403*
Administrative Costs	.080	0.692	1.888**
Donation Should Support Education (Public)	.096	-0.724	-1.779**

*Significant at .01 level.

**Significant at .05 level.

The variables entered in the split regressions were informative as to the relationships among behavior, attitudes, and experiences. In comparing the regressions, only one attitude, "Administrative Costs" appeared in both. Both indicated that the higher the donation, the more the disagreement that too much is spent on administrative costs. In contrast, the other variables that entered the model indicate a long run versus a short run perspective on the disease problems. The no

contraction sample appeared to readily identify the Oklahoma Lung Association with tuberculosis and the cure of the disease. The larger the donation the more agreement that the Oklahoma Lung Association had made a contribution to a cure. Thus, little need is seen for medical research. A detached long run view is taken. The contraction sample appeared to be more aware of suspected causes of the diseases, dangers of nontreatment and self prevention. Immediate attention is focused on education of the public to the dangers and possible prevention of the diseases. The concern for smoking relationship was once again the higher the donation, the less the concern. It has been stated that smoking is an emotion question and justification is needed particularly when one has had disease experience.

Perception as a Mediator. The respondents were asked, "Which of the following do you feel you or your family have the greatest likelihood of contracting?" Listed among a variety of diseases were tuberculosis, chronic bronchitis, emphysema, and asthma. As before, the sample was split based on no likelihood and likelihood of contracting at least one of the four. Two separate regressions were calculated with the variables the same as for the contracting division. The results are in Table XVIII.

The results from this analysis were not as clear as the contract results. This was most likely a function of being perceptions as opposed to experiences. Perception is emotional, as is the experience, but can more easily be mentally rejected. There is a slight difference between the no likelihood, R^2 of .140, and the likelihood, R^2 of .095. With this difference, the "emotional halo effect" is again demonstrated.

Without the fear or perception of contracting one of the diseases, attitudes do a better job explaining donation behavior than do attitudes when the perception is present.

TABLE XVIII
REGRESSION ANALYSIS--PERCEPTION

Variable	Cumulative R ²	Beta Value	t
No Likelihood Model			
Administrative Costs	.050	0.789	2.415*
Donation Should Support Medical Research	.079	1.020	2.520*
Donation Should Support Education (M.D.)	.097	-0.472	-1.775**
Funds Use			
Medical Research	.122	0.826	2.499*
Contribution Toward Asthma Cure	.140	-0.662	-1.702**
Likelihood Model			
Contribution Toward TB Cure	.030	-2.760	-3.400*
Contribution Toward Asthma Cure	.074	2.081	2.454*
Administrative Costs	.095	0.792	1.822**

*Significant at .01 level.

**Significant at .05 level.

The variables entered in the two regressions differed in enlightening ways. "Contribution Toward Asthma Cure" and "Administrative Costs" were the only variables that entered into both regressions. Although "Contribution Toward an Asthma Cure" is included in both models, the

influence of the variable is different. The no likelihood model yielded the greater the donation the more the agreement that the contribution of the Oklahoma Lung Association was significant. The likelihood model was the opposite, the greater the donation the less the agreement that the contribution of the Oklahoma Lung Association was significant. This result is consistent with the perception. If the individual is fearful of contracting asthma, a non-arrested disease, then it is probably logical to expect concern over the past accomplishments of the organization devoted to the disease. The reverse logic applies to the no likelihood respondents. It appears that the likelihood group is short range oriented, while the no likelihood group is more concerned with the long range.

Behavior as a Mediator. The respondents were asked, "To which of the following organizations do you normally donate?" A list of nine charitable organizations was given as well as an "other" category. The sample was divided into two sections based on the number of organizations to which the respondent gave, i.e., the division was made on past behavior. All respondents who gave to five or less charities were in one group, while those supporting six or more were in another. Those in the five or less category were designated as selective donors; those in the six or more category were designated as general donors.

The general charity supporter tends to give to every charity; therefore, attitudes toward a specific charity would not necessarily do a good job of explaining donation behavior. A more discriminate or selective donor, however, would let attitudes toward a specific organization be a more deciding factor in donation behavior. Therefore,

the generalized donation behavior of the individual should influence behavior toward a specific institution.

Once again, two regression models were computed using donation level and attitudes based on sub-samples of the total. The results are in Table XIX.

TABLE XIX
REGRESSION ANALYSIS--BEHAVIOR

Variable	Cumulative R ²	Beta Value	t
Selective Donor Model			
Administrative Costs Contribution Toward TB Cure	.050	0.700	2.142**
Contribution Toward CB Cure	.093	-2.189	-4.246*
Concern for Smoking	.154	2.022	3.788*
Concern for Asthma	.183	1.616	4.033*
Donation Should Support Health Care	.208	-1.483	-3.263
Contribution to Halt Smoking	.234	0.612	1.874**
Donation Should Support Medical Research	.254	-0.773	-2.230**
	.273	0.811	2.049**
General Donor Model			
Donation Should Support Education (Public)	.022	-0.937	-1.980*
Donation Should Support Medical Research	.045	1.022	1.720*

*Significant at .01 level.

