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A consumer opinion survey of the effect of non-media influences as opposed to the effect of mass media advertising in the purchasing of selected low cost units and high unit cost consumer products in Brookline, Mass

A CONSUMER OPINION SURVEY OF THE EFFECT OF NON-MEDIA INFLUENCES, AS OPPOSED TO THE EFFECT OF MASS MEDIA ADVERTISING, IN THE PURCHASING OF SELECTED LOW UNIT COST AND HIGH UNIT COST CONSUMER PRODUCTS IN BROOKLINE, MASSACHUSETTS.

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CHAPTER I

THE PROBLEM

The problem under consideration in this study is, "A Consumer Opinion Survey of the Effect of Non-Media Influences, as Opposed to the Effect of Mass Media Advertising, in the Purchasing of Selected Low Unit Cost and High Unit Cost Consumer Products in Brookline, Massachusetts." A survey was the chosen vehicle of study, for it was felt that the strong influences acting upon the individual could most accurately be measured in this manner. The individual is the source of the action. Hence, the results of this study are intended to be, to a limited degree, an index of what these individuals felt to be the major influences which affected their purchasing of the classes of products involved.

It was the purpose of this study (1) to measure the relative effectiveness of non-media influences and media influences with respect to the purchasing of certain classes of consumer goods; (2) to indicate if any significant difference exists with regard to the effectiveness of these influences with respect to a special classification of the nature of these products, i. e. low unit cost and high unit cost; and (3) to find out if there exists a relationship between these products and the religious and economic background of the individuals sampled.

I. IMPORTANCE OF THE STUDY

In what has been gleaned from the literature of the past, it appears that there is a pressing need in the field now for studies of this nature, in particular into the comparative values of non-media influences versus mass media advertising. Some analysts maximize and other analysts minimize the effects of the mass media. In the words of Carl I. Hovland:

> The existence of widely differing opinions concerning the effects of the mass media highlights the pressing need for further objective research. Indeed the editors of the most recent book of readings in this field believe the investigation of effects is the most neglected area of communications research.[1]

In his article, "Communications and Public Opinion", Bernard Berelson cites the need in this way:

> ...some kinds of communication on some kinds of issues brought to the attention of some kinds of people under some kinds of conditions, have some kinds of effects. It is hypotheses of this sort that should be systematically explored as the next step of research on all levels in this field. Whatever the method of investigation, historical, trend analysis, statistical correlation of ecological and voting data, case study, opinion survey and analysis, etc. this sort of propositional organization should be considered as the framework for study. In this way, a scientific theory of communications and public opinion can be developed not only for the enrichment of the field of communications research generally, but for social science as well.[2]

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[1]Carl I. Hovland, "Effects of the Mass Media of Communications", Handbook of Social Psychology (Addison Wesley, 1954), p. 1062.

[2]Bernard Berelson, "Communications and Public Opinion," Reader In Public Opinion and Communications (Glencoe, Illinois, Free Press, 1953), p. 461.

In a study in collaboration with the Carnegie Corporation, the Social Sciences Research Council conducted research on the need for effect studies in the field. The director of the inquiry, Robert Leigh, found that there was a need for research in communications with regard to four questions one of which was, "What are the comparative effects of books, and each of the other media including face-to-face discourse, and of multiple media operations." He theorized that "face-to-face discourse is a more effective instrument than is the transmitted voice."[3] He did not discuss any studies that might support or reject this theory. The investigation conducted in the present study tested this hypothesis in specific situations with a view towards finding out on what occasions, and with regard to what classes of products, non-media influences and mass media advertising seem most effective.

In his work, Joseph Klapper hypothesized that face-to-face discourse is a far more effective instrument of persuasion than any impersonal medium. He states that this seems to be the general consensus of opinion.[4] Personal relationships, the investigators believe, not only achieve greater audience coverage than the media, but possess "certain psychological advantages which make them especially effective."[5]

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[3]Wilbur Schramm, "Effects of Mass Communications," Journalism Quarterly, XXVI (1949), p. 406.

[4]Joseph Klapper, The Effects of the Mass Media, (New York. Columbia Press, August, 1949), p. 24.

[5]Ibid., p. 96.

Bearing this hypothesis in mind, this study seeks to find out if the nature of the non-media influences, verbal, traditional, etc., makes them especially effective in specific instances with respect to the influencing of the individual in the purchase of one class of products, and conversely, whether the mass media have a greater effect in influencing public taste with respect to another.

James Blake, an adherent of the values of motivation research, states that all motivation research today is heavily tied in one way or another to all advertising research, in whose areas the field of research is almost unlimited. He states:

> The areas of research today are almost unlimited. Whenver one group wants to communicate with another, however it is done, and whenever the question why is asked regarding people, we fill an important need.[6]

In his article on media research written in April of 1956, Leo Bogart cites the need in this way. He feels that it is easier to demonstrate the effectiveness of a given medium than actually to measure it against another medium. Many studies have been made of individual media in specific marketing situations, but there are not enough case histories to encompass a general body of applicable research knowledge about the relative merits of the media for specific products and audiences and circumstances. He asserts there is always pressure to make quantitative comparison between media, if only on an impression basis.[7]

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[6]James Blake, "Consumer Motivation Research," Dun's Review and Modern Industry, LXIV (July 1954), p. 46.

[7]Leo Bogart, "Media Research--Tool for Effective Advertising," Journal of Marketing XX (April 1956), p. 355.

From a practical standpoint, each of the three participants in the basic communicative process: the sponsor, the media, and the audience, could benefit from a study of this nature. The sponsor has financially the largest investment in the success of such a study. It is laymen's knowledge that millions of dollars are budgeted annually for advertising purposes. If it can be shown, for example, that huge investments in terms of time and money are hardly justified with respect to certain classes of products, the expenditure could be channeled in other directions. If the results of such a study indicate that high unit cost products are purchased not because of their constant appearance on the mass media, but rather primarily because of non-media influences, then it is conceivable that the entire complexion of media advertising would change. On the other hand, the results of such an investigation might reveal the products in which media advertising plays a prominent role.

The primary purpose of the proposed study would be to indicate to a limited degree, what kinds of products are best suited to the facilities of the specific media, and hence allow advertisers to concentrate their efforts in these particular media. The public also would benefit immeasurably. Neil H. Borden felt that huge advertising expenditures have a tendency to increase costs of distribution and production.[8] If evidence is produced that these costly investments may not be justified, the prices of these goods will of necessity drop.

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[8]Neil H. Borden, The Economic Effects of Advertising (Chicago, Richard D. Irwin, Inc. January 1942), p. 853.

The ensuing drop in advertising expenditure will ultimately benefit the public. Blake cites that the non-theoretic value of the survey cannot be overlooked. "If the surveys show that consumer attitudes towards future spending are reliable barometers of actual performance, then large sectors of industry will add a new tool to their sales-forecasting technique."[9] Thus from an academic and practical view, the investigation appears needed.

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[9]Blake, loc. cit.

CHAPTER II

BACKGROUND

There have been many studies on the effect of the advertising media as a whole on the purchasing of products, but little has been done and much needs to be accomplished in a measurement of the relative effect of non-media influences as opposed to the major mass media.

Elihu Katz and Paul Lazarsfeld delve deeply into the area of personal influence as it plays a role in the flow of mass communications. Using as a basis for their conclusions, a survey of 800 women in Decatur Illinois, they found that personal influence is a more significant factor, more frequent and more effective, then influences stemming from the mass media. Their findings reveal the importance of advice, suggestion, and influence of other people. The study also found that people are most often influenced by persons of an equal status level rather than by persons of a higher status.[1] The work points up case studies in which interpersonal relationships appear to be relevant for the mass communications process, and discusses how research showed interpersonal relationships were relevant to the communications process as a whole. It has direct bearing upon this study, for it emphasizes the value and importance

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[1]Elihu Katz and Paul Lazarsfeld, Personal Influence: The Part Played by People in the Flow of Mass Communications (Free Press 1955), p. 21.

of the person-to-person network of communication.[2] The survey conducted in Decatur inquired into four areas of everyday decision; marketing, fashions, public affairs, and movies. The respondents were asked about their own and other people's behavior.

Katz asserts that his questionnaire was designed to focus the respondent's attention on the source, "the something that attracted the respondent's attention to this particular movie, or to the new brand, or the new fashion. The emphasis is on the process of decision"[3] The aim of the questionnaire employed in the present study had precisely this goal; to seek out the source of information that initiated the action of buying.

Katz found that radio advertising ranked next to personal contact as a source of influence. It should be noted that the Katz study was done on these women in 1953. Results of this thesis study, which will be discussed in a later chapter, would seem to indicate a drastic change in the overall effectiveness of the radio medium, due definitely to the influence of television.

The work discusses in some detail the intervening variables in the communicative process, the importance of the primary group in the process, the relay and reinforcement function of interpersonal relationships, and the several approaches in the presentation of questionnaires to subjects. It is valuable for this study, in that

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[2] Ibid., p. 45

[3] Ibid., p. 168

the Decatur study measured influence as a factor in bringing about change, and discussed the specific influentials involved.[4]

The Hovland study summarizes some of the major contributions in the effects field of communication, and relates these principles to communication analysis. It reviews the major studies of the past decade, and analyzes the major influences affecting the impact of communication and causes of behavorial change. The effects of books, newspapers, leaflets, magazines, movies, radio and television are discussed along with the factors contributing to change in attitude and opinions. Hovland's article mentions studies in overt behavior, i.e. purchasing of products, and cites this among others as the major gap in research today.[5]

Two chapters are of particular interest in the Lazarsfeld, Berelson, Gaudet work, The People's Choice. Radio and newspapers are discussed in a comparative analysis of the influences of each. The nature of personal influence is also discussed as affecting judgement.[6]

A similar exploratory study was described by Robert K. Merton. The Merton study focussed upon the place of mass communications in patterns of interpersonal influence. The aim of the Merton study was

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[4] Ibid., p. 141.

[5] Carl I. Hovland, "Effects of the Mass Media of Communications," Handbook of Social Psychology (Addison Wesley, 1954), p. 1062.

[6] Paul Lazarsfeld, Bernard Berelson, and Hazel Gaudet, The People's Choice (New York: Columbia Press, 1948), p. 125.

to indentify types of people regarded as influential by their fellows and to gain insight into the communicative process between these influential individuals and other persons. Merton does not concern himself with the analysis and breakdown of specific statistical data.[7]

"An Economic Study of Standard Broadcasting" published in 1947 reveals a great deal of data pertinent to the investigation at hand. The study, published by the Federal Communications Commission, and gleaned from various documented sources, cites four factors that are of primary importance in determining the characteristics of national advertising, "which make it particularly suitable for some producers of goods or services, and not for others."[8]

The report asserts that the characteristics of the individual products and the methods involved in marketing strongly affect the usefulness of national advertising. In citing from Borden, the report states that national advertising is commonly used by the producers of "simple, usually non-durable products with low unit price and high frequency of purchase."[9] As will be seen when design

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[7]Robert K. Merton, "Patterns of Influence," Communications Research (New York: Harper Bros., 1949), p. 180.

