



ABSTRACT

DOGMATISM AS A PREDICTOR OF COMMUNICATION BEHAVIOR IN THE DIFFUSION OF CONSUMER INNOVATIONS

by John H. Holmes

The present study proposed the thesis that the socio-phychological theory of beliefs as formulated by Rokeach¹ would generate new insights into some of the communication behavior involved in the diffusion and adoption of a consumer innovation, the Ford Mustang automobile. The six distinct areas of communication behavior investigated were (1) communication sources, (2) mass media communication channels, (3) innovativeness, (4) product loyalty, (5) opinion leadership, and (6) homophily. The basic objective was to identify and measure the relationship which existed between dogmatism and each of these six concepts. Dogmatism was defined as a personality variable which governs a person's receptivity or lack of receptivity to new ideas and further includes how a person perceives, evaluates, acts, and reacts to such ideas.

A review of the literature combined with an assessment of the theoretical position of belief systems led to the formulation of six general hypotheses, which were investigated. The hypotheses were as follows:

GH 1: HIGH DOGMATICS UTILIZE COMMUNICATION SOURCES MORE CONSISTENTLY THAN LOW DOGMATICS.

i

- GH 2: LOW DOGMATICS EXPOSE THEMSELVES MORE TO MASS MEDIA COMMUNICATION CHANNELS THAN HIGH DOGMATICS.
- GH 3: LOW DOGMATICS ARE MORE INNOVATIVE THAN HIGH DOGMATICS.
- GH 4: HIGH DOGMATICS EXHIBIT GREATER LOYALTY TOWARD PRODUCTS THAN LOW DOGMATICS.
- GH 5: LOW DOGMATICS EXHIBIT MORE OPINION LEADERSHIP THAN HIGH DOGMATICS.
- GH 6: HIGH DOGMATICS EXHIBIT GREATER HOMOPHILY THAN LOW DOGMATICS.

Twenty-three empirical hypotheses which were derived from the six general hypotheses were tested.

A systematic ordered sample of 150 Mustang owners residing in two adjacent Northwestern Ohio counties located in the interurbian strip extending between Toledo and Cincinnati were interviewed in person during a four week period which extended from November 17 through December 13, 1966. In addition to answering questions pertaining to the six aspects of communication being investigated, each respondent completed a short-form dogmatism test.² The scores of these tests were correlated with the responses obtained from the other questions.

A zero-order correlational analysis of the data led to the rejection of all but one of the twenty-three empirical hypotheses. The only correlation which was significantly different from zero in the predicted direction was for EH 4e: <u>High dogmatics state a preference for</u> <u>replacing their original Mustang with a new Mustang more often than low</u> <u>dogmatics</u>. Eight of the correlation coefficients were in the expected direction, but fifteen were in the direction opposite to that which was predicted. Two of the latter were significantly different from zero.

ii

Consequently, none of the six general hypotheses were accepted.

The findings were not appreciably affected by a secondary analysis which consisted of the statistical elimination of control variables significantly correlated with either the independent variable and/or the dependent variable(s).

The unexpected results could have been partially attributable to many factors which may have included (1) inherent weaknesses in measurements, (2) nature of the innovation, (3) representativeness of respondents, and (4) interviewer bias. Nevertheless, the results clearly revealed that dogmatism as measured in the present study is of little value in predicting communicative and adoptive behavior.

Consideration of the findings indicates that individuals high in dogmatism do behave somewhat differently than those low in dogmatism and these slight differences become more noticeable in the areas of product loyalty and opinion leadership.

Because of the importance of the concepts considered in the present study and their relevance to marketing theorists and practitioners, additional investigations in these areas should be undertaken.

¹Milton Rokeach, <u>The Open and Closed Mind</u>, Basic Books, New York, 1960.

²Verling C. Troldahl and Frederic A. Powell, "A Short-Form Dogmatism Scale for Use in Field Studies," <u>Social Forces</u>, vol. 44, no. 2, December 1965.

DOGMATISM

AS A PREDICTOR OF COMMUNICATION BEHAVIOR IN THE DIFFUSION

OF CONSUMER INNOVATIONS

by

John Henry Holmes

A THESIS

Submitted to Michigan State University in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

Department of Communication

647114 12-20-67

©Copyright by JOHN HENRY HOLMES

Accepted by the faculty of the Department of Communication, College of Communication Arts, Michigan State University, in partial fulfillment of the requirements for the Doctor of Philosophy degree.

Guidance Committee:

Chairman

ACKNOWLEDGEMENTS

I would like to acknowledge Dr. Everett M. Rogers, director of this disseratation, who generously gave of his time to assist me in its preparation. His understanding and kindness were a constant source of inspiration for which I will always be most appreciative. Gratitude is owed to my doctoral guidance committee composed of Dr. Verling C. Troldahl, Chairman, Dr. Kenward L. Atkin, Professor John W. Crawford, Dr. William J. E. Crissy, and Dr. Gerald R. Miller. It was a pleasure to work under the direction of these men, and I know that my completion of the doctoral program would not have been possible without their guidance and counsel.

I wish to thank the Marathon Oil Company and the Cooper Tire and Rubber Company for their financial support. A special note of thanks is given to my colleagues in the Marketing Department at Bowling Green State University for their encouragement and to the Computer Center for its assistance.

Finally, I would like to acknowledge my wife who assisted in the collection of data and also patiently bore the trials and tribulations of graduate education.

ív

TABLE OF CONTENTS

CHAPTER			PAGE
I. INTRODUCTION	•	•	1
Diffusion and Adoption of Innovations	•	•	1
The Communication Process	•	•	2
Characteristics of the Innovation	•	•	3
Characteristics of Adopters	•	•	6
Personality Variables in Diffusion Research	•	•	8
The Innovation Studied: The Mustang	•	•	8
Description of the Study	•	•	11
Implications	•	•	12
Limitations	•	•	13
Objectives	•	•	13
II. CONCEPTUAL FRAMEWORK	•	•	15
Theory	•	•	15
The Concept of Dogmatism	•	•	17
Dependent Variables	•	•	19
Communication Sources	•	•	19
Communication Channels	•	•	23
Innovativeness	•	•	27
Product Loyalty	•	•	31
Opinion Leadership • • • • • • • • • • • • • • • • • • •	•	•	35
Homophily	•	•	38
Control Variables	•	•	43

III.	METHODOLOGY	44
	Operationalization	44
	Empirical Hypotheses	44
	Measures	46
	Instrument Development	54
	Pretest	54
	Interview Schedule Form	55
	Setting	56
	Data Collection	60
	Sample Selection	60
	Interview Procedure	61
	Interview Summary	62
	Sample Description	63
	Description of the Variables	64
	✓ Source Utilization	64
	🗸 Media Exposure	65
	Innovativeness	66
	Product Loyalty	67
	Opinion Leadership	68
	Homophily	69
	Dogmatism	70
	Analysis of the Data	70
	Indeterminate Responses	70
	Sample Size Variation	71
	Primary Analysis	71
	Secondary Analysis	72
	e.'	

IV.	RESULTS	73
	General Hypothesis 1	73
	General Hypothesis 2	73
	General Hypothesis 3	77
	General Hypothesis 4	78
	General Hypothesis 5	81
	General Hypothesis 6	82
V.	SUMMARY AND DISCUSSION	87
	Summary	87
	Explanations for the Results	89
	Relationships Between the Variables	90
	Representativeness of the Subjects	93
	Interpretation of the Results	94
	Communication Sources	94
	Communication Channels	94
	Innovativeness	96
	Product Loyalty	98
	Opinion Leadership	.00
	Homophily	.02
	Commentary.	.04
	Comparing Laboratory Research with Field Studies 1	.04
	Personality Variables in Perspective	.06
	Implications for Future Research	.08
BIBLI	OGRAPHY	.10
APPEN	DICES	.21

LIST OF TABLES

TABLE		PAGE
1	Perceived Characteristics of the Innovation Related to Its Rate of Adoption	5
2	Social Characteristics of Adopters Related to Innovativeness	7
3	Social-Psychological Variables Related to Innovativeness	8
4	Data Collection Summary	62
5	Obtained Dogmatism Scores	70
6	Zero-Order Correlations and Partial Correlations Existing Between the Independent Variable and the Dependent Variables	74
7	Zero-Order Correlations, Eta Coefficients, F of Eta	92
8	Age Distribution of the Respondents	150
9	Occupational Ranks Held by Respondents	151
10	Geographic Mobility Scores	152
11	Number of Hours of Exposure to the Mass Media in An Average Week	153
12	Number of Mass Media Communication Channels Seen and/or Heard in an Average Week	154
13	Number of Mustang Commercials Recalled During The Week Preceding the Interviews	155
14	Adoption Dates for 150 Subjects	156
15	Number and Frequency of Conversations about The Mustang During the Week Preceding the Interviews	157

16	Number of Conversations about the Mustang with People Living in Similar Neighborhoods, Having Similar Occupations, and Having Similar	
	Educations as a Percent of Total Conversations 1	58
17	Number of Others Who Drove the Respondents' Mustangs	5 9
18	Number of Persons Allegedly Influenced by the Respondents	60
19	Number of Other Mustang Owners Known by the Respondents	61

LIST OF FIGURES

LIST OF APPENDICES

Appendix A	Telephone Instruction Form	•	•	•••	•	•	122
Appendix B	Interview Schedule Form	•	•	•••	•	•	124
Appendix C	Letters of Introduction	•	•	•••	•	•	144
Appendix D	Summary of Data Collection	•	•		•	•	147
Appendix E	Tabular Description of Sample	•				•	149

Chapter I

INTRODUCTION

Some of the most serious problems confronting marketers in the post-war years are in the areas of new product innovation, diffusion, and acceptance. The severity of these problems has increased during the 1960's because the affluence and mobility which characterize today's consumers have produced significant changes in their needs and wants and these in turn have brought about significant changes in buyer behavior. The problems have been further complicated by aggressive competitors who are continuously striving to obsolete one another's product offerings. In order to survive, firms must innovate.

Surprisingly little research has been published about this topic where success frequently brings profits beyond expectations and failure often brings a multiplicity of financial woes and non-financial embarrassment. The bulk of the research which has been published is in the field of rural sociology and, to a lesser extent, anthropology, education, general sociology, and medical sociology. The majority of the studies conducted and reported in these fields focused on the diffusion and adoption of innovations.

Diffusion and Adoption of Innovations

An investigation of the diffusion and adoption of an innovation involves (1) the new <u>idea</u> (2) which is communicated through various channels, (3) among the individuals comprising a <u>social system</u>, (4) over a period of <u>time</u>. Time is the crucial element (1) in the <u>rate of</u>

<u>adoption</u> of the new idea in the social system, and (2) in the <u>adoption</u> <u>period</u> through which a person moves from an initial awareness of the innovation, to a positive attitude of its usefulness, to its adoption, and finally to subsequent purchase.¹ Time also is involved in the <u>inno-</u> <u>vativeness</u> dimension, which is a measure of when a person, relative to the other members in the social system, adopts the innovation.

The Communication Process

The diffusion and adoption process just described above is directly related to the four conceptually distinct elements in the communication process: source, message, channel, and receiver.²

Each of the four variables and the relationships existing among them can similarly be identified in the diffusion and adoption of new products. In this process, the source is a firm which has invented and/or sponsored the new product or service. In order to capitalize on the innovation, the firm will purposely attempt to influence the receivers (consumers) to purchase its product. After the innovation has been perceived, it is possible for the original receiver(s), in the role of an opinion leader, to act as a source conveying additional information about the product to other receivers. Messages refer to all statements made about the innovation regardless of source. Channels are the means or vehicles used to convey the messages to the

¹Everett M. Rogers, <u>Diffusion of Innovations</u>, Free Press of Glencoe, New York, 1962.

²Wilbur Schramm, "How Communication Works," in the <u>Process</u> and <u>Effects of Mass Communication</u>, (Wilbur Schramm, ed.) University of Illinois Press, 1954, pp. 3-26.

intended receivers. They are either mediated or interpersonal. The former are exemplified by newspapers, magazines, radio, or television which may carry advertising messages, whereas the latter refer to individualized attempts at persuasion made either by the firm's personal representative or other individuals communicating directly with one another. Finally, the receiver(s) is the potential consumer who either is aware or unaware of the innovation or who has or has not adopted it. Receivers in certain instances may initiate the communication process by actively seeking information about new products.

Because the analysis of the diffusion and adoption process is intimately related to the dynamics of communication behavior, an investigation of the diffusion and adoption process demands an interdisciplinary approach involving concepts from social-psychology, rural sociology, marketing, and other behavioral disciplines. Consideration should also be given to the characteristics of the innovation and to the personal, social, and enabling conditions affecting its rate of adoption.³

Characteristics of the Innovation

An <u>innovation</u> is defined as an idea which is perceived as new by the individual. The idea can include either a product or a service. "It is important to remember that the distinctive aspect of an innovation, as compared to other kinds of ideas, is that it is considered new by the individual. He lacks experience with the idea."⁴

³Thomas A. Staudt and Donald A. Taylor, <u>A Managerial Introduction</u> to <u>Marketing</u>, Prentice-Hall, Englewood Cliffs, New Jersey, 1965, ch. 4.

⁴Everett M. Rogers and J. David Stanfield, "Adoption and Diffusion of New Products: Emerging Generalizagions and Hypotheses," paper presented at the Conference on the Application of Sciences to Marketing Management, Purdue University, July 12-15, 1966.

Several diffusion researchers have considered the characteristics of a new product and how these affect its rate of adoption. Table 1 presents a recapitulation of 206 studies which related the characteristics of an innovation with its rate of adoption.

It is readily seen that those innovations which are perceived as having relative advantage over existing ideas, those which are compatible with existing behavior, those which are visible, those which are readily available, and finally those which satisfy the consumers' needs, tend to have a relatively rapid rate of adoption. Other characteristics such as purchase cycles and trade-in allowances which are ultimately included in the individual's perception of the innovation have not as yet been investigated.

Innovations can be categorized in many different ways. For example, an innovation can take the form of a new generic product or service. As far as the consumer is concerned, this form of an innovation represents a totally new idea. In such a situation, the marketer must communicate the idea to the potential consumer. Recent examples of new generic products include the television receiver and the room air conditioner.

A second form of consumer innovation is development of a new brand and results from competitive interaction. It occurs only in those instances where the generic innovation is perceived to have attained a certain degree of market acceptance. The consumer dependent

⁵A fourteen item delineation was presented by Wasson. Chester R. Wasson, "What is 'New' About a New Product?", <u>Journal of Marketing</u>, Vol. 25, July, 1960, pp. 52-56. According to Robertson, "Innovations may be classified as (1) <u>continuous</u> innovations, (2) <u>dynamically continuous</u> innovations and (3) <u>discontinuous</u> innovations." Thomas S. Robertson, "The Process of Innovation and the Diffusion of Innovation," Journal of Marketing, Vol. 31, January, 1967, p. 15.

Table 1 -Perceived Characteristics of the Innovation Related to Its

Rate of Adoption**

	Percentage	Relati	onship to	Innovati	veness	
Perceived charac- teristics on the innovation	Positive (%)	None (%)	Negative (%)	Condi- tional* (%)	Total (%)	Total no. of publi- cations
Relative advantage	78.8	15.2	3.0	3.0	100	66
Compatibility	86.0	14.0	0.0	0.0	100	50
Fulfillment of felt needs	92.6	3.7	3.7	0.0	100	27
Complexity	18.8	37.5	43.7	0.0	100	16
Divisibility	42.9	42.9	14.3	0.0	100	14
Communicability	75.0	25.0	0.0	0.0	100	8
Availability	55.6	22.2	16.7	5.6	100	18
Immediacy of benefit	57.1	28 .6	14.3	0.0	100	7

*A relationship that may be positive or negative depending upon (or conditioned by) other variables.

**Data reported in Tables 1, 2, and 3 were obtained from the Diffusion Documents Center at Michigan State University. The Center contains more than 1,200 publications pertaining to the <u>communication</u> of <u>new ideas</u> among members of a <u>social system</u> over <u>time</u>. Each empirical study catalogued in the Center has been content analyzed and information pertaining to both the independent variables and the dependent variables and the relationships between them has been placed on IBM cards. Using IBM sorting procedures, a summary bibliography of relevant publications is readily obtained.

Source: Diffusion Documents Center, Michigan State University, East Lansing, Michigan, July, 1966. upon his familiarity with existing market offerings may or may not perceive the new brand as a totally new idea but instead may consider it as a substitute for the previously introduced generic product. Examples of brand innovations would be the several brands of fluoridated tooth paste introduced subsequent to the introduction of Procter and Gamble's Crest.

Characteristics of Adopters

In addition to considering the characteristics of the innovation itself, diffusion researchers investigated the characteristics of the individuals who have adopted and rejected new ideas and products. More than 835 published empirical studies investigated the sociological and psychological attributes of these persons.

Table 2 presents a summary of the social characteristics of adopters related to innovativeness. As can be seen from Table 2, several socio-economic factors are consistently related to innovativeness. Several of the negative relationships can in part be explained because the particular innovations which were studied were designed to penetrate a low-income market or perhaps one primarily composed of senior citizens.

More than 300 studies focused on the socio-psychological characteristics of the adopter.⁷ These research findings are summarized in Table 3. With regard to the relationships enumerated in

⁷Everett M. Rogers and J. David Stanfield, <u>op</u>. <u>cit</u>.

⁶Diffusion Documents Center, Michigan State University, East Lansing, Michigan, July, 1966, and Everett M. Rogers, <u>Bibliography of</u> <u>Research on the Diffusion of Innovations</u>, Department of Communication, Michigan State University, East Lansing, Michigan, July, 1966.

	Percentage	e Relat:	ionship to	Innovati	veness	
Social charac- teristics of the unit of adoption	Positive (%)	None (%)	Negative (%)	Condi- tional* (%)	Total (%)	Total no. of publi- cations
Education	74.6	16.1	5.2	4.1	100	193
Literacy	70.4	22.2	3.7	3.7	100	27
Income	80.3	10.7	6.3	2.7	100	112
Level of Living	82.5	10.0	2.5	5.0	100	40
Age	32.3	40.5	17.7	9.5	100	158

Table 2 - Social Characteristics of Adopters Related to Innovativeness

*A relationship that may be positive or negative depending upon (or conditioned by) other variables.

Source: Diffusion Documents Center, Michigan State University, East Lansing, Michigan, July, 1966.

	Percentage	Relat	ionship to	Innovati	veness	
Social-psychological characteristics of the unit of adoption	Positive (%)	None (%)	Negative (%)	Condi- tional* (%)	Total (%)	Total no. of publi- cations
Intelligence Knowledgeability	78.8	16.7	1.5	3.0	100	66
Attitude toward change	73.6	14.5	8.2	3.8	100	159
Achievement Motivation	64.7	23.5	0.0	11.8	100	17
Aspirations for children	82.6	8.7	4.3	4.3	100	ť 23
Business orientation	60.0	20.0	20.0	0.0	100	5
Satisfaction with life	28.6	28.6	42.8	0.0	100	7
Empathy	75.0	0.0	25.0	0.0	100	4
Mental rigidity	20.8	25.0	50.0	4.2	100	24

Table 3 - Social-Psychological Variables Related to Innovativeness

.

*A relationship that may be positive or negative depending upon (or conditioned by) other variables.

Source: Diffusion Documents Center, Michigan State University, East Lansing, Michigan, July, 1966. Table 3, Rogers implied that socio-psychological attributes are somewhat difficult to measure and conclusions drawn from them may be tenuous.⁸

Personality Variables in Diffusion Research

Personality variables have been relatively neglected by diffusion researchers. Both Lionberger and Rogers recognized the need for and deplored the lack of empirical research directed toward personality variables related to diffusion.⁹ Because of the paucity of past research, one of the key questions according to Barnett is:

Just which individuals in a given group are more likely than others to accept a novelty? The problem now is to find out, not why a novelty or its auspices has an appeal, but why it appeals more to one person than to another, presuming that everything else is as constant as it can be.¹⁰

The present study, therefore, assesses the utility a personality variable in explaining communication behavior by focusing on the diffusion and adoption of a consumer innovation, the Mustang automobile.

The Innovation Studied: The Mustang

The Ford Mustang is the generic automotive innovation of the decade. The automobile comes complete with a long sloping hood, short

⁸Everett M. Rogers, <u>Diffusion of Innovations</u>, <u>op</u>. <u>cit</u>., pp. 177-178.

⁹Herbert F. Lionberger, <u>Adoption of New Ideas and Practices</u>, Iowa State University Press, Ames, 1960 and Everett M. Rogers, <u>Diffu-</u><u>sion of Innovations</u>, <u>op</u>. <u>cit</u>.

¹⁰H. G. Barnett, <u>Innovation</u>, McGraw-Hill Book Company, New York, 1953, p. 378.

rear deck, bucket seats, and a fast, sporty appearance. Its low price tag (under \$2,400) opens the door to a large segment of the market. The car additionally offers a wide range of extra cost options which enable the prospective buyer to personalize the car to his own satisfaction.

The Mustang's success was probably attributable to several factors. First, credit must be given to the market researchers of the Ford Motor Company, who in this instance accurately diagnosed the consumers' transportation needs and wants. Second, the innovation possessed several characteristics which favorably effect adoption. More specifically, the Mustang had a relative price advantage over its nearest competitors. The hardtop and convertible body styles, while definitely distinctive, were compatible with accepted automotive design. Finally, the Ford dealers throughout the country aggressively merchandised the innovation. The rapid acceptance of the Mustang prompted similar brand innovations by the Chrysler Corporation and American Motors. A year and a half later, General Motors entered the field, and the Ford Motor Company's Lincoln-Mercury Division also introduced a model similar to the restyled 1967 Mustang.

This particular innovation was selected for three reasons. First, an analysis of this product would enable a comparison to be made between early and late adopters. Second, because of the magnitude of the purchase, it was expected that people would be inclined to remember those things which influenced their purchase decision, and third, a representative sample of Mustang owners was readily obtainable.

Description of the Present Study

The present study proposes the thesis that the sociopsychological theory of belief systems as formulated by Rokeach¹¹ will generate new insights into some of the communication behavior involved in the diffusion and adoption of a new generic product. It investigates six conceptually distinct areas of communication behavior: (1) communication sources, (2) communication channels, (3) innovativeness, (4) product loyalty, (5) opinion leadership, and (6) homophily. The basic objective is to identify and measure the relationship existing between the personality variable of dogmatism and the six areas of communication behavior.

A review of the literature combined with an assessment of the theoretical position of belief-disbelief systems, both of which are considered in Chapter II, led to the formulation of six general hypotheses which are considered in the present study. The hypotheses are as follows:

- GH 1: HIGH DOGMATICS UTILIZE FEWER COMMUNICATION SOURCES THAN LOW DOGMATICS.
- GH 2: LOW DOGMATICS EXPOSE THEMSELVES MORE TO MASS MEDIA COMMUNI-CATION CHANNELS THAN HIGH DOGMATICS.
- GH 3: LOW DOGMATICS ARE MORE INNOVATIVE THAN HIGH DOGMATICS.
- GH 4: HIGH DOGMATICS EXHIBIT GREATER LOYALTY TOWARD PRODUCTS THAN LOW DOGMATICS.
- GH 5: LOW DOGMATICS EXHIBIT MORE OPINION LEADERSHIP THAN HIGH DOGMATICS.
- GH 6: HIGH DOGMATICS EXHIBIT GREATER HOMOPHILY THAN LOW DOGMATICS.

¹¹Milton Rokeach, <u>The Open and Closed Mind</u>, Basic Books, New York, 1960.

The general methodological approach used in the investigation is survey research.¹² The data were collected by trained undergraduate student interviewers using a pre-coded and pre-tested interview schedule. The principal analytical technique is correlation.¹³ The obtained correlations indicate the extent to which the communication behavior of relatively high dogmatic individuals differed from that of low dogmatic individuals for each of the six communication concepts being investigated and whether the hypothesized relationships are confirmed or rejected.

Implications

It is expected that the present research will make a contribution to the existing although limited fund of knowledge about the diffusion of consumer innovations. It is expected further that the interdisciplinary orientation cultivated in the present investigation will provide further impetus for a merger between the behavioral disciplines and the field of marketing. Finally, the study anticipates the generation of practical conclusions concerning which individuals within a given market are most likely to (1) spend more time with the mass media, (2) be among the first to adopt an innovation, (3) be most loyal toward a product, and (4) be most effective as opinion leaders. It is expected that the results can be directly beneficial for marketing practitioners in pre-testing the market acceptance of new products and

¹²Charles H. Backstrom and Gerald D. Hursh, <u>Survey Research</u>, University of Illinois Press, Chicago, Ill., 1962.