**Significant at .05 level.

In comparing R^2 s, the selective donor model produced .273 while the general donor yielded a R^2 of only .045. This is a direct verification of the hypothesis that organizational perception or past behavior plays a role in behavior analysis. The explained variance also increased from the total sample, .127 to .273. The general donor dropped to .045 from .127 indicating that selective donation behavior can be explained better by attitudes than can general donation behavior.

Of the regression analyses calculated on attitudes in this paper, the general donor regression was the only one not to include "administrative costs" as a significant variable. This indicates that the general donor does not consider administrative costs as a salient variable among charities. Instead, he likely donates on a somewhat random basis. Only one variable was included in both regressions. The higher the donation the less support for medical research. The general donor was concerned about education of the public, while the selective donor was concerned about the contribution of the Oklahoma Lung Association toward cures and the concern of the public over the diseases. The most interesting inclusion by the selective donor was the higher the donation the more agreement with the statement that the Oklahoma Lung Association is making a significant contribution to the halt of smoking.

The three subsections above sought support for the hypothesis that experience and perceptions mediate behavior explanations. The comparative results of the regression models strongly support the hypothesis, disease experience and organization perception greatly enhanced explanation not only by increasing the explained variance but by also entering different variables in the models.

Auxiliary Hypothesis Three

Personality is extremely complex not only because of the number of variables involved, but also because of the interrelationship of the variables. The theoretical literature indicated that values and attitudes were intertwined. Hypothesis three concerns this intermeshing of variables.

Auxiliary Hypothesis Three: Specific values correlate with specific attitudes forming a complex, illustrating the interrelationship of the variables influencing behavior.

A logical attempt to show the relationship between values and attitudes is to factor analyze the two sets of variables as a single set thereby generating factors containing both values and attitudes. This was done using the guidelines previously set forth. No generated factors included attitudes and values. A plausible explanation for this lack of demonstrated intercorrelation is the strong relationship within the divided sets of variables. Factor analysis uses the correlation matrix as the basis for computations and as stated, the correlations within variables were high, especially for the attitudes. Because of the correlations within the sets of variables, the individual factors contained only values or attitudes with "high" loadings. No doubt, the structure of the questionnaire contributed to the failure of factor analysis to support the hypothesis.

Another logical approach to examine the hypothesis is canonical analysis. Canonical analysis is concerned with relationships among sets of criterion variables and predictor variables, e.g., attitudes and values respectively. This analysis revealed that individual values and attitudes tend to complex supporting the hypothesis.

Twenty-three canonical roots were generated by the analysis, one for each criterion (attitude) variable. For each root a canonical coefficient index was computed. This index is interpreted as a measure of the overall correlation between the linear combination of criterion (attitude) variables and the linear combination of predictor (value) variables. All of the indices were not determined to be statistically significant by Bartlett's "chi-square test." Five of the twenty-three were significant at the .01 level. These are presented in Table XX. The first canonical R of .68 indicated that 46.2 percent of the variation in the attitudes could be explained by the values in the predictor set. In contrast to evidence gleaned from the factor analysis, values and attitudes appear to relate. This is consistent with the bivariate correlation matrix (Appendix B). In addition, the above analysis reveals that sets of values and attitudes interrelate and provide a direct statistical verification of the hypothesis.

To further explore the hypothesis each root was examined to ascertain the specific values and attitudes which surfaced as being related. Due to the correlation within the sets of values and attitudes, the correlation between each variable of the criterion and predictor sets and the canonical variate (linear combination of all variables in the set) is examined (84). The relative size of the correlation coefficients within a set indicates the general contribution of each variable to the canonical root. Determining when the size of the correlation coefficient indicates that the variable should not be included in the analysis requires subjective judgment. It also depends on the purpose of the analysis. The results are presented in Table XXI.

TABLE XX
CANONICAL CORRELATION ROOTS

Canonical Root	Canonical Correlation Index (R)	Chi. Sq.	DF	Prob.	χ^2
1	.68	978.00	598	.0001	
2	.61	814.14	550	.0001	
3	.59	690.06	504	.0001	
4	.53	579.67	460	.0001	
5	.52	492.05	418	.0072	

The correlation matrix (Appendix B) provides the key for the description of the Qs. Each canonical root (V_i) is listed with the criterion or predictor variables (Qs) which load highest on the variate. This illustrates and supports the hypothesis that values and attitudes are interrelated. No attempt is made to explain why every value-attitude grouping appeared. Instead, general insights to the groupings are discussed. This is best accomplished by utilizing the factor analyses of values and attitudes as previously presented.