[8]Federal Communications Commission, An Economic Study of Standard Broadcasting (Washington: F.C.C. Press, 1947), p. 65.

[9]Ibid.

decisions are discussed in a later chapter, the price factor was used as the basic determinant in the selection of the products presented to the public in the survey. It is basic to the understanding of this study that the following be understood:

> The low unit price products typically receive little personal selling effort by the retailers. Every manufacturer, of course, desires and, through his selling force and the merchandising departments of media, may seek as much point of purchase selling support as he can get, but generally this is small compared to that given higher price, specialty articles. The products are of low unit value. The retailer's margins have generally been reduced through retailer competition to a level which, to say the least, does not induce strong dealer support.[10]

Much of the research conducted in the past has produced a great many generalizations regarding the effects of non-media influences and mass media communication. Borden has stressed the lack of information required from business firms to conduct a study of effects. He has pointed out that improper selection of media may lead to unprofitable advertising expenditure, and that one of the most challenging problems of the time is an appraisal of the relative effectiveness of the several media for different consumer products.[11] In the present study, rather than going to the firms that produce these products, an effort is made to interview the consumer to measure the influence that non-media factors and mass

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[10]Borden, Neil H., Malcolm Taylor and Howard Hovde, National Advertising in Newspapers, (Cambridge, Harvard University Press, 1946), pp. 67-68.

[11]Neil H. Borden, The Economic Effects of Advertising (Chicago, Richard D. Irwin Co., January 1942), p. 102.

media advertising have on the purchasing of these products.

Some past studies have dealt with the effect of the mass media on the public, others like the Decatur study have dealt with the personal influence factors involved and their consequent effects. This study attempts to synthesize the two elements, non-media influences and mass media communication, measure them side by side, judge their effect on people, and conclude through the survey results when, where, and in which religious and economic groups each seems most effective.

CHAPTER III

RESEARCH DESIGN

The research design used in this study was employed with a view towards determining if there exists a relationship between the nature of the disseminating vehicle, (non-media communication and mass media advertising) and its effect on the purchasing of certain classes of of products; and further to determine if there are any differences in the above relationships between particular religious and economic subgroups, and if so, what directions these differences take.

I. ASSUMPTIONS

A key assumption in this study was that persons who are questioned could tell the interviewer honestly how they were influenced. The writer is fully aware that the limits of memory and other interpolating factors were present throughout the study and are necessary limiting factors. These will be discussed in greater length in a later chapter. However, every effort was made by the interviewer, who was the writer, to create good rapport and elicit absolutely honest answers.

It is further assumed in this study that the respondent's answers were free from bias, resulting from the technique of the interviewer. The reliability check of the questionnaire used may be found in the Appendix. It should be noted that the interviewer conducted the study in a purely impersonal manner. Respondents were assured at all times that all answers would be kept in the strictest confidence.

II. DEFINITIONAL STATEMENTS

Basic to this study are the definitions of the terms involved, in particular the terms which shall be referred to as low unit cost products and high unit cost products.

Low Unit Cost Products. For purposes of this survey, it is realized that the dividing line from a monetary standpoint is somewhat arbitrary, but nevertheless it is necessary to establish these products at some point along the financial scale. The choice of the actual products for the questionnaire, within the limits set for low unit cost products, was carried out with an attempt to provide as great as possible a cross-section of consumer products. The monetary dividing line was considered to be two dollars. The actual products chosen will be discussed in the Questionnaire Construction section which follows.

High Unit Cost Products. For purposes of this study, high unit cost products were items generally over the two dollar monetary value limit. As in the case of low unit cost products, the researcher desired to get as great as possible a cross-section in the selection of these items. The products chosen for inclusion in the final questionnaire will be discussed in the Questionnaire Construction section which follows.

III. DESIGN DECISIONS

Because of the nature of this study, the after-only technique was appropriate. It was decided in the formative stages of the study, that personally presented questionnaires using the interview method of presentation, would be the most efficient method of dissemination. This was done in preference to the straight mail questionnaire, thereby assuring the highest possible return rate. There were no large groups involved. All questionnaires were administered in the home of the respondent. It should be noted, that although the final questionnaire was presented to and answered only by individuals, it nevertheless was taken to be an index of the entire family group. For example, although a woman individually answered the questions, she was taken to be the purchasing agent of her family group. "It is commonly known that the wife usually acts as purchasing agent for the family, although she may be acting after family consultation."[1]

IV. SAMPLING

A system of random sampling was employed in the selection of the final subjects for the survey. The advantages of such are twofold. First, nothing was needed to be known about the population except their names, and secondly, it is not difficult to assess the accuracy of the results in that they follow the laws of chance. Using as a

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[1]Robert Ferber, "On the Reliability of Purchase Influence Studies," Journal of Marketing XIX (March 1955), p. 226.

guide for the selection of the sample "The Street List of Persons Twenty Years of Age and Over in the Town of Brookline", a random sample was selected.[2] The actual breakdown of the sample by precincts is indicated in Table I of Page 17. As will be seen by the Table, samples were chosen from 12 precincts in the Brookline area, providing as accurate a cross-section as possible from both higher and lower rent districts, and obtaining as near as possible a cross-section of the socio-economic units in the town. Selection was made from 41,558 persons included in the directory as of January 1, 1956.

It was first ascertained by the interviewer whether the respondent had access to all four of the major mass media; radio, television, newspapers, and magazines. This was a necessary prerequisite for a sample to be considered a valid one. Should a respondent who did not possess all the media be interviewed, it would necessarily bias the results towards non-media influences. All respondents interviewed were valid by this criteria. Respondents were asked in the preliminary questioning how often and how long they listened to the radio, viewed television, and whether or not they were subscribers to newspapers and/or magazines.

In all cases where housewives were the interviewees, the questions were put directly to them. In instances where married men were selected as the sample through the random method of selection, their wives were interviewed. Where single women were selected as the

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[2]See Conclusion Seven in Chapter V.

TABLE I

BREAKDOWN OF SAMPLES DRAWN FROM
TOTAL BROOKLINE POPULATION
JANUARY 1, 1956

Precinct	No. in Precinct	Per Cent of Total	Sample Drawn	P.C.
1	3713	.09	7	.09
2	3680	.09	7	.09
3	3730	.09	7	.09
4	2589	.06	5	.06
5	2853	.07	5	.07
6	2925	.07	6	.07
7	3879	.09	7	.09
8	3472	.08	6	.08
9	3591	.09	7	.09
10	3647	.09	7	.09
11	2969	.07	5	.07
12	4510	.11	9	.11
Total	41558	100	78	100

Using as a guide _The Street List of Persons Twenty Years of Age and Over in the Town of Brookline as of January 1, 1956_.

sample, they were interviewed and treated as single individuals. If a son was selected as the sample, his mother was the interviewed party; she was the purchasing agent of the household buying unit. As in the case of the Katz study in Decatur Illinois, previously discussed, the sampled group in this study was composed entirely of women. As has been previously noted, it is realized by the researcher that often other family members, in particular the husband, will have voice in the purchasing of specific products, but by and large the wife is the ultimate purchasing agent for the family buying group.

It should also be made clear in an evaluation of this study and the sampling technique employed herein, that every effort was made to interview the originally selected respondent. It should be noted for researchers who may further wish to inquire in the Brookline area through the survey technique, that an initial refusal rate of almost 33 per cent was encountered, and the subsequent drop in this rate due to call back efforts was quite small. In the case of not-at-homes, three call back efforts were made by the interviewer before the selected sample was eliminated.

A substitute method of sampling was provided for in instances where call back efforts failed to procure the original sample. It should be noted that such a method is singular to this study, and should be taken into consideration in the total evaluation of the results of this study. When the originally selected individual was unavailable for survey, the interviewer then selected the next available, acceptable individual above and/or below the original person listed in the street listings.

This was kept constant throughout the survey in those instances where the real pre-selected interview could not be done. Fifty-four of the original seventy-eight samples were obtained. In the remaining instances of refusals and non-respondents, the substitution method was employed. This is noted in accordance with Jahoda, Deutsch, and Cook who state, "If a system of substitution is provided for in cases where the originally designated respondent cannot be interviewed, the circumstances in which the substitutions are allowed should be described carefully so that the sample will not be biased by too free an exercise of this provision."[3] Although this method of substitution does not obtain any data for the non-respondents, "there is some increase in precision from an addition to the sample size in the first stratum."[4]

Jahoda, Deutsch, and Cook point out that individuals who are relatively difficult to contact differ from those who are easier to contact. However they are quick to assert that, "one must balance the risk of having serious bias enter the sample results against the cost of making call backs."[5] In the case of this particular study,

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[3]Marie Jahoda, Morton Deutsch, and Stuart Cook, Research Methods in Social Relations (New York: Dryden Press, August 1951), p. 472.

[4]William G. Cochran, Sampling Techniques (New York: Chapman and Hall Ltd., June, 1953), p. 302.

[5]Jahoda, Deutsch, and Cook, op. cit., p. 679.

the cost of making successive call backs after two absolute refusals and/or three not-at-home non-respondents was prohibitive, both from a time and monetary standpoint.[6]

It should therefore be noted that the researcher is fully aware of the bias that may result from such a practice, however because of the intimate socio-economic nature of the subsequent dwelling units, it is felt that this bias was held to a minimum. Ferber states in a similar study in which each family member was questioned on his or her influence in the buying of specific products, (a study in which substitute sampling was used because of low degree of response and a high refusal rate):

> There is a further possibility that even in each socio-economic group the respondent's replies or consistency of replies might differ from those that might have been obtained had all respondents submitted. In view of the fundamental nature of this question, the existence of such discrepancies would not seem to be too probable, and it is more likely that the results possess a considerable degree of generality.[7]

V. QUESTIONNAIRE CONSTRUCTION

Fundamentally, the questionnaire sought to find out whether people are influenced more in the purchasing of certain classes of products by non-media influences or by mass media communication. The respondent was told at the outset that she had been chosen as

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[6]Complete data collection took approximately seven weeks.