¹³Quinn P. McNemar, <u>Psychological</u> <u>Statistics</u>, third edition, John Wiley and Sons, Inc., New York, 1963.

indirectly for developing promotional strategies after the products have attained initial acceptance.

Limitations

The present study contains two factors which may affect the validity of the findings. The first is concerned with the nature of the innovation being studied. An automobile is a high-priced consumer product and in most instances new car buyers keep the car from two to three years. As a result certain individuals who may have been favorably disposed toward the car when it first came on the market postponed their purchases because their present automobile was relatively new. The second factor pertains to the study's methodological approach. More specifically, the answers to several questions are based upon the respondents' ability to recall and accurately relate their past experiences.

The rather modest sample size (150 subjects) coupled with the circumstances surrounding the collection of the data may influence the reliability of the findings.

Finally, generalization from the present findings to other innovations may be somewhat limited because the analysis was concerned only with the diffusion and adoption of one product. To date most of the evidence suggests that innovativeness, product loyalty, and opinion leadership vary in their relationship to both innovations and subjects. Objectives

In summary, the present study proposes the thesis that the socio-psychological theory of beliefs will generate new insights into some of the communication behavior involved in the diffusion and adoption of a new generic product. Six specific concepts are

investigated:

- 1. communication sources
- 2. communication channels
- 3. innovativeness
- 4. product loyalty
- 5. opinion leadership
- 6. homophily

The present study asks whether any or all of these variables are significantly correlated with dogmatism. Thus, the main objectives of the present research is to identify and measure the predictive power of the personality variable of dogmatism in the diffusion and adoption of a consumer innovation.

Chapter II

CONCEPTUAL FRAMEWORK

This chapter elucidates the theoretic approach espoused in the present study. It further presents definitions of the concepts being studied, the hypothetical relationships, and a review of research which considered the separate concepts and/or the relationships existing among them.

Theory

The majority of the more than seven hundred empirical studies catalogued to date in the diffusion field were directed toward the solution of practical problems; less attention was given to theoretic concerns than was the case in many other research traditions. As a result, it is sometimes very difficult to offer suitable explanations for the multitude of relationships uncovered by diffusion researchers. The inclusion of a theoretical position in the present investigation, therefore, should aid in explaining the hypothesized relationships and provide a measure of understanding of why and how these relationships occurred.

The theoretic approach used in the present research is the theory of belief systems developed by Rokeach.¹ Prompted by the work of Adorno and Frenkel-Brunswik on authoritarian personalities,² Rokeach

¹Milton Rokeach, <u>The Open and Closed Mind</u>, <u>op</u>. <u>cit</u>., p.32.

²T. W. Adorno, Else Frenkel-Brunswik, Daniel J. Levinson, and R. Nevitt Sanford, <u>The Authoritarian Personality</u>, Harper and Brothers, New York, 1950.

conceptualized a personality theory which ranged over a complete spectrum of beliefs incorporated in a person's cognitive system. An individual's belief was defined as follows:

We have to infer what a person <u>really</u> believes from all the things he says and does. It is in this sense that we would use the term belief, and the total belief-disbelief system would then be an organization of verbal and non-verbal, implicit and explicit beliefs, sets, or expectancies.

Through the coneption of a belief-disbelief system, Rokeach uncovered a single set of concepts which would serve as a basis for understanding and explaining the interconnected problems of personality and cognition.⁴ In effect, knowledge about the organization of an individual's beliefs and expectancies should enable predictions about the individual's behavior.

Since emphasis is placed upon the <u>structure</u> of the beliefs rather than specific content, the theory provides a high degree of parsimony insofar as predictions can be made about the totality of the person's behavior.

According to the theory, all individuals possess beliefdisbelief systems. Those having relatively open systems are referred to as open-minded or low dogmatic individuals; whereas, those having closed systems are defined as high dogmatic or closed-minded. The extent to which a system is open or closed is determined by the structural arrangement of its component parts. This structure measures beliefs which range along a continuum from central beliefs, concerning

³Milton Rokeach, <u>The Open and Closed Mind</u>, <u>op. cit.</u>, p. 32. ⁴Milton Rokeach, <u>The Open and Closed Mind</u>, <u>op. cit.</u>, Chs. 1-3.

the nature

beliefs der

with common

structural

beliefs that

helistic ar

Idea

introduced

assimilated

compatibil

the intern

ties which

then be in

Dog

individual

includes 1

ideas. Th

matism is

tivity to

^{ability} t

its own m

5 6 7 1966. T. matism w the nature of self and reality, to inconsequential or peripheral beliefs derived from authority. These latter beliefs are concerned with common everyday experiences and personal preferences. "It is the structural interconnections among central, intermediate and peripheral beliefs that gives the total belief-disbelief system its integrated holistic and systematic character."⁵

Ideas and information concerning new products generally are introduced at the inconsequential level. But before new ideas are assimilated into the individual's system, they must first be tested for compatibility with the person's central beliefs and then screened at : the intermediate level. If the ideas are compatible with the authorities which undergird the intermediate beliefs, the new material will then be incorporated into the belief system.⁶

The Concept of Dogmatism

Dogmatism is defined as a personality variable which governs the individual's receptivity or lack of receptivity to new ideas and further ' includes how a person perceives, evaluates, acts and reacts to such ideas. This definition closely parallels Rokeach's definition: Dogmatism is a personality variable which governs the individual's receptivity to ideas, people, and places and further includes the person's ability to evaluate information pertaining to each of these areas on its own merit."⁷

Milton Rokeach, <u>The Open and Closed Mind</u>, <u>op. cit.</u>, p. 50. ⁶Milton Rokeach, <u>The Open and Closed Mind</u>, <u>op. cit.</u>, p. 48.

⁷As per telephone conversation with Dr. Milton Rokeach, August, 1966. This definition differs from an earlier definition, where dogmatism was defined as "(a) a relatively closed cognitive organization

According to Rokeach, dogmatism is related to the structure of the person's belief system and to the manner in which the various beliefs are interrelated within the total belief system. This premise led Shoemaker to the conclusion that "the structure of the system is immensely more important than the content of the beliefs within that system."⁸ If such is actually the case, it is logical to assume that those high in dogmatism would hold beliefs in different ways than those low in dogmatism. More specifically, a high dogmatic person, as described by Rokeach, has a relatively undifferentiated belief-disbelief system and tends to isolate different clusters of beliefs which may logically appear to interact. High dogmatic individuals, because of their overly reliant dependence upon authority, tend to view new ideas as threatening or hostile at least until they have been validated by an accepted authority.

High dogmatic persons, provided they behave according to the tenets of the theory stated in the preceding paragraph, will have different perspectives than low dogmatic individuals. Therefore, it is expected that closed-minded persons will react in different ways from open-minded persons when exposed to new products. For this reason,

of beliefs and disbeliefs about reality, (b) organized around a central set of beliefs about absolute authority which in turn, (c) provides a framework for patterns of intolerance and qualified tolerance toward others." See Milton Rokeach, "The Nature and Meaning of Dogmatism" in E. P. Hollander and Raymond G. Hunt, (eds.), <u>Current Perspectives in Social</u> <u>Psychology</u>, Oxford University Press, New York, 1963, p. 1963.

⁸F. Floyd Shoemaker, "Personality Dimensions of Innovativeness," unpublished, for Psychology 936, Michigan State University, East Lansing, Michigan, March 17, 1966.

dogmatism is used as the independent or predictor variable in the present investigation.

Dependent Variables

The dependent variables analyzed in the present study are (1) communication sources, (2) communication channels, (3) innovativeness, (4) product loyalty, (5) opinion leadership, and (6) homophily. Each is treated in the following way. First, there is a definition and brief discussion of each variable. Then a general hypothesis stating the dependent variable's conceptual relationship to the independent variable is presented. Literature reporting past investigations of these two concepts is then reviewed. Finally, a specific rationale supporting the hypothesized relationship is given.

Communication Sources

<u>Communication sources</u> are defined as individual(s), acting either as representatives of a commercial organization or independently, who behave in such a way that the attitudes and/or behavior of others are affected. This definition is similar to Aristotle's who considered the source as the person who speaks.⁹ Two other definitions frequently used include Shannon and Weaver who referred to the "information source" as the individual who "selects a desired message out of possible messages,"¹⁰ and Berlo who described the source as

⁹W. Rhys Roberts, "Rhetorica" in <u>The Works of Aristotle</u>, (W. D. Ross, ed). Oxford University Press, 1946, Volume XI, p. 14.

¹⁰Claude Shannon and Warren Weaver, <u>The Mathematical Theory of</u> <u>Communication</u>, University of Illinois Press, Urbana, Illinois, 1949, P. 7.


"some person or group of persons with a purpose, a reason for engaging in communication."

Because several communication sources are encountered in the present study, e.g., corporate entities, dealer representatives, and present owners, the investigation recognizes a distinction between commercial sources and non-commercial sources.

Prior to adopting a new product, an individual generally acquires various kinds of information before reaching a decision. Therefore, it is readily apparent that adoptive behavior involves decision making.¹² In making an adoption decision an individual may mentally become involved in one or all of four functional areas as he progresses from initial awareness to acquisition.¹³ The four areas are described as follows:

- Knowledge function--individual learns of the idea or practice and begins to make instrumental communicative responses seeking how-to-do-it types of information.
- 2. Persuasion function--attitude formation or change in which

¹³F. Floyd Shoemaker, "A Reconceptualization of a Process," unpublished, COM 470, Michigan State University, East Lansing, Michigan, Spring, 1966.

¹¹David K. Berlo, <u>The Process</u> of <u>Communication</u>, Holt, Rinehart, and Winston, New York, 1960, p. 30.

¹²This point of view supersedes the report of the North Central Rural Sociology Subcommittee which in 1955 standardized the adoption process as consisting of five sequential mental stages of thinking and acting. According to their definition, the stages were (1) awareness, (2) interest-information, (3) evaluation, (4) trial, and (5) adoption. See North Central Rural Sociology Subcommittee for the Study of Diffusion of Farm Practices, <u>How Farm People Accept New Ideas</u>, Agricultural Extension Service Special Report, Ames, Iowa, 1955.

individual assumes a favorable or unfavorable stance toward practice or idea.

- Decision-making function--overt behavioral change in which person adopts or rejects new idea or practice.
- Confirmation--supporting function--individual makes consummatory communicative responses seeking support for his decision.

In certain instances a single source of information could satisfy the information needs of both high and low dogmatics for each of the functional areas mentioned previously. This situation is most likely to occur when the innovation is relatively inexpensive, represents only a small percentage of the person's disposable income, or is perceived to be lacking in terms of either social or monetary rewards. Because of the relatively high cost of the innovation studied in the present investigation, it is reasonable to believe that the low dogmatic individual will have sought information from several sources as he moved from awareness to adoption, whereas the high dogmatic will have used fewer sources in making his decision.

Therefore, it is hyothesized:

GH 1: HIGH DOGMATICS UTILIZE FEWER COMMUNICATION SOURCES THAN LOW DOGMATICS.

The <u>utilization of a communication source</u> is defined as exposure to and perception of any of several messages emanating from a single source over a period of time.

With regard to the acquisition of information, Rokeach stated:

A closed-minded person may expose himself to only one point of view in the press, selectively choose his friends and associates solely or primarily on the basis of compatibility with systems, selectively avoid social contact with those who adhere to

different systems and ostracize renegades.¹⁴

According to the theory the high dogmatic person has difficulty distinguishing between the source and the message.

If a person were completely able to evaluate information on its own merits, he would seek information about a particular disbelief system. But the more closed his system, the more sensitive should he be to communications, reinforcements, warnings, prohibitions, and more should he be dependent upon such positive authorities for information he accumulates about a particular belief subsystem. Information about this system if received at all, should come second hand, spoon-fed, by the person's positive authority.

This point of view was confirmed by Powell in his analysis of Lansing area residents. Based upon the results, he concluded that: "open-minded individuals are better able to distinguish between and evaluate independently the content of a message and the source of a message than are closed-minded individuals."¹⁶ With regard to source credibility, he reported:

In the case of closed receivers, the credibility of the source may be a largely influential factor in determining whether or not the receiver's opinion will be changed as a result of persuasive communication. Unless the message strongly contradicts the existing opinions of the receiver, a high credibility source may be more effective in changing the opinions of the receiver than a low credibility source.¹⁷

Because the high dogmatic needs a certain amount of information before adopting, and since he has difficulty in distinguishing between sources and messages, it would seem logical that he would restrict his

¹⁴Milton Rokeach, <u>The Open and Closed Mind</u>, <u>op</u>. <u>cit</u>., p. 49.

¹⁵Milton Rokeach, <u>The Open and Closed Mind</u>, <u>op. cit.</u>, p. 61.

¹⁶Frederic A. Powell, "Open and Closed-Mindedness and the Ability to Differentiate Source and Message," <u>Journal of Abnormal and</u> <u>Social Psychology, 1962, 65:61-64.</u>

¹⁷Frederic A. Powell, <u>ibid</u>., p. 63.

attention to sources perceived as being the most credible. Not only would he use this source for information in developing a favorable attitude, but also he would have recourse to this same source in making his actual purchase decision. On the other hand, the open-minded person, "capable of evaluating the source and the message independently,"¹⁸ and less effected by source credibility may seek information from a variety of sources prior to adopting the new product.

Only one diffusion study considered the relationship between dogmatism and information sources. Jamias, studying 147 Michigan farmers, tested the hypotheses that low dogmatic farm operators would use extended group members more than relatively high dogmatic individuals (1) for initial information and (2) for validating information. Neither of the hypotheses was empirically supported.

Communication Channels

<u>Communication Channels</u> are defined as vehicles carrying messages to the receivers or potential adopters. This definition closely parallels the message-vehicle definition described by Berlo.²⁰

Traditionally, communication channels have been dichotomized as mediated or interpersonal, but several other distinctions such as cosmopolite vs. localite and active vs. passive have appeared in the

¹⁸Frederic A. Powell, <u>ibid</u>., p. 63.

¹⁹ Juan F. Jamias, <u>The Effects of Belief System Styles on the</u> <u>Communication and Adoption of Farm Practices</u>, Unpublished Ph.D. Thesis, Michigan State University, Department of Communication, East Lansing, Michigan, 1964.

²⁰ David K. Berlo, <u>op. cit</u>., pp. 63-70.

literature. In the present investigation, channels are categorized further into (1) mass media and (2) interpersonal communication channels.

In addition to limiting their exposure to sources of information, it is believed that high dogmatics have less exposure to mass media communication channels.

GH 2: LOW DOGMATICS EXPOSE THEMSELVES MORE TO MASS MEDIA COMMUNI-CATION CHANNELS THAN HIGH DOGMATICS.

Rokeach, with regard to channel exposure, stated:

People often selectively avoid contact with stimuli, people, events, books, etc., that threaten the validity of their ideology or proselyte for competing ideologies. Cognitive narrowing may be manifested at both the institutional and noninstitutional levels.

As a concomitant effect, the open-minded person according to the theory has a tendency to acquaint himself with distant disbelief subsystems as well as other belief systems. Because the low dogmatic is prone to learn new information from many sources, he is likely to expose himself to a variety of channels, whereas the high dogmatic restrained by the postulated tendencies for isolation, low differentiation, and cognitive narrowing would restrict his attention to those channels conveying

²¹Milton Rokeach, <u>The Open and Closed Mind</u>, <u>op</u>. <u>cit</u>., p. 48. It is interesting to note how Rokeach's ideas of cognitive narrowing are related to certain aspects of Festinger's theory of cognitive dissonance. According to Festinger, dissonance occurs when two incompatible items are associated with each other. To illustrate the situation, suppose that a man drinks and at the same time realizes that alcohol is injurious to health. This dissonance can be reduced in many ways e.g., ceasing to drink, changing beliefs about alcohol's effect on health, or attending to messages minimizing the associative bond linking alcohol and sickness.

One might speculate that a highly dogmatic individual would have less tolerance for dissonance within his belief system than a more openminded person and therefore take more decisive action to shore up his beliefs and in the process narrow his cognitive field. See Roger Brown, "Models of Attitude Change" in Eugene Galanter, Roger Brown, Eckhard H. Hess, and George Mandler, <u>New Directions in Psychology</u>, Holt, Rinehart and Winston, New York, 1962.

messages which he perceives have been approved by his authority figures.

Very few studies attempted to investigate the relationship between dogmatism and exposure to communication channels. Ehrlick, using a sample of sociology students, found a negative relationship between dogmatism and the amount of information the students learned in the classroom situation.²² The finding suggested that closedminded individuals would tend to screen out channels conveying messages which appeared to contradict present beliefs.

In assessing the dissemination of horticultural information among residents in a Boston suburb, Troldahl found, contrary to his predictions, that open-minded persons were relatively low in their exposure to gardening and household magazines, and were also less likely to read the home, food, and gardening sections of newspapers.²³ In his discussion of the findings, Troldahl suggested the possibility that newspapers and other specialized mass media channels served to reinforce the beliefs which were presently held by the more dogmatic individuals. The result may also have occurred if the closed-minded subjects had <u>a priori</u> considered these mediated (mass media communication) channels as an accepted authority for this type of information.

Although not concerned with dogmatism, diffusion studies conducted by Marsh and Coleman (1955a), Fliegel (1956), Copp (1956),

²²Howard J. Ehrlick, "Dogmatism and Learning," <u>Journal of Abnor-</u> mal and <u>Social Psychology</u>, January, 1961, 69:148-149.

²³Verling C. Troldahl, <u>The Communication of Horticulture Infor-</u> <u>mation and Influence in a Suburban Community</u>, Communication Research Center Report No. 10, Boston University, Boston, Mass., March, 1963.

Emery and Oeser (1958), and Coughenour (1960b) suggested that innovators and early adopters expose themselves to more communication channels than later adopters.²⁴ Bell similarly found that the innovators for colored television sets, stereophonic equipment, dishwashers, and air conditioners had substantial exposure to communication channels.²⁵ King, in his study of fashion adoption, also reported that early buyers had moderately higher exposure to mass communication channels, and higher exposure to information from outside the immediate social environment.²⁶ Additional evidence of the positive association between time of adoption and media exposure was presented by Gedalecia in a study involving all media.²⁷

The findings reported by these researchers indicate that those people having the most exposure to the media are the most likely to

²⁵William E. Bell, "Consumer Innovators: A Unique Market for Newness," Stephen A. Greyser (ed.) <u>Toward Scientific Marketing</u>, Proceedings of the Winter Conference of the American Marketing Association, Boston, Mass., December 27-28, 1963, p. 93.

²⁶Charles W. King, "Communicating with the Innovator in the Fasion Adoption Process," Peter D. Bennett (ed.) <u>Marketing and Eco-</u><u>nomic Development</u>, Proceedings of the 1965 Fall Conference, American Marketing Association, Washington, September 1-3, 1965, pp. 433-434.

²⁴C. Paul Marsh and A. Lee Coleman, "Differential Communication Among Farmers in a Kentucky County," <u>Rural Sociology</u> 20:93-101, Frederic C. Fliegel, "A Multiple Correlation Analysis of Factors Associated with Adoption of Farm Practices," <u>Rural Sociology</u>, 21:284-292, James H. Copp, <u>Personal and Social Factors Associated with the Adoption of Recommended Farm Practices Among Cattlemen, Kansas Agricultural Experiment Station Technical Bulletin 83, 1956, F. E. Emery and O. A. Oeser, <u>Information, Decision, and Action: A Study of the Psychological Determinants of Changes in Farming Techniques</u>, Cambridge University Press, New York, 1958, and C. Milton Coughenour, "The Functioning of Farmers' Characteristics in Relation to Contact with Media and Practice Adoption," <u>Rural Sociology</u>, 25:183-279.</u>

²⁷Ben Gedalecia, "The Communicators: An All-Media Study," 3rd Annual Conference Report, Advertising Research Foundation, New York, November 14, 1957.



ł

accept new ideas and adopt new products. Consequently, it is felt the low dogmatics, who according to the theory are more open to new ideas, will expose themselves more to mass media channels than their high dogmatic counterparts.

Innovativeness

In the present study, <u>innovativeness</u> is defined as a conceptual variable which indicates the time when a given person initially adopts a new product relative to other individuals in the same social system. This variable has been considered as (1) the acceptance of new ideas or practices, 28 (2) a general behavioral disposition, 29 (3) a kind of social action, 30 and (4) a tendency to adopt new ideas and practices. 31

Innovativeness has been of continuing interest to diffusion researchers. The reason for this unique interest is because this variable is directly concerned with the overt behavioral commitment of adoption or rejection of the new idea, which in effect is the culmination of the individual's adoption process.

GH 3: LOW DOGMATICS ARE MORE INNOVATIVE THAN HIGH DOGMATICS.

A content analysis of past diffusion research indicated more than

²⁸Everett M. Rogers, <u>A</u> <u>Conceptual</u> <u>Variable</u> <u>Analysis</u> <u>of</u> <u>Techno-</u> <u>logical</u> <u>Change</u>, Ph.D. Thesis, Iowa State University, 1959.

²⁹J. H. Copp, <u>Personal and Social Factors Associated With Adop-</u> <u>tion of Recommended Farm Practices Among Cattlemen</u>, Kansas Agricultural Experiment Station, Bulletin No. 83, 1956.

³⁰Frederick C. Fliegel, <u>A Multiple Correlational Analysis of</u> <u>Factors Associated With Adoption of Farm Practices</u>, Ph.D. Thesis, University of Wisconsin, 1955.

³¹Paul J. Deutschmann and Orlando Fals Borda, <u>Communication and</u> <u>Adoption Patterns in An Andean Village</u>, P.I.I.P., San Jose, Costa Rica, 1962.

2,486 research findings relating other (independent) variables to innovativeness.³² The findings of the studies relating social and socialpsychological variables to innovativeness were presented, respectively, in Table 2 and Table 3. As these tables indicate, there are many discrepancies in the findings, and this is especially true with regard to the social correlates. The conflicting evidence most likely occurred because the innovations being investigated were deliberately directed toward specific market targets, i.e., young people or welleducated people or people with above average incomes. On the other hand, the analyses which included attitudinal concepts generally were concerned with the attributes of the individual, and, therefore, the findings are not necessarily so limited by the nature of the innovation.

A review of several attitudinal diffusion studies indicated that innovative farm operators possessed the following socio-psychological characteristics:³³

- 1. They possessed more technical knowledge of agriculture.
- They tended to act more rationally (factually) in adopting innovations.
- 3. They had a higher ability to deal with mental abstractions.
- 4. They tended to view their work as a means to an end rather than as an end in itself.

Only five studies, however, directly dealt with the relationship between dogmatism and innovativeness. One such study

³²Diffusion Documents Center, <u>op. ci</u>t.

³³Everett M. Rogers, <u>Diffusion of Innovations</u>, <u>op</u>. <u>cit</u>., pp. 177-178.

was conducted by Rogers and Harp.³⁴ In their analysis of the personality characteristics of 23 Iowa farm operators, they found that the early adopters scored lower on the dogmatism scale than the less innovative farmers. "The correlation with adoption was minus .15, which is in the expected direction but not significant . . . the exploratory nature of this study and the small sample make it necessary that this finding be regarded as tentative."³⁵

In assessing the communication of horticultural information among Boston suburbanites, Troldahl sought to determine the effect that channel exposure had on belief change.³⁶ The evidence somewhat unexpectedly indicated that exposure induced belief changes toward the recommended horticultural practices among closed-minded individuals but not among the low dogmatics included in the sample. Although the findings appeared to contradict the espoused theoretic position, Troldahl suggested that the effects may have been in accord with another part of Rokeach's theory which implied that under certain conditions, i.e., non-rational decision making, closed-minded persons are more susceptible to belief changes than less dogmatic individuals. Because of the methodology which was utilized, it was not possible to determine if this actually were the case.

³⁴Everett M. Rogers and John Harp, "Personality Correlates of the Adoption of Technological Practices," Paper presented to the Midwest Sociological Society, Des Moines, Iowa, April 5, 1967.

³⁵Everett M. Rogers, "Personality Correlates of the Adoption of Technological Practices," <u>Rural</u> <u>Sociology</u>, 22:267-268.

³⁶Verling C. Troldahl, <u>The Communication of Horticultural Infor</u>-<u>mation and Influence in a Suburban Community</u>, <u>op</u>. <u>cit</u>.



Jamias, studying the adoptive behavior of 147 Michigan dairy farmers, tested the hypothesis that highly dogmatic farm operators would be less innovative than their less dogmatic counterparts.³⁷ General innovativeness scores and the subject's dogmatism scores were negatively related. The relationship was statistically significant.