Canonical root one reveals a value profile with little concern about peer orientation (good life). This group of individuals is also not overly concerned about the temporal or spiritual peace. From the attitude profile, it is shown that these individuals tend to rate the Oklahoma Lung Association relatively low. They are not too concerned about the diseases with which the organization is involved; nor are they troubled about disease promoters, e.g., smoking. The second root profiles individuals worried about peer orientation (good life). This

TABLE XXI
 CANONICAL VARIATES--VARIABLES

	V ₁ *	V ₂ **	V ₃ **	V ₄ **	V ₅ **
Criterion Variables (Values)	Q10	-Q 1	Q10	Q14	-Q 3
	Q11	Q10	-Q18	Q17	-Q 6
	Q14	-Q14	-Q21	Q20	-Q 9
	Q16	Q16	Q22		-Q19
	Q18	Q17	-Q24		Q21
	Q19	-Q24			
	Q21				
	Q22				
	Q27	Q32	Q33	Q28	-Q29
	Q28	-Q33	Q36	Q29	-Q40
Predictor Variables (Attitudes)	Q29	-Q34	Q42	Q30	-Q42
	Q30	-Q35	Q47	-Q33	-Q48
	Q31	-Q36		-Q38	-Q49
	Q32	-Q40		Q40	
	Q33	-Q43			
	Q34	-Q47			
	Q35	-Q48			
	Q36				
	Q37				
	Q38				
Q41					

*Variables that loaded on the variates at levels of .50 or higher.

**Variables that loaded on the variates at levels of .25 or higher.

group is also not too distressed over temporal peace. The criterion set reveals that the group rates the organization good. A possible knowledge factor is also evident as usage of funds (actual) is seen as effective.

The third group is socially oriented toward their peers and feel no strong need for spirituality, but do have a desire for temporal peace. The rating of the organization is low. Canonical root four includes individuals not too concerned with taking care of loved ones or being free from inner conflict. The organization is rated low, but concern is exhibited over the diseases involved. The last root profiles a group with a comfortable life goal. They tend to be loving and not troubled over obtaining a leisurely life. The group feels concern about the diseases and their causes, but is distressed over the effective use of funds.

These descriptions are presented to aid understanding and not necessarily a direct support of the hypothesis. Direct support of the hypothesis is given by the canonical correlation indices.

CHAPTER V

SUMMARY AND CONCLUSIONS

The purpose of this study was to explore and analyze the relationships among the level of donation to the Oklahoma Lung Association, the generalized values held by the individual and the specific attitudes held by the individual toward the Oklahoma Lung Association. The analysis revealed that interrelationships among the above variables do exist. This led to the obtainment of several important objectives. These objectives were:

1. Show that level of donation is a function of one's value importance system and also a function of the individual's attitude toward the Oklahoma Lung Association.
2. Show that attitudes explain donor behavior better than values.
3. Reveal that specific values are related to specific attitudes.
4. Show that the individual's donation behavior is influenced by his situational experiences and perceptions.
5. To affirm the concept that marketing techniques and tools may be applied to nonprofit organizations.

The research was exploratory and its function was to find possible links between value systems, attitudes, and behavior. The understanding of the value-attitude-behavior relationship was increased and this should provide impetus for future work in the area.

Overview of the Study

The concept of attitude, its measurement, and its relationship to resultant behavior is well documented in the literature of many disciplines. The study of values is less developed. The work of Rokeach (21) in interrelating attitudes and values provided an opportunity to expand knowledge in both of these areas.

The investigation presented further impetus to marketing's involvement in nonprofit areas. Attempts to incorporate the nonbusiness function within the formal realm of marketing are relatively new. This paper extended marketing to include the charitable health organization, i.e., the Oklahoma Lung Association. Little work has been done exploring the relationship of donor behavior and values-attitudes.

Four research hypotheses were drawn from the stated objectives.

These are as follows:

Major Hypothesis: The level of donation, i.e., behavior, is a function of one's value importance system as measured by the "Rokeach Inventory File;" and also, is a function of the individual's attitude toward the Oklahoma Lung Association as measured by specific object belief scores.

Auxiliary Hypotheses:

1. Attitudes account for a greater percentage of variance among donor behavior level, level of donation, than do values.
2. Situational experiences and perceptions mediate attitudes toward the Oklahoma Lung Association, thereby enhancing the ability of attitudes to explain donor behavior.
3. Specific values correlate with specific attitudes forming a complex, illustrating the interrelationship of the variables influencing behavior.

The methodology of the study consisted of taking two sets of measurements, values and attitudes, on 516 respondents. These measures were based on self-administered questionnaires. A third measurement,

level of donation, was obtained from the donor files of the Oklahoma Lung Association. Primarily, multiple regression was employed to test the major hypothesis as well as auxiliary hypotheses one and two. Canonical analysis was the primary tool for evaluation of the third auxiliary hypothesis. Factor analysis of the values and attitudes along with simple arithmetic means and standard deviations of both variables formed a part of the evaluation.