[7]Ferber, loc. cit.

a sample for a Master's Degree Thesis Study that the researcher was conducting. She was informed that the purpose of the survey was to discover the effects of specific influences on consumer buying attitudes. She was told that the researcher was interested only in her opinions and factual knowledge, and was not concerned at any time with who the individual was.

She was assured that there were no right or wrong answers to the questionnaire. She was told to express her real opinion at all times. Although the preliminary face sheet data appeared first on the questionnaire, the questions regarding income level and religious affiliation were asked at the conclusion of the interview. This was done merely as a psychological aid, and so as not to arouse antagonism of any kind towards the interviewer at the outset.

The following were chosen as representative low unit cost products:[8] aspirin, dentifrices, hand soaps, detergents, gasoline, tobacco products (cigarettes), soft drinks, cosmetics, facial tissues, and cheese products (dairy).

The following were chosen as high unit cost products:[8] refrigerators, ranges, washers, dresses/sportswear, patent medicines, television receivers, automobiles, luggage, cameras, and wrist watches.

With respect to each of these twenty items, the respondent was asked to name the <u>source</u> of information that she <u>thought</u> influenced her the <u>most</u> in the choice of the product she was using at the time of

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[8]Under conditions described on Page 14.

interview. Other sources of information may have entered in the selection of the product, but the respondent was urged to name the source that she felt had influenced her the most. Probing was done only within the limits of the specific question. Nothing further was asked. All questions were of the open-end variety. The respondent was allowed free rein of expression throughout the interview. The interviewer did not go on to the next question until the respondent had fully expressed herself on the preceding question.

The final questions on the questionnaire were used in an effort to evaluate the final questionnaire. Respondents were asked if they usually discussed the merits of brands or products with other people. They were then asked what kind of products were discussed, and with whom they were discussed. In the final question the respondents were asked if they had ever been influenced to try or buy products simply because they had seen the product advertised. Again they were asked what these products were, and were further asked to indicate the degree of satisfaction they had encountered with these products. This established to a limited degree, an index as to the types of products, both low and high unit cost, that individuals had been influenced to buy because of advertising. Respondents were also asked to name the media that they thought had had the greatest single effect on their purchasing habits.

The twenty product-influence questions were alternated throughout the questionnaire. Low unit price products and high unit price products were staggered in the questioning.

The respondents were assured that the religious affiliation questions and the income level questions were to be kept in the strictest confidence. The results of these findings aided the researcher in a religious-economic projection of the study, and in making specific conclusions regarding income and religious factors and their relationship upon the purchasing of certain classes of products. The findings will be discussed in the Results and Analysis chapter. The total questionnaire will be found in the Appendix.

VI. PRETESTING

The questionnaire was pretested on ten people in the Brookline area once the sample was drawn. The purpose of the pretest was to check the wording of the individual questions so as to prevent misunderstanding, to check the effectiveness of the question sequence, (it was during pretesting that it was decided to ask the religious and income level questions at the conclusion of the questionnaire), and to check the time necessary for each interview. Each interview averaged from thirty-five to forty-five minutes. Minor revisions in the questionnaire were made as a result of pretesting.

VII. CODING

Because questions were of the open-ended variety, the coding procedure involved in the study was necessarily intricate. The initial open-ended responses were first coded into either non-media section or media section. All responses were coded into either of these two units. Subdivisions of the non-media section were as follows: verbal, which included all recommendations or answers in which the respondent said she had been influenced by word-of-mouth communication of one sort or another; tradition, in which the respondent stated there had never been any initiation to change the brand or product she was using, or that the product had traditional use in the family within the limits of memory; personal taste, in which the respondent said that she had tried many brands at one time or another, and consequently through the direct process of elimination had settled upon the brand she was presently using; chance choice, which indicated the product chosen was strictly the result of chance, in which case the respondent may have freely admitted that the choice of the product was determined in a point-of-purchase manner in which she had no idea of which product to choose until she actually picked from the shelf; and lastly, no choice; in which the product was owned by the individual through no overt act of purchasing in which a choice was involved, i.e. gift, or total unavailability of other brands. It is realized by the author that chance choice, in particular, may have had its ultimate roots in the media.

Subdivisions of the media section were as follows: radio, in which the individual said she had been influenced to buy directly because of radio advertising; television, in which the individual said that she had been influenced to buy directly because of television advertising; newspapers, in which the individual said that she had been influenced to buy directly because of newspaper advertising; magazines, in which the individual said that she had been influenced to buy directly because of magazine advertising; and circulars, in which the individual said that she had been influenced to buy directly because of samples and/or circulars received in the mail or at the door.

It will be noted in the Results and Analysis chapter, that the total of the verbal, tradition, personal taste, chance choice, and no choice coded data is equal to the sum total for all non-media responses, but in the case of the media responses the combined totals of radio, television, newspapers, magazines, and circulars will be seen to be in excess of the total media responses. This arises from the fact that often more than one media was named by the respondent as the influential source. Hence, when an individual simply gave the answer "advertising" when asked what source of information did she think influenced her, she was asked to name the media in which she had seen the product advertised.

It has been noted that in certain instances the respondent could trace the influence to one particular medium; this will be seen when results are discussed. Although one medium may therefore have been indicated by the respondent as the primary source of information, other media may be shown to have had a contributory effect. The respondent was asked to name all the media in which she had seen the product advertised. Thus important reinforcement effects of the media may be measured and media exposure value ranked.

Radio and television listening habits and hours were coded into four sections: under one hour per day, between one and three hours per day, three to six hours inclusive per day, and more than six hours per day. Magazine readers were coded as either readers of one or more National weeklies and/or monthlies, one or more ladies weeklies and/or monthlies, or readers of one or more consumer digests and/or trade publications. Newspaper readers were coded as either subscribers or non-subscribers.

With respect to the discussion of products, responses were coded as follows: Discussed yes or no; discussed with friends and/or relatives; discussion of high unit cost and/or low unit cost products; while influence to try or buy products was coded as follows: Try or buy, yes or no; try or buy high unit cost products/,low unit cost products; satisfaction of these products; yes satisfaction, no satisfaction, or some satisfaction. Finally, media influence was coded as either radio, television, newspapers, magazines, or circulars.

Results and analysis of these findings will be discussed in the following chapter.

CHAPTER IV

RESULTS AND ANALYSIS

Before commencing with the discussion of the results and analysis of the survey at hand, it would be well to indicate the problems associated with the analysis of such survey data as regards the norms for the evaluation of a descriptive finding. A major portion of the data presented in this as well as in other survey studies, finds expression in the form of percentages. Conclusions are drawn and many relationships are inferred from this percentage data.

Herbert Hyman states that in order to more effectively evaluate data expressed in percentage form, "the analyst must pick a series of parallel phenomena ranging over the probable spectrum ranging from one extreme to the other."[1] In the case of a specific study discussed by Hyman in his text, he asserts:

> With respect to the finding that 81% regard radio as providing fair play for both sides in controversial issues the analysts juxtapose the findings that 45% of the same sample regard magazines as giving fair play to both sides, and 39% regard newspapers as giving fair play to both sides. The parallel data of the other media provide a norm for evaluation of the original finding.[2]

In the case of the present study, the individual findings are parallel data. The percentages that will be expressed as the findings

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[1]Herbert Hyman, Survey Design and Analysis (Glencoe, Illinois. Free Press, 1955), p. 128

[2]Ibid.

of this study, will be considered significant or not in the light of other associated and related data found in the survey. To be specific, the data in percentages found with respect to low unit cost products will or will not be significant enough from which to draw conclusions when considered in comparison with the findings for high unit cost products.

Similarly, the percentages expressed as regards specific income and religious groups can only be evaluated in relation to the total findings of the survey and the individual comparisons that may be made within. This was necessary because there was no absolute baseline available. As Hyman states, "We have already noted that it is the general practice of the analyst to provide differentiated descriptions of the phenomena for subgroups in his population or sample."[3] He feels that here too, the evaluation of findings for subgroups often is made more clear through the use of norms.

I. TOTAL RESULTS

Low Unit Cost Products. The ten low unit cost products based upon the responses of the 78 persons sampled, indicated a slight preponderance on the non-media influences as compared to mass media advertising. In the low unit cost category, non-media responses totalled 457, as compared with 300 media responses. As can be seen in Table II, the 457 non-media responses comprised 60 per cent

[3] Ibid., p. 129.

of the low unit cost product answers, while the 300 media answers comprised 40 per cent of the low unit cost product responses.

TABLE II

TOTAL SURVEY RESULTS - LOW UNIT PRICE PRODUCTS

	Non-Media	Media
Number of Responses	457	300
Per Cent of Responses	.60	.40

A Z-Score of 2.3 was obtained for the above data, indicating the results could only happen by chance two times in 100. Work with the sampling error of 11 per cent[4] indicated the non-media responses could range as low as 49% to as high as 71 per cent, while the media range could extreme as low as 29 per cent to a high of 51 per cent. Thus it may be said that even when the extremes of the sampling error are considered, it would seem to be a fairly safe assumption to make that non-media influences have a more profound effect on the purchasing of low unit cost products than do media advertising influences. Even at the extreme limits of the sampling error involved, non-media influences would approximate practically 50 per cent of the total low unit cost product responses. Hence, the 60/40 per cent relationship

[4]Formula= 2 X Standard Error of the Proportion.

which favors non-media influences makes an important statement with respect to the purchasing of low unit cost products.

As may be seen in Table III, of the 457 non-media responses, 177, or 39 per cent were coded verbal; 161, or 35 per cent were coded tradition; 58, or 13 per cent were coded personal taste; 58, or 13 per cent were coded chance; and 3, or .04 per cent were coded no choice. Thus the verbal responses when coupled with the responses of tradition, comprised over 74 per cent of the total non-media responses, although the differences in the individual percentages is negligible.

TABLE III

NON-MEDIA LOW UNIT COST PRODUCT RESULTS

	Number of Responses	Per Cent of Product Total	Per Cent of Source
Non-Media	457	.60	---
Verbal	177		.39
Tradition	161		.35
Personal Taste	58		.13
Chance	58		.13
No Choice	3		.04

Of the 300 media responses to low unit cost products, referred to in Table IV, 264, or 88 per cent of the total media responses mentioned television as an exposure source; 205, or 65 per cent mentioned newspapers; 204, or 65 per cent mentioned magazines; 155, or 52 per cent mentioned radio; and 30, or 10 per cent mentioned circulars.

TABLE IV

MEDIA LOW UNIT COST PRODUCT RESULTS

	Number of Responses	Per Cent of Product Total	Per Cent of Source
Media	300	.40	---
Radio	155		.52
Television	264		.88
Newspapers	205		.65
Magazines	204		.65
Circulars	30		.10

These are the responses of the individuals who answered advertising in general as the source of information that they thought had influenced them the most in the purchase of selected low unit cost products. It is here noted again that these respondents were asked to name the media in which they had seen the product advertised.