The remaining studies are in the education field. Childs investigated the relationship between the belief systems of administrators and teachers in innovative and non-innovative school districts. With regard to dogmatism and innovativeness, he found a negative relationship and stated: "The data showed more than a slight degree of association between innovation and the number of individuals having open belief systems."³⁸ A more definitive statement was precluded because of (1) the size of the sample and (2) the methodology employed.

Hudspeth analyzed the effects of dogmatism on attitudes toward mediated instruction among university faculty.³⁹ He found a significant correlation between open-mindedness and attitudes toward such innovations, but the data did not statistically support the hypothesis that current users of mediated instruction were more open-minded than similar teachers not using these techniques. In a discussion of the findings, Hudspeth suggested that the presence of uncontrolled variables may have masked the true relationship.

³⁹DeLayne R. Hudspeth, <u>A Study of Belief Systems and Acceptance</u> of <u>New Educational Media With Users and Non-Users of Audiovisual</u> <u>Graphics</u>, Unpublished Ph.D. Thesis, College of Education, Michigan State University, East Lansing, Michigan, 1966.

³⁷Juan F. Jamias, <u>op</u>. <u>cit.</u>, p. 78.

³⁸John W. Childs, <u>A Study of the Belief Systems of Adminis-</u> <u>trators and Teachers in Innovative and Non-Innovative School Dis-</u> <u>tricts</u>, Unpublished Ph.D. Thesis, College of Education, Michigan State University, East Lansing, Michigan, 1965, p. 50.

The basic assumptions in Rokeach's theory suggested that low dogmatics utilized both more sources and more channels for obtaining information than high dogmatics. Therefore, the open-minded person is more likely to be among the first to be aware of the innovation. This in itself suggests that he might be among the first to adopt. Also, the low dogmatic, being less dependent upon authority, may be more inclined to act on his own initiative. On the other hand, the closedminded person, exposed to a narrower range of communications, would be more inclined to take a wait-and-see attitude and postpone his adoption until the external authority has made a commitment regarding the innovation.

Product Loyalty

<u>Product Loyalty</u> is the degree to which consumers repeatedly purchase a given product or service.

Because the goal of most past diffusion research, such as that conducted by rural sociologists, was to obtain adoption, very little attention was given to post-adoptive behavior. In addition to gaining initial adoption, the great majority of consumer innovations depend upon repeat purchase for their ultimate success. Obviously, the frequency of purchase is dependent upon the product's life expectancy. For example, the average life of a box of breakfast cereal is about one week, whereas the average owner of a new automobile replaces it about once every three years. In either case, the marketer will seek to cultivate a core market composed of loyal customers who will habitually purchase the innovation, its replacement, or another substitute product which is marketed by his company.

GH 4: HIGH DOGMATICS EXHIBIT GREATER LOYALTY TOWARD PRODUCTS THAN LOW DOGMATICS.

An analysis of the marketing literature provides an overview of this important, but little-studied area of product loyalty. Pessemier explained that product loyalty, like any other aspect of buyer behavior, is composed of many interacting factors.⁴⁰ More specifically, the product's price, promotional policies, and the availability of substitutes all have an effect on the individual's purchase decisions subsequent to the initial adoption.

In an empirical study assessing loyalty to cake mixes, Draper and Nolin found brand switching to be more prevalent among new customers.⁴¹ Similarly Lipstein reported that individuals rarely changed from one core group of products to another.⁴² More often, he found, consumers entered a transition stage where many substitute products were sampled. Some individuals, he observed, remain "switchers" for extended periods of time, whereas, others may either become loyal to one substitute or return to the original brand. He additionally found that "switchers" were the most likely to try the newest brands.

Cunningham reported that there was little carry-over of brand

⁴⁰Edgar A. Pessemier, "A New Way to Determine Buying Decisions," Journal of Marketing, vol. 24, no. 2, October, 1959, pp. 41-46.

⁴¹Jane E. Draper and Larry H. Nolin, "A Markov Chain Analysis of Brand Preferences," <u>Journal of Advertising Research</u>, vol. 4, no. 3, September, 1964, pp. 33-39.

⁴²Benjamin Lipstein, "The Dynamics of Brand Loyalty and Brand Switching," Proceedings, The Annual Conference of the Advertising Research Foundation, New York, September, 1959, pp. 101-108.

loyalty across products. "Those who are highly loyal to a brand of one product may have very little loyalty to a brand of another product."⁴³ Tucker, on the other hand, perceived that some customers (the reason was not given) were more prone to loyalty than others.⁴⁴

Rationale for the present hypothesis is an extension of the rationale which supported the hypothesis concerning innovativeness. Both high dogmatic and low dogmatic individuals are probably included in core markets; however, it would seem that there would be a preponderance of the former. Open-minded persons according to belief system theory would continually expose themselves to new product ideas and not feel compelled to "stick" with a product or brand just because their peers or other individuals either recommend or use the product themselves.

For him, the open-minded person, the power of authority is still there, but depends upon the authority's cognitive correctness, accuracy, and consistency with other information he has about the world. Authority that gives information in conflict with the information he possesses will be judged unreliable and will therefore be replaced by more reliable authority.⁴⁵

Highly dogmatic individuals, on the other hand, having once adopted a product are more likely to become loyal customers provided the authority they identify with has not recommended a change. "In the closed system, the power of authority does not depend on cognitive

⁴⁵Milton Rokeach, <u>The Open and Closed Mind</u>, <u>op. cit.</u>, p. 63.

⁴³Ross M. Cunningham, "Brand Loyalty-What, Where, How Much?" <u>Harvard Business Review</u>, vol. 34, no. 1, January-February, 1956, pp. 116-128.

⁴⁴W. T. Tucker, "The Development of Brand Loyalty," <u>Journal of</u> <u>Marketing Research</u>, vol. 1, no. 3, August, 1964, pp. 32-35.

correctness, but on the authority to mete out reward and punishment. Given a variety of information stemming from an external source, the relatively closed person is forced to accept or reject all in a 'packaged deal.'"⁴⁶

The present hypothesis can be additionally supported with certain aspects of Festinger's theory of cognitive dissonance.⁴⁷ Because the decision to purchase an automobile involves choice and compromise, the results according to Festinger may create post-decision dissonance in the mind of the buyer. Ehrlich <u>et al</u> reported that new car buyers restored consonance by reading advertisements of their own automobile more often than of other types of cars which they had or had not considered as alternatives.⁴⁸

Five laboratory studies considered the relationship existing between dogmatism and tolerance for cognitive inconsistency. Foulkes and Foulkes reported that high dogmatic persons have less tolerance for trait inconsistency than less dogmatic persons.⁴⁹ Kleck and Wheaton found that high dogmatic individuals showed less tolerance in situations where they were exposed to opinion-consistent and opinion-inconsistent

⁴⁶Milton Rokeach, <u>The Open and Closed Mind</u>, <u>op</u>. <u>cit</u>., pp. 62-63.

⁴⁷Leon Festinger, <u>A</u> <u>Theory of Cognitive</u> <u>Dissonance</u>, Row, Peterson, & Co., Evanston, Illinois, 1957.

⁴⁸D. Ehrlich, I. Guttman, P. Schonback, and J. Mills, "Postdecision Exposure to Relevant Information," <u>Journal of Abnormal and</u> <u>Social Psychology</u>, vol. 54, 1957, pp. 98-102.

49 D. Foulkes and S. H. Foulkes, "Self-Concept, Dogmatism, and Tolerance of Trait Inconsistency," <u>Journal of Personality and Social</u> <u>Psychology</u>, 2, 1965, pp. 104-111.

intor
inc
sha
for
20:
at
۵٤
cc
-
0
P
· · · · · · · · · · · · · · · · · · ·

information.⁵⁰ Hunt and Miller reported that closed-minded persons demonstrated significant attitude change in the direction of the discrepant position when confronted with belief-discrepant messages and, therefore, suggest that closed-minded persons have less tolerance for inconsistency than open-minded persons.⁵¹ On the other hand, the results of studies conducted by Wrenn⁵² and by Fillenbaum⁵³ did not show a relationship between dogmatism and tolerance for inconsistency.

Provided there is a relationship between dogmatism and tolerance for inconsistency, it is reasonable to believe that high dogmatics who possess a narrower cognitive structure, will continue to selectively attend to Mustang advertisements. Therefore, they may be more inclined again to buy a Mustang.

Opinion Leadership

Prior to 1940, the mass media were considered to be a primary communication influence on human behavior. The Voting Study by

⁵²R. L. Wrenn, <u>The Resolution of Cognitive Dissonance in Open</u> <u>and Closed Belief Systems</u>, unpublished Ph.D. dissertation, Ohio University, Athens, Ohio, 1962.

53 S. Fillenbaum, "Dogmatism and Individual Differences in Reduction of Dissonance," <u>Psychological</u> <u>Reports</u>, 14, 1964, pp. 47-50.

⁵⁰R. E. Kleck and J. Wheaton, "Dogmatism and Responses to Opinion Consistent and Opinion Inconsistent Information," <u>Journal of</u> <u>Personality and Social Psychology</u>, 2, 1967, pp. 249-252.

⁵¹ Martin F. Hunt, Jr. and Gerald R. Miller, "Open- and Closed-Mindedness, Belief-Discrepant Communication Behavior, and Tolerance for Cognitive Inconsistency," Paper presented at the convention of The Speech Association of America, New York, 1965.

Lazarsfeld, Berelson, and Gaudet, however, suggested that interpersonal communication exerted a higher degree of influence on voting behavior.⁵⁴ Their seminal study prompted researchers from other disciplines to investigate the role people played in the communication process.⁵⁵ In each of these studies, the investigators found certain groups of people, commonly referred to as opinion leaders, who tended to monitor the messages emanating from the media; and frequently found that they "informally" exerted influence on other members of the social system.

In the present study, <u>opinion leaders</u> are defined as individuals who inform and/or influence the opinions and behaviors of other people through interpersonal contact. This is similar to Rogers' definition that opinion leaders are "those individuals in a social system who consistently influence others in a desired direction."⁵⁶

GH 5: LOW DOGMATICS EXHIBIT MORE OPINION LEADERSHIP THAN HIGH DOGMATICS.

Although not concerned with dogmatism, several diffusion studies led Rogers to generalize that "earlier adopters have more opinion leadership than later adopters."⁵⁷ Several marketing studies further

⁵⁷Everett M. Rogers, <u>Diffusion of Innovations</u>, <u>op</u>. <u>cit</u>., p. 313.

⁵⁴Paul F. Lazarsfeld, Bernard Berelson, and Hazel Gaudet, <u>The</u> <u>People's Choice</u>, (second edition), Columbia University Press, New York, 1948.

⁵⁵Elihu Katz, "The Two-Step Flow of Communication: An Up-todate Report on an Hypothesis," <u>Public Opinion Quarterly</u>, spring, 1958, pp. 61-78.

⁵⁶Everett M. Rogers with F. Floyd Shoemaker, <u>Diffusion of</u> <u>Innovations: A Cross-Cultural and Communication Approach</u>, Free Press of Glencoe, New York, 1967, in process.

revealed that early adopters frequently behave as opinion leaders and tell others about their new acquisition. Bell stated that:

Over 65 percent of the innovators were asked for opinions about their products, almost half of the innovators were asked by friends and neighbors to see the innovistic product. Of the innovators who gave their opinions or demonstrated their product, 68 percent asserted that their questioning friends then purchased the innovation.⁵⁸

King reported that early buyers had higher involvement in social communication.⁵⁹ Mueller found that more than fifty percent of the purchasers of new household appliances consulted with others who had previously purchased the innovation.⁶⁰

Only one analysis directly considered the relationship between dogmatism and opinion leadership. Troldahl, investigating the diffusion of horticultural information, found that low dogmatics acted as opinion leaders 62 percent of the time, and high dogmatics served in this capacity 46 percent of the time.⁶¹

According to Rokeach's theory, the open-minded individual is / more likely to be an opinion leader for two reasons. In the first place, these individuals will have a greater fund of knowledge about the innovation, and second, they may express their opinions on various

⁵⁸William E. Bell, "Consumer Innovators; A Unique Market for Newness," <u>op. cit.</u>, p. 93.

⁵⁹ Charles W. King, "Communicating With the Innovator in the Fashion Adoption Process," <u>op</u>. <u>cit</u>., pp. 93-94.

⁶⁰Eva Mueller, "The Desire for Innovations in Household Goods," Lincoln H. Clark (ed.) <u>Consumer Behavior</u>, Harper & Brothers, New York, 1958, pp. 13-37.

⁶¹Verling C. Troldahl, <u>Mediated Communication and Personal</u> <u>Influence: A Field Experiment</u>, Ph.D. Thesis, University of Minnesota, 1963, p. 220.

ideas with less fear of being reprimanded by external authority. It is also felt that fewer high dogmatic individuals would have adopted the innovation and, therefore, would have less opportunity to pass along information than low dogmatic persons.⁶²

Homophily

The concept of homophily was introduced to the literature by Merton.⁶³ For him the term summarized the phrase, "a tendency for friendship to form between those who are alike in some respect." He also developed the notion of value homophily, which he defined as the observed tendencies toward correspondence in the values of friends.

An investigation of the little-studied concept of homophily appears to be a logical extension of the analysis of opinion leadership. In addition to the identification of opinion leaders, a complete analysis of homophily would include an assessment of the relationship existing between the two interacting parties (opinion giver and opinion receiver). Because none of the individuals who might be mentioned by the respondents are to be interviewed in the present investigation, a complete analysis of both parties in the dyad is not possible. Nevertheless, some information about homophily or the characteristics mutually held by the opinion leader and his opposite will be obtained.*

[&]quot;In the present investigation the respondents are asked to state what percent of the people they talked with about the Mustang live in similar neighborhoods, have similar occupations, and have similar educational backgrounds.

⁶²Juan F. Jamias, <u>op. cit</u>.

⁶³Paul F. Lazarsfeld and Robert K. Merton, "Friendship and Social Process: A Substantive and Methodological Analysis," Berger, Abel, and Page (eds.) <u>Freedom and Control in Modern Society</u>, Octogon Books, Inc., New York, 1964, pp. 18-66.

perc dua. nit: ten C0 5 C03 th pe si t a t

S

In the present research, <u>homophily</u> is defined as the degree of perceived similarity in selected characteristics between two individuals who interact. This definition closely parallels Merton's definition which was presented in the preceding paragraph.

GH 6: HIGH DOGMATICS EXHIBIT GREATER HOMOPHILY THAN LOW DOGMATICS.

Several studies cited by Rogers⁶⁴ indicate that opinion leaders tend to differ from their followers with respect to channel exposure, cosmopoliteness, and innovativeness. But the findings are not entirely consistent. The previously cited Voting Study, for example, reported that opinion leaders were found in all social levels and that interpersonal communication most frequently occurred between people of similar age, occupation, and political opinion.⁶⁵

Additional evidence in support of a horizontal flow of information was presented in the Decatur Study, which indicated that in the areas of food product purchasing, movie-going, and fashions the leaders talked most of all to people like themselves.⁶⁶ Warland, in his analysis of informal communication behavior among Iowa farmers, similarly found that informal communication about an innovation most frequently

⁶⁴Everett M. Rogers, <u>Diffusion of Innovations</u>, <u>op</u>. <u>cit</u>., pp. 237-247.

⁶⁵Paul F. Lazarsfeld, Bernard Berelson, and Hazel Gaudet, <u>The</u> <u>People's Choice</u>, <u>op</u>. <u>cit</u>.

⁶⁶Public Affairs leadership was similarily analyzed. Accordingly, Katz and Lazarsfeld stated: "The typical public affairs leader, then, is quite different from opinion leaders in the arenas of marketing and fashion . . . The flow of influence, too, seems to move more often from higher status to lower status people than vice versa." Elihu Katz and Paul Lazarsfeld, <u>Personal Influence</u>, <u>op. cit.</u>, part two and Pp. 294-295. occurred among individuals who possessed similar attitudes, similar levels of competence, and similar socio-economic status.

Troldahl and Van Dam, analyzing face-to-face communication of major news topics, used the dyadic relationship as the unit of analysis.⁶⁸ They found that the flow between co-workers was the most active interpersonal channel and that the two interacting parties possessed similar educational backgrounds.

Two socio-psychological studies indicated that individuals interact with people who are most like themselves. Festinger <u>et al</u> sought to uncover friendship patterns in a newly developed housing center.⁶⁹ An analysis of the socio-metric data suggested a positive relationship between interpersonal communication and uniformity of attitudes. Precker studied the entire population of Bard College to determine which peers students would select for friends and which faculty they would choose for advisors. In both instances, he found that students selected individuals who had expressed values similar to their own.

Albeit the social and demographic similarities between leaders

⁶⁷Rex H. Warland, <u>Personal Influence: The Degree of Similarity</u> of <u>Those Who</u> <u>Interact</u>, Unpublished M. S. Thesis, Iowa State University, Ames, 1963.

⁶⁸Verling C. Troldahl and Robert Van Dam, "Face-to-face Communication About Major Topics in the News," <u>Public Opinion Quarterly</u>, Vol. 29, Winter, 1955-1956, pp. 626-634.

⁶⁹Leon Festinger, Stanley Schacter, and Kurt Back, <u>Social Pres</u>-<u>sures in Informal Groups: A Study of Human Factors in Housing</u>, Harper and Row, New York, 1950.

⁷⁰Joseph A. Precker, "Similarity of Valuings as a Factor in Selection of Peers and Near Authority Figures," <u>Journal of Abnormal and</u> <u>Social Psychology</u>, 1952, 47:406-414.

and followers were apparent, Katz⁷¹ concluded that the influential possesses:

- 1. The personification of certain values (who one is)
- 2. <u>Competence</u> (what one knows)
- 3. <u>Strategic social location</u> (whom one knows)

Evidence tending to support Katz's contention was presented by Lionberger. In his investigation of 279 farm operators in a Missouri community, he found that opinion leaders were perceived as more competent than those who accepted their advice.⁷² In a subsequent analysis, Lionberger analyzed the relationship between prestige and interpersonal communication.⁷³ He reported that information-seekers generally tended to seek out more prestigious sources, especially in situations involving opinion leaders at local levels. In conclusion, he implied that technical proficiency overcame communication barriers which existed because of perceived differences in prestige.

Chou, studying interpersonal communication in three Columbian villages, reported (1) that innovativeness, mass media exposure, and social status were relatively effective predictors of friendship dyadic interactions, and (2) that mass media exposure and social participation

⁷¹Elihu Katz, "Two Step Flow of Communication: An Up-to-Date Report on an Hypothesis," <u>op. cit</u>.

⁷²Herbert F. Lionberger, "Some Characteristics of Farm Operators Sought as Sources of Farm Innovation in a Missouri Community," <u>Rural</u> <u>Sociology</u>, 1953, 18:327-338.

⁷³Herbert F. Lionberger, "Community Prestige and the Choice of Sources of Farm Information," <u>Public Opinion Quarterly</u>, vol. 1, Spring, 1959, pp. 110-118.

were determinants of homophily in information-seeking behavior.⁷⁴ She reported further, however, that cosmopoliteness, age, and social status were not important determinants of homophily in information-seeking dyads. This latter finding, she implied, may have occurred because of the study's design and also because of the unique characteristics of the social systems.

No previous studies have investigated the relationship between dogmatism and homophily.

According to Rokeach's theory, dogmatism governs the acceptance or rejection of people in the same way that it effects ideas.⁷⁵ Therefore, several reasons explain why low dogmatics would exhibit less homophily than high dogmatics. First, open-minded individuals would feel more "free" to communicate with all types of people. In other words, they would not need the approval of an external authority to engage in conversation. Second, low dogmatics would evaluate new ideas independently of other ideas and thus have little reason to care about other people's opinions. Third, open-minded persons would realize that most "really new" ideas come from people having dissimilar backgrounds. In such situations, a reciprocal exchange of information may occur.

Conversely, individuals high in dogmatism would be more prone to seek others similar to themselves as a means of gaining support for

⁷⁵Milton Rokeach, <u>The Open and Closed Mind</u>, <u>op</u>. <u>cit</u>. ch. 4.

⁷⁴Teresa M. Chou, <u>Homophily in Interaction Patterns in the Diffu</u>-<u>sion of Innovations in Columbian Villages</u>, unpublished M. A. thesis, Department of Communication, Michigan State University, East Lansing, Michigan, 1966.

i

their newly acquired beliefs about an innovation. This point of view is derived from Festinger's theory of cognitive dissonance, which was previously mentioned. Finally, the high dogmatics, whether influencers or influencees have a tendency for cognitive narrowing and thus would restrict conversations to people holding beliefs similar to their own. It is reasonable to expect, therefore, that high dogmatics will exhibit a higher degree of homophily than low dogmatics.

Control Variables

Past research suggests that there are certain variables which are expected to have an effect on the present hypotheses. Their effect should be controlled. In the present investigation, these variables are (1) sex, (2) age, (3) education, (4) occupation, (5) occupational mobility, (6) occupational prestige mobility, (7) geographical mobility, and (8) social status. Although these variables are expected to be related to communicative and adoptive behavior, they are not of theoretical interest in the present study.

Chapter III

METHODOLOGY

Operationalization

Empirical Hypotheses

The six general hypotheses and their accompanying empirical

hypotheses were enumerated as follows:

- GH 1: HIGH DOGMATICS UTILIZE FEWER COMMUNICATION SOURCES THAN LOW DOGMATICS.
 - EH 1a: HIGH DOGMATICS UTILIZE FEWER COMMUNICATION SOURCES THAN LOW DOGMATICS.
- GH 2: LOW DOGMATICS EXPOSE THEMSELVES MORE TO MASS MEDIA COMMUNICATION CHANNELS THAN HIGH DOGMATICS.
 - EH 2a: LOW DOGMATICS HAVE A GREATER NUMBER OF HOURS OF EXPOSURE TO MASS COMMUNICATION CHANNELS THAN HIGH DOGMATICS.
 - EH 2b: LOW DOGMATICS EXPOSE THEMSELVES TO MORE MASS COMMUNICATION CHANNELS THAN HIGH DOGMATICS.
 - EH 2c: THOSE LOW IN DOGMATISM SCORES EXPOSE THEMSELVES TO MORE MUSTANG COMMERCIALS THAN THOSE HIGH IN DOGMATISM SCORES.
- GH 3: LOW DOGMATICS ARE MORE INNOVATIVE THAN HIGH DOGMATICS.
 - EH 3a: LOW DOGMATICS ADOPT THE INNOVATION RELATIVELY EARLIER IN TIME THAN HIGH DOGMATICS.
 - EH 3b: LOW DOGMATICS PERCEIVE THEMSELVES AS MORE INNOVA-TIVE IN BEING THE FIRST IN THEIR IMMEDIATE NEIGH-BORHOOD TO ADOPT AN INNOVATION THAN HIGH DOGMATICS.
 - EH 3c: LOW DOGMATICS PERCEIVE THEMSELVES AS MORE INNOVA-TIVE IN BEING FIRST AMONG THEIR CIRCLE OF FRIENDS TO ADOPT AN INNOVATION THAN HIGH DOGMATICS.
- GH 4: HIGH DOGMATICS EXHIBIT GREATER LOYALTY TOWARD PRODUCTS THAN LOW DOGMATICS.
 - EH 4a: HIGH DOGMATICS TRADED-IN FORD PRODUCTS MORE OFTEN THAN LOW DOGMATICS.