The Research Results

As a test of the major hypothesis, regression analysis was used with donation level as the dependent variable and values and attitudes as the independent variables. The stepwise regression analysis model extracted eleven variables (four values and seven attitudes) as significant at the 0.1 level. These variables accounted for .241 of the total variation of the level of donation. Since simple correlation of the values and attitudes revealed some interrelationships among the independent variables, factor analysis was computed on the values and attitudes to aid interpretation.

Factor analysis of the values generated six factors. The three factors most likely to influence donor behavior were represented in the regression model. Factor analysis of the attitudes also generated six factors. Five of the six factors were represented in the model. Although intercorrelation of the independent variables existed (to a limited degree), the factor analysis showed that the regression variables came from various factors thereby hopefully reducing the influence of the intercorrelations. The coefficient of determination, .241, is an indication that values and attitudes do influence donation behavior.

The two regression models computed to test the first auxiliary hypothesis both used the level of donation as the dependent variable. One used values as the independent variables while the other used attitudes. The values yielded a coefficient of determination of .062, while attitudes yielded .127 with variable entry for each model terminated at the 0.1 level. A direct comparison of the two statistics indicate that attitudes do explain donor behavior better than values. It was also determined that the difference between .127 and .062 was statistically significant at the .058 level.

The regression models used to evaluate auxiliary hypothesis two revealed the following: (1) Given the situational experience of close individual relationship with diseases, attitudes have a weakened ability to explain donor behavior, i.e., $R^2 = .096$. Emotions tend to override the evaluative dimensions of attitude. With the "removal" of emotional experience involving a disease, attitudes more fully explained donation behavior, i.e., $R^2 = .184$. Also different attitude variables entered the model when disease experience was present as opposed to when it was not a factor. (2) The perception of whether diseases were likely to be contracted by the individual or his family also influenced the ability of attitudes to explain donor behavior, emotions again being a likely influence. Without the perception or fear of contracting the disease, attitudes explain behavior better (.140) than when the perception is present (.095). (3) Awareness of the individual's donation pattern to all charitable organizations also increased attitudes' explanation of behavior. The "selective" charitable organization donor's behavior is easier to interpret via attitudes than is the "general" donor. The "general" donor's $R^2 = .273$, while the "selective" $R^2 = .045$.

Canonical analysis supported auxiliary hypothesis three in that values and attitudes tended to form a complex. Five statistically significant canonical roots were generated. The first of these roots indicated a canonical correlation of .61 between values and attitudes while the last (fifth) root had a correlation of .51.

Implications of the Study

This research effort offers several implications for the value-attitude-behavior relationship. These implications are discussed as they relate to the hypotheses. Chapter II developed the theoretical argument that behavior is a function of one's values and attitudes. This paper has strengthened that view by revealing that donation behavior is partially explainable by the value and attitude variables.

Attitudes are generally hypothesized to be better definers of behavior than values. The contention was supported by the research within this paper. Attitudes toward the Oklahoma Lung Association better explained donation behavior than did the generalized values of the individuals. This is an indication of the object specific nature of attitudes and supports the theory that attitudes are closer to behavior than values. The attitude-behavior relationship has been enhanced through this research. The research has also enhanced the value-behavior relationship by showing values as a partial source of explanation for donation behavior.

Theoretically, situational experiences and perceptions influence the ability of attitudes to explain behavior. The results of this research supported this theory. By holding these factors constant, over sub-groups of the sample, the structural role of attitudes

accounting for the variability of donor behavior was changed with substantial improvement in explanatory power in some instances. Many studies reported in the literature on attitudes and behavior do not consider external factors. The implication of this study is that externalities do influence the attitude-behavior relationship, partially explaining the mixed results reported in the literature.

The paper strengthened the theoretical basis for the relationship between object attitudes and value systems. Groupings of values were shown to group with attitudes as postulated by Rokeach. Although the specific nature of the relationship was not readily interpretable, the relationship was identified. Further work is needed on the subject and will undoubtedly be forthcoming in both the behavioral sciences and marketing.

This paper also has implications for nonprofit marketing. The study has affirmed the concept that marketing techniques and tools can be beneficially applied to the nonprofit organization. At the very least, this is true for the charitable fund raising organization. Although the study was exploratory, individual value and attitude differences were formed at varying donation levels. This is similar to discovering that values and attitudes differ among buyer usage levels. The possible application of such information would be the same in both situations. For example, the promotion of different appeals to the various donation levels based on discriminating characteristics.

Future Research Directions

Due to the elusive nature of the value-attitude-behavior relationships many research orientations are evident. However, the results of

this paper suggest several specific research directions that seem fruitful for study. The problems of using generalized values as definers of specific behavior were evident by the low correlation between values and behavior. Relating the generalized values to more generalized behavior would most likely reveal a closer value-behavior relationship. For example, this could be done if improved data on general donation behavior were obtained.