Of the 194 responses in which the respondent named the specific media in which he had seen the product advertised and had been influenced to buy, television was named in 54 per cent of the cases; newspapers in 15 per cent of the cases; radio in 10 per cent of the cases; circulars in 14 per cent of the cases; and magazines in 7 per cent of the cases. Hence it is indicated from these data that television more than any other single medium, seems to have had a greater effect in influencing the purchase of low unit cost products. This proportion favoring television over the other media can with little doubt be attributed to the increased exposure given the television medium in the homes surveyed, but nevertheless indicates the greater effect of this medium. Figures on the exposure of the several media will be given later in the present chapter.

<u>High Unit Cost Products</u>. The ten high unit cost products based upon the total of 78 person sampled, indicated a far greater recognition of non-media factors than had been revealed in the results of the low unit cost products investigated. In the case of the high unit cost products chosen, non-media responses totalled 641, as compared with only 90 media responses. As seen in Table V, the 641 non-media responses comprised 88 per cent of the total high unit cost product answers, while the 90 media responses comprised only 12 per cent of the high individual unit price answers.

TABLE V

TOTAL SURVEY RESULTS - HIGH UNIT PRICE PRODUCTS

	Non-Media	Media
Number of Responses	641	90
Per Cent of Responses	.88	.12

The sampling error involved in the proportions of the high unit cost products was 7.4 per cent. Within the limits of the sampling error, it may be said that the non-media range of responses with regard to high unit cost products could go as low as 80.6 per cent, while the media range of responses could conceivably go as low as 4.6 per cent or as high as 19.4 per cent. Therefore, there would seem to be little doubt that on the basis of these particular survey results, non-media influences would seem to have a greater effect on the purchasing of high unit cost products than does mass media advertising. The Z-Score of 15.2 on the data, yielded a P of .15, hence, the data is extremely significant.

Whereas within the limits of sampling error, the findings with respect to low unit cost products could indicate that non-media and media influences play an almost equal part in influencing the purchase of that class of products, non-media factors even within the extreme bounds of sampling error may be said to play a more prominent part in the purchasing of high unit cost products.

As may be seen in Table VI, of the 641 non-media responses in the high unit price category, 284, or 44 per cent of the total non-media responses were coded verbal; 153, or 24 per cent were coded tradition; 138, or 22 per cent were coded no choice; 52, or 8 per cent were coded personal taste; and 14, or 2 per cent were coded chance.

Here, as in the case of low unit cost products, 68 per cent of the total was comprised of verbal and traditional replies, but the former was named nearly twice as often as the latter. This would seem to indicate that recommendation plays a more important role than any other single factor; the importance of recommendation being even greater in the case of high unit cost products.

TABLE VI

NON-MEDIA HIGH UNIT COST PRODUCT RESULTS

	Number of Responses	Per Cent of Product Total	Per Cent of Source
Non-Media	641	.88	---
Verbal	284		.44
Tradition	153		.24
Personal Taste	52		.08
Chance	14		.02
No Choice	138		.22

Of the 90 media responses referred to in Table VII, 56, or 62 per cent of the media responses cited newspapers; 55, or 62 per cent cited magazines; 43, or 48 per cent cited television; 25, or 28 per cent cited radio; and only two responses cited circulars.

Of the 59 responses in which the respondent named the specific media, magazines were named in 41 per cent of the cases, television and newspapers in 22 per cent of the cases, radio in 15 per cent of the cases, and circulars in no cases. Such findings would seem to contrast sharply with the results obtained in the specific section of the low unit cost products. Of course, the exposure to the individual media does change to a certain degree. It will be shown later that low unit price products are generally exposed more on the television medium where the far greater discrepancy exists, than are high unit price products.

TABLE VII

MEDIA HIGH UNIT PRICE PRODUCT RESULTS

	Number of Responses	Per Cent of Product Total	Per Cent of Source
Media	90	.12	---
Radio	25		.28
Television	43		.48
Newspapers	56		.62
Magazines	55		.62
Circulars	2		.001

Suffice to say at this point, that whereas television accounted for 54 per cent of the specific responses and 88 per cent of the total media responses, as far as the awareness of the advertised product is concerned in the case of low unit cost products, it accounted for but 22 per cent of the specific responses and only 48 per cent of all media responses in the high unit price product classification. Conversely, it has been shown that magazines play a relatively small role within the total media structure in the case of low unit cost products, but yielded the highest percentage total with respect to influencing the purchase of high unit cost products. Further, circulars have been shown from the preceding data to play a negligible role in influencing the purchase of both classes of products, yet they play a greater role in the purchasing of low unit cost products.

In testing for significance, the percentages involved in the total survey of 78 persons, as indicated in Tables II and V, yielded a Z-Score of 4.2. This figure indicates the results are definitely statistically significant, the probability being less than .006 in 100 that the results occurred by chance.

II. INCOME LEVEL

With respect to income level, taking into consideration the small number of individuals available for each category, we may conclude from the percentages expressed in Table VIII, that in the case of low unit cost products recognition of the media as an information source seems to increase as income level increases.

TABLE VIII

PER CENT OF LOW UNIT COST PRODUCT RESPONSES BY INCOME

	(N.)	Non-Media	Media
Under $4000. Group	17	.65	.35
$4000.-$6000. Group	30	.60	.40
Over $6000. Group	31	.58	.42

However, as indicated in Table IX, a Chi-Square test on the three groups yielded a Chi-Square of 1.8, indicating that the results could have occurred by chance more than 10 times in 100. Hence, there is no significant difference between higher and lower income groups regarding the purchasing of low unit cost products.

TABLE IX

INCOME LEVEL SIGNIFICANCE TEST FOR LOW UNIT COST PRODUCT RESPONSES

	Under $4000.	$4000.-$6000.	Over $6000.
Non-Media	104 (97)	174 (175)	179 (185)
Media	57 (64)	117 (116)	129 (123)

Chi-Square equals 1.8

Percentages of high unit cost product responses are indicated in Table X.

TABLE X

PER CENT OF HIGH UNIT COST PRODUCT RESPONSES BY INCOME

	(N.)	Non-Media	Media
Under $4000. Group	17	.88	.12
$4000.-$6000. Group	30	.87	.13
Over $6000. Group	31	.89	.11

As may be seen in Table XI, a Chi-Square of 1.2 was obtained in the three groups, indicating that there was no significant difference between the higher and lower income groups regarding the purchasing of high unit price products.

TABLE XI

INCOME LEVEL SIGNIFICANCE TEST FOR HIGH UNIT COST PRODUCT RESPONSES

	Under \$4000.	\$4000.-\$6000.	Over \$6000.
Non-Media	140 (141)	243 (247)	261 (256)
Media	20 (19)	38 (34)	31 (36)

Chi-Square equals 1.2

Specific findings of the individual income groups will be discussed in greater detail in the sections that follow.

III. UNDER \$4000. GROUP

Seventeen of the 78 individuals sampled fell into the Under \$4000. per year classification.

Low Unit Cost Products. With regard to low unit cost products, non-media influences were mentioned in 65 per cent of the cases, in contrast to the media influences which were reported in 35 per cent of the cases.

With respect to the sampling error involved, the low unit price products yielded a sampling error of 23 per cent. The small number of respondents caused the high sampling error. Non-Media responses could therefore rank as low as 42 per cent to as high as 88 per cent, while the media responses could range from as low as 12 per cent to as high as 58 per cent. Therefore, the difference obtained must be considered insignificant statistically because of the wide percentage overlap.

Of the 104 non-media responses, the largest number 39, or 38 per cent were coded into the tradition category. Of the 57 media responses, 47, or 83 per cent mentioned television as the exposure source. Newspapers and magazines ranked second. Here, as in the case of the total survey, television ranked well ahead of the other media.

High Unit Cost Products. The lower income bracket presented quite similiar results as were obtained in the total survey. The percentages of non-media responses to media responses were exactly the same; 88 per cent non-media to 12 per cent media. A sampling error of 15.6 per cent was obtained in the high unit cost classification proportions. This indicates that the non-media responses could range as low as 72.4 per cent to as high as 100 per cent, while the media responses could range from zero per cent to 27.6 per cent. Here even the large sampling error does not greatly affect our evaluation of the data. Non-media influences tend to have a far greater influence than media influences.

Of the 140 non-media responses in the high unit price category, 60, or 43 per cent were coded verbal; 39, or 28 per cent were coded tradition; 30, or 22 per cent were coded no choice; 9, or 6 per cent were coded personal taste; and two, or one per cent were coded chance. Of the 20 media responses, 11, or 55 per cent cited newspapers; 10, or 50 per cent cited television; 7, or 35 per cent cited magazines; 4, or 20 per cent cited radio; and one, or five per cent cited circulars.

It would seem from the key data involved in this income group, that the lower income bracket does not significantly differ from the established norm of the complete group. The findings in this group yielded a Z-Score of 3.5, which indicated the chances were less than .046 in 100 that the results could have happened by chance.

The tabled data of the Under $4000. group may be found in the Appendix.

IV. $4000.-$6000. GROUP

Among the 78 individuals sampled, 30 fell into the $4000.-$6000. group.

Low Unit Cost Products. The ten low unit cost products when presented to this group produced results as follows: Non-Media responses totalled 174, media responses, 117. The 174 non-media responses comprised 60 per cent of the low unit product answers, while the 117 media responses comprised 40 per cent of the low unit price answers. These proportions are seen to be exactly similiar to those of the total survey group.

The proportions of the low unit price product results yielded a sampling error of 17.8 per cent. Therefore within the limits of the sampling error, the non-media responses could range as low as 42.2 per cent or as high as 77.8 per cent, while the media responses could range as low as 22.2 per cent to as high as 57.8 per cent. These figures would seem to indicate that non-media responses continue to play a somewhat greater role in the purchasing of low unit cost products. Here too, however, the overlap in the percentage variance makes the data insignificant statistically because of the Z-Score of 1.4, and the consequent P of .16, which means the results could happen by chance 16 times in 100.

Of the 174 non-media responses, the largest percentages were again found in the verbal and traditional categories. Sixty-four, or 37 per cent were coded traditional; and 58, or 33 per cent were coded verbal. These findings would seem to indicate that in the middle income group verbal and traditional factors are practically of the same importance, ranking well ahead of the other factors.

Of the 117 media responses, television ranked well ahead of all the other media, being mentioned in 106, or 91 per cent of all the media answers. Newspapers and magazines were again tied for second.