- EH 4b: OF THOSE OWNING A SECOND CAR, HIGH DOGMATICS OWN A SECOND FORD PRODUCT MORE OFTEN THAN LOW DOGMATICS.
- EH 4c: HIGH DOGMATICS REPLACE THEIR ORIGINAL MUSTANG WITH A NEW MUSTANG MORE OFTEN THAN LOW DOGMATICS.
- EH 4d: HIGH DOGMATICS REPLACE THEIR ORIGINAL MUSTANG WITH A SIMILAR TYPE OF AUTOMOBILE MORE OFTEN THAN LOW DOGMATICS.
- EH 4e: HIGH DOGMATICS STATE A PREFERENCE FOR REPLACING THEIR ORIGINAL MUSTANG WITH A NEW MUSTANG MORE OFTEN THAN LOW DOGMATICS.
- EH 4f: HIGH DOGMATICS STATE A PREFERENCE FOR REPLACING THEIR ORIGINAL MUSTANG WITH A SIMILAR TYPE OF AUTOMOBILE MORE OFTEN THAN LOW DOGMATICS.
- GH 5: LOW DOGMATICS EXHIBIT MORE OPINION LEADERSHIP THAN HIGH DOGMATICS.
 - EH 5a: LOW DOGMATICS EXPRESS THEIR OPINIONS ABOUT THEIR MUSTANG MORE FREQUENTLY THAN HIGH DOGMATICS.
 - EH 55: LOW DOGMATICS INITIATE DISCUSSIONS ABOUT THEIR MUSTANG MORE OFTEN THAN HIGH DOGMATICS.
 - EH 5c: LOW DOGMATICS ALLOW MORE PEOPLE TO TEST DRIVE THEIR MUSTANG THAN HIGH DOGMATICS.
 - EH 5d: LOW DOGMATICS PERCEIVE THEY HAVE INFLUENCED MORE RECEIVERS THAN HIGH DOGMATICS.
- GH 6: HIGH DOGMATICS EXHIBIT GREATER HOMOPHILY THAN LOW DOGMATICS.
 - EH 6a: HIGH DOGMATICS INTERACT WITH A GREATER PERCENTAGE OF PEOPLE WHO ARE PERCEIVED TO RESIDE IN SIMILAR NEIGHBORHOODS THAN LOW DOGMATICS.
 - EH 6b: HIGH DOGMATICS INTERACT WITH A GREATER PERCENTAGE OF PEOPLE WHO ARE PERCEIVED TO HAVE SIMILAR OCCU-PATIONS THAN LOW DOGMATICS.
 - EH 6c: HIGH DOGMATICS INTERACT WITH A GREATER PERCENTAGE OF PEOPLE WHO ARE PERCEIVED TO HAVE SIMILAR EDU-CATIONAL BACKGROUNDS THAN LOW DOGMATICS.
 - EH 6d: HIGH DOGMATICS INTERACT WITH A GREATER PERCENTAGE OF PEOPLE WHO ARE PERCEIVED AS RELUCTANT TO INNO-VATE THAN LOW DOGMATICS.

- EH 6e: HIGH DOGMATICS INTERACT WITH A GREATER PERCENTAGE OF PEOPLE WHO ARE PERCEIVED TO HAVE HAD A POSI-TIVE OPINION ABOUT THE MUSTANG THAN LOW DOGMATICS.
- EH 6f: HIGH DOGMATICS INTERACT WITH GREATER NUMBER OF PEOPLE WHO PREVIOUSLY ADOPTED THE MUSTANG THAN LOW DOGMATICS.

Measures

The independent variable in all six general hypotheses was dogmatism. It was defined as a personality variable which governs the individual's receptivity or lack of receptivity to new ideas and further includes how a person perceives, evaluates, acts, and reacts to such ideas. Dogmatism was measured by the respondent's answers to the twenty item dogmatism scale¹ which indexed the scores from 20 to 140. This scale is a modification of the forty item scale constructed by Rokeach.²

The dependent variable in GH 1 was the utilization of a communication source which was defined as exposure to and perception of any of several messages emanating from a given source over time. This variable was measured by the respondent's answers to the following questions: "Thinking back, could you tell me where or from whom you first became aware of the <u>existence</u> of the Mustang?" "Again thinking back, could you tell me where or from whom you first became <u>interested</u> in the Mustang? --Probe to determine similarity between the answer given here and the answer given to the preceding question," and "Which source of information do you believe was the most <u>influential</u> in your purchase decision? -- Probe to determine similarity between the answer given here

²Milton Rokeach, <u>The Open and Closed Mind</u>, <u>op</u>. <u>cit</u>., ch. 4.

¹Verling C. Troldahl and Frederic A. Powell, "A Short-Form Dogmatism Scale For Use in Field Studies," <u>Social Forces</u>, vol 44, no. 2, December 1965.

and the answers given to the two preceding questions." The answers given to these three questions were recorded in one of three ways: (1) commercial source, e.g., advertising, contact with dealer and/or salesman; (2) non-commercial source, e.g., immediate family, other relatives, co-workers, friends and/or neighbors, publicity;..and (3) self, e.g., saw on street.* The sources which were designated by the subject were then compared. If three different sources were mentioned, a zero score was recorded. A one was given when the same source was mentioned on two occasions. A two was awarded if the same source was given as the answer to all three questions.

The dependent variable in GH 2 was mass media communication channels which were defined as vehicles carrying messages to the receivers or potential adopters. The dependent variables for the accompanying empirical hypotheses were (a) hours of exposure to the mass media, (b) number of mass media communication channels seen or heard, and (c) number of Mustang commercials recalled.

Hours of exposure were ascertained by asking the respondent to state how many hours he was exposed to (1) newspapers, (2) magazines, (3) radio, and (4) television during an average week. One point was given for each hour of exposure.

The number of mass media communication channels was measured by asking the subject to state the different (1) newspapers, (2) magazines, (3) radio stations, and (4) television channels seen or heard during / the average week. One point was awarded for each channel mentioned.

[&]quot;In certain instances the subjects mentioned advertising which is a <u>message</u> and not a <u>source</u>. Nevertheless, the message's sponsor, i.e., the source, was readily understood.

Mustang commercials were defined as any mediated communication sponsored by the Ford Motor Company and/or its franchised dealers for the purpose of promoting the Mustang automobile. These communications (messages) were either printed in newspapers or magazines or broadcast over radio or television. Advertising recall was determined by asking the respondent to state the number of (1) newspaper advertisements, (2) magazine advertisements, (3) radio commercials, and (4) television commercials seen or heard during the seven days preceding the date of the interview. One point was given for each commercial recalled.

The independent variable in GH 3 was innovativeness which was defined as the time when a given person initially adopts a new product relative to other individuals in the same social system. The dependent variables for the three empirical hypotheses derived from GH 3 were (1) relative time of adoption, (2) perceiving oneself as first in the immediate neighborhood to adopt, and (3) perceiving oneself as first among circle of friends to adopt.

The time of adoption was measured by the subject's answer to the question: "When did you buy your Mustang?" The responses were scored from 1 to 31 depending upon the number of months which had elapsed between the date of the interview and the date of purchase.

Being first in the immediate neighborhood to adopt was operationalized by the question: "Were you the first person in your immediate neighborhood to own a Mustang?" A one was awarded if the person believed he was first, a two was given if he felt he was one of the first, and a zero was given if he was not among the first to adopt.

Being first among one's circle of friends to adopt was measured

by asking: "Were you the first person among your circle of friends to own a Mustang?" The answer was recorded in the same way as the response given to the preceding question.

The dependent variable in GH 4 was product loyalty which was defined as the degree to which consumers repeatedly purchase a given product or service. The dependent variables for the six empirical hypotheses derived from GH 4 were the make of car traded-in, the make of second car, the make and body type of the car replacing the Mustang, and make and body type of purchase intentions.

Trade-ins were determined by the question: "Did you sell or trade in another car at or about the time you bought the Mustang?" If the answer was yes, "What make was it?" If the car was produced by the Ford Motor Company a zero was recorded; a one was given if the car had been produced by any other manufacturer.

The make of a second car was ascertained by asking: "Do you own a second car?" If yes, "What kind is it?" A zero was recorded if the car had been made by the Ford Motor Company and a one was given if the car had been produced by another company.

The make and body type of the replaced car were operationalized by the following questions: "Have you replaced your original Mustang?" If yes, (a) "With what make of car have you replaced it?" A zero was given if the Mustang had been replaced by another Mustang; a one was given if the car had been built by the Ford Motor Company, and a two was awarded if the vehicle had been produced by any other manufacturer. And (b)⁻"Which body type did you buy?" A zero was recorded if the car had been replaced by a Mustang, Cougar, Camaro, Barracuda, Marlin, etc.; a one was given for all other makes.

Purchase intentions were scored by asking (a) "When you replace your Mustang, with what make of car will you replace it?" and (b) "Which body type would you buy?" These questions were scored in exactly the same way as those pertaining to make and type of replaced automobile.

The dependent variable in GH 5 was opinion leadership which was defined as the degree to which individuals inform and/or influence the opinions and behavior of other people through interpersonal contact. The dependent variables for the derived empirical hypotheses were (1) number of times opinions were expressed, (2) percentage of discussions initiated, (3) number of people who have test driven, and (4) number of receivers influenced.

The number of times opinions were expressed was measured by the question: "During the past week, how many times did you talk about your Mustang with the following people: immediate family; other relatives; people you work with; friends and/or neighbors; clerks, dealers, salesmen; all others?" One point was awarded for each conversation recalled by the respondent.

The percentage of discussions initiated was indexed by the question: "With regard to these conversations (you have had about the Mustang), about what percent of the time did you begin them?" Percentage figures were recorded verbatim.

The number of people who had test driven was operationalized by the following questions: (1) "Since you have owned your Mustang, have you allowed anyone other than the members of your family to drive it?" If yes, (2) "How many others have driven it?" One point was given for each different individual.
The number of receivers influenced was measured by asking: (1) "As far as you know, about how many of the people you talked with about the Mustang, who didn't own one at the time, have subsequently bought a Mustang?" One point was awarded for each person mentioned. And (2) "How many of these people, in your opinion, were influenced in their decision either as a result of riding in or driving your Mustang or by talking with you about your car?" One point was given for each person recalled.

The dependent variable in GH 6 was homophily which was defined as the degree of similarity in selected characteristics between two individuals who interact.³ The dependent variables for the accompanying empirical hypotheses were measured according to perceived (1) similar neighborhood, (2) similar occupation, (3) similar educational background, (4) reluctance toward innovativeness, (5) positive opinions about the innovation, and (6) previous adoption.

Perceived similar neighborhood was determined by asking: "Excluding your family, what percent of the people you talked with

³In a 1958 article entitled "Relational Analysis: The Study of Social Organizations with Survey Methods," Coleman described four methods which had been utilized for measuring homophily. The first method, known as contextual analysis related characteristics of the respondent's social context to a characteristic possessed by the individual himself. The second method was referred to as boundaries of homogeneity and was concerned with the reference group which had the greatest saliency for the individual in the situation being analyzed. Pair analysis was the third method. It involved a sociometric analysis of A's choosing B; both parties in the dyad were interviewed. The final method known as partitioning into cliques also involved sociometric mapping. Because of the methodology being used in the present study, none of the methods suggested by Coleman can be used in the present research. See James S. Coleman, "Relational Analysis: The Study of Social Organizations with Survey Methods," Human Organization, vol. 17, no. 4.

about the Mustang live in neighborhoods similar to the one you live in?" The percentage answers given to this and other questions under GH 6 were recorded verbatim.

Perceived similar occupation was operationalized by the question: "Again excluding your family, what percent of the people you talked with about the Mustang have similar occupations or do about the same kind of work as you do?"

Perceived similar education was measured by the question: "Again excluding your family, what percent of the people you talked with about the Mustang spent about the same number of years in school that you did?"

Reluctance to innovate was operationalized by the question: "About what percent of the people you talked with about the Mustang would you say are the kind of people who like to try new and different things?"

Perceived positive opinions were operationalized by the following question: "Since you have owned your Mustang, what percent of the people you talked with about the Mustang, had favorable opinions about the car before they talked with you?"

Perceived adoption was measured in terms of the answer given to the question: "About how many of the people you talked with about the Mustang already owned a Mustang?" One point was given for each person mentioned by the respondent.

The control variables in the present study were (1) sex, (2) age, (3) education, (4) occupation, (5) occupational mobility, (6) occupational prestige mobility, (7) geographical mobility, and (8) social status.

Sex was indexed as male and female.

Age was measured indirectly by asking the subject to state the year in which he graduated from high school or completed his formal education. The responses were recorded in one of fifteen categories which ranged from 00 (1966 or after: 18 or younger) to 14 (before 1901: 84 or older). Each of the thirteen categories between the open-ended extremes were composed of mutually exclusive five-year time periods, e.g., 04 (1946-1950:. 34-38), 05 (1941-1945: 39-43).

Occupation was determined by asking the respondent to state the type of work that he (spouse or parent) does. The answer was then scored on the basis of the North-Hatt occupational rating scale, which ranks various occupations along a continuum ranging from 20 to 100.

Occupational prestige mobility was indexed by the number of points separating the respondent's two most distant occupational ranks as recorded on the North-Hatt scale. If the subject held the same position for five years or longer, a zero score was given.

Geographical mobility was indexed by awarding one point for each change of address and one additional point for each different city

⁴The report of the initial study can be found in Cecil C. North and Paul Hatt, "Jobs and Occupations: A Popular Evaluation." <u>Opinion</u> <u>News</u>, September 1947, pp. 3-13. Since the initial scale rated such a small number of the usual occupations usually recorded, the present study utilizes a list which includes both the original occupations and the interpolations from it. In interpolating the following priority was used: The original North-Hatt values; the Ohio State University interpolations by Leslie Silverman, W. Roy Cook, and A. O. Haller; and the Pennsylvania State University interpolations by Roy Buck and C. H. Brown, and the additions made to the Penn State Scores in 1960 by George Lowe.

in which the subject resided during the past five years.

Social status was a function of (1) education, (2) occupation, and (3) address; points were awarded for each of these components. Points for education ranged from one to nine and were determined by the number of years in school. Similarly, scale points for occupation ranged from one to nine, and were determined on the basis of the North-Hatt scale. For example, scores ranging from 65 to 74 were given a 7, while those ranging from 85 to 94 were given a 9. Address also ranged along a nine point continuum and was based upon the interviewer's rating of both the dwelling and the surrounding neighborhood; (suggested guidelines for address ratings were included on the interview schedule). A summation of the education, occupation, and address scores yielded the total social status score which ranged from a possible low of 3 to a high of 27.

Instrument Development

Pretest

A pretest of twenty Mustang owners residing in the greater Lansing, Michigan, area was conducted in August 1966. The names of registered Mustang owners compiled by the Michigan Automobile Dealers Association were provided by a Lansing automobile dealer. Ingham County registration lists from the months of March 1965, April 1965, January 1966, and April 1966 were used in the pretest.

At the outset, thirty-five people were to be interviewed. This number was reduced to twenty for two reasons. First of all, definite patterns seemed to emerge after the first ten interviews. Second, many of the subjects could not be located for they did not subscribe to telephone services, had moved to another city, or were on vacation.

Three people would not participate in the study. The representativeness of the sample admittedly may be low because registered owners who resided in or near a section of the city where a race riot had recently occurred were deliberately excluded.

The pretest was conducted in the following way. The person whose name appeared on the registration list was contacted by telephone (see Appendix A for the Telephone Instruction Form). Once the principal user of the vehicle was identified, he or she was asked to participate in the study and a time and place for the personal interview was established. Each of the twenty subjects was subsequently interviewed at their place of residence.

Each respondent was asked about seventy-five questions concerning (1) sources of information, (2) media attendance, (3) advertising recall, (4) trade-in and purchase intention information, and (5) information concerning conversations they had had about their automobile. Four versions of a pre-coded interview schedule form were used in the pretest. Each respondent additionally completed a selfadministered short-form dogmatism test.⁵ The average length of time for the interview approximated forty minutes.

Interview Schedule Form

As a result of the pretest, the most suitable of the four interview schedule forms was selected and subsequently reduced to a maximum of fifty-three questions. This reduction was made possible

⁵Verling C. Troldahl and Frederic A. Powell, "A Short-Form Dogmatism Scale For Use in Field Studies," <u>op. cit.</u>

by the elimination of certain questions and the rephrasing of others. Other modifications were occasioned by the differences in setting and by the fact that the Toledo newspapers went on strike three weeks prior to the scheduled data collection period⁶ (see Appendix B for a copy of the Interview Schedule Form). This pre-ceded schedule and the self-administered dogmatism test were usually administered in about twenty-five minutes.

Setting

The empirical hypotheses were tested with data obtained from 150 Mustang owners currently residing in Lucas and Wood Counties in Ohio. This particular setting was selected for two reasons. In the first place, time and cost considerations limited the analysis to this particular locality. The second reason was that these two adjacent counties are located in the interurbian strip which extends from Toledo on the north to Cincinnati on the south.

The development of interurbias,⁷ megalopolises,⁸ and/or

⁶The Toledo newspapers were on strike from October 24, 1966 through March 27, 1967. Because of this unanticipated event, it is reasonable to believe that recall figures for the other mass media channels were inflated as people spent more time with these media during the strike period. Thomas Klein, "The Effect of a Newspaper Strike on Retail Sales and Advertising," Business Research Center, University of Toledo, Toledo, Ohio, in process.

⁷Interurbia: The Changing Face of America, Memo of the J. Walter Thompson Company, reprinted in Lazer and Kelly (eds.) <u>Managerial Marketing: Perspectives and Viewpoints</u>, Richard D. Irwin, Inc., Homewood, Illinois, 1962, p. 92.

⁸Jean Gottman, <u>Megalopolis</u>: <u>the Urbanized Northeastern</u> <u>Seaboard of the United States</u>, The Twentieth Century Fund, 1961.

strip-cities⁹has received considerable attention from marketers, urban economists, and urban sociologists. By definition, interubia com-

Two or more adjacent metropolitan areas with either two cities of 100,000 or more, or one city of 100,000 and three cities of 25,000 or more, plus adjacent counties with less than 25 percent farm population and more than 100 people per square mile. 10

In effect, it is a combination of standard metropolitan areas which have merged with adjacent areas, thus becoming a new type of urban region.¹¹ As it transcends county and state boundaries, interurbia can be considered as a new market phenomenon.

Today, as illustrated in Figure 1, there are fourteen interurbias in the United States. Nearly fifty percent of the nation's population reside in these regions, and more than fifty percent of the country's retail sales are made within its boundaries. By 1975, it is estimated that these metropolitan complexes will include more than sixty percent of the population and account for seventy percent of total retail sales.¹²

10Interurbia: The Changing Face of America, <u>op. cit.</u>, p. 92.
¹¹S. George Walters, Morris L. Sweet, and Max D. Snider,
"When Industry Moves to Interurbia," <u>Sales. Management</u>, February 20,
1959, p. 65.

¹²"Sprawling "Strip-Cities" - They're All Over U.S.," <u>U. S. News & World Report</u>, September 18, 1961.

⁹"Cities as Long as Highways-That's America of the Future," <u>U.S. News & World Report</u>, 25:31, April 5, 1957.

Interurbian Areas in the United States



Interurbia, however, is far more than an ecological expansion. Several articles indicated that individuals residing in these areas tended to possess social and psychological characteristics different from those who have not participated in the post-war migratory movements.¹³ Some of the more relevant social attributes of the interurbian residents included the following:¹⁴

1. They are predominantly between the ages of 25 and 40.

2. They are predominantly members of the middle class.

3. They are primarily employed in salaried positions.

4. They are highly mobile geographically.

The residents also exhibit psychological characteristics such as the following:¹⁵

1. They have a greater expressed desire for achievement.

- 2. They have a greater need to influence, lead, and dominate others.
- 3. They have a greater desire to be noticed.
- 4. They have a greater tolerance for change.

¹⁴Everett M. Rogers, <u>Social Change in Rural Society</u>, <u>op. cit.</u>, pp. 157-159, and "Megalopolis: Tomorrow's Society," <u>Business Week</u>, December 2, 1961, pp. 61-62.

¹⁵Everett M. Rogers, <u>Social Change in Rural Society</u>, <u>op. cit.</u>, pp. 157-159.

¹³Interurbia: The Changing Face of America, <u>op. cit.</u>, p. 98., Everett M. Rogers, <u>Social Change in Rural Society</u>, Appleton, Century, and Crofts, New York, 1960, and John H. Holmes, "Marketing in Megalopolis," term paper submitted in Marketing 857, Department of Marketing and Transportation Administration, Michigan State University, East Lansing, Michigan, Spring, 1963.

It is reasonable to believe that the subjects selected in the present investigation are similar with regard to the attributes mentioned above to Mustang drivers residing in the other interurbian regions scattered across the United States.

Data Collection

Sample Selection

Between April 1964, the month of the Mustang's introduction, and September 1966 about 92,000 new Mustang automobiles were registered in the State of Ohio. Of this number approximately 3,100¹⁶ were registered to private parties residing in Lucas County (population 482,000) and Wood County (population 79,000). Both of these adjacent counties are located in the interurbian strip described previously.

In order to obtain a representative cross-section of these owners, 153 clusters composed of five individual Mustang owners were selected from this two county population on a systematic time ordered basis. The number of subjects contacted in each county approximated the proportionate population of the two counties; the great majority were residents of the city of Toledo and its satellite suburbs.

To be included in the study, the subject had to meet two basic qualifications. First, he had to be the principal operator of the vehicle, and second, he had to make or share in the decision to buy the car. The fact that a person had a vehicle registered in his or her name gave no assurance that this was the person to be interviewed. Being aware of this situation and further recognizing the impossibility of locating all the subjects, 153 systematic ordered clusters of registered Mustang owners were purchased from the R. L. Polk Company.

¹⁶R. L. Polk & Company, Detroit, Michigan.

Each cluster contained the names, addresses, and registration dates for five individuals having a Mustang automobile titled in their name. The skip interval between the clusters was fifteen. The first subject in each of the 153 clusters was assigned the letter A, the second subject B, the third C, the fourth D, and the fifth E. Ideally, all 153 of the persons interviewed would have been from the A classification. Nevertheless, it was possible to talk to any one of five people in a given cluster, A through E, and maintain the time ordered sample. Interview Procedure

The first step in collecting the data involved the identification of the 153 individuals who were both the principal users of the Mustang and also made or shared in the decision to buy the car. This was accomplished by telephoning the party whose name appeared on the sample card and inquiring whether or not they met these two criteria. Once the right person was contacted, the study was briefly explained and the subject was asked to participate. The Telephone Instruction Form is contained in Appendix A. Both the local and long distance calls were made by a former speech and English teacher.

Personal interviews were scheduled between November 19 and December 13, 1966. Twelve Bowling Green State University male undergraduate students were hired and trained to collect the data. The training consisted of a two hour formal session and two practice interviews, one of which was made in the investigator's presence. Each student was equipped with two letters of introduction, other necessary interviewing materials, and a schedule of his interviewing assignments (see Appendix C).

Interview Summary

One hundred and fifty interviews were completed between November 19 and December 13, 1966. One hundred and twenty-two were made by the trained undergraduate students. Twenty-two were made either by the person scheduling the interviews or personally by the investigator. Out of necessity, fourteen interviews were made at the individual's place of employment and six were conducted over the telephone. In these latter cases the self-administrered portion of the instrument was mailed to the respondent.

Each completed interview form was edited and the data were punched in IBM cards.

Table 4 summarizes the number of respondents who were interviewed from each of the five categories.

Category	Number	
 "A" category cards "B" category cards "C" category cards "D" category cards "E" category cards 	60 40 24 16 10	
Total Completed Interviews	150	

Table 4 - Data Collection Summary

De jure it was hoped that all of the data could have been gleaned from the names on the "A" category cards contained in the 153 sampled clusters. orThis <u>de facto</u> was not realized. Three clusters were lost because all of the subjects contained within the cluster were either inaccessible or refused to participate in the study. Eleven percent (row " Appendix D presents a summary of who was or was not interviewed and the reasons why individuals were not included in the analysis. Sample Description

This section presents a summary description of the respondents. A more detailed analysis is presented in tables contained in Appendix E.

The ages of the 150 respondents varied from sixteen to eightynine; the median age is in the 29-33 year bracket.

Sixty-nine percent of the respondents were male.

All of the respondents had at least eight years of formal education. Ninety percent had completed high school and over nineteen percent had received a college degree. Six percent had taken advanced graduate work.

The respondents' occupations indexed according to the North-Hatt occupational ranking scale¹⁷ ranged from 44 to 96. Eighty-eight percent were between 50-79, and half of these were in the 60-69 category which is principally composed of blue-collar jobs or low income white-collar positions.

Thirty percent of the respondents had made one or more changes in occupation during the last five years. This includes those subjects who were ranked as college students and who are now gainfully employed. Two job changes were reported by thirteen respondents and three changes were reported by four of the subjects.

Forty of the forty=five people who made changes also gained or

^{17&}lt;sub>Same</sub> as footnote 4 (p. 53).

lost prestige in terms of the rankings of the North-Hatt classification system. Thirteen of these occupational changes exceeded ten North-Hatt scale points. No one experienced more than a twenty point advance or decline over the five year period.

The obtained social status scores ranged between 10 and 25. The modal category was 15 and the median category was 17.

Nearly fifty percent of those interviewed had changed address at least once in the five years preceding the date of the interview.*

Description of the Variables

Under this heading a descriptive summary for each of the dependent variables and the independent variable is presented. The first general area to be considered is source utilization.

Source Utilization

Twenty-five subjects reported that they used a different type of information source at each of the successive stages of the decision making process. Sixty-seven percent relied upon two types of sources before adopting the innovation. Only nine based their buying decision upon a single information source. Three respondents did not know which sources had effected their adoption decision.

^{*}This figure probably understates the geographic mobility of the Mustang owner because relocations were one of the principal reasons why the interviews were not made entirely from the "A" category cards.

Media Exposure

1. Newspapers

All but three of the 150 subjects stated that they read the newspaper at least one hour during an average week.