The instruments to measure values should be improved. Using Rokeach's values, the instrument in this paper had relatively low discriminating capabilities, i.e., the respondents' values all tended to cluster toward the "important" end of the scale. The ability of the measuring instrument to discriminate characteristics is imperative if relationships are to be better clarified.

The paper alluded to the use of standard demographic data in exploring psychological variables. The relationship of demographics to the value-attitude-behavior complex would further elucidate the nature and structure of the complex as did the situational variables.

Values could be experimentally tested to determine if values precede behavior. The data generated by this research is primarily associative, i.e., values, attitudes, and behavior are correlated. The sequential nature of the relationships is only deductively inferred from related theory. To test this sequential assumption, individual values should be measured and then experimental treatments introduced to examine attitude and behavior changes.

Clarification of the situational factors which influence attitudes is needed. Perhaps a taxonomy of situations similar to Rokeach's structure of values would be a viable approach. Lastly, the research

has further enlarged the possibility of marketing involvement in non-profit organizations.

In summary, this study has expanded the theoretical base for attitudes, value systems, and resultant behavior. Continued research into the relations put forth in this paper should lead to better understanding of the basic theory in the field. If this result can be achieved, then some contribution will have been made in terms of advancing marketing knowledge.

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.....APPENDIX A

QUESTIONNAIRE

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Listed below are a number of values. These are values that some would consider important in determining their mode of conduct. Indicate how important YOU would consider each value as a guiding principle in YOUR life. If the value is extremely important to you, mark the far left space. If the value is extremely unimportant, mark the far right space. If the importance of the value differs from either of the extremes, mark the appropriate space. For example, if you feel it is "somewhat important" mark

____; ____; X; ____; ____; ____; ____;
 Extremely Very Somewhat Neither Somewhat Very Extremely
 Important Important Important Or Unimportant Unimportant Unimportant Unimportant

	<u>Extremely</u> <u>Important</u>						<u>Extremely</u> <u>Unimportant</u>
Ambitious (hard-working, aspiring)	___	;	___	;	___	;	___
Broadminded (open-minded)	___	;	___	;	___	;	___
Cheerful (lighthearted, joyful)	___	;	___	;	___	;	___
Courageous (standing up for your beliefs)	___	;	___	;	___	;	___
Forgiving (willing to pardon others)	___	;	___	;	___	;	___
Helpful (working for the welfare of others)	___	;	___	;	___	;	___
Honest (sincere, truthful)	___	;	___	;	___	;	___
Imaginative (daring, creative)	___	;	___	;	___	;	___
Loving (affectionate, tender)	___	;	___	;	___	;	___
Obedient (dutiful, respectful)	___	;	___	;	___	;	___
Polite (courteous, well-mannered)	___	;	___	;	___	;	___
Responsible (dependable, reliable)	___	;	___	;	___	;	___
Self-Controlled (restrained, self-disciplined)	___	;	___	;	___	;	___

Below is another list of values. These are values that some would consider desirable goals in life. Indicate how important YOU consider each value as a guiding principle in YOUR life.

	<u>Extremely</u> <u>Important</u>						<u>Extremely</u> <u>Unimportant</u>
A Comfortable Life (a prosperous life)	___	;	___	;	___	;	___
A Sense of Accomplishment (lasting contribution)	___	;	___	;	___	;	___
Equality (brotherhood, equal opportunity for all)	___	;	___	;	___	;	___
Family Security (taking care of loved ones)	___	;	___	;	___	;	___
Freedom (independence, free choice)	___	;	___	;	___	;	___
Happiness (contentedness)	___	;	___	;	___	;	___
Inner Harmony (freedom from inner conflict)	___	;	___	;	___	;	___
Pleasure (an enjoyable, leisurely life)	___	;	___	;	___	;	___
Salvation (saved, eternal life)	___	;	___	;	___	;	___
Self-Respect (self-esteem)	___	;	___	;	___	;	___
Social Recognition (respect, admiration)	___	;	___	;	___	;	___
True Friendship (close companionship)	___	;	___	;	___	;	___
Wisdom (a mature understanding of life)	___	;	___	;	___	;	___

To which of the following organizations do you normally donate?

Heart Association _____	Christmas Seals _____	Church _____
Muscular Dystrophy _____	Cancer Society _____	None _____
March of Dimes _____	Red Cross _____	Other _____
TB Association _____	United Fund _____	Specify _____

Which of the following do you feel you or your family have the greatest likelihood of contracting?

Muscular Dystrophy _____	Emphysema _____	Asthma _____
Chronic Bronchitis _____	Birth Defects _____	Cancer _____
Tuberculosis _____	Heart Trouble _____	Other _____
		None _____

Which of the following have close friends or members of your family contracted?

Muscular Dystrophy _____	Emphysema _____	Asthma _____
Chronic Bronchitis _____	Birth Defects _____	Cancer _____
Tuberculosis _____	Heart Trouble _____	Other _____
		None _____

NOTE: The information below will be kept confidential and used only for the statistical analysis on our computer.