High Unit Cost Products. High unit cost products in the middle income group had non-media and media factors as the basis of influence in approximately the same proportions as the results obtained in the total survey. The percentage of non-media responses to high unit cost products was 87 per cent, in contrast to the percentage of media responses which was 13 per cent. The sampling error of 12.2 per cent obtained from these proportions indicated that the non-media range could vary from 74.8 per cent to 99.2 per cent, while the media response range could vary from .8 per cent to 25.2 per cent. These figures therefore indicate that non-media influences seem to play a far greater role than media factors, in particular in the purchasing of high unit price products.

Of the 243 non-media responses, verbal influences were cited as the greatest single non-media influence factor. Verbal was coded in 99, or 41 per cent of the total cases. Respondents in this class indicated that they had no choice as to the selection of high unit cost products in 60, or 25 per cent of the total non-media responses. Here, no choice ranked second to verbal, and tradition ranked third.

Of the 38 media responses, 26, or 69 per cent cited newspapers. Television ranked second, accounting for 23, or 61 per cent of the media responses.

It would seem from the key data involved in the middle income group, a 60/40 non-media/media relationship in the low unit cost product category, and an 87/13, non-media/media relationship in the high unit cost category, that the responses in the middle income group do not significantly differ from those in the other income groups. The tabled data for the $4000.-$6000. Group may be found in the Appendix. Proportions here almost match total survey results.

V. OVER $6000. GROUP

Among the 78 individuals sampled, 31 were classified in the Over $6000. Group.

Low Unit Cost Products. The ten low unit cost products when presented to this group produced results as follows: Non-media responses totalled 179, while media responses totalled 129. The 179 non media responses comprised 58 per cent of the total low unit product answers, while the 129 media responses comprised 42 per cent of the low unit price answers. These proportions differ by only two per cent from the total survey results.

The proportions of the low unit price answers yielded a sampling error of 17.6 per cent. Therefore within the limits of sampling error, non-media responses could range from a low of 40.4 per cent to a high of 75.6 per cent, while the media responses could range from a low of 25.4 per cent to a high of 59.6 per cent. The 19.2 per cent overlap makes the difference obtained insignificant statistically.

Of the 179 non-media responses, the largest single percentage was found in the verbal category where 85, or 47 per cent of the total was found. Tradition accounted for 60, or 34 per cent of the non-media responses. It would therefore seem in the higher income bracket that verbal influences play a greater role than they do in the case of the lower income brackets, where traditional replies were seen to occur more often.

Of the 129 media responses, as in the case of all other income groupings, television ranked ahead of the other media as it was named as a source in 112, or 87 per cent of the media responses. Newspapers ranked slightly ahead of magazines in this income group.

High Unit Cost Products. The ten high unit cost products when presented to this income group produced results as follows: Non-media responses totalled 261, while media responses totalled 31. The 261 non-media responses accounted for 89 per cent of all high unit price product responses, while the 31 media answers comprised only 11 per cent of the high unit price responses.

The sampling error of 11.2 per cent obtained from these proportions indicated that the non-media range could vary from a low of 77.8 per cent to a high of 100 per cent, while the media range could vary from zero per cent to 22.2 per cent.

Of the 261 non-media responses in this class of products, verbal influences were cited in 130, or 50 per cent of the cases. Magazines were cited as the primary media source, being mentioned in 26, or 84 per cent of the 31 media responses. This was only the finding in this particular group. It was the only group of the three income level groups where magazines ranked as high as 84 per cent. They were rated as only 58 per cent in the middle group, and 35 per cent in the lower income group. Television dropped to a low of 35 per cent in this group.

The findings in this group yielded a Z-Score of 4.7, which indicated the chances were less than .0006 in 100 of the results occurring by chance. Full tabled data for this group will be found in the Appendix.

VI. RELIGIOUS AFFILIATION

As is indicated in Tables XII and XIII there seems to be a slight percentage difference between the three religious groups as regards the purchasing of both low and high unit cost products.

TABLE XII

PER CENT OF LOW UNIT COST PRODUCT RESPONSES BY RELIGION

	(N.)	Non-Media	Media	Z.=	P. =
Jewish Group	36	.55	.45	.9	.42
Protestant Group	23	.61	.39	1.4	.16
Catholic Group	19	.69	.31	2.5	.012

TABLE XIII

PER CENT OF HIGH UNIT COST PRODUCT RESPONSES BY RELIGION

	(N.)	Non-Media	Media	Z.=	P.=
Jewish Group	36	.89	.11	13.	.0006
Protestant Group	23	.91	.09	13.	.0006
Catholic Group	19	.81	.19	4.9	.0006

As seen in Table XIV in the case of low unit cost products, a Chi-Square of 9.8 was obtained, indicating the results to be significant beyond the one per cent level. Hence, there is a significant difference between the three religious groups regarding the purchase of low unit cost products.

TABLE XIV

RELIGIOUS AFFILIATION SIGNIFICANCE TEST FOR LOW UNIT COST PRODUCT RESPONSES

	Jewish	Protestant	Catholic
Non-Media	194 (212)	137 (135)	124 (108)
Media	160 (142)	87 (89)	55 (71)

Chi-Square equals 9.8

The widest discrepancy may be seen to exist between the Catholic and Jewish groups in the low unit price category. Because of the Chi-Square of 9.8 obtained for the low unit cost data, it would appear that the Jewish group put significantly more belief in the media as a source of information than did the other religious groups.

As shown in Table XV a Chi-Square of 9.8 was again obtained, indicating there was a significant difference between the three religious groups with respect to the purchasing of high unit cost products. Data were significant beyond the one per cent level. The data indicated that Catholics seemed proportionately more dependent on the media than did the other religious groups.

TABLE XV

RELIGIOUS AFFILIATION SIGNIFICANCE TEST FOR HIGH UNIT COST PRODUCT RESPONSES

	Jewish	Protestant	Catholic
Non-Media	294 (287)	201 (196)	145 (157)
Media	33 (40)	21 (26)	34 (22)

Chi-Square equals 9.8

VII. JEWISH GROUP

Among the 78 individuals sampled, 36 were of Jewish extraction.

Low Unit Cost Products. The low unit cost products when presented to the Jewish respondents in the sample produced results as follows: Non-media responses totalled 194, or 55 per cent of their total low unit price answers, while media responses totalled 160, or

45 per cent of the total low unit price answers.

The proportions of the low unit price answers yielded a sampling error of 16.4 per cent, which indicated that the non-media range could vary as low as 38.6 per cent to as high as 71.4 per cent. With this sampling error, media responses had a range of low 28.6 per cent to a high of 61.4 per cent. It appears from these figures that non-media influences are not as significantly superior to media influences as had been the case in the other subgroup divisions.

Of the 194 non-media responses, 91, or 47 per cent were comprised of verbal factors; 59, or 30 per cent were traditional; the remainder were coded into the other sections. Of the 160 media responses, television was selected as an exposure source by almost 20 per cent more than the nearest media. Television was mentioned in 145, or 91 per cent of all media replies, while newspapers were mentioned in 115, or 72 per cent of all media replies.

<u>High Unit Cost Products</u>. The ten high unit cost products when presented to those in the Jewish group produced results as follows: Non-media responses totalled 294, or 89 per cent of all high unit cost product replies, while media factors totalled only 33, or 11 per cent of all high unit price product responses.

The sampling error involved in these proportions was found to be 10.2 per cent, which indicated the non-media responses could range as low as 78.8 per cent to as high as 99.2 per cent, while the media range could vary as low as .8 per cent to a high of 21.2 per cent. Because of the Z-Score of 13.0 obtained for this data, the data is significant well beyond the one per cent level. It is seen here that again non-media influences appear to be far more influential in the purchasing of high unit price products.

Of the 294 high unit price product answers in the non-media category, 138, or 47 per cent were coded as verbal. Magazines were the highest media response in the high unit price influence-purchase. Magazines accounted for 24, or 73 per cent of the total 33 media responses. Newspapers ranked second and television third.

The results of this religious group would seem to indicate a slight drop of five percentage points in the influence of the non-media factors in the purchasing of low unit price products. The drop is too slight however to be considered significant. In relation to the total survey in the case of high unit price products, the resulting percentages were almost identical to those found in the survey total. Differences worthy of consideration when this group is compared to other religious groups will be discussed in the conclusion. The findings in the Jewish group yielded a Z-Score of 5.1, which indicated the chances were less than .0006 in 100 that these results occurred by chance.

Full tabled data for the Jewish group will appear in the Appendix.

VIII. PROTESTANT GROUP

Among the 78 sampled in the total survey, 23 persons were of Protestant descent.

Low Unit Cost Products. The low unit cost products when presented to the Protestant respondents in the sample produced results as follows: Non-media responses totalled 137, or 61 per cent of the low unit cost product answers, while media responses totalled 87, or 39 per cent of the low unit product answers.

The proportions of the low unit product answers revealed a sampling error of 20.2 per cent, which indicated that the range of non-media responses was 40.8 per cent to 81.2 per cent, while the range of media responses was from 18.8 per cent to 59.2 per cent. It can be seen that non-media influences tend to be somewhat greater here, however the 18.4 per cent overlap makes the difference obtained insignificant statistically.

Of the 137 non-media responses, the highest percentage was coded as tradition, which accounted for 57, or 42 per cent of the non-media answers. Verbal accounted for slightly less, (39 per cent of the cases). Television ranked again as the highest media influence accounting for 74, or 85 per cent of all the 87 media responses.

High Unit Cost Products. The ten high unit cost products when presented to the Protestant sample revealed results as follows: Non-media responses totalled 201 in comparison with 21 media replies. The non-media percentage of 91 per cent as compared to the media percentage of nine per cent indicated the greatest percentage difference of any subgroup in the study.

The sampling error involved in the proportions of the high unit cost products purchased was found to be 12.0 per cent. This figure indicated that the non-media response range could vary from a low of 79 per cent to a high of 100 per cent, while the media range could vary from zero per cent to 21 per cent. These figures exhibit the general preponderance of non-media influences over media influences in the case of the purchasing of high unit price products. The data was found to be statistically significant well beyond the one per cent level.

Of the 201 non-media responses, the largest proportion was obtained in the verbal category where the response was coded in 79, or 39 per cent of all the answers. Newspapers obtained the highest percentage of responses in 15, or 71 per cent of the total 21 media responses.

This religious grouping exhibits a close correlation to the findings of the overall survey, with non-media influences increasing three percentage points in the case of high unit cost products and their purchasing. This rise is too slight to be of great consequence, however. Differences worthy of consideration will be discussed in the chapter dealing with conclusions.