Of the 147 respondents who read the newspaper, fifty-three stated that they read only one newspaper. Sixty-four reported reading two different newspapers, twenty-three stated three, and seven signified four.

Whereas the questions pertaining to media exposure were based upon exposure during an average week, questions concerning advertising recall were based upon recall for the past week. Sixty-nine subjects recalled seeing at least one newspaper advertisement for the Mustang during the week preceding the date of the interview.*

2. <u>Magazines</u>

One hundred and thirty-two respondents stated that they read magazines for at least half an hour during an average week.

The number of different magazines varied from one to sixteen. Seventy-one subjects recalled seeing at least one Mustang advertisement as they paged through magazines during the week preceding the interview.

3. Radio

More than ninety-seven percent of those interviewed reported

[&]quot;This figure is probably lower than usual as the Toledo newspapers were on strike when the data was gathered.

that they listened to the radio a minimum of thirty minutes during an average week. Many of the respondents who listened more than twenty hours per week admitted that the radio was on constantly during working hours.

Of the 146 subjects who listened, all but thirty-six tuned to more than one station.

Seventy persons indicated that they recalled hearing at least one Mustang commercial in the seven day period preceding the date of the interview.

4. Television

One hundred and forty-two persons stated that they watched television at least half an hour during the average week.

All but five of the 142 respondents watched more than one channel.

Ninety-one persons recalled seeing at least one television commercial for the Mustang during the week preceding the interview. The number ranged between one and thirty.

Innovativeness

Mustangs were purchased by the respondents in each of the thirty months included in the investigation. It is interesting to note that the subject in the seventy-fifth sample cluster purchased his Mustang during the fifteenth month that the automobile was on the market.

One hundred and three persons believed they were the first person in their immediate neighborhood to own a Mustang. Nine reported that they were one of the first. Thirty-five stated that they were not among the first. Three people, because of change of address shortly before receiving the car, did not know if they were among the first.

One hundred and nine subjects felt that they were the first among their circle of friends to acquire the innovation and seven considered themselves to be one of the first. On the other hand, thirty-four indicated that several of their friends owned Mustangs before they bought theirs.

Product Loyalty

Forty-seven subjects purchased their Mustang on a "clean deal" or no trade basis. Forty-five traded in other Ford products and fifty-three traded in cars made by another manufacturer. Surprisingly, five subjects traded in an older Mustang to acquire their present vehicle.

Seventy subjects owned a second car. Forty-one owned a car produced by another manufacturer and twenty-eight owned a second Ford product. One respondent currently owned two Mustangs.

Twenty persons had already sold their Mustang by the date of the interview. Eight of these respondents were now driving a car made by another producer and nine had purchased another Ford product. Three had already purchased their second Mustang. Of the twenty cars purchased, six were of a similar body type; i.e. Monza, Barracud., Marlin, but fourteen were of a different body type.

One hundred and thirty subjects were asked to state their purchase intentions in terms of (1) the make of car they would most likely purchase and (2) the body type they would most likely select. Twenty-seven stated that they "did not know" which make they would prefer. Fifty reported that their next car would be another Mustang and thirty-four were partial to other Ford products. Nineteen stated that their next automobile would be made by another manufacturer. With regard to body type, fifty-eight said they would purchase a similarly styled vehicle, but forty-one preferred a different body type.

Opinion Leadership

One hundred and thirty-one subjects stated that they had talked about their Mustang at least once during the week preceding the interview. The number of conversations varied from one to fifty-seven.

Twenty of these 131 subjects reported that they initiated the conversation on every occasion. On the other hand, twenty-five stated that they never began the conversation, while thirty-seven indicated that they began the conversations about half the time.

One hundred and six subjects had allowed someone other than the members of their immediate family to drive their Mustang. The number ranged from one to ninety-six. The respondent who had allowed ninety-six others to drive his car was employed by a Ford dealer located in the Toledo area.

Seventy-seven persons believed that they had influenced at least one other individual to purchase a Mustang. Two subjects did not know whether or not they had influenced anyone, and twenty-four

did not believe they were instrumental in effecting the purchase decision of others.

Homophily

Forty-five subjects stated that all of the people they talked with about the Mustang lived in neighborhoods similar to the ones that they themselves lived in. Conversely, twelve respondents reported that all of the people they talked with about the car lived in dissimilar neighborhoods. Two individuals did not know what percent of the people they talked with about the Mustang lived in similar neighborhoods.

Twenty subjects asserted that all of the persons they talked with about the car had similar occupations. Twenty-five reported that all of the people they talked with had occupations unlike their own. Twenty-six thought about half of the people they talked with did about the same kind of work they did. Two did not know the percentage breakdown.

Forty-nine individuals said that all of the persons they talked with had educational backgrounds similar to their own. Nine, on the other hand, indicated that everyone they talked with about the car had either more or less formal education than they themselves had. Seven respondents did not know what percent of the people had educational backgrounds similar to their own.

Thirty-two respondents reported that everyone they conversed with about the car was the type of person who likes to try new and different things. Eleven subjects, conversely, stated that none of the people they talked with would be favorably disposed towards

new and different things.

Forty persons said that one hundred percent of the people they talked with about the Mustang had favorable opinions about the car before they talked with them. Six, on the other hand, reported that none of the people they talked with had favorable opinions.

One hundred and ten subjects stated they had talked with at least one other party who owned a Mustang. The number ranged between one and twenty-five.

Dogmatism

The obtained dogmatism scores ranged from 25 to 118. A summary of the scores are presented in Table 5.

Dogmatism Scores	Frequency	Percentage
20 - 29	1	7
20 - 29	1	• / 7
40 - 49	12	./
40 - 49 50 - 59	26	17 3
50 - 59 60 - 69	20	17.5
70 - 79	20	25 3
80 - 89	23	15 3
90 - 99	16	10.7
100 - 109	3	2.0
110 - 119	2	1.4
120 - 129	ō	0
130 - 140	0	0
Total	150	100.0%

Table 5 - Obtained Dogmatism Scores

Analysis of the Data

Indeterminate Responses

In order to prepare the raw data for analysis, indeterminate answers had to be recoded. The procedure used in recoding was based upon the probability of receiving a given answer. In several instances the indeterminate answer, i.e., no response, don't know, can't remember, was recoded to the median category of obtained responses because it was believed that this answer had the greatest probability of being given. In other situations, indeterminate responses were recoded to zero. The frequency of indeterminate responses only exceeded two percent of the obtained data on six questions. On each of these six occasions the sample size used in subsequent analyses was reduced accordingly.

Sample Size Variation

Because several questions included on the interview schedule form could not legitimately be asked of all 150 respondents, i.e., make of trade-in, make of second car, make of replaced car, seven separate sub-samples which varied in size from twenty to 150 were used in the analyses. Although they are not mutually exclusive the sub-samples reflect a more precise picture of the answers obtained from the given questions.

Primary Analysis

The principal statistical method used in the analysis was correlation. Accordingly seven intercorrelation matrices, one for each sample, were generated. The matrices revealed the zero-order correlations existing between the dogmatism scores and the several dependent variables. The matrices indicated further the extent to which any or all of the eight control variables were correlated

with (1) the independent variable, (2) the dependent variable(s), and (3) one another. In those situations where there was no significant correlation¹⁸ between a given control variable and the independent variable and/or the dependent variable being analyzed, the control variable was excluded from further analysis. Secondary Analysis

In the event that a control variable significantly correlated with either the independent variable or a dependent variable, its effects were statistically eliminated through the computation of partial correlation coefficients. Because there is no sampling distribution for partial correlations, the obtained coefficients were transformed into t scores which reflected allowances for degrees of freedom and size of sample.

¹⁸A one tailed test at the five percent level was used for determining statistical significance. See Wilfrid J. Dixon and Frank J. Massey, Jr., <u>Introduction to Statistical Analysis</u>, McGraw-Hill Book Company, New York, 1957, p. 468.

Chapter IV

RESULTS

Both the zero-order correlations and the partial correlations existing between dogmatism and the twenty-three dependent variables are presented in Table 6.

<u>General Hypothesis 1</u>: HIGH DOGMATICS UTILIZE FEWER COMMUNICATION SOURCES THAN LOW DOGMATICS.

The empirical hypothesis, EH la, tested under the first general hypothesis is <u>high dogmatics utilize fewer communication sources than</u> <u>low dogmatics</u>. The correlation between dogmatism and number of communication sources is -.058, which is not statistically different from zero. Moreover, the correlation is not in the expected direction. Education and social status are significantly correlated with dogmatism, and age is significantly correlated with the dependent variable. After statistically eliminating the effects of these three control variables, the resulting partial correlation coefficient is -.081, which is not significantly different from zero. Therefore, empirical hypothesis la is rejected. Because this empirical hypothesis is rejected, the first general hypothesis cannot be accepted.

<u>General Hypothesis</u> 2: LOW DOGMATICS EXPOSE THEMSELVES MORE TO MASS MEDIA COMMUNICATION CHANNELS THAN HIGH DOGMATICS.

The first empirical hypothesis, EH 2a, tested under the second general hypothesis is <u>low dogmatics have a greater number of hours of</u> <u>exposure to mass media communication channels than high dogmatics</u>. The correlation coefficient between dogmatism and hours of exposure is .125, which is neither significant nor in the hypothesized direction.

Variable
Independent
the
Between
Existing
Correlations
Partial
and
Correlations
Order
Zero
۱ ب
е а
Tabl

and the Dependent Variables

			•				
<u>Hypothesis</u>	<u>varia</u> Independent	<u>Dependent</u>	Samp Le size	zero- Order r	rartiai r	ц	Variables Controlled
EH la	dogmatism	source	150	058	081	977	education, social,
	-	utilization			1020		statús, age
EH 28	dogmatism	hours of	0CT	.123.	.0/3:	:000.	education, social
EH 2b	dogmatism	exposure no. of mass	150	.043	.108	1.309!	status occupational rank,
)	media channels	60				education, social
ен Э г		1-	1 6.0	1 100	0601	500	status
27 12	aogmartsm	commerciai refall	DCT	.160.	.200.	770.	education, social status
EH 3a	dogmatism	date of pur-	150	001	029	342	education, social
	1	chase					status, sex
EH 3b	dogmatism	first in	150	042	077	929	education, social
		neighborhood					status
EH 3c	dogmatism	first among	150	005	037	452	education, social
		triends					status
EH 4 a	dogmatism	make of trade-	103	.059!	.145	1.448	occupational mobility,
		in					education, social
•							status
EH 4b	dogmatism	make of second	70	022	068	771	occupational mobility,
		car					occupation prestige
							mobility, education,
							social status, sex
EH 4c	dogmatism	make of	20	.502*	.741*	4.274*	education, social
		replacement			-		status
EH 4d	dogmatism	type of	20	.192	.487:	2.086	occupational ranks,
		replacement					education, social
							status
EH 4e	dogmatism	make preferred	103	238*	254*	-2.570*	education, age, social
							status, sex
EH 4f	dogmatism	type preferred	103.	150	133	-1.303	occupational mobility,
							occupational prestige,
							mobility, education,
							social status, sex

,

Empil	rical	Vari	ables	Sample	Zero-	Partial		
Hypot	thesis	Independent	Dependent	size	order r	н	ч	Variables Controlled
ļ					100			
0 111	ađ	dogmarism	expressions of	DCT	004		-1.4JJ	occupational rank, equ-
			opinion					cation, social status
EH 51	م	dogmatism	percent of con-	150	.060	0	0	education, social
			versations					status
			initiated					
EH 5(cı	dogmatism	no. of test	150	.076	.059	.706	education, social status
			drivers					
EH 5(Ч	dogmatism	no. allegedly	150	.056	.078	.539!	occupational mobility,
			influenced					education, social
								status
ЕН 6	ct	dogmatism	residential	150	158*!	096	-1.189!	education, social
			homophily					status, sex
EH 61	م	dogmatism	occupational	150	068!	045!	539!	education, social
			homophily					status
EH 6(U	dogmatism	educational	150	049!	049!	592!	education, social
			homophily					status
ЕН 6	ъ	dogmatism	homophily of	150	077	073	878	education, social
			innovativeness					status
EH 66	aı	dogmatism	homophily of	150	136!	103	-1.245!	occupational rank, edu-
			opinion					cation, social status
EH 61	y	dogmatism	homophily of	150	050	015!	184!	occupational mobility,
			adoption					education, social
			•					status

* Statistically significant at the 5 percent level (one tailed).
N 150 - .147
N 103 - .163
N 70 - .264
N 20 - .378

Direction opposite to that hypothesized

:: Samples are of different composition

Table 6 - continued

Because education and social status significantly correlate with both the independent variable and the dependent variable, they are statistically controlled. The partial correlation of .093 is neither significantly different from zero nor in the expected direction. Consequently, empirical hypothesis 2a is rejected.

The second empirical hypothesis, EH 2b, is <u>low dogmatics expose</u> themselves to more mass media communication channels than high dogmatics. The correlation between dogmatism and number of communication channels is .043, which is not significantly different from zero. Occupational rank is significantly correlated with the number of channels; education and social status are significantly correlated with both the independent variable and the dependent variable. By statistically controlling these three variables, a partial correlation of .108 is obtained. Neither the zero-order correlation nor the partial correlation are significant or in the hypothesized direction. Therefore, EH 2b is rejected.

The third empirical hypothesis, EH 2c, is <u>those low in dogma-</u> <u>tism scores expose themselves to more Mustang commercials than those</u> <u>high in dogmatism scores</u>. The correlation between dogmatism and commercial recall is .091, which is not significantly different from zero. By controlling social status, which significantly correlates with both the independent variable and the dependent variable and education, which significantly correlates with dogmatism, a partial correlation of .052 is produced. This correlation is not significantly different from zero. Since neither the zero-order correlation nor the partial correlation are significant, or in the expected direction, EH 2c is rejected.

Because all three of the empirical hypotheses tested under the second general hypothesis are rejected, the second general hypothesis is similarly rejected.

<u>General Hypothesis</u> <u>3</u>: LOW DOGMATICS ARE MORE INNOVATIVE THAN HIGH DOGMATICS.

The first empirical hypothesis, EH 3a, tested under general hypothesis 3 is <u>low dogmatics adopt the innovation relatively earlier</u> <u>in time than high dogmatics</u>. The correlation existing between dogmatism and date of purchase is -.001. A partial correlation of -.029 is obtained when the effects of education and social status, both of which significantly correlate with dogmatism, and sex, which significantly correlates with date of purchase, are controlled. Because neither the zero-order correlation nor the partial correlation are significantly different from zero, EH 3a cannot be accepted.

The second empirical hypothesis EH 3b, is <u>low dogmatics per-</u> <u>ceive themselves as more innovative in being the first in their imme-</u> <u>diate neighborhood to adopt an innovation than high dogmatics</u>. The correlation of -.042 between dogmatism and being the first to adopt in the neighborhood, although in the predicted direction, is not significantly different from zero. A partial correlation of -.077 is obtained when social status and education, both of which significantly correlate with dogmatism, are statistically controlled. Because neither the zeroorder correlation nor the partial correlation are significantly different from zero, EH 3b is refuted.

The third empirical hypothesis, EH 3c, is <u>low dogmatics perceive</u> themselves as more innovative in being first among their circle of

friends to adopt an innovation than high dogmatics. The correlation between dogmatism and first among circle of friends to adopt is -.005, which is not significantly different from zero. The statistical elimination of education and social status, which significantly correlates with dogmatism, yields a partial correlation of -.037 which similarly is not significant. Consequently, EH 3a is rejected.

Although all of the correlations in the three empirical hypotheses are in the predicted direction, none are significantly different from zero. Therefore, the third general hypothesis cannot be accepted.

<u>General Hypothesis</u> <u>4</u>: HIGH DOGMATICS EXHIBIT GREATER LOYALTY TOWARD PRODUCTS THAN LOW DOGMATICS.

The first empirical hypothesis, EH 4a, tested under general hypothesis 4 is <u>high dogmatics traded in Ford products more often than</u> <u>low dogmatics</u>. The correlation coefficient between the two variables, dogmatism and make of car traded-in, is .060 which is not significantly different from zero. Statistically removing the effects of (1) education, which significantly correlates with both the independent variable and the dependent variable, (2) social status, which significantly correlates with dogmatism, and (3) occupational rank, which significantly correlates with make traded-in, generates a partial correlation of .145. As neither the zero-order correlation nor the partial correlation are either significant or in the expected direction, EH 4a is rejected.

The second empirical hypothesis, EH 4b, is <u>of those owning a</u> <u>second car, high dogmatics own a second Ford product more than low dog-</u> matics. The correlation coefficient of -.022 between dogmatism and

make of second car, although in the hypothesized direction, is not significant. Statistically controlling education, social status, and sex, all of which significantly correlate with dogmatism, and occupational mobility and occupational prestige mobility, which correlate with make of second car, generates a partial correlation of -.068. The partial correlation is not significantly different from zero. Therefore, EH 4b cannot be accepted.

The third empirical hypothesis, EH 4c, is <u>high dogmatics replace</u> <u>their original Mustang with a similar type of automobile more often</u> <u>than low dogmatics</u>. The correlation between dogmatism and replacement of original Mustang with asecond Mustang is .502 which is significantly different from zero. But the significance is opposite to the direction hypothesized. A partial correlation of .741 which similarly is statistically different from zero in the opposite direction is obtained by controlling social status which significantly correlates with dogmatism, and education which significantly correlates with the make of car purchased. As both the zero-order correlation and the partial correlation are statistically significant in the direction opposite to that which was predicted, EH 4c is rejected.

The fourth empirical hypothesis, EH 4d, is <u>high dogmatics replace</u> <u>their original Mustang with a similar type of automobile more often</u> <u>than low dogmatics</u>. The correlation of .192 between dogmatism and type of replaced automobile is neither significant nor in the hypothesized direction. The partial correlation of .489 which is produced by controlling social status, which significantly correlates with both the

independent variable and the dependent variable, and both occupational rank and education, which correlate with the dependent variable, similarly is neither significant nor in the predicted direction. Consequently, EH 4d is rejected.

The fifth empirical hypothesis, EH 4e, is <u>high dogmatics state</u> <u>a preference for replacing their original Mustang with a new Mustang</u> <u>more often than low dogmatics</u>. The correlation coefficient between dogmatism and preferred make is -.238 which is both in the expected direction and significantly different from zero. Statistically controlling education, social status, and sex, all of which correlate with dogmatism, and age, which correlates with the make of car preferred, produces a partial correlation of -.254 which similarly is both significant and in the right direction. Therefore, EH 4e is accepted.

The sixth empirical hypothesis, EH 4f, is <u>high dogmatics state</u> <u>a preference for replacing their original Mustang with a similar type</u> <u>of automobile more often than low dogmatics</u>. The correlation of -.150 between dogmatism and preferred body-type is in the right direction, but not significantly different from zero. A partial correlation of -.133 is obtained by statistically controlling the effects of education, social status, and sex which significantly correlate with dogmatism and occupational mobility, occupational prestige mobility and age which significantly correlate with the dependent variable. The partial correlation, like the zero-order correlation, is in the predicted direction, but not significant. Therefore, EH 4f cannot be accepted.

Of the six hypotheses tested under general hypothesis 4, only one, EH, 4e, was statistically significantly different from zero in the expected direction. Empirical hypothesis 4b, on the other hand,

was statistically significant in the direction opposite to that which was predicted. Because of these conflicting findings and the results in the four other empirical hypotheses, general hypothesis 4 cannot be accepted.

<u>General Hypothesis 5</u>: LOW DOGMATICS EXHIBIT MORE OPINION LEADERSHIP HIGH DOGMATICS.

The first empirical hypothesis, EH 5a, tested under general hypothesis 5, is <u>low dogmatics express their opinions about their Mustang more frequently than high dogmatics</u>. The correlation between dogmatism and the number of times opinions are expressed is -.084 which, although in the predicted direction, is not significantly different from zero. Statistically controlling the effects of (1) social status which significantly correlates with both the independent variable and the dependent variable, (2) education which significantly correlates with the independent variable, and (3) occupational rank which correlates with the dependent variable yields a partial correlation of -.120. The partial correlation similarly is not significant. Consequently, EH 5a is rejected.

The second empirical hypothesis, EH 5b, is <u>low dogmatics initiate</u> <u>discussions about their Mustang more often than high dogmatics</u>. The correlation between dogmatism and percentage of conversations initiated by the respondents is .060 which is neither significant nor in the hypothesized direction. A partial correlation of 0 is obtained when social status, which significantly correlates with the independent variable, and education, which correlates with both the independent variable and the dependent variable, are controlled.

Because neither the zero-order correlation nor the partial correlation are significantly different from zero, EH 5b is rejected.

The third empirical hypothesis, EH 5c, is <u>low dogmatics allow</u> <u>more people to test drive their Mustang than high dogmatics</u>. The correlation of .076 which exists between dogmatism and the number of people who had test driven the Mustang was neither significantly different from zero nor in the predicted direction. The statistical control of both education and social status, which significantly correlate with dogmatism, produces a partial correlation of .059, which similarly is neither significant nor in the expected direction. Consequently, EH 5c is rejected.

The fourth empirical hypothesis, EH 5d, is <u>low dogmatics per-</u> <u>ceive they have influenced more receivers than high dogmatics</u>. The zero-order correlation between dogmatism and number of people influenced is .056 and is neither significant nor in the hypothesized direction. Statistically controlling occupational mobility, education, and social status all three of which significantly correlate with dogmatism yields a partial correlation of .078. The partial correlation, like the zeroorder correlation, is not significant. Therefore, EH 5d is not confirmed.

Because none of the four empirical hypotheses tested under general hypothesis 5 have correlations significantly different from zero, the fifth general hypothesis is rejected.

<u>General Hypothesis 6</u>: HIGH DOGMATICS EXHIBIT GREATER HOMOPHILY THAN LOW DOGMATICS.

The first empirical hypothesis, EH 6a, which is tested under general hypothesis 6 is <u>high dogmatics interact with a greater</u>

percentage of people who are perceived to reside in similar neighborhoods than low dogmatics. The correlation between dogmatism and percentage of people residing in similar neighborhoods is -.158 which is statistically different from zero, but opposite in direction to that which was predicted. A partial correlation -.096 is obtained when both education and social status, which significantly correlate with both the independent and dependent variable, and sex, which significantly correlates with the dependent variable, are controlled. The partial. correlation is in the opposite direction, but not significantly different from zero. As a result, EH 6a cannot be accepted.

The second empirical hypothesis, EH 6b, is <u>high dogmatics inter-</u> act with a greater percentage of people who are perceived to have <u>similar occupations than low dogmatics</u>. The zero-order correlation of -.068 which exists between dogmatism and percentage of people having similar occupations is neither significantly different from zero onor in the hypothesized direction. The statistical control of education and social status, both of which significantly correlate with dogmatism, produces a partial correlation -.045 which similarly is not significant. Therefore, EH 6b is rejected.

The third empirical hypothesis, EH 6c, is <u>high dogmatics interact</u> with a greater percentage of people who are perceived to have similar educational backgrounds than low dogmatics. The correlation between dogmatism and people having similar educational backgrounds is -.049 which is neither statistically different from zero nor in the predicted direction. A partial correlation of -.049 is obtained by controlling education and social status both of which significantly correlate with

dogmatism. As neither the zero-order correlation nor the partial correlation are significant, EH 6c cannot be accepted.

The fourth empirical hypothesis, EH 6d is <u>high dogmatics inter-</u> act with a greater percentage of people who are perceived as reluctant to <u>innovate than low dogmatics</u>. The correlation of -.077 existing between dogmatism and percentage of people who are perceived as reluctant to innovate, although in the predicted direction, is not statistically different from zero. A partial correlation of -.073 is generated by controlling education and social status, both of which significantly correlate with dogmatism. The partial correlation is not significant. Consequently, EH 6d is rejected.

The fifth empirical hypothesis, EH 6e, is <u>high dogmatics interact with a greater percentage of people who are perceived to have had</u> <u>a positive opinion about the Mustang</u>. The correlation of -.136 between dogmatism and percentage of people perceived to have had a positive opinion about the Mustang is neither statistically different from zero nor in the predicted direction. A partial correlation of -.103 is produced when (1) education and social status, both of which significantly correlate with both the independent variable and the dependent variable, and (2) occupational rank, which significantly correlates with the dependent variable, are controlled. As a result, EH 6e is rejected.

The sixth empirical hypothesis, EH 6f, is <u>high dogmatics interact</u> with a greater number of people who have adopted the <u>Mustang than low</u> <u>dogmatics</u>. The correlation between dogmatism and the number of people

already owning a Mustang is -.050 which is neither statistically different from zero nor in the hypothesized direction. The control of education and social status, both of which significantly correlate with dogmatism, and occupational prestige mobility, which significantly correlates with the dependent variable, produces a partial correlation of -.015. The partial correlation similarly is not significant. Therefore, EH 6f is rejected.