In which range does your age fall?

() Under 25	() 25 to 34	() 35 to 44
() 45 to 54	() 55 to 64	() 65 and over

Which of the income groups listed below best describe the Total Combined Income of all the members of your family who live in your household?

() Under \$5,000	() \$8,000 to \$9,999	() \$10,000 to \$14,999
() \$5,000 to \$7,999	() \$15,000 and over	

What was the highest level of school you attended or completed?

() Attended Grade School	() Graduate from High School
() Graduate from Grade School	() Attended College
() Attended High School	() Graduated from College

What is the occupation of the head of your household? _____

Sex: Male _____ Female _____

Marital Status: Single ___; Married ___; Widowed ___; Divorced ___; Separated ___.

Thank you very much for taking the time to answer these questions. Please mail the questionnaire as soon as you can using the enclosed postage-paid envelope.

APPENDIX B
CORRELATION MATRIX

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Ambitious (1)	1.000	.209	.270	.221	.142	.240	.216	.280	.232	.461	.418	.391	.337	.323	.286	.049*	.251
Broadminded (2)		1.000	.451	.433	.371	.409	.254	.308	.379	.322	.308	.221	.240	.229	.253	.421	.253
Cheerful (3)			1.000	.434	.513	.474	.199	.342	.567	.429	.430	.272	.319	.216	.198	.278	.250
Courageous (4)				1.000	.493	.399	.330	.257	.411	.354	.301	.332	.312	.103*	.199	.323	.289
Forgiving (5)					1.000	.509	.289	.287	.485	.398	.422	.272	.340	.050*	.097*	.352	.242
Helpful (6)						1.000	.324	.264	.394	.469	.474	.364	.334	.059*	.229	.416	.242
Honest (7)							1.000	.127	.209	.266	.320	.481	.265	.103*	.189	.191	.247
Imaginative (8)								1.000	.467	.310	.196	.161	.343	.104*	.306	.141	.144
Loving (9)									1.000	.523	.373	.288	.369	.089*	.220	.294	.271
Obedient (10)										1.000	.656	.485	.515	.234	.254	.268	.309
Polite (11)											1.000	.580	.480	.240	.259	.267	.306
Responsible (12)												1.000	.488	.193	.250	.240	.347
Self-Centered (13)													1.000	.147	.164	.202	.267
Comfortable Life (14)														1.000	.286	.168	.254
Sense of Accomplishment (15)															1.000	.244	.319
Equality (16)																1.000	.354
Family Security (17)																	1.000

	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
Ambitious (1)	.139	.286	.040*	.137	.303	.234	.233	.205	.178	.147	.180	.223	.158	.148	.087	.201	.280
Broadminded (2)	.332	.280	.245	.254	.077*	.304	.231	.294	.364	.232	.222	.247	.269	.166	.268	.255	.232
Cheerful (3)	.266	.445	.269	.290	.268	.253	.252	.426	.363	.266	.288	.320	.300	.213	.293	.193	.204
Courageous (4)	.320	.258	.195	.164	.231	.319	.209	.299	.388	.224	.188	.278	.230	.104*	.127	.192	.159
Forgiving (5)	.241	.302	.245	.134	.371	.226	.171	.367	.357	.274	.233	.279	.321	.245	.240	.231	.232
Helpful (6)	.215	.298	.174	.164	.306	.291	.272	.363	.313	.288	.195	.286	.278	.199	.219	.282	.240
Honest (7)	.194	.228	.129	.036*	.170	.325	.092*	.239	.241	.097*	.106*	.116	.101*	.062*	.101*	.090*	.078*
Imaginative (8)	.215	.216	.103*	.174	.084*	.147	.152	.236	.266	.156	.111*	.168	.187	.126	.121	.144	.131
Loving (9)	.290	.367	.214	.187	.197	.249	.166	.391	.354	.264	.200	.280	.255	.198	.219	.288	.242
Obedient (10)	.184	.340	.232	.203	.442	.336	.282	.420	.385	.284	.263	.324	.287	.227	.207	.372	.350
Polite (11)	.219	.372	.213	.211	.365	.359	.278	.344	.333	.250	.196	.221	.226	.240	.202	.308	.245
Responsible (12)	.232	.284	.220	.098*	.299	.419	.250	.237	.284	.175	.178	.208	.175	.124	.130	.236	.214
Self-Centered (13)	.177	.273	.234	.091*	.311	.302	.159	.274	.378	.228	.258	.309	.258	.218	.198	.210	.214
Comfortable Life (14)	.235	.353	.157	.441	.152	.224	.439	.206	.180	.194	.226	.231	.209	.148	.178	.145	.225
Sense of Accomplishment (15)	.276	.224	.174	.170	.121	.269	.362	.252	.330	.141	.121	.199	.174	.116	.083	.188	.148
Equality (16)	.389	.287	.343	.262	.210	.309	.292	.322	.311	.334	.224	.245	.292	.321	.391	.214	.189
Family Security (17)	.414	.349	.307	.144	.256	.271	.237	.229	.238	.236	.201	.239	.310	.207	.192	.104	.139