The findings in the Protestant group indicated a Z-Score of 4.4 when testing for significance. This figure reveals that these results could occur by chance only .006 times in 100. Full tabled data for the Protestant group will be found in the Appendix.

IX. CATHOLIC GROUP

Among the 78 persons sampled in the total survey, 19 persons were of Catholic descent.

Low Unit Cost Products. The low unit cost products when presented to the Catholic respondents in the sample produced results as follows: Non-media responses totalled 124, or 69 per cent of the total low unit price answers, while the media responses totalled 55, or 31 per cent of the total low unit price answers. These figures represent the largest percentage variance in the non-media/media responses in the low unit product category within any subgroup in the survey.

The low unit product sampling error in this group was 21 per cent. This figure indicates that the non-media responses may range from a low of 48 per cent to a high of 90 per cent, while the media range is from 10 per cent to a high of 52 per cent. In the light of these figures it would be a fairly safe assumption to make that within this group, non-media factors tend to be more influential than media factors in the purchasing of low unit price products, but any conclusion must be tempered by an awareness of the small number of the sample involved. However, the Z-Score of 2.5 indicated significance for this group in this category.

The leading percentage in the non-media category was obtained in the tradition code section where tradition was named in 46, or 37 per cent of the cases. Television ranked first in the media category, as it was mentioned in 45, or 82 per cent of the 55 media replies.

<u>High Unit Cost Products</u>. The high unit cost product category produced results as follows: Non-media responses totalled 145, or 81 per cent of the total high unit cost product answers, while media responses totalled 34, or 19 per cent of the total.

The sampling error of the high unit cost product proportions was 18 per cent, which indicated that the non-media responses could go as low as 63 per cent to as high as 99 per cent, while the media responses could go as low as one per cent to as high as 37 per cent. The Z-Score of 4.9 obtained for this data indicated that the results were statistically significant.

Of the 145 non-media responses in this class, the largest single percentage 69, or 48 per cent were coded in the verbal class. Newspapers ranked as the highest single media source with 21, or 62 per cent of the total media responses. The 81/19 per cent proportion in the high unit cost product class indicated the highest percentage figure for any subgroup in the survey.

In relation to the total survey, non-media influences were ranked proportionately less in the case of low unit cost product purchasing within this religious grouping, while media factors were rated higher in the case of the purchasing of high unit cost products. Full tabled data on the Catholic group will be found in the Appendix.

X. OTHER QUESTIONNAIRE RESULTS

Radio. The questionnaire revealed that 39 per cent of all individuals sampled said they listened to the radio both during the day and evening hours; 37 per cent said they listened during the day only; while 24 per cent said they listened primarily at night. These percentages are based upon the responses of 74 of the 78 individuals sampled; the remaining four people expressed the opinion that they possessed radios but did no listening at all.

Of the 74 responding to this question, 15, or 20 per cent felt they listened to the radio under one hour per day; 46, or 62 per cent said they listened on the average of one to three hours daily; nine people or 13 per cent said they listened from three to six hours per day; and the remaining four individuals felt they listened to the radio more than six hours per day. It should be noted that the researcher recognizes the distinction between listening and having the radio turned on, but the question asked the respondent how long she listened to the radio.

These figures fairly well support the trend that radio listening today, especially during the evening hours is definitely on the downgrade, and that the average time spent listening to the radio today by most people is approximately two hours daily.[5]

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[5]"How People Spend Their Time," Broadcasting-Telecasting (April 29, 1957), p. 96.

Television. Although the questionnaire did not ascertain whether viewing hours were during the same day or evening, the figures arrived at through the compilation of the data for television enabled the researcher to provide an index for television viewing. Of the 78 individuals sampled, five, or only six per cent said they viewed television less than one hour per day; 40, or 51 per cent said they viewed between one and three hours per day; 21, or 27 per cent said they viewed three to six hours per day; and 12, or 16 per cent said they viewed over six hours daily. (Daily figures were taken to mean over a 24 hour period). These figures correlate well with the established trend in television viewing today. A broadcasting survey indicated that the average person watches television approximately three hours per day.[6]

Newspapers. The questionnaire did not seek to find out the names of the newspapers that were read within the Brookline area, but only to get an index of the number of subscribers to the Metropolitan Boston newspapers. It was found that all included in the survey read at least one Boston newspaper daily on the average, but that only 53 per cent were subscribers. This figure is considered small in relation to the subscription figure found for magazine readers which was 86 per cent.

Magazines. Of the 78 persons surveyed, 76, or 98 per cent said they read at least one National Weekly or Monthly magazine; 49, or 63 per cent said they read at least one of the primarily

[6] Ibid.

ladies journals, weeklies and/or monthlies; while 30 interviewees admitted reading one or more consumer digests and/or trade publications. With regard to subscriptions, 65, or 86 per cent subscribed to at least one magazine. This figure stands considerably above that found for newspaper readers . Of the subscribers, 58, or 74 per cent subscribed to one or more National magazines; 26, or 46 per cent subscribed to one or more ladies magazines, and 21, or 27 per cent subscribed to one or more consumer or trade publications.

Discussion of Products. One is better able to evaluate more effectively the results of a survey in which non-media influences are compared to media advertising influences, if an index is provided as to the extent to which the products are discussed. As has been seen by the results previously discussed, verbal influences have been shown to have had the greatest single effect on the purchasing of both high and low unit cost products; accounting for 39 per cent of all non-media low unit cost product answers and 44 per cent of all non-media high unit cost product answers. The following results are significant in the light of these previous findings.

All the individuals surveyed were asked if they usually discussed the merits of brands or products with other people. Of those interviewed, 70, or 91 per cent said they usually discuss products with other people, while only eight said they never, under any circumstances, discuss products with others. It was interesting to find that 82 per cent of those interviewed said they discussed products with friends, while only 26 per cent said they usually discuss products with relatives or members of the primary family group.

The respondents were then asked to name the products that they usually discuss, and the results are presented as follows: 18, or 26 per cent of the respondents indicated that they discussed high unit cost products, while 62, or 89 per cent said they discussed only low unit cost products. It will be noted that these percentage figures total greater than 100 per cent. This is due to the fact that in a few instances respondents named products that were coded into both categories. For example, some respondents said they discussed both classes of products.

<u>Influence of Advertising</u>. Respondents were also asked if they were ever influenced to try or buy products directly because of advertising. This was to ascertain the degree to which those surveyed were aware of the extent to which they were influenced by advertising. Of those interviewed, 68, or 87 per cent said they had been influenced to buy products because of media advertising. Respondents were then asked to name the products they had been influenced to try or buy through the media. Only five people or six per cent of all surveyed said they had been influenced to buy a high unit price product directly because of advertising, while 58 people, or 85 per cent named one or more low unit cost products bought through media advertising. The percentage total here is seen to be only 91 per cent. This is because some respondents said they were definitely influenced

by advertising, but could not name specific products that they had been influenced to buy.

Of those surveyed, 70 per cent said they were generally satisfied with the products they had bought directly through advertising; 15 per cent said they were dissatisfied; and 15 per cent said they were satisfied with only a few of the products they have been influenced to buy. When these respondents were queried as to whether they were still using the original product bought through advertising, 56 per cent said yes, 22 per cent said they were using some of these products, and 22 per cent said they were using none of these products.

In conclusion, all respondents were asked to name the media which in their individual opinion they thought had the greatest personal effect on their buying habits. Results indicated that 47, or 60 per cent of those interviewed felt television had the greatest effect on them; 21, or 27 per cent cited newspapers; 10, or 13 per cent felt magazines had the greatest effect on them; eight, or 10 per cent felt radio was the primary source factor of influence; and seven, or nine per cent said that circulars had the greatest personal effect on their buying habits.

Data presented in this section will be discussed in some further detail in the conclusion.

XI. RELIABILITY

The reliability of the questionnaire was tested using the rank-order correlation method.[7] The questionnaires were randomly split up into two groups, and the rank-order correlation run on all the non-media responses throughout the questionnaire. Rank-order correlation run on the media responses would have produced conversely the same results. A reliability coefficient of .913 was obtained, indicating the questionnaire was highly reliable. Computation of the reliability data will be found in Table XXVIII of the Appendix.

XII. VALIDITY

Of the two approaches to validity, logical and empirical, the former is employed in the case of the survey under discussion. The test seemed valid in all respects, hence the face validity of the questionnaire is the criteria for acceptance. There are no grounds for empirical judgements in this study, hence the reliance on face validity.

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[7]David Manning White and Seymour Levine, Elementary Statistics For Journalists (New York: The McMillan Company, 1954), p. 60.

CHAPTER V

SUMMARY AND CONCLUSIONS

Within the bounds of the limitations of the study, which will be discussed in some detail at the conclusion of this section, it seems evident that the following conclusions may be drawn from the data obtained.

(1) On the basis of data obtained it would appear that non-media influences have a greater effect in the purchasing of both low unit price products and high unit price products. Within the bounds of the sampling error involved, which has been presented in the previous chapter, although non-media factors are greater in the influencing of the purchase of both classes of products, they play a proportionately smaller role in the purchasing of low unit cost products than they do in the purchasing of high unit price products; and conversely, that the media although displaying a tendency to be constantly subservient percentage-wise to the non-media influences with respect to the purchasing of both classes of products, have a tendency to be more influential with respect to the purchasing of low unit cost products.

(2) With regard to the composition of the non-media influences, on the basis of the survey data it may be concluded that verbal influences, primarily defined as word-of-mouth communication and recommendation, is more influential than any other single factor

in the non-media class with respect to the purchasing of both high unit cost and low unit cost products. Further, on the basis of the percentages found, it would seem that verbal influences play an even greater role in the purchasing of high unit cost products. We may conclude from the data that the combination of verbal and traditional influences far exceeds the combined totals of all other non-media factors involved, i.e. personal taste, no choice, and chance choice.

(3) With regard to the composition of the media influences, it may be concluded that television is felt to be the primary source of influence as regards media advertising, but that television fails to rank as high as an influence in the purchasing of high unit cost products as it does in the influencing of the purchase of low unit cost products. Through the percentages obtained in the survey, one would conclude that newspapers and magazines have a tendency to be more influential in the purchasing of high unit cost products than television. The ranking of television as a major factor in the purchasing of low unit cost products, but as a lesser factor in the purchasing of high unit cost products, correlates to a high degree with the exposure given those classes of products by network advertisers. Among the sponsors participating in network advertising in 1956, statistics reveal that $488,167,634.00 was spent for television network time by advertisers. Of this amount, $315,400,000.00 was spent in the advertising of primarily low unit cost products.[1]

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[1]"TV Buys and Buyers," Broadcasting-Telecasting (March 11, 1957), pp.30-31.