None of the correlations for the six empirical hypotheses tested under general hypothesis 6 were significantly different from zero in the expected direction. As a result, general hypothesis 6 cannot be accepted.

CHAPTER V

SUMMARY AND DISCUSSION

Summary

The ability to identify those particular individuals within a given market segment who are most likely to be among the first to adopt an innovation, to purchase the product repeatedly, and to pass information about the product on to others is a critical element which must be considered by the innovative marketer.

The present study proposed the thesis that the sociopsychological theory of beliefs as formulated by Rokeach¹ would generate new insights into some of the communication behavior involved in the diffusion and adoption of a consumer innovation, the Ford Mustang automobile. The six distinct areas of communication behavior investigated were (1) communication sources, (2) communication channels, (3) innovativeness, (4) product loyalty, (5) opinion leadership and (6) homophily. The basic objective was to identify and measure the relationship which existed between dogmatism and each of these six concepts. Dogmatism was defined as a personality variable which governs a person's receptivity or lack of receptivity to new ideas and further includes how a person perceives, evaluates, acts, and reacts to such ideas.

A review of the literature combined with an assessment of the theoretical position of belief systems led to the formulation of six

¹Milton Rokeach, <u>The Open and Closed Mind</u>, <u>op</u>. <u>cit</u>.
general hypotheses, which were investigated. The hypotheses were as follows:

- GH 1: HIGH DOGMATICS UTILIZE FEWER COMMUNICATION SOURCES THAN LOW DOGMATICS.
- GH 2: LOW DOGMATICS EXPOSE THEMSELVES MORE TO MASS MEDIA COMMUNI-CATION CHANNELS THAN HIGH DOGMATICS.
- GH 3: LOW DOGMATICS ARE MORE INNOVATIVE THAN HIGH DOGMATICS.
- GH 4: HIGH DOGMATICS EXHIBIT GREATER LOYALTY TOWARD PRODUCTS THAN LOW DOGMATICS.
- GH 5: LOW DOGMATICS EXHIBIT MORE OPINION LEADERSHIP THAN HIGH DOGMATICS.

GH 6: HIGH DOGMATICS EXHIBIT GREATER HOMOPHILY THAN LOW DOGMATICS. Twenty-three empirical hypotheses, derived from the six general hypotheses, were tested.

A systematic ordered sample of 150 Mustang owners residing in two adjacent Northwestern Ohio counties located in the interurbian strip extending between Toledo and Cincinnati were personally interviewed during a four-week period which extended from November 17 through December 13, 1966. In addition to responding to questions concerning the six aspects of communication behavior, each subject completed a short-form² dogmatism test. Dogmatism scores were correlated with the answers given to the other questions. Correlational analyses of the data led to the rejection of all but one of the twenty-three empirical hypotheses. Eight of the zero-order correlation coefficients were in the expected direction, but fifteen were in the direction

²Verling C. Troldahl and Frederic A. Powell, "A Short-Form Dogmatism Scale for Use in Field Studies," <u>op</u>. <u>cit</u>.

opposite to that which was predicted. Two of the latter were significantly different from zero.

The findings were not appreciably affected by a secondary analysis consisting of the statistical elimination of control variables which significantly correlated with either the independent variable and/or the dependent variable(s).

The only correlation which was significantly different from zero in the expected direction was for empirical hypothesis 4e, <u>high dogmatics state a preference for replacing their original Mustang</u> <u>with a new Mustang more often than low dogmatics</u>. Because twenty-two of the twenty-three hypotheses were rejected none of the six general hypotheses can be accepted.

Explanations for the Results

The fact that only three of the correlations obtained in the present research were significantly different from zero leads to the general conclusion that the personality variable of dogmatism as measured in the present investigation is in itself of little value in predicting the communicative and adoptive behavior of individuals who recently acquired a new generic product.

Several factors inherent in the investigation may have contributed to the unexpected results. First of all, the measurements used in the analysis may not have been sensitive enough to operationalize the intended meanings of concepts. If this measurement insensitivity were present, it most likely occurred with those questions pertaining to the unaided recall of past events especially those concerning sources of information, mass media exposure, and conversations with other people about the Mustang.

Another factor which may have contributed to the unanticipated results is the innovation which was selected for analysis. In all probability, beliefs about the Mustang would be incorporated at the peripheral level of the individual belief system. As such, new beliefs about the innovation could be more readily accepted by dogmatic individuals than beliefs concerning self or the nature of reality. Furthermore, the innovation in the present research is a relatively expensive consumer product; therefore, it is reasonable to believe that several prospective adopters may have excluded themselves from the sample by postponing adoption for as long as their present automobile was still in good operating order.

A third source of uncontrolled variance pertains to the representativeness of the respondent. Even though interviews were obtained from 150 of the 153 systematic time ordered sample clusters, it must be noted that eleven percent of the subjects chosen for analysis refused for one reason or another to participate in the study. Additional variance may have been occasioned because of different uncontrollable circumstances present in the homes of the respondents. Data were collected from eight in the morning until eleven in the evening; distractions and interruptions during the interviews were reported by the interviewers. Finally, as is the case in any study where numerous field workers are employed, there is an undetermined amount of interviewer bias.

Relationships Between the Variables

The correlation analysis used in the present investigation assumed linear relationships between the independent variable and the

several dependent variables. In the event that the linear assumptions have been violated, the obtained zero-order correlation coefficients (presented in Table 6) understate the true relationship between the variables. Therefore, an investigation into the validity of the linear relationships was undertaken.

The analysis involved the computation of eta coefficients. This statistic was selected because, if a curvilinear relationship were present, the eta coefficients would be significant even though the zero-order correlation coefficients were not significantly different from zero. In order to compute the eta coefficients, the data were grouped by segmenting the dogmatism scale into five categories which included the complete range of dogmatism scores obtained from the 150 respondents. The categories are: (1) 25-43; (2) 44-62; (3) 63-80; (4) 81-99; and (5) 100-118. The subjects were grouped into these categories according to their respective dogmatism scores.

Once the eta coefficients were calculated, they were tested for significance by F ratios. As can be seen in Table 7, only one of the F scores (EH 4e) is statistically significant at the five percent level and in this particular instance the zero-order correlation obtained before the data were grouped similarly was significantly different from zero.

As a result of this analysis, one can conclude that the low relations obtained in the present study were not the result of curvilinear relationships between dogmatism and the several dependent variables.

-						
	Empirical	Dependent		Zero-Order	Eta	F of a
	Hypotheses	Variables	N	Correlations	Coefficients	Eta
	la	source utilization	150	01	.15	.837
	2a	hours of exposure	150	.06	.15	.833
	2ъ	number of channels	150	.02	.15	.841
	2c	commercial recall	150	.05	.09	.294
	3a	date of purchase	150	.05	.13	.632
	3Ъ	first in neighborhood	150	01	.18	1.220
	3c	first among friends	150	.05	.18	1.173
	4a	make of trade-in	103	.07	.15	.588
	4Ъ	make of second car	70	10	.13	.299
	4c	make of replacement	20	.34	.51	1.350
	4d	type of replacement	20	.09	.54	1.500
	4e	make preferred	103	22	.29	2.262 ^b
	4f	type preferred	103	12	.18	.851
	5a	number of conversations	150	01	15	865
	5b	number of conversations	150	- 05	.19	. 300
	50 50	number of test drivers	150	- 12	.17	1.024
	5d	number allegedly influ-	190	• 12	• = /	T • A
	54	enced.	150	. 06	. 22	1.289
		enceut	190			11107
	6a	residential homophily	150	.00	.11	.406
	6Ъ	occupational homophily	150	04	.09	.317
	6c	educational homophily	150	05	.16	.974
	6d	innovative homophily	150	10	.14	.747
	6e	homophily of opinion	150	.01	.08	.231
	6f	homophily of adoption	150	03	.07	.179

Table 7 - Zero-Order Correlations, Eta Coefficients, F of Eta*

^a4 degrees of freedom in the numerator

^bsignificant at the five percent level

*The coefficients illustrated in the Table were computed after grouping the data by segmenting the dogmatism scale as follows: (1) 25-43; (2) 44-62; (3) 63-80; (4) 81-99; and (5) 100-118.

Representativeness of the Subjects

Another factor which possibly could have contributed to the unanticipated results is concerned with the subjects included in the sample. All of them had purchased and had been instrumental in the decision to adopt the innovation. This would lead one to suspect that the sample might be weighted in favor of low dogmatics and exclude those having higher dogmatism scores. However, an inspection of the dogmatism scores reveals a nearly normal distribution. The scores ranged between 25 and 118 and the median was 69.5. The arithmetic mean was 70.9 and the standard deviation was 16.2. The present distribution of dogmatism scores does not appreciably differ from the distribution obtained by Rokeach and others who have worked with various versions of the dogmatism scale.³

An interesting comparison of dogmatism scores between adopters and nonadopters of the innovation could have been made by sampling other individuals in the two county area who purchased a different make of car during the time period being investigated. The analysis was not made because such investigation was not included in the original objectives of the present thesis.

³See for example Juan F. Jamias, <u>The Effects of Belief</u> <u>System Styles on The Communication and Adoption of Farm Practices</u>, <u>op. cit</u>., and Frederic A. Powell, "Open and Closed-Mindedness and the Ability To Differentiate Source and Message," <u>op. cit</u>.

! k......

Interpretation of the Results

There are many other contributing factors, in addition to those previously mentioned, which may have led to the obtained results. Obviously in those situations where the correlations were not significantly different from zero, the results could be completely attributed to chance. Nevertheless, a brief discussion of each of the empirical hypotheses is presented in the paragraphs which follow.

Communication Sources

The predicted inverse correlation between dogmatism and number of communication sources utilized was neither statistically different from zero nor in the predicted direction. Although the finding is contrary to the theoretical expectation, one might speculate that the dogmatic individual was consulting with a wider variety of respected sources before incorporating the new belief into his system. More specifically, the high dogmatics may have exposed themselves to more evidence before accepting the new idea and adopting the innovation.

Although there is no evidence generated from the present study, one might conjecture that had the investigation analyzed rejectors as well as adopters, those high in dogmatism may have rejected the innovation after conferring with one authority, whereas, high dogmatics who accepted the new idea had to be confronted with evidence from several respected authorities.

Communication Channels

In accordance with Rokeach's theory, those high in dogmatism are inclined to avoid contact with stimuli which may threaten their existing

beliefs. Therefore, it was expected that high dogmatic individuals would have less exposure to the mass media in terms of number of hours of exposure. Nevertheless the obtained correlation between dogmatism and hours of exposure was contrary to the hypothesized direction. Perhaps, as Rokeach has implied, high dogmatics may have used the mass media for added exposure to respected authorities and/or to reinforce existing beliefs; there is no evidence in the data, however, which can support this supposition.

The relationship between dogmatism and number of communication channels attended similarly was neither significantly different from zero nor in the expected direction. The finding is difficult to explain. It is possible that high dogmatics, and perhaps low dogmatics as well, used the media more for entertainment than for information. If such were the case, the findings would not necessarily be incongruous with the theory. Unfortunately, the study did not ask why and/or for what purposes the media were used. Consequently, there is no evidence to suppose that high dogmatics use the media for different purposes than low dogmatics.

The correlation between dogmatism and exposure to Mustang commercials similarly was neither significantly different from zero nor in the expected direction. Although this finding was contrary to that which was hypothesized, it was consistent with the correlations obtained for the first two hypotheses considered in this section. There are two possible explanations for the obtained correlation between dogmatism and commercial recall. First, it may have occurred because those high

in dogmatism spent more time with the media. Second, it could be proffered that high dogmatics who adopted the innovation experienced greater cognitive dissonance than low dogmatics who purchased the car.⁴ This position appears plausible as it may have been more difficult for a high dogmatic individual to accept the innovation in the first place; whereas, the less dogmatic person would have found his original adoption decision somewhat easier to make. If such were the case, it would be expected that close-minded individuals would seek information which would reinforce their purchase decision and thus were able to recall more commercials and/or advertisements than open-minded persons.

Innovativeness

Although the correlation relating dogmatism and purchase date was not significantly different from zero, it was in the expected direction. This finding is consistent with the results reported by Rogers and Harp,⁵ Jamias,⁶ Childs,⁷ and Hudspeth.⁸ The fact that the obtained relationship

⁶Juan F. Jamias, <u>op</u>. <u>cit</u>.
⁷John W. Childs, <u>op</u>. <u>cit</u>.
⁸DeLayne R. Hudspeth, <u>op</u>. <u>cit</u>.

⁴Gerald R. Miller and Milton Rokeach, "Individual Differences and Tolerance for Inconsistency," in P. N. Tannenbaum, R. P. Abelson, E. Aronson, W. J. McGuire, T. M. Newcomb, and M. J. Rosenberg, (eds.) <u>Theories of Cognitive Consistency</u>, Rand McNally, Chicago, in process.

⁵Everett M. Rogers and John Harp, "Personality Characteristics of the Adoption of Technological Practices," <u>op</u>. <u>cit</u>.

was not greater in the present study is difficult to explain. One possible explanation for the low relationship is that those high in dogmatism, who relied heavily upon the authority of commercial sources, and to a lesser extent upon noncommercial sources for information during the early stages of the product's life were influenced and accordingly changed their beliefs sooner as a result of the information which they had received.

The second empirical hypothesis considered the respondent's adoption vis-a-vis those living in his immediate neighborhood, and the third pertained to adoption vis-a-vis one's circle of friends. Although the correlations were not significant, both were in the predicted direction,*

The findings of EH 3b and EH 3c lead one to speculate that those low in dogmatism acted independently of both their neighbors and their friends⁹ and that closed minded individuals were perhaps making up their own minds or were being influenced by authority figures who did not practice as they preach or by commercial sources, i.e., advertising sponsored by the Ford Motor Company and/or its franchised dealers.

^{*}It is interesting to note that while fifty percent of the individuals interviewed purchased their Mustang after the car had been on the market fifteen or more months, more than two-thirds believed they were the first in their neighborhood to own a Mustang and an even larger percentage stated they were first among their circle of friends to buy the car. This situation occurred in all likelihood because of the very low percentage of families owning Mustangs by July 1965.

⁹Leon Festinger, "Behavioral Support for Opinion Change," <u>Public Opinion Quarterly</u>, Vol. 28, No. 3, Fall, 1964, pp. 404-417.

Product Loyalty

Generally speaking, satisfied automobile owners tend to purchase the same make of car, or another make made by the same manufacturer, time after time. Nevertheless, there is a certain amount of switching which takes place. It was expected (1) that individuals scoring high in dogmatism would have been previous owners of Ford products, and (2) that fewer closed minded people would have traded-in cars made by other manufacturers.

Because high dogmatics are more reluctant to accept new ideas until they have received the approval of authority figures, it was predicted that these persons would have at least remained faithful to the automobile producer if not to the specific make. If their loyalty were to the Ford Motor Company, they could have purchased the Mustang without changing their beliefs about automotive manufacturers, on the other hand, if they traded-in a vehicle produced by another company, this would be overt evidence of belief change. Notwithstanding the relationship between dogmatism and make tradedin was neither significantly different from zero nor in the expected direction.

One possible explanation for this unanticipated result is that high dogmatics who were satisfied with cars produced by a given manufacturer remained loyal, but those who were in some way dissatisfied had no qualms about switching. Unfortunately no evidence to support this contention is available as questions pertaining to the reasons for switching from one manufacturer to another were not asked.

The obtained relationship between dogmatism and make of second car, although not significantly different from zero, was in the expected direction. This finding suggests that high dogmatics are perhaps slightly more inclined to consider the make of their present car before purchasing a second automobile than are low dogmatics. The possession of two cars made by the same company is visible evidence of consistency of beliefs toward a particular producer; whereas, the ownership of cars built by two competing manufacturers would indicate a greater breadth and/or differentiation of beliefs on the part of the owner. The fact that the correlation was not significant suggests further that high dogmatics are perhaps just as likely as their less dogmatic counterparts to simultaneously own two automobiles made by two different companies in the event they are not completely satisfied with the first automobile. The finding additionally suggests that closedminded individuals who were satisfied may have been slightly more inclined to purchase their second car from the same manufacturer than the more open-minded respondents. No evidence is available to support this conjecture.

It was additionally expected that high dogmatic individuals who had purchased the Mustang would be the most enthusiastic and loyal customers. This position was postulated for two reasons. First, it was believed that several of the more dogmatic adopters would have been the traditional or habitual buyers of Ford products the type of person who would blindly defend his purchase. It was believed further that high dogmatics who had changed their beliefs in the first place would defend their beliefs in an overt way. Nevertheless, a statistically significant negative relationship was obtained between dogmatism

and purchase of a second Mustang. But in terms of purchase intention, the correlation was significantly different from zero in the predicted direction; a positive relationship exists between dogmatism and the desire to replace the present Mustang with a second Mustang. The inconsistency between the two sets of findings once again suggests satisfaction in ownership as a critical intervening factor in product loyalty.

Niether the correlation relating dogmatism and the <u>type</u> of replaced automobile nor the correlation relating dogmatism to the <u>type</u> of car preferred in the future were significant. The former was opposite in direction to that which was hypothesized; albeit, the latter was in the expected direction. These findings are similar to the findings for the two hypotheses concerned with the make of car and, therefore, could be explained in a similar way.

Opinion Leadership

The correlation between dogmatism and number of conversations about the innovation was in the hypothesized direction. The fact that it was not significant, however, suggests that people high in dogmatism talk about the innovation almost as frequently as their more open-minded counterparts. This does not mean that they interact with more people nor does it necessarily imply that high dogmatic individuals are obtaining information and/or advice from the people with whom they are engaging in conversation.

Although it was predicted that low dogmatics would initiate more conversations about the Mustang than high dogmatics, the opposite situation was found in the present study. Rokeach's theory implies

that closed-minded persons tend to be "true believers", and the obtained correlation suggests that these individuals may be slightly more inclined to talk about the idea that they had accepted, the beliefs which they had embraced, and the innovation which they had adopted.

Similarly, the obtained correlation between dogmatism and the number of people who had test driven the Mustang was not significantly different from zero. The finding indicates that the more dogmatic individuals allowed a greater number of people to drive their Mustang, which may be evidence of their desire to proselytize others toward the innovation.

Although the correlation relating dogmatism and the number of people perceived to have been influenced was neither significantly different from zero nor in the hypothesized direction, the finding is consistent with the findings for the two preceding empirical hypotheses. It was expected that low dogmatics would be more influential because they would be interacting with a greater number of others. Data pertaining to the total number of people talked with was not collected; consequently, there is no evidence upon which to refute or confirm this proposition. Nevertheless, the obtained data suggests, if anything, that high dogmatics were possibly more convincing at least in terms of the number of people perceived to have been influenced than their less dogmatic counterparts. Once again it appears that high dogmatics who adopted the innovation may have been trying, and in more instances may have succeeded, in convincing others about the merits of the product. In other words, high dogmatics may have been interacting with fewer people, but they seem to have exerted more total influence on others, than the more open-minded individuals.

As a result of the analysis one might argue that opinion leadership should be redefined in order to discriminate between breadth of leadership and depth of leadership. Judging by the obtained correlations, one might speculate that low dogmatics exhibit somewhat greater <u>breadth</u> of leadership as they possibly interact with a greater number of others, whereas the high dogmatics possibly exhibit greater <u>depth</u> in leadership based upon their perceptions of influencing others.

Homophily

The relationship between dogmatism and residential homophily was significantly different from zero in the direction opposite to that which was predicted. Perhaps open-minded individuals are more gregarious than are more closed-minded persons and thus became better acquainted with their immediate neighbors and with a greater total number of others residing in similar neighborhoods. The finding suggests further the possibility, which would be in accordance with the theory, that the more dogmatic individuals were more selective in their choice of friends and used criteria other than neighborliness as bases upon which to build an acquaintance and/or friendship.

The fact that there was a negative relationship between dogmatism and occupational homophily suggests, if anything, the proposition set forth in the preceding paragraph that high dogmatics were using criteria other than co-workers in choosing people with whom they wished to

associate and talk. Additional evidence in support of this selectivity is suggested by the negative relationship which existed between dogmatism scores and educational homophily.

Even though the relationship between dogmatism and perceived reluctance to innovate was not significant, it was in the predicted direction. This finding implies that those high in dogmatism were interacting with people who were more conservative in their attitudes towards new things. Although no support can be obtained from the present research, one might conjecture that these individuals were high in dogmatism.

The negative, although not significant, relationship between dogmatism and perceived homophily of opinion about the Mustang suggests that the more closed-minded individuals could have been interacting with people who tended to view the innovation with caution; possibly others who were high in dogmatism.

Finally, the negative relationship between dogmatism and the number of other people owning a Mustang shows that high dogmatics were not interacting with as many people who already owned a Mustang as were their less dogmatic counterparts. There are two possible explanations as to why the correlation was in the direction opposite to that which was anticipated. First, if those high in dogmatism selected others who were high in dogmatism as their friends it can be seen why high dogmatic individuals knew fewer persons who had adopted the innovation. Second, it appears that low dogmatic individuals possibly interacted with a greater total number of people than the more closed-minded persons. If such is the case, open-minded individuals probably would know more people owning any specific kind of automobile than would closed-minded individuals.

Commentary

It is difficult to support the conjectural statements appearing in the preceding paragraphs because of the methodology employed in the present investigation. More information about the relationship existing between dogmatism and innovativeness could have been obtained if both rejectors and adopters had been included in the analysis. Similarly, more definitive statements in the area of product loyalty could have been made had questions concerning the reasons for buying the Mustang been asked. Finally, a more concrete analysis of the relationship between (1) dogmatism and homophily, and (2) dogmatism and opinion leadership would have been possible had the study been expanded to include those individuals who allegedly interacted with and/or were influenced by the respondents.

Comparing Laboratory Research with Field Studies

Although it is discouraging to find that Rokeach's theory was not supported in this field situation, it is not altogether surprising. Discrepancies between the results of experimental laboratory research and field studies have frequently appeared in the literature. For example, Festinger cited three field studies on attitude change where the induced attitude change had little, if any, effect on the subjects' subsequent behavior.⁹ In discussing the findings reported in the

⁹Leon Festinger, "Behavioral Support for Opinion Change," <u>Public Opinion Quarterly</u>, Vol. 28, No. 3, Fall, 1964, pp. 404-417.

three studies,¹⁰ Festinger commented that such change effected in the laboratory setting may be unstable unless a change in the subject's environment can be similarly effected. He implied that the environmental factors which led to the formation and support of the initial opinion will continue to operate in such a way as to nullify the attitude change which took place in the laboratory.

Several factors, described by Hovland,¹¹ frequently produce divergent findings between laboratory experiments and field studies. Several of these conditions can be identified in the present investigation, as Rokeach's theoretical tenets were taken from the laboratory into a field setting.

In the first place it should be noted that the majority of dogmatism studies performed in the laboratory dealt with fundamental issues on which subjects have rather strong opinions. The present research, on the other hand, was concerned with peripheral beliefs which are probably less important and the more readily changed. Furthermore, it is recognized that the decision to purchase an automobile is

¹⁰N. Maccoby, <u>et al</u>, <u>Critical Periods</u>: <u>in Seeking and</u> <u>Accepting Information</u>, Paris--Stanford Studies in Communication, Institute for Communication Research, Stanford, California, 1962, C. Fleischman, E. Harris, and H. Burtt, <u>Leadership and Supervision</u> <u>in Industry</u>: <u>An Evaluation of a Supervisory Training Program</u>, Bureau of Educational Research, Ohio State University, Columbus, Ohio, 1955, and I. Janis and S. Feshback, "Effects of Fear Arousing Communication," <u>Journal of Abnormal and Social Psychology</u>, Vol. 48, 1953, pp. 78-92.

¹¹Carl I. Hovland, "Reconciling Conflicting Results Derived from Experimental and Survey Studies of Attitude Change," <u>American</u> <u>Psychologist</u>, Vol. 14, 1959, pp. 8-17.

based upon a multiplicity of influences which possibly exerted a greater degree of influence than any given intrapersonal consideration. Obviously, the influence of these intervening variables could have been more tightly controlled in a laboratory situation.

A third difference pertains to the population and the subjects included in the present analysis. Each of the respondents had made an overt adoption decision before being interviewed. It is reasonable to believe that the purchase of the Mustang may have predisposed the post-adoptive behavior of the subjects in various ways.