	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49
Ambitious (1)	.273	.265	.130	.159	.099*	.172	.068*	.063*	.101*	.063*	.054*	.060*	.179	.142	.147
Broadminded (2)	.232	.219	.181	.230	.102*	.148	.161	.128	.056*	.045*	.093*	.051*	.171	.058*	.049*
Cheerful (3)	.189	.188	.117*	.196	.068*	.206	.095*	.211	.173	.056*	.109*	.100*	.112	.158	.123*
Courageous (4)	.163	.157	.069*	.081*	.049*	.189	.074	.189	.110*	.044*	.035*	.021*	.087*	.037*	.018*
Forgiving (5)	.235	.235	.141	.179	.064*	.099*	.146	.158	.082*	.017*	.032*	.062*	.140	.082*	.059*
Helpful (6)	.240	.227	.119*	.192	.137	.161	.220	.270	.201	.183	.100*	.112*	.187	.078*	.080*
Honest (7)	.072*	.071*	.074*	.036*	.068*	.075*	.046*	.108*	.061*	.045*	.015*	.005*	.077*	.095*	.029*
Imaginative (8)	.152	.135	.126	.147	.045*	.165	.024*	.105*	.019*	.039*	.088*	.094*	.152	.116*	.073*
Loving (9)	.253	.244	.204	.223	.095*	.143	.117*	.216	.121*	.087*	.128*	.163	.202	.081*	.032*
Obedient (10)	.367	.380	.176	.224	.116*	.230	.212	.277	.194	.166	.175	.189	.308	.190	.183
Polite (11)	.266	.290	.192	.245	.097*	.106*	.181	.189	.178	.152	.165	.131*	.331	.076*	.073*
Responsible (12)	.230	.237	.113*	.140	.116*	.086*	.076*	.140	.138	.071	.164	.058*	.217	.049*	.046*
Self-Centered (13)	.241	.232	.139	.173	.109*	.110*	.164	.149	.136	.106*	.088*	.128*	.232	.062*	.030*
Comfortable Life (14)	.197	.206	.132	.136	.048*	.223	.104*	.141	.138	.053*	.135	.022*	.101*	.130	.144
Sense of Accomplishment (15)	.158	.155	.136	.129	.004*	.109*	.017*	.165	.052*	.006*	.169	.002	.167	.019*	.077*
Equality (16)	.223	.211	.174	.232	.052*	.098*	.198	.131	.077*	.128*	.039*	.056*	.088*	.087*	.032*
Family Security (17)	.173	.133	.133	.075*	.045*	.113*	.056*	.144	.083*	.014	.087*	.086*	.110*	.043*	.011*

	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
Freedom (18)	1.000	.435	.273	.265	.239	.300	.202	.301	.385	.274	.264	.242	.233	.249	.320	.076*	.107*
Happiness (19)		1.000	.472	.377	.327	.353	.291	.397	.364	.278	.266	.289	.263	.266	.307	.146	.193
Inner Harmony (20)			1.000	.254	.271	.226	.159	.268	.322	.204	.221	.195	.225	.230	.290	.076*	.070*
Pleasure (21)				1.000	.186	.148	.479	.272	.145	.237	.199	.205	.204	.132	.207	.152	.175
Salvation (22)					1.000	.191	.221	.330	.289	.305	.239	.300	.325	.244	.207	.245	.293
Self-Respect (23)						1.000	.211	.321	.379	.184	.187	.217	.188	.140	.190	.137	.097*
Social Recognition (24)							1.000	.315	.228	.164	.182	.186	.178	.165	.109	.195	.217
True Friendship (25)								1.000	.471	.229	.249	.298	.320	.224	.288	.251	.207
Wisdom (26)									1.000	.238	.385	.299	.305	.213	.248	.262	.280
Concern Tuberculosis (27)										1.000	.618	.742	.734	.428	.411	.442	.360
Emphysema (28)											1.000	.779	.706	.461	.420	.304	.430
Chronic Bronchitis (29)												1.000	.789	.382	.392	.348	.406
Asthma (30)													1.000	.509	.481	.358	.401
Smoking (31)														1.000	.566	.251	.316
Air Pollution (32)															1.000	.255	.284
Contribution Towards Cure Tuberculosis (33)																1.000	.777
Emphysema (34)																	1.000