This figure accounts for approximately 64 per cent of all network television advertising. Hence, it would seem that such expenditures are generally headed in the proper direction.

(4) With respect to income factors, we may conclude from the data that there appears to be no significant difference between higher and lower income groups regarding the relative effectiveness of non-media and media factors in influencing the purchase of high and low unit cost products.

(5) With respect to religious affiliation, we may conclude from the data that significant differences do exist between the three religious groups. The Jewish group felt they were influenced more by media advertising than by non-media influences with respect to the purchasing of low unit cost products than did either of the other two religious groups. The media was not felt to be as important by the Jewish group in the purchasing of high unit cost products.

Further tests indicated that the non-media influences were significantly greater in the Catholic group in the purchasing of low unit cost products than in either of the other two religious groups. Yet, media factors were felt to play a significantly greater role in the Catholic group than in either of the other two religious groups with regard to the purchasing of high unit cost products. Hence, a significant relationship between opinion of influence and religious affiliation was indicated by the data. Opinions as to the source of influence varied significantly between the three groups.

(6) On the basis of the survey conducted, a higher percentage of the population tends to discuss, try, and buy more low unit cost products than high unit cost products. The differences in the percentages found in the survey would seem to support this conclusion.

(7) In an evaluation and attempted projection of the results of this study, it must be realized that such findings could only be valid in a community possessing a like religious-economic background as our sample town. The study is in no way an attempt to provide universal data.

I. LIMITATIONS

The author is fully aware of the limitations of a survey, and all evaluation and conclusions associated with the resultant data are subject to the limitations that apply.

It is realized that all surveys are open to non-sampling errors of procedure, but every effort was made to reduce the possibility of these errors in this study. Such factors as the temperament of the interviewer, the situations in which the questions were asked, the meanings of the questions themselves, analysis of the data, unintentional coding bias, and incorrect research design may hamper the worth of any survey research. In the case of this study, the interviewer was as consistent as possible with regard to temperament and rapport with the respondents, and used the questionnaire as an unalterable guide during the interviews. Coding and analysis were treated in a strictly impersonal manner. The research design was constructed as carefully as possible through consultation with faculty authority at the university.

In discussing the limitations of the present survey, it is essential to note that the very nature of the questions themselves presented a problem. The study was essentially an after-only investigation, and as such is subject to an inherent drawback, that the respondents were questioned long after the event had taken place. In the case of this survey, respondents were asked to indicate a source of information. It is realized that memory is fallible, and that answers derived quite possibly may reflect inaccuracies of memory. Blake states that:

> Market research has developed certain techniques for discovering who bought what etc. Whether these opinions reflect the real motivation behind decisions is often open to question. The motives that govern a consumer's actions arise out of a tangled network of presuppositions, attitudes, feelings, emotions, and images. It seeks to find out what elements or even copy phrase strikes a receptive note in the reader's mind.[2]

Further, the author endorses Rothwell's belief that:

> Even when some or all of the subtle interacting decision controlling information is dredged up through the course of an interview, no method of evaluating it is provided. Honesty thus requires that the results be reported as this is what people _say_ they buy because, rather than people buy _because_.[3]

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[2]James Blake, "Consumer Motivation Research," _Dun's Review and Modern Industry_, LXIV (July, 1954), p. 30.

[3]N. D. Rothwell, "Motivation Research Revisited," _Journal of Marketing_, XX (October, 1955), p. 153.

The researcher made every effort to control the major biasing factors in the structure of the study. The open-ended questions were employed to provide as free a rein of expression as possible. The majority of the respondents interviewed were cooperative and relaxed.

The researcher feels obliged to report that in some instances it was felt that the subject was trying in some way to accommodate the interviewer, and often was looking for visible signs of approval or disapproval from the interviewer. The interviewer however, attempted to be completely impersonal in his approach.

It should be noted that an exact religious-economic quota sample breakdown by proportions would have been desirable to provide an even more accurate cross-section of the religious-economic background of the people, but such data was unavailable for this particular town. Hence, a straight random sample selection was made.

The researcher feels that the study is a valid attempt to measure one aspect of consumer opinion, and that the results provide as accurate as possible a statistical statement of a relatively abstract phenomenon.

The random selection of the samples by percentage from each of the twelve precincts of the town provided a cross-sectional representation of the total population of Brookline. The extremely high reliability coefficient of the questionnaire, as discussed in the previous chapter, indicated a high consistency of measurement.

The validity of the study was ascertained by face validity. The resultant data appeared valid by all established and relevant criteria. The research design employed followed established and recommended survey procedure. Finally, it was felt that the problem was narrowed to an extent to which it could be most efficiently investigated by the single researcher, i. e. the area under study was restricted, the class of products to be studied was sharply defined, and the influence factors explicitly stated.

For these reasons, and within the bounds of the limitations that apply, it is felt that this study will be a worthy contribution to the field of communications research.

BIBLIOGRAPHY

BIBLIOGRAPHY

A. BOOKS AND ARTICLES IN COLLECTIONS

Berelson, Bernard and Morris Janowitz (eds.). Reader in Public Opinion and Communication. Glencoe, Illinois: Free Press, 1953.

Borden, Neil H. The Economic Effects of Advertising. Chicago: Richard Irwin Company, 1952.

Borden, Neil H. National Advertising in Newspapers. Cambridge: Harvard University Press, 1946.

Cochran, William G. Sampling Techniques. New York: Chapman Hall Ltd., June 1953.

Hovland, Carl I. "Effects of the Mass Media of Communications," Handbook of Social Psychology, Gardner Lindzey, editor. Cambridge: Addison Wesley, 1954. Vol. II. pp. 1062-1100.

Hyman, Herbert. Survey Design and Analysis. Glencoe, Illinois, The Free Press, 1955.

Jahoda, Marie, Morton Deutsch and Stuart Cook. Research Methods in Social Relations. New York: Dryden Press, August 1951.

Katz, Elihu and Paul Lazarsfeld. Personal Influence: The Part Played By People in the Flow of Mass Communications. The Free Press, 1955.

Klapper, Joseph. The Effects of the Mass Media. New York: Columbia Press, August 1949.

Lazarsfeld, Paul and Frank Stanton (eds.). Communications Research. New York: Harper and Bros., 1949.

Schramm, Wilbur (ed.). The Process and Effects of Mass Communications. Urbana: University of Illinois Press, 1955.

White, David Manning and Seymour Levine. Elementary Statistics for Journalists. New York: The McMillan Company, 1954.

B. PUBLICATIONS OF GOVERNMENT ORGANIZATIONS

Federal Communications Commission. An Economic Study of Standard Broadcasting. Washington: Federal Communications Commission, 1947.

Town of Brookline. Street List of Persons Twenty Years of Age and Over in the Town of Brookline. January 1, 1956.

C. PERIODICALS

Blake, James. "Consumer Motivation Research," Dun's Review and Modern Industry, LXIV (July, 1954) pp. 30-31.

Bogart, Leo. "Media Research,-A Tool For Effective Advertising," Journal of Marketing, XX (April, 1956) pp. 347-355.

Ferber, Robert. "On the Reliability of Purchase Influence Studies," Journal of Marketing, XIX (March, 1955) pp. 226-228.

"How People Spend Their Time," Broadcasting-Telecasting, (April 24, 1957), pp. 31-32.

Rothwell, N. D. "Motivation Research Revisited," Journal of Marketing, XX (october, 1955), pp. 150-154.

Schramm, Wilbur. "Effects of Mass Communications," Journalism Quarterly, XXVI (1949), pp. 397-409.

"TV Buys and Buyers," Broadcasting-Telecasting, (March 11, 1957), p. 96.

APPENDIXES

APPENDIX A.

QUESTIONNAIRE

I. Sample Number________

1. Average Income Level of Individual or Family (check one).

    a) Under $4000.
    b) $4000. to $6000.
    c) Over $6000.

2. Religious Affiliation (check one)

    a) Protestant
    b) Catholic
    c) Jewish
    d) Other

3. Do you own a radio? Yes No

    a) Do you listen during the day or night?

        Day Night Both

    b) How long do you listen on the average daily?

4. Do you own a television set? Yes No

    a) Approximately how many hours do you view on the average daily?

5. Do you usually read a newspaper daily? Yes No

    a) Are you a subscriber? Yes No

6. What magazines do you read on a regular basis?

    a) Do you subscribe to any magazines?

7. Do you have occasion to use aspirin? Yes No

7b. What source of information do you think influenced you the most in the choice of the aspirin you are using now?

7c. Summing it up now, what do you think was the one most important source factor that led you to buy this particular aspirin?

Question eight through question twenty-six follow exactly the same format as indicated in question seven of the preceding page. Products were alternated as follows:

QUESTION	PRODUCT
8	Refrigerator
9	Dentifrice
10	Range
11	Hand Soap
12	Washer
13	Detergent
14	Dresses
15	Gasoline
16	Patent Medicines
17	Tobacco Products
18	Television Set
19	Soft Drinks
20	Automobile
21	Cosmetics
22	Luggage
23	Facial Tissues
24	Camera
25	Cheese Products
26	Wrist Watch

27. Do you usually discuss the merits of brands or products with other people? Yes No

    a) If yes, with whom?

    b) What kind of products?

28. Have you ever been influenced to try or buy a product directly because you saw it advertised?

    a) If yes, what kind of products?

    b) Did you find them satisfactory?

    c) Do you still use them?

29. What media do you think has had the greatest personal effect on you as far as making you aware of advertised products is concerned?

APPENDIX B.