Admittedly, a diffusion study which is designed in the form of a longitudinal field experiment may generate findings more closely akin to those reported in a laboratory. Nevertheless, the present investigation, conducted in a rather naturalistic situation, clearly found the personality variable of dogmatism inadequate for making predictions about (1) utilization of communication sources; (2) mass media channel attendance; (3) innovativeness; (4) product loyalty; (5) opinion leadership; and (6) homophily among subjects who have adopted the innovation.

Personality Variables in Perspective

One of the primary reasons for focusing attention on a personality variable is because the relationship obtained may prove useful in other research areas. A study which focuses on a personality variable actually centers principal attention on people, and only on other variables in an almost incidental way. Thus, if a personality variable correlates with a certain type of behavior regarding one

innovation, it is reasonable to hypothesize that individuals possessing the particular trait will generally exhibit similar behavior when confronted with a different innovation.

It was hoped that dogmatism may have been a predictor variable which would have helped in the <u>a priori</u> identification of innovators, core customers, and opinion leaders. Unfortunately, the results reveal that dogmatism is a very poor predictor of such behavior.

One might ask how the findings of this study compared with the results of other studies which attempted to link personality variables with overt behavior. The majority of such findings were derived from laboratory experiments. Hovland and Janis,¹² based upon an extensive review of the literature, concluded that there is evidence of an attribute of personality which is independent of both the appeals and the subject matter, and suggest that authoritarianism is related to the acceptance of persuasive communication.

A limited number of diffusion studies attempted to relate personality characteristics with various aspects of communicative and adoptive behavior. The results are summarized by Rogers.

Rogers (1957b) found that more innovative farmers scored lower on a dogmatism scale and on a rigidity scale. Copp (1956) found in a study of Kansas cattlemen that innovators had greater mental flexibility than laggards. Dean and others (1958), Emery and Oeser (1958), Bemiller (1960), and Coughenour (1960b) found that more innovative farmers utilized more rational means to reach their goals.

¹²Carl I. Hovland and Irving L. Janis (eds.), <u>Personality</u> and <u>Persuasibility</u>, Yale University Press, New Haven, Conn., 1959.

Burdge (1961), Goldstein and Eichorn (1961), Rogers and Burdge (1962), and Copp (1956) concluded that laggards were relatively more work-oriented, that is, they viewed work as a goal in itself rather than as a means to other/ends. Sutherland (1959) found that laggard cottonspinning firms regarded the future only in terms of the short run, and claimed the best policy was to simply hang on to the ideas presently on hand.¹³

More recently, Jamias and Troldahl reported a significant relationship between dogmatism and rate of adoption, and showed further that the social system's "value for innovativeness" affected the behavior of high dogmatics more than their less dogmatic counterparts.¹⁴

With the one exception noted above, the great majority of the studies which have focused on the relationship between personality variables and overt behavior have produced very low relationships similar to those found in the present investigation.

Implications for Future Research

At the present time, one can conclude that dogmatism as measured in the present study is of little value for predicting communicative and adoptive behavior. Nevertheless, the relationships between dogmatism and product loyalty and between dogmatism and opinion leadership might be explored further. Analyses pertaining to product loyalty should seek data concerning why consumers change from one product to

13Everett M. Rogers, <u>Diffusion of Innovations</u>, <u>op</u>. <u>cit</u>., p. 178.

¹⁴Juan F. Jamias and Verling C. Troldahl, "Dogmatism, Tradition, and General Innovativeness," unpublished manuscript, Department of Communication, Michigan State University, 1965. to another. In order to determine whether purchase behavior agrees with expressed purchase intentions, longitudinal studies should be conducted. Investigations focusing on the relationship between dogmatism and opinion leadership should include a consideration of both the opinion giver and the party allegedly being influenced; due consideration should likewise be given to the gregariousness of both high dogmatic and low dogmatic individuals.

Because the issues considered in the present study are of importance to marketing theorists and practitioners, the search for a variable which will aid in predicting and explaining innovativeness, product loyalty, and opinion leadership in general should be continued. The search, if it is to be meaningful, must begin with a strong theoretical framework. The concepts should initially be tested in laboratory situations and then carried into the field for empirical validation.

BIBLIOGRAPHY

,

BIBLIOGRAPHY

A. BOOKS

- Adorno, T. W., Else Frenkel-Brunswik, Daniel J. Levinson and R. Nevitt Sanford. <u>The Authoritarian Personality</u>. New York: Harper and Brothers, 1950.
- Backstrom, Charles H. and Gerald D. Hursh. <u>Survey Research</u>. Chicago: University of Illinois Press, 1962.
- Barnett, H. G. Innovation. New York: McGraw-Hill Book Company, 1953.
- Berg, Thomas L. and Abe Shuchman (eds.). <u>Product Strategy and Manage-</u><u>ment</u>. New York: Holt, Rinehart and Winston, 1963.
- Berlo, David K. <u>The Process of Communication</u>. New York: Holt, Rinehart and Winston, 1960.
- Bliss, Perry (ed.). <u>Marketing and the Behavioral Sciences</u>. Boston: Allyn and Bacon, 1963.
- Brown, Roger, Eugene Galanter, Eckhard H. Hess, and George Mandler. <u>New Directions in Psychology</u>. New York: Holt, Rinehart and Winston, 1962.
- Cohen, Arthur R. <u>Attitude Change and Social Influence</u>. New York: Basic Books, Inc., 1964.
- Dixon, Wilfrid J. and Frank J. Massey, Jr. <u>Introduction to Statistical</u> <u>Analysis</u>, second edition. New York: McGraw-Hill Book Company, 1957.
- Festinger, Leon. <u>A Theory of Cognitive Dissonance</u>. Evanston, Illinois: Row, Peterson, and Co., 1957.
- Festinger, Leon, Stanley Schachter, and Kurt Back. <u>Social Pressures in</u> <u>Informal Groups: A Study of Human Factors in Housing</u>. New York: Harper and Row Publishers, 1950.
- Gottman, Jean. <u>Megalopolis; the Urbanized Northeastern Seaboard of</u> <u>the United States</u>. New York: The Twentieth Century Fund, 1961.
- Field, George A., John Douglas, and Laurence X. Tarpey. <u>Marketing</u> <u>Management a Behavioral Systems Approach</u>. Columbus, Ohio: <u>Charles E. Merrill Books</u>, Inc., 1966.
- Hollander, E. P. and Raymond S. Hunt. <u>Current Perspectives in Social</u> <u>Psychology</u>. New York: Oxford University Press, 1963.

- Katz, Elihu and Paul F. Lazarsfeld. <u>Personal Influence</u>. New York: The Free Press of Glencoe, 1955.
- Lazarsfeld, Paul F., Bernard Berelson, and Hazel Gaudet. <u>The People's</u> <u>Choice</u> (second edition). New York: Columbia University Press, 1948.
- Lazarsfeld, Paul F. and Robert K. Merton. "Friendship as Social Process: A Substantive and Methodological Analysis," in M. Berger, T. Abel, and C. H. Page (eds.) <u>Freedom and Control in Modern Society</u>. New York: D. Van Norstrand, 1954, pp. 18-66.
- Lazer, William and Eugene Kelley (eds.). <u>Managerial Marketing</u>: <u>Perspectives and Viewpoints</u>. Homewood, Illinois: Richard D. Irwin, Inc., 1962.
- Lionberger, Herbert F. <u>Adoption of New Ideas and Practices</u>. Ames Iowa: Iowa State University Press, 1960.
- Maccoby, Eleanor E., Theodore M. Newcomb, and Eugene L. Hartley (eds.), <u>Readings in Social Psychology</u>. New York: Holt, Rinehart and Winston, Inc., 1958.
- McNemar, Quinn. <u>Psychological Statistics</u>, third edition. New York: John Wiley and Sons, Inc., 1962.
- Merton, Robert K. <u>Social Theory and Social Structure</u>. New York: The Free Press of Glencoe, 1957.
- Merton, Robert K., Leonard Broom, and Leonard S. Cottrell, Jr. <u>Sociology</u> <u>Today</u>. New York: Basic Books, Inc., 1959.
- Miller, Gerald R., and Milton Rokeach. "Individual Differences and Tolerance for Inconsistency," in P. H. Tannenbaum, R. P. Abelson, E. Aronson, W. J. McGuire, T. M. Newcomb, and M. J. Rosenberg (eds.). <u>Theories of Cognitive Consistency</u>. Chicago: Rand McNally, in press.
- Mueller, Eva. "The Desire for Innovations in Household Goods," in Lincoln H. Clark (ed.). <u>Consumer Behavior</u>. New York: Harper and Brothers, 1958.
- Nielsen, A. C., Jr. "Consumer Product Acceptance Rates," in Lincoln H. Clark (ed.). <u>Consumer Behavior</u>. New York: Harper and Row, 1958.
- Roberts, W. Rhys. "Rhetorica," in W. D. Ross (ed.). <u>The Works of</u> <u>Aristotle</u>. New York: Oxford University Press, 1946.
- Rogers, Everett M. <u>Social Change in Rural Society</u>. New York: Appleton, Century, and Crofts, 1960.

- Rogers, Everett M. <u>The Diffusion of Innovations</u>. New York: The Free Press of Glencoe, 1962.
- Rogers, Everett M. with F. Floyd Shoemaker. <u>Diffusion of Innovations</u>: <u>A Cross-Cultural and Communication Approach</u>. New York: The Free Press of Glencoe, 1967, in process.
- Rokeach, Milton. <u>The Open and Closed Mind</u>. New York: Basic Books, Inc., 1960.

. "The Nature and Meaning of Dogmatism," in E. P. Hollander and Raymond G. Hunt (eds.). <u>Current Perspectives in Social Psychology</u>. New York: Oxford University Press, 1963, pp. 162-172.

- Schramm, Wilbur. "How Communication Works," in Wilbur Schramm (ed.). <u>Process and Effects of Mass Communication</u>. Urbana, Illinois: University of Illinois Press, 1954, pp. 3-26.
- Secord, Paul F. and Carl W. Backman, <u>Social Psychology</u>. New York: McGraw-Hill Book Company, 1964.
- Shannon, Claude and Warren Weaver. <u>The Mathematical Theory of Communi-</u> <u>cation</u>. Urbana, Illinois: University of Illinois Press, 1949.
- Staudt, Thomas A. and Donald A. Taylor. <u>A Managerial Introduction to</u> <u>Marketing</u>. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1965.
- Walker, Helen M. and Joseph Lev. <u>Statistical Inference</u>. New York: Holt, Rinehart and Winston, 1953.
- Zaltman, Gerald. <u>Marketing: Contributions from the Behavioral</u> <u>Sciences</u>. New York: Harcourt, Brace and World, Inc., 1965.

B. ADDRESSES, BULLETINS, AND PUBLISHED RESEARCH REPORTS

- Beal, George M. and Everett M. Rogers. <u>The Adoption of Two Farm Prac</u>-<u>tices in a Central Iowa Community</u>. Iowa Agricultural and Home Economics Experiment Station, Special Report 26. Ames, Iowa: 1960.
- Bell, William E. "Consumer Innovators: A Unique Market for Newness," in Stephen A. Greyser (ed). <u>Toward Scientific Marketing</u>. Proceedings of the Winter Conference of the American Marketing Association. Boston: Dec. 27-28, 1963, pp. 85-95.
- Copp, James H. <u>Personal and Social Factors Associated With the Adoption</u> of <u>Recommended Farm Practices Among Cattlemen</u>. Agricultural Experiment Station, Technical Bulletin 83. Manhattan, Kansas: 1956.

- Cox, Donald F. "The Audience as Communicators," in Stephen A. Greyser (ed.). <u>Toward Scientific Marketing</u>. Proceedings of the Winter Conference of the American Marketing Association. Boston: Dec. 27-28, 1963, pp. 58-72.
- Crane, Edgar. "Communications: A Marketing Analysis," in Peter D. Bennett (ed.). <u>Marketing and Economic Development</u>. Proceedings of the 1965 Fall Conference of the American Marketing Association. Washington: Sept. 1-3, 1965, pp. 400-410.
- Diffusion Documents Center, Michigan State University, East Lansing, Michigan.
- Deutschman, Paul J., and Orlando Fals Borda. <u>Communication and Adoption</u> <u>Patterns in an Andean Village</u>. San Jose, Costa Rica: P. I. I. P., 1962.
- Emery, F. E., and O. A. Oeser. <u>Information</u>, <u>Decision and Action</u>: <u>A</u> <u>Study of the Psychological Determinants of Changes in Farming</u> <u>Techniques</u>. New York: Cambridge University Press, 1958.
- Frank, Ronald E., and William F. Massy. "Innovation and Brand Choice: The Folger's Invasion," in Stephen A. Greyser (ed.). <u>Toward</u> <u>Scientific Marketing</u>. Proceedings of the Winter Conference of the American Marketing Association. Boston: Dec. 27-28, 1963, pp. 96-107.
- Frank, Ronald E., William F. Massy, and Donald G. Morrison. "The Determinants of Innovative Behavior With Respect to a Branded, Frequently Purchased Food Product," in L. George Smith (ed.). <u>Reflections on Progress in Marketing</u>. Proceedings of the 1964 Educators' Conference, American Marketing Association. Chicago: Dec. 38-39, 1964, pp. 312-323.
- Gedalecia, Ben. <u>The Communicators: An All-Media Study</u>. 3rd Annual Conference Report, Advertising Research Foundation, New York: Nov., 1957.
- Hunt, Martin F., Jr., and Gerald R. Miller. "Open and Closed-Mindedness, Belief-Discrepant Communication Behavior, and Tolerance for Cognitive Inconsistency." Paper presented at the convention of the Speech Association of America. New York: 1965.
- "Interurbia: The Changing Face of America." Memo of the J. Walter Thompson Company. New York: May 10, 1960.
- King, Charles W. "Fashion Adoption: A Rebuttal to the 'Trickle Down' Theory," in Stephen A. Greyser (ed.). <u>Toward Scientific Market-</u> <u>ing</u>. Proceedings of the American Marketing Association, Conference. Boston: Dec. 27-28, 1963, pp. 108-125.

- King, Charles W. "The Innovator in the Fashion-Adoption Process," in L. George Smith (ed.). <u>Reflections on Progress in Marketing</u>. Proceedings of the 1964 Educators Conference, American Marketing Association. Chicago: Dec. 28-29, 1964, pp. 324-339.
 - _____. "Communicating With the Innovator in the Fashion Adoption Process," in Peter D. Bennett (ed). Proceedings of the 1965 Fall Conference, American Marketing Association. Washington: Sept. 1-3, 1965, pp. 425-439.
- Klein, Thomas. "The Effect of a Newspaper Strike on Retail Sales and Advertising," Business Research Center, University of Toledo, Toledo, Ohio, in process.
- Kreitlow, Burton W., and James A. Duncan. <u>The Acceptance of Educational</u> <u>Programs in Rural Wisconsin</u>. Wisconsin Experiment Station, Bulletin, 525. Madison, Wisconsin: 1956.
- Lionberger, Herbert F., and C. Milton Coughenour. <u>Social Structure and</u> <u>Diffusion of Farm Information</u>. Agricultural Experiment Research, Bulletin 631. Columbia, Missouri: 1957.
- Lipstein, Benjamin. "The Dynamics of Brand Loyalty and Brand 'Switching.'" Proceedings: 5th Annual Conference, Advertising Research Foundation. New York: Sept., 1959, pp. 101-108.
- Meloan, Taylor W. "New Products--Keys to Corporate Growth." An address presented at the Winter Conference of the American Marketing Association. St. Louis, Missouri: Dec. 28-30, 1960.
- Nicosia, Francesco M. "Opinion Leadership and the Flow of Communication: Some Problems and Prospects," in L. George Smith (ed.). <u>Reflections on Progress in Marketing</u>. Proceedings of 1964 Educators Conference, American Marketing Association. Chicago: Dec. 28-29, pp. 340-358.
- Opinion Research Corporation, <u>America's Tastemakers</u>: <u>A New Strategy</u> <u>for Predicting Change in Consumer Behavior</u>. Princeton, New Jersey: April, 1959.
- Photiadis, John D. <u>Contacts with Agricultural Agents</u>. South Dakota Agricultural Experiment Station, Bulletin 493. Brookings, South Dakota: 1961.
- Rogers, Everett M. <u>Characteristics of Agricultural Innovators and</u> <u>Other Adopter Categories</u>. Agricultural Experiment Station, <u>Research Bulletin 882</u>. Wooster, Ohio: 1961.

- Rogers, Everett M. <u>Bibliography of Research on the Diffusion of</u> <u>Innovations</u>. East Lansing, Michigan: Michigan State University, July, 1966.
- Rogers, Everett M. and Rabel J. Burdge. <u>Muck Vegetable Growers</u>: <u>Diffusion of Innovations Among Specialized Farmers</u>. Ohio Agricultural Experiment Station, Research Circular 94. Wooster, Ohio: 1961.
- Rogers, Everett M., and John Harp. "Personality Correlates of the Adoption of Technological Practics," Paper presented to the Midwest Sociological Society. Des Moines, Iowa: 1957.
- Rogers, Everett M., and J. David Stanfield. "Adoption and Diffusion of New Products: Emerging Generalizations and Hypotheses." Paper presented at the Conference on the Application of Sciences to Marketing Management, Purdue University. W. Lafayette, Indiana: July, 1966.
- Rogers, Everett M., and Rabel J. Burdge. <u>Community Norms</u>, <u>Opinion</u> <u>Leadership</u>, <u>and Innovativeness Among Truck Growers</u>. Ohio Agricultural Experiment Station Research Bulletin. Wooster, Ohio: 1962.
- Sizer, Leonard M., and Ward F. Porter. <u>The Relation of Knowledge to</u> <u>Adoption of Recommended Practices</u>. West Virginia Agricultural Experiment Station, Bulletin 446. Morgantown, West Virginia: 1960.
- Troldahl, Verling C. <u>The Communication of Horticulture Information and</u> <u>Influence in a Suburban Community</u>. Communication Research Center, Report No. 10. Boston: Boston University, March, 1963.
- Yellow Pages National Usage Study. Audits and Survey Company, Inc., 1964.
- Yeracaris, Constantine A. "Social Factors Associated with the Acceptance of Medical Innovations." Paper presented at the American Sociological Association. St. Louis, Mo.: 1961.
 - C. ARTICLES FROM JOURNALS AND PERIODICALS
- Barber, Bernard and Lyle S. Lobel. "Fashions in Women's Clothes and the American Social System," <u>Social Forces</u>, 31:124-131, December, 1952.
- Belcher, John C. "Acceptance of the Salk Polio Vaccine," <u>Rural Socio-</u> <u>logy</u>, 23:518-170, 1958.

- Bowers, Raymond V. "Differential Intensity of Intro-Societal Diffusion," <u>American Sociological Review</u>, 3:21-31, 1938.
- Brooks, Robert C., Jr. "'Word-of-Mouth' Advertising in Selling New Products," <u>Journal of Marketing</u>, 22:154-161, October, 1957.
- Chaparro, Alvaro. "Soziale Aspekte des Kulturellen Wandels: Die Diffusion neuer Techniken in der Landwertschaft," <u>Kolner</u> <u>Zeitschrift f.</u> <u>Soziologie and Sozial-psychologie</u>, 8:567-594, 1956.
- "Cities as Long as Highways--That's America of the Future," <u>U.S.</u> <u>News and World Report</u>, 25:27-31, April 5, 1957.
- Cohen, Arthur R. "Attitudinal Consequences of Dissonance," <u>Public</u> <u>Opinion Quarterly</u>, 24:297-318, Summer, 1960.
- Coleman, James S. "Relational Analysis: The Study of Social Organizations with Survey Methods," <u>Human</u> Organization, 17: 4, 28-36, Winter, 1958-59.
- Coughenour, C. Milton. "The Functioning of Farmers' Characteristics in Relation to Contact with Media and Practice Adoption," <u>Rural</u> Sociology, 25:183-297, 1960.
- Cunningham, Ross M. "Brand Loyalty--What, Where, How Much?" <u>Harvard</u> <u>Business Review</u>, 34:116-128, January-February, 1956.
- Draper, James E., and Larry H. Nolin. "A Markov Chain Analysis of Brand Preferences," <u>Journal of Advertising Research</u>, 24:33-39, September, 1964.
- Ehrlich, D., I Suttman, P. Schonbach, and J. Mills. "Post-decision Exposure to Relevant Information," <u>Journal of Abnormal and</u> <u>Social Psychology</u>, 54:98-102, 1957.
- Ehrlick, Howard J. "Dogmatism and Learning," <u>Journal of Abnormal and</u> <u>Social Psychology</u>, 69:148-149, January, 1961.
- Fallers, Lloyd A. "A Note on the 'Trickle Effect,'" <u>Public Opinion</u> <u>Quarterly</u>, 18:314-321, Fall, 1954.
- Festinger, Leon. "Behavioral Support for Opinion Change," <u>Public</u> <u>Opinion Quarterly</u>, 28:404-417, Fall, 1964.
- Fliegel, Frederick C. "A Multiple Correlation Analysis of Factors Associated with Adoption of Farm Practices," <u>Rural Sociology</u>, 21:284-292, 1956.

- Foulkes, D., and S. H. Foulkes. "Self-Concept, Dogmatism, and Tolerance of Trait Inconsistency," <u>Journal of Personality and Social</u> <u>Psychology</u>, 2:249-252, 1967.
- Fourt, Louis A., and Joseph W. Woodlock. "Early Prediction of Market Success for New Grocery Products," <u>Journal of Marketing</u>, 25:31-38, October, 1960.
- Graham, Saxon. "Class and Conservatism in the Adoption of Innovations," <u>Human Relations</u>, vol. IX, No. 1, pp. 91-100, 1956.
- Hovland, Carl I. "Reconciling Conflicting Results Derived from Experimental and Survey Studies of Attitude Change," <u>American</u> <u>Psychologist</u>, 14:8-17, January, 1959.
- Katz, Elihu. "The Two-Step Flow of Communication: An Up-to-date Report on an Hypothesis," <u>Public Opinion Quarterly</u>, pp. 61-78, Spring, 1958.
- Kleck, R. E., and J. Wheaton. "Dogmatism and Responses to Opinion Consistent and Opinion Inconsistent Information," <u>Journal of</u> <u>Personality and Social Psychology</u>, 5:249-253, 1967.
- Klein, L. R., and J. B. Lansing. "Decisions to Purchase Consumer Durable Goods," <u>Journal of Marketing</u>, 20:109-132, October, 1955.
- Koponen, Arthur. "Personality Characteristics of Purchasers," <u>Journal</u> of <u>Advertising Research</u>, 1:6-12, September, 1960.
- Kuehn, Alfred A. "Consumer Brand Choice as a Learning Process," Journal of Advertising Research, 2:10-18, December, 1962.
- Lionberger, Herbert F. "Some Characteristics of Farm Operators Sought as Sources of Farm Innovation in a Missouri Community," <u>Rural</u> <u>Sociology</u>, 18:327-330, 1953.
- Lowry, Sheldon, and others. "Factors Associated with the Acceptance of Health Care Practices Among Rural Families," <u>Rural Sociology</u>, 23:198-202, 1958.
- Marsh, C. Paul and A. Lee Coleman. "Differential Communication among Farmers in a Kentucky County," <u>Rural</u> <u>Sociology</u>, 20:93-101, 1955.
- Marsh, C. Paul and A. Lee Coleman. "The Relation of Farmer Characteristics to the Adoption of Recommended Farm Practices," <u>Rural</u> <u>Sociology</u>, 20:289-296, 1955.
- May, Frederick. "Buying Behavior: Some Research Findings," <u>Journal</u> of <u>Business</u>, 38:379-396, October, 1965.

- Mills, Harlan D. "Dynamics of New Product Campaigns," <u>Journal of</u> <u>Marketing</u>, 28:60-63, October, 1964.
- North, Cecil C., and Paul Hatt. "Jobs and Occupations: A Popular Evaluation," <u>Opinion News</u>, pp. 3-13, September, 1947.
- Powell, Frederic A. "Open and Closed-Mindedness and the Ability to Differentiate Source and Message," <u>Journal of Abnormal and</u> <u>Social Psychology</u>, 65:61-64, 1962.
- Pessemier, Edgar A. "A New Way to Determine Buying Decisions," Journal of Marketing, 24:41-46, October, 1959.
- Precker, Joseph A. "Similarity of Valuings as a Factor in Selection of Peers and Near-Authority Figures," <u>Journal of Abnormal</u> <u>and Social Psychology</u>, 47:406-414, 1952.
- Robertson, Thomas S. "The Process of Innovation and the Diffusion of Innovation," <u>Journal of Marketing</u>, 31:14-19, January, 1967.
- Rogers, Everett M. "A Note on Innovators," <u>Journal of Farm Economics</u>, 41:132-134, 1959.