	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49
Freedom (18)	.096*	.092*	.116*	.169	.096*	.087*	.154	.016*	.044*	.043*	.117*	.037*	.098*	.000*	.064*
Happiness (19)	.172	.164	.152	.174	.059*	.178	.135	.146	.137	.032*	.094*	.116*	.092*	.071*	.048*
Inner Harmony (20)	.113*	.084*	.065*	.074*	.030*	.086*	.079*	.091*	.016*	.051*	.069*	.091*	.039*	.021*	.034*
Pleasure (21)	.212	.182	.125	.178	.112*	.149	.091*	.069*	.147	.230	.155	.137	.113*	.047*	.006*
Salvation (22)	.292	.322	.150	.223	.121	.183	.257	.223	.177	.118*	.155	.133*	.227	.077*	.151*
Self-Respect (23)	.129	.131	.027*	.105*	.084*	.046*	.092*	.114*	.150	.056*	.093*	.080*	.171	.057*	.085*
Social Recognition (24)	.234	.247	.177	.160	.066*	.128	.154	.067*	.220	.224	.101*	.131*	.084*	.110*	.088*
True Friendship (25)	.220	.230	.169	.188	.200	.114*	.140	.338	.172	.108*	.119*	.094*	.183	.117*	.140
Wisdom (26)	.244	.249	.121*	.148	.106*	.150	.159	.160	.100*	.023*	.109*	.092*	.223	.056*	.150
Concern															
Tuberculosis (27)	.371	.357	.282	.310	.258	.352	.325	.322	.145	.168	.176	.153	.244	.108*	.160
Emphysema (28)	.353	.347	.224	.239	.163	.145	.347	.224	.152	.112*	.104*	.117*	.226	.101*	.154
Chronic Bronchitis (29)	.436	.406	.212	.272	.205	.245	.278	.268	.218	.129	.095*	.136	.252	.115*	.154
Asthma (30)	.393	.402	.227	.238	.237	.183	.292	.339	.268	.117*	.159	.194	.253	.156	.172
Smoking (31)	.286	.296	.349	.338	.100*	.119*	.418	.107*	.097*	.096*	.093*	.126*	.234	.148	.114*
Air Pollution (32)	.297	.291	.291	.375	.086*	.113*	.298	.176	.172	.103*	.169	.167	.267	.069*	.057*
Contribution Towards Cure															
Tuberculosis (33)	.811	.815	.552	.598	.236	.258	.328	.352	.280	.288	.286	.311	.580	.076*	.146
Emphysema (34)	.875	.886	.598	.639	.207	.266	.392	.355	.324	.254	.317	.313	.590	.097*	.210

	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49
Chronic Bronchitis (35)	1.000	.959	.592	.600	.193	.272	.353	.369	.302	.230	.283	.337	.590	.063*	.127*
Asthma (36)		1.000	.586	.621	.175	.258	.362	.353	.321	.237	.294	.318	.590	.068*	.160
Contribution to Halt Smoking (37)			1.000	.798	.181	.201	.390	.206	.192	.175	.263	.238	.478	.066*	.082*
Air Pollution (38)				1.000	.152	.197	.375	.229	.217	.256	.307	.255	.489	.469*	.124*
Donation Should Support Medical Research (39)					1.000	.252	.161	.212	.053*	.179	.228	.140	.216	.143	.143
Education (M.D.) (40)						1.000	.285	.231	.184	.022*	.200	.245	.285	.157	.201
Education (Public) (41)							1.000	.214	.295	.214	.156	.276	.385	.033*	.084*
Health Care (42)								1.000	.253	.163	.232	.111*	.295	.132	.177
Funds Use															
Medical Research (43)									1.000	.538	.565	.572	.453	.040*	.036*
Education (M.D.) (44)										1.000	.490	.530	.377	.070*	.021*
Education (Public) (45)											1.000	.547	.501*	.030*	.060*
Health Care (46)												1.000	.451	.007*	.051*
General Evaluation															
Rating of OLA (47)													1.000	.029*	.098*
Administrative Costs (48)														1.000	.642
In-State Activity (49)															1.000

*Not significant at the .01 level.

VITA

Leslie Lee Manzer

Candidate for the Degree of

Doctor of Philosophy

Thesis: CHARITABLE HEALTH ORGANIZATION DONOR BEHAVIOR: AN EMPIRICAL STUDY OF VALUE AND ATTITUDE STRUCTURE

Major Field: Business Administration

Biographical:

Personal Data: Born in Fresno, California, February 19, 1941, the son of Mr. and Mrs. E. P. Manzer.

Education: Graduated from Hominy High School, Hominy, Oklahoma, in May, 1959; received Bachelor of Arts degree in Chemistry from Oklahoma State University in 1965; received Master of Business Administration degree from Oklahoma State University in 1966; completed requirements for the Doctor of Philosophy degree at Oklahoma State University in July, 1974.

Professional Experience: Industrial Chemical Sales, The Dow Chemical Company, 1966-1970; part- and full-time instructor, Oklahoma State University, College of Business Administration, 1970-1973; Assistant Professor of Marketing, Memphis State University, College of Business Administration, 1973-1974.