TABLE XVI

UNDER $4000 GROUP LOW UNIT COST PRODUCT RESPONSES

	Number of Responses	Per Cent of Products Total	Per Cent of Source
Non-Media	104	.65	---
Verbal	34		.33
Tradition	39		,38
Personal Taste	19		.18
Chance	10		.10
No Choice	2		.01
Media	57	.35	---
Radio	28		.49
Television	47		.83
Newspapers	39		.68
Magazines	39		.68
Circulars	4		.07

TABLE XVII

UNDER $4000 GROUP HIGH UNIT COST PRODUCT RESPONSES

	Number of Responses	Per Cent of Products Total	Per Cent of Source
Non-Media	140	.88	---
Verbal	60		.43
Tradition	39		.28
Personal Taste	9		.06
Chance	2		.01
No Choice	30		.22
Media	20	.12	---
Radio	4		.20
Television	10		.50
Newspapers	11		.55
Magazines	7		.35
Circulars	1		.05

TABLE XVIII

$4000-$6000 GROUP LOW UNIT COST PRODUCT RESPONSES

	Number of Responses	Per Cent of Product Totals	Per Cent of Source
Non-Media	174	.60	---
Verbal	58		.33
Tradition	64		.37
Personal Taste	19		.11
Chance	22		.19
No Choice	1		.01
Media	117	.40	---
Radio	63		.54
Television	106		.91
Newspapers	80		.68
Magazines	80		.68
Circulars	12		.10

TABLE XIX

$4000-$6000 GROUP HIGH UNIT COST PRODUCT RESPONSES

	Number of Responses	Per Cent of Products Total	Per Cent of Source
Non-Media	243	.87	---
Verbal	99		.41
Tradition	54		.22
Personal Taste	23		.09
Chance	7		.03
No Choice	60		.25
Media	38	.13	---
Radio	13		.34
Television	23		.61
Newspapers	26		.69
Magazines	22		.58
Circulars	0		.00

TABLE XX

OVER $6000 GROUP LOW UNIT COST PRODUCT RESPONSES

	Number of Responses	Per Cent of Products Total	Per Cent of Source
Non-Media	179	.58	---
Verbal	85		.47
Tradition	60		.34
Personal Taste	19		.11
Chance	14		.08
No Choice	1		.01
Media	129	.42	---
Radio	68		.52
Television	112		.87
Newspapers	88		.68
Magazines	85		.66
Circulars	14		.11

TABLE XXI

OVER $6000 GROUP HIGH UNIT COST PRODUCT RESPONSES

	Number of Responses	Per Cent of Products Total	Per Cent of Source
Non-Media	261	.89	---
Verbal	130		.50
Tradition	60		.23
Personal Taste	20		.08
Chance	5		.02
No Choice	46		.17
Media	31	.11	---
Radio	8		.26
Television	11		.35
Newspapers	18		.58
Magazines	26		.84
Circulars	1		.03

TABLE XXII

JEWISH GROUP LOW UNIT COST PRODUCT RESPONSES

	Number of Responses	Per Cent of Products Total	Per Cent of Source
Non-Media	194	.55	---
Verbal	91		.47
Traditional	59		.30
Personal Taste	19		.10
Chance	25		.13
No Choice	0		.00
Media	160	.45	---
Radio	89		.56
Television	145		.91
Newspapers	115		.72
Magazines	107		.61
Circulars	18		.11

TABLE XXIII

JEWISH GROUP HIGH UNIT COST PRODUCT RESPONSES

	Number of Responses	Per cent of Products Total	Per Cent of Source
Non-Media	294	.89	---
Verbal	138		.47
Traditional	67		.23
Personal Taste	23		.08
Chance	5		.02
No Choice	62		.20
Media	33	.11	---
Radio	8		.24
Television	14		.42
Newspapers	20		.61
Magazines	24		.73
Circulars	1		.01

TABLE XXIV

PROTESTANT GROUP LOW UNIT COST PRODUCT RESPONSES

	Number of Responses	Per Cent of Products Total	Per Cent of Source
Non-Media	137	.61	---
Verbal	53		.39
Tradition	57		.42
Personal Taste	14		.10
Chance	12		.09
No Choice	1		.01
Media	87	.39	---
Radio	38		.44
Television	74		.85
Newspapers	57		.65
Magazines	62		.71
Circulars	8		.09

TABLE XXV

PROTESTANT GROUP HIGH UNIT COST PRODUCT RESPONSES

	Number of Respondents	Per Cent of Products Total	Per Cent of Source
Non-Media	201	.91	---
Verbal	79		.39
Tradition	57		.28
Personal Taste	15		.07
Chance	3		.01
No Choice	47		.25
Media	21	.09	---
Radio	5		.24
Television	12		.57
Newspapers	15		.71
Magazines	12		.57
Circulars	0		.00

TABLE XXVI

CATHOLIC GROUP LOW UNIT COST PRODUCT RESPONSES

	Number of Responses	Per Cent of Products Total	Per Cent of Source
Non-Media	124	.69	---
Verbal	34		.27
Tradition	46		.37
Personal Taste	24		.19
Chance	18		.15
No Choice	2		.02
Media	55	.31	---
Radio	24		.44
Television	45		.82
Newspapers	32		.58
Magazines	35		.64
Circulars	5		.10

TABLE XXVII

CATHOLIC GROUP HIGH UNIT COST PRODUCT RESPONSES

	Number of Responses	Per Cent of Products Total	Per Cent of Source
Non-Media	145	.81	---
Verbal	69		.48
Tradition	30		.21
Personal Taste	12		.08
Chance	4		.02
No Choice	30		.21
Media	34	.19	---
Radio	12		.35
Television	17		.50
Newspapers	21		.62
Magazines	18		.53
Circulars	1		.03

APPENDIX C.

TABLE XXVIII

RANK-ORDER RELIABILITY CORRELATION FOR QUESTIONNAIRE*

Question	Group A	Group B	Rank A	Rank B	Diff. Rank.	D^2
7	32	30	5.5	9.3	3.8	14.44
8	31	34	7.5	5.5	2.0	4.
9	21	21	15.	15.3	.3	.09
10	37	36	2.5	1.	1.5	2.25
11	25	25	14.	13.	1.	1.
12	26	27	13.	12.	1.	1.
13	16	20	18.5	18.	.5	.25
14	30	30	9.5	9.3	.2	.04
15	31	30	7.5	9.3	1.8	3.24
16	28	24	12.	14.	2.	4.
17	16	15	18.5	19.5	1.	1.
18	36	31	4.	8.	4.	16.
19	19	21	16.	15.3	.7	.49
20	38	34	1.	5.5	4.5	20.25
21	17	21	17.	15.3	1.7	2.89
22	30	35	9.5	3.5	6.	36.
23	29	33	11.	7.	4.	16.
24	32	35	5.5	3.5	2.	4.
25	14	15	20.	19.5	.5	.25
26	37	36	2.5	1.	1.5	2.25

Sum D^2 equals 129.44

Formula: $1-\frac{6\text{Sum } D^2}{N\ (n^2-1)}$

Reliability Coefficient of .913

* All non-media item responses ranked.

APPENDIX D.

INDIVIDUAL PRODUCT RESPONSES

LOW UNIT COST PRODUCTS

Aspirin:

Non-Media-62
Verbal-29; Tradition-25; Personal Taste-2; Chance-6; No Choice-0.
Media-16
Radio-12; TV-12; Newspapers-13; Magazines-11; Circs.-2.

Dentifrices:

Non-Media-42
Verbal-7; Tradition-26; Personal Taste-5; Chance-3; No Choice-1.
Media-36
Radio-14; TV-33; Newspapers-18; Magazines-21; Circs.-8.

Hand Soap:

Non-Media-50
Verbal-18; Tradition-21; Personal Taste-6; Chance-5; No Choice-0.
Media-28
Radio-18; TV-24; Newspapers-22; Magazines-18; Circs.-3.

Detergents:

Non-Media-36
Verbal-21; Tradition-8; Personal Taste-6; Chance-1; No Choice-0.
Media-41
Radio-24; TV-34; Newspapers-28; Magazines-27; Circs.-13

Gasoline:

Non-Media-61
Verbal-45; Tradition-9; Personal Taste-3; Chance-4; No Choice-0.

Media-13
Radio-7; TV-12; Newspapers-7; Magazines-6; Circs.-0.

Tobacco Products:

Non-Media-31
Verbal-12; Tradition-9; Personal Taste-10; Chance-0; No Choice-0.
Media-27
Radio-15; TV-25; Newspapers-23; Magazines-20; Circulars-0.

Soft Drinks:

Non-Media-40
Verbal-11; Tradition-17; Personal Taste-5; Chance-7; No Choice-0.
Media-37
Radio-25; TV-34; Newspapers-29; Magazines-22: Circulars-0.

Cosmetics:

Non-Media-38
Verbal-15; Tradition-11; Personal Taste-9; Chance-2; No Choice-1.
Media-39
Radio-10; TV-31; Newspapers-23; Magazines-30; Circulars-2.

Facial Tissues:

Non-Media-62
Verbal-8; Tradition-23; Personal Taste-7; Chance-24; No Choice-0.
Media-16
Radio-12; TV-14; Newspapers-15; Magazines-14; Circulars-1.

Cheese Products (Dairy):

Non-Media-29
Verbal-9; Tradition-10; Personal Taste-4; Chance-4; No Choice-5.
Media-47
Radio-12; TV-44; Newspapers-33; Magazines-33; Circulars-3.

HIGH UNIT COST PRODUCTS

Refrigerators:

Non-Media-65
Verbal-35; Tradition-11; Personal Taste-1; Chance-0 No Choice-18.

Media-13

Radio-3; TV-7; Newspapers- 6; Magazines-11; Circulars-0.

Ranges:

Non-Media-73

Verbal-24; Tradition-15; Personal Taste-1; Chance-0; No Choice-33.

Media-5

Radio-0; TV-1; Newspapers-1; Magazines-2; Circulars-0.

Washers:

Non-Media-53

Verbal-35; Tradition-6; Personal Taste-2; Chance-0; No Choice-10.

Media-14

Radio-6; TV-8; Newspapers-10; Magazines-11; Circulars-0.

Dresses:

Non-Media-60

Verbal-6; Tradition-16; Personal Taste-38; Chance-0; No Choice-0.

Media-18

Radio-0; TV-6; Newspapers-10; Magazines-8; Circulars-0.

Patent Medicines:

Non-Media-52

Verbal-48; Tradition-3; Personal Taste-0; Chance-1; No Choice-0.

Media-7

Radio-3; TV-5; Newspapers-3; Magazines-1; Circulars-1.

Television Receivers:

Non-Media-67

Verbal-48; Tradition-10; Personal Taste-2; Chance-1; No Choice-6.

Media-11

Radio-8; TV-9; Newspapers-10; Magazines-10; Circulars-0.

Automobiles:

Non-Media-72

Verbal-28; Tradition-41; Personal Taste-2; Chance-0 No Choice-1.

Media-2

Radio-1; TV-2; Newspapers-1; Magazines-1; Circulars-0.

Luggage:

Non-Media-65

Verbal-17; Tradition-20; Personal Taste-2; Chance-11; No Choice-15

Media-12

Radio-2; TV-2; Newspapers-9; Magazines-4; Circulars-0.

Cameras:

Non-Media-67

Verbal-26; Tradition-21; Personal Taste-5; Chance-0; No Choice-15.

Media-6

Radio-2; TV-3; Newspapers-4; Magazines-5; Circulars-0.

Wrist Watches:

Non-Media-73

Verbal-20; Tradition-11; Personal Taste-0; Chance-1; No Choice-41.

Media-2

Radio-0; TV-1; Newspapers-2; Magazines-2; Circulars-0.