_____. "Personality Correlates of the Adoption of Technological Practices," <u>Rural Sociology</u>, 22:267-268, 1957.

- Rogers, Everett M, and George M. Beal. "The Importance of Personal Influence in the Adoption of Technological Changes," <u>Social</u> <u>Forces</u>, 36:329-335, 1958.
- Rosenberg, Milton J. "A Structural Theory of Attitude Dynamics," <u>Public Opinion Quarterly</u>, 24:319-340, Summer, 1960.
- Ryan, Bryce and Neal C. Gross. "The Diffusion of Hybrid Seed Corn in Two Iowa Communities," <u>Rural</u> Sociology, 8:15-24, 1943.
- Shaw, Steven J. "Behavioral Science Offers Fresh Insights on New Product Acceptance," <u>Journal of Marketing</u>, 29:9-13, January, 1965.
- "Sprawling 'Strip-Cities'--They're All Over U. S.," <u>U. S. News and World</u> <u>Report</u>, 51:73-78, September, 18, 1961.
- Troldahl, Verling C., and Frederic A. Powell. "A Short-Form Dogmatism Scale for Use in Field Studies," <u>Social</u> <u>Forces</u>, 44:211-214, December, 1965.
- Troldahl, Verling C., and Robert Van Dam. "Face to Face Communication About Major News Topics," <u>Public Opinion Quarterly</u>, 29:626-634, Winter, 1965-66.

- Tucker, W. T. "The Development of Brand Loyalty," <u>Journal of Market-</u> <u>ing</u>, 31:32-35, August, 1964.
- Van den Ban, A. W. "Some characteristics of progressive Farmers in the Netherlands," <u>Rural Sociology</u>, 22:205-212, 1957.
- Wasson, Chester R. "What is 'New' About a New Product?," <u>Journal of</u> <u>Marketing</u>, 25:52-56, July, 1960.
- Walters, S. George, Morris L. Sweet, and Max D. Snider. "When Industry Moves to Interurbia," <u>Sales Management</u>, 82:65-67, February 20, 1959.
- Whyte, William H., Jr. "The Web of Word of Mouth," <u>Fortune</u>, 50:140-144f, November, 1954.
- Wilkening, Eugene A. "Informal Leaders and Innovators in Farm Practices," <u>Rural</u> <u>Sociology</u>, 17:272-275, 1952.
- Robert B. Zajonc. "Balance, Congruity, and Dissonance," <u>Public Opinion</u> <u>Quarterly</u>, 24:280-296, Summer, 1960.

D. UNPUBLISHED MATERIAL

- Bell, William E. <u>Consumer Innovation</u>: <u>An Investigation of Selected</u> <u>Characteristics of Innovators</u>. Unpublished Ph.D. thesis. Department of Marketing and Transportation and Administration, East Lansing, Michigan: Michigan State University, 1962.
- Childs, John W. <u>A Study of the Belief Systems of Administrators and</u> <u>Teachers in Innovative and Non-Innovative School Districts</u>. Unpublished Ph.D. thesis, College of Education, East Lansing, Michigan: Michigan State University, 1965.
- Chou, Teresa M. <u>Homophily in Interaction Patterns in the Diffusion</u> of <u>Innovations in Columbian Villages</u>. Unpublished M.A. thesis, Department of Communication, East Lansing, Michigan: Michigan State University, 1966.
- Holmes, John H. "Marketing in Megalopolis." Unpublished term report for Marketing 857, Michigan State University, East Lansing, Michigan: Spring, 1963.

- Hudspeth, DeLayne R. <u>A Study of Belief Systems and Acceptance of New</u> <u>Educational Media With Users and Non Users of Audio Visual</u> <u>Graphics</u>. Unpublished Ph.D. thesis, College of Education, East Lansing, Michigan: Michigan State University, 1965.
- Jamias, Juan F. <u>The Effects of Belief System Styles on the Communi-</u> <u>cation and Adoption of Farm Practices</u>. Unpublished Ph.D. thesis, Department of Communication, East Lansing, Michigan: Michigan State University, 1964.
- Jones, Gwyn E. <u>Factors Affecting the Adoption of New Farm Practices</u>, <u>with Particular Reference to Central Wales and the East Mid-</u> <u>lands of England</u>. B. Litt. Thesis, Oxford, England: Oxford University, 1960.
- Rogers, Everett M. <u>A Conceptual Variable Analysis of Technological</u> <u>Change</u>. Ph.D. thesis, Ames, Iowa: Iowa State University, 1957.
- Shoemaker, F. Floyd. "Personality Dimensions of Innovativenss," unpublished term report for Psychology 936, Michigan State University, East Lansing, Michigan: Winter, 1966.
- . "A Reconceptualization of a Process," unpublished term report for Communication 470, Michigan State University, East Lansing, Michigan: Spring, 1966.
- Troldahl, Verling C. <u>Mediated Communication and Personal Influence</u>: <u>A Field Experiment</u>. Ph.D. thesis, Minneapolis: University of Minnesota, 1963.
- Warland, Rex H. <u>Personal</u> Influence: <u>The Degree of Similarity of Those</u> <u>Who Interact</u>. Unpublished M.S. thesis, Ames, Iowa: Iowa State University, 1963.
- Wrenn, R: L. <u>The Resolution of Cognitive Dissonance in Open and Closed</u> <u>Belief Systems</u>. Unpublished Ph.D. dissertation, Athens, Ohio: Ohio University, 1962.

APPENDICES

.
APPENDIX A

Telephone Instruction Form

Appendix A

Telephone Instruction Form

Follow this format in contacting individuals by telephone and arranging personal interviews.

Hello:

May I please speak to the person in your home who owns and drives the Mustang automobile?

My name is Mrs. Holmes. My husband, John Holmes, is a professor in marketing at Bowling Green State University. At the present time he is engaged in a research project studying people who bought a new Mustang in the past two and a half years.

My records indicate that you bought a Mustang during that period of time, is that correct? Did you or some other member of your family make the actual purchase decision? Are you the principal user of the car?

In the event that the person who made the decision is someone other than the principal user, thank the person for his time and terminate the interview. Make <u>certain</u> that you talk to the person who (1) made the buying decision <u>and</u> (2) is the principal user. If you find yourself talking with a second party, it will probably be necessary for you to repeat the above paragraph.

I am calling because I would like to include you in this study. I wonder if you would be willing to answer some questions for a student from Bowling Green who could come to your home at your convenience. The interview will take only twenty-five minutes of your time.

Set up a definite time, date, and place for the interview and record this information on the following page.

Thank you for your cooperation, Mr. _____, and I hope you will enjoy the interview with Mr. (Mrs.) _____, who will be calling on you at _____ a.m. (p.m.) (day) _____, (date) _____.

Good bye Mr. _____.

APPENDIX B

Interview Schedule Form

Appendix B

Interview Schedule Form

Map code	MUSTANG DIFFUSION STUDY	Subject
	DEPARTMENT OF COMMUNICATION	number
	MICHIGAN STATE UNIVERSITY	letter

Residence of					
Person Interviewed					
Address	Phone				
Date of Personal Interview	Time				
Interviewer					
Special Instructions					

•

.

1	-	3	209	Pro	ject number
4	-	5		Dec	k number
6	-	8		Sub	ject number
9	-	10	01_	Car	d number
13		14		1.	When did you buy your Mustang? 00 - this month (November 1966) 01 - one month ago (October 1966) 02 - two months ago (September 1966) 27 - twenty-seven months ago (July 1964)
					97 - no response 98 - don't know
				2.	Did you sell or trade in another car at or about time you bought the Mustang?
					yes If no, go to no question #4
				3.	What make was it?
		15		Scor 0 - 1 - 7 - 8 - 9 -	re: if made by Ford Motor Company if made by another manufacturer no response don't know question not asked
				4.	<pre>Thinking back, could you tell me where or from whom you first became aware of the <u>existence</u> of the Mus- tang? t - commercial source advertising contact with dealer and/or salesman n - non-commercial source immediate family other relatives co-workers friends and/or neighbors publicity o - made up own mind observed on street rode in or drove someone else's Mustang? x - no response z - don't know</pre>

5. Again thinking back, could you tell me where or from whom you first became interested in the Mustang? Probe to determine similarity between answer given here and the answer given to the preceding question... c - commercial source advertising contact with dealer and/or salesman n - non-commercial source immediate family other relatives co-workers friends and/or neighbors publicity o - made up own mind observed on street rode in or drive someone else's Mustang x - no response z - don't know6. Which source of information do you believe was the most influential in your purchase decision. Probe to determine similarity between answer given here and the answers given to the two preceding questions. c - commercial source advertising contact with dealer and/or salesman n - non-commercial source immediate family other relatives co-workers friends and/or neighbors publicity o - made up own mind observed on street rode in or drove someone else's Mustang x - no response z - don't know Score: 16 0 - all different 2 - three alike 1 – two alike 7 - no response 8 - don't know 17 _____ 7. Were you the first person in your immediate neighborhood to own a Mustang? 0 - no1 - yes 2 - one of the first 7 - no response 8 - don't know

18	8.	Were you the first person amor friends to own a Mustang? 0 - no 7 - no 1 - yes 8 - do 2 - one of the first	ng your circle of o response on't know
Now I am g and magazi listening the Toledo	oing ne hab nev	to ask you some questions abore reading habits and your televis its. I would like to remind you repapers are on strike.	out your newspaper sion and radio ou at this time that
19 - 20	9.	How much time would you estimate per day reading the newspapers 00 - none $01 - between \frac{1}{2}$ and $1\frac{1}{2}$ hours $02 - between 1\frac{1}{2}$ and $2\frac{1}{2}$ hours $03 - between 2\frac{1}{2}$ and $3\frac{1}{2}$ hours $04 - between 3\frac{1}{2}$ and $4\frac{1}{2}$ hours	ate that you spend s in an average week? Convert answers to a per week basis before recording.
		21 - between $20\frac{1}{2}$ and $21\frac{1}{2}$ hours	3
		97 - no response 98 - don't know	if 00, 97, 98, go to question #13.
21 - 22 1	0.	How many different newspapers average week? 01 - one 02 - two 03 - three 04 - four 05 - five	do 'you read in an
		16 - sixteen 97 - no response 98 - don't know	
		99 - question not asked	
1	1.	As you paged through these new did you notice any Mustang adv	vertisements?
		no if no, yes questio	go to on #13
23 - 24 1	.2.	How many do you recall? 01 - one 02 - two 03 - three 04 - four	97 - no response 98 - don't know 99 - question not asked
		16 - sixteen	

25 - 26	13.	During an average week, how much time would you estimate that you spend reading magazines? 00 - none 01 - between $\frac{1}{2}$ and $\frac{1}{2}$ hrs. 02 - between $\frac{1}{2}$ and $\frac{2}{2}$ hrs. 03 - between $\frac{2}{2}$ and $\frac{2}{2}$ hrs. 04 - between $\frac{3}{2}$ and $\frac{4}{2}$ hrs.
		24 - between $23\frac{1}{2}$ and $24\frac{1}{2}$ hrs. If 00, 97, 98 go to question #17.
		98 - don't know
27 - 28	14.	How many different magazines do you read in an average week? O1 - one O2 - two O3 - three
		97 - no response 98 - don't know 99 - question not asked
	15.	As you paged through these magazines last week, did you notice any advertisement for the Mustang?
		no If no go to question #17 yes
29 - 30		How many can you recall? Ol - one O2 - two O3 - three O4 - four
		12 - twelve
		97 - no response 98 - don't know 99 - question not asked

Í

•

21 - 32 _____ 17. During an average week, how much time would you estimate you spend per day listening to the radio both at home and in your car? 00 - none 01 - between $\frac{1}{2}$ and $\frac{1}{2}$ hrs. 02 - between $1\frac{1}{2}$ and $2\frac{1}{2}$ hrs. 03 - between $2\frac{1}{2}$ and $3\frac{1}{2}$ hrs. If 00, 98, 97, go to question #21. 28 - between $27\frac{1}{2}$ and $28\frac{1}{2}$ hrs. 97 - no response Convert answers to a per 98 - don't know week basis before recording 33 - 34 18. How many different stations do you listen to in an average week? 01 - one 02 - two 03 - three04 - four10 - ten 97 - no response 98 - don't know 99 - question not asked 19. As you listened to the radio last week, do you recall hearing any commercials about the Mustang? no If no, go to yes question #21. 35 - 36 _____ 20. How many do you recall? 01 - one 02 - two03 - three20 - twenty 97 - no response 98 - don't know 99 - question not asked

37 - 38 _____ 21. How much time would you estimate that you spend per day watching television in the average week? 00 - none Convert to a per week $01 - between \frac{1}{2}$ and $1\frac{1}{2}$ hrs. 02 - between $1\frac{1}{2}$ and $2\frac{1}{2}$ hrs. basis before recording. 03 - between $2\frac{1}{2}$ and $3\frac{1}{2}$ hrs. 24 - between $23\frac{1}{2}$ and $24\frac{1}{2}$ hrs. If 00, 97, 98 go to question #25. 97 - no response 98 - don't know 39 - 40 _____ 22. How many different channels do you watch in the average week? 00 - none97 - no response 01 - one 98 - don't know 02 - two99 - question not asked 04 - four05 - five 11 - eleven 23. As you watched television <u>last</u> week, do you recall seeing any commercials about the Mustang? If no, go to question #25. no yes 41 - 42 24. How many can you recall 01 - one 02 - two 03 - three 15 - fifteen 97 - no response 98 - don't know 99 - question not asked

A DESTRUCTION OF THE OWNER AND A DESTRUCTURA AND AND AND A DESTRUCTURA AND AND A DESTRUCTURA AND AND A

Now I am going to ask you some questions about conversations you may have had with other people about your car.

25.	During the past week how about (your) Mustang with	many times did you talk the following people?	
	immediate family		
	other relatives	10 - none If 00, 97, or 98	
	people you work with	01 - 01e appears in 154 02 - two column 43-44 03 - three so to question	
	friends/neighbors	$04 - four \qquad #27.$	
	clerks, dealer, salesmen	15 - fifteen	
	all others	97 - no response 98 - don't know	
43 - 44	Total		
4 5 - 47 26.	 5. With regard to these conversations, about what percent of the time did you begin them? 000 - never 001 - one percent 002 - two percent 		
	050 - fifty percent		
	100 - one hundred percent 997 - no response 998 - don't know 999 - question not asked		
48 - 50 27.	Since you have owned your the people you talked wit favorable opinions about talked with you? 000 - none 001 - one percent 002 - two percent 003 - three percent 004 - four percent 050 - fifty percent 100 - one hundred percent	Mustang, what percent of th about the Mustang, had the car before they	
	997 - no response 998 - don ¹ t know		

51 - 52 28. About how many of the people you talked with about the Mustang, already owned a Mustang? 00 - none 01 - one 02 - two 03 - three 04 - four15 - fifteen 97 - no response 98 - don't know 29. As far as you know, about how many of the people you talked with about the Mustang, who didn't own one at the time, have subsequently bought a Mustang? 00 - none If 00, 97, or 98, go 01 - one to question #31. 02 - two03 - three12 - twelve 97 - no response 98 - don't know 53 - 54 _____ 30. How many of these people, in your opinion, were influenced in their decision either as a result of seeing or riding in your Mustang or by talking with you about your car? 00 - none01 - one 02 - two03 - three97 - no response 98 - don't know 99 - question not asked 55 - 57 _____ 31. Excluding the members of your family, what percent of the people you talked with about the Mustang spent about the same number of years in school that you did? 000 - none 001 - one percent 002 - two percent 003 - three percent 100 - one hundred percent 997 - no response 998 - don't know

133

(Since respondent has owned Mustang)

58 - 60	32.	Excluding your family, what you talked with about the Mu neighborhoods to the one you 000 - none 001 - one percent 002 - two percent 003 - three percent	percent of the people istang live in similar i live in?
		100 - one hundred percent	
		997 - no response 998 - don't know	
61 - 63	33.	Again excluding your family, people you talked with about similar occupations or do at of work as you do? 000 - none 001 - one percent 002 - two percent 003 - three percent	, what percent of the t the Mustang have bout the same kind
		100 - one hundred percent	
		997 - no response 998 - don't know	
64 - 66	34.	About what percent of the per about the Mustang would you people who like to try new a 000 - none 001 - one percent 002 - two percent 003 - three percent	eople you talked with say are the kind of and different things?
		100 - one hundred percent	
		997 - no response 998 - don't know	
	35.	Since you have owned your Mu anyone other than the member drive it?	istang, have you allowed rs of your family to
		no	
		yes	If no, hand respondent the clipboard.

67 –	68	36.	How many others have driven it? 00 - none 01 - one 02 - two 03 - three 04 - four
			14 - fourteen
			97 - no response 98 - don't know 99 - question not asked
		HAND	RESPONDENT THE CLIPBOARD
	If or:	it i igina	s obvious that the respondent still has his 1 Mustang, go to question #41.
		37.	Have you replaced your original Mustang?
			no If no, go to yes question #40.
		38.	With what make of car have you replaced it.
			· · · · · · · · · · · · · · · · · · ·
	69		Score: 0 - Mustang 1 - Ford product 2 - other make 7 - no response 8 - don't know 9 - question not asked
	70		<pre>Score: 0 - similar type (Mustang, Cougar, Camaro, Barracuda, Marlin) 1 - dissimilar type (all others) 7 - no response 8 - don't know 9 - question not asked</pre>

39. Which body type did you buy?

40. Do you own a second car?

yes	If no, go to
no	question #42.

41. What kind is it?

71 Score: 0 - if made by Ford Motor Company 1 - if made by another manufacturer 7 - no response 8 - don't know 9 - question not asked 42. When you replace your Mustang with what make will you replace it? DO NOT ASK IF THE PERSON HAS ALREADY REPLACED HIS MUSTANG. 72 _____ Score: 0 - Mustang 1 - Ford product 2 - other make 7 - no response 8 - don't know 9 - question not asked 73 _ Score: 0 - similar type (Mustang, Cougar, Camaro, Barracuda, Marlin) 1 - dissimilar type (all others) 7 - no response 8 - don't know 9 - question not asked 43. Which body type would you buy?

Now in conclusion I am going to ask you a few questions about yourself.

136

44. Do you own or rent this house (apartment)?
0 - rent
1 - own
2 - living with parents
3 - other
7 - no response
8 - don't know
What type of work does your father do? _____

About how long have you lived at this address? 00 - less than six months

The Construction

01 - between $\frac{1}{2}$ and $\frac{1}{2}$ yrs. 02 - between $1\frac{1}{2}$ and $2\frac{1}{2}$ yrs. $03 - between 2\frac{1}{2}$ and $3\frac{1}{2}$ yrs. If other than 00 - 05 $04 - between 3\frac{1}{2} and 4\frac{1}{2} yrs.$ record a00 in IBM $05 - between 4\frac{1}{2} and 5\frac{1}{2} yrs.$ column 74-75 and go $06 - between 5\frac{1}{2}$ and $6\frac{1}{2}$ yrs. to question #48. $07 - between 6\frac{1}{2} and 7\frac{1}{2} yrs.$ 27 - between $26\frac{1}{2}$ and $27\frac{1}{2}$ yrs. 97 - no response 98 - don't know 46. How many times have you moved during the last five years? 01 - once 02 - twice 03 - three times 04 - four times 12 - twelve times 97 - no response 98 - don't know 99 - question not asked

137

45.



13 - 14	49.	What type occupatio (2) is a band's oc	e of work do you on if respondent minor, (3) is u ccupation if int	do? : (1) : inemplo :erview	(Insert fa is living a byed) or (: wing wife)	ather's at home, Insert hus	-
				NH•		enter in	TBM col
		00 - unem	ployed			13 - 14.	101 001.
		01 - reti	red				
		97 - no r	esponse				
		98 - don'	t know				
	50.	How long doing thi 00 - less 01 - betw 02 - betw 03 - betw	have you (your is kind of work? than six month een $\frac{1}{2}$ and $\frac{1}{2}$ yr een $\frac{1}{2}$ and $\frac{2}{2}$ y een $2\frac{1}{2}$ and $3\frac{1}{2}$ y	fathe: s. yrs. yrs.	r, your hu	sband) bee	۵
		27 - betw	een $26\frac{1}{2}$ and $27\frac{1}{2}$	yrs.	<u>د</u>		
			•		If other t	han 00 -	05,
		97 - no r	esponse		record a) in column	n #15
		98 - don'	t know		and go to	question	#52.
		that you five year	(your father) h s?	ave do	NH:	the past	
		·					
					NH:		
					NH:		
				<u></u>	NH :		
					NH:		
15	Scor	e: Award	one point for e	ach cl	nange.		
16 - 17	Scor	e: Award	the number of n	oints	which send	arate the	
		two mo	st distant occu	pation	nal ranks a	as reporte	d
		on the	NH scale. Ent	er a 9	99 if a 0 d	or 9 appe	ars
		in IBM	column 15.				
18 - 19	52.	What was	the last year o	of scho	ool complet	ed?	
		00 - none	1	-	15 - 3rd vi	of coll	eve
		01 - 1st	grade	-	L6 - comple	eted colle	26
		02 - 2nd	grade	-	L7 - master	's degree	27
		03 - 3rd	grade]	18 - a.b.d.		
		10 - 2nd	yr. of high	-	L9 - doctor	's degree	
		11 - 3rd	yr. ôf high				
		12 - comp	leted high scho	01 <u>9</u>	97 - no res	sponse	
		13 - 1st	yr. of college	9	98 - don't	know	
		14 - 2nd	yr. of college				

•

139

22 - 23 _____ Score: Award points for education, occupation, and address. Key Education* Key Occupation 1 - did not finish grade school 1-05--14 NH 2 - did not finish high school 2-15--24 NH 4 - completed high school 3-25--34 NH 6 - some college 4-35--44 NH 7 - bachelor's degree 5-45--54 NH 8 - master's degree 6-55--64 NH 9 - doctor's degree *add one point to 1, 2, 4, if 7-65--74 NH 8-75--84 NH respondent is over 45 yrs. old 9-85--94 NH Key Address** This ranges on a continuum ranging from 1-9. The interviewer should consider both the respondent's residence and the immediate neighborhood. Suggested Scale: 1 - slum 2 - slum renewal - poor farm 3 - fringe4 - pre-war small 5 - post-war small 6 - pre-war moderate farm 7 - post-war large 8 - estate - prosperous farm 9 - large estate ****Deduct** one point if renting Education ____ Occupation ____ Address _____ Total _____Enter here and in IBM Column 22 - 23

The solution of the second state of the second

20

01

50

. DOGMATISM TEST

Michigan State University

(This and the following page would be handed to the respondent on the previously mentioned clipboard).

Several statements on a variety of topics are listed below. You may find yourself agreeing strongly with some of the statements . . . disagreeing just as strongly with others . . . and perhaps uncertain about others. Whether you agree or disagree with any statement, you can be sure that many people feel the same as you do.

A. 87 BELLEVILLA

We want your personal opinion on each statement. After you read each, please write an A or a D in the first column which tells me whether . . . in general . . . you agree or disagree. In the second column, place a l if you agree or disagree a little, a 2 if you agree or disagree on the whole, and a 3 if you agree or disagree very much.

A or D 1,2,3

 1.	There are two kinds of people in this world; those who are for the truth and those who are against the truth.
 2.	Most people just don't know what's good for them. $^{\vee}$
 3.	The highest form of government is a democracy and the highest form of democracy is a government run by those who are most intelligent.
 4.	Most of the ideas which get printed nowadays aren't worth the paper they are printed on.
 5.	In the long run the best way to live is to pick friends and associates whose tastes and beliefs are the same as one's own.
 6.	The <u>present</u> is all too often full of unhappiness. It is only the <u>future</u> that counts.
 7.	To compromise with our political opponents is dangerous because it usually leads to betrayal of our own side.
 8.	The main thing in life is for a person to want to do something important.
 9.	Even though freedom of speech is a worthwhile goal, it is unfortunately necessary to restrict the freedom of certain political groups.

 	10.	Most people just don't give a "damn" for others.
 	11.	It is only natural for a person to be rather fearful of the future.
 	12.	When it comes to <u>differences</u> of opinion in <u>religion</u> we must be careful not to compromise with those who believe <u>differently</u> from the way we do.
 	13.	Unfortunately, a good many people with whom I have discussed important social and moral problems don't really understand what's going on.
 	14.	A group which tolerates too much difference of opinion among its own members cannot exist for long.
 	15.	In this complicated world of ours the only way we can know what's going on is to rely on leaders or experts who can be trusted.
 	16.	My blood boils whenever a person stubbornly refuses to admit he's wrong.
 	17.	Of all the different philosophies which exist in the world there is probably only one which is correct.
 <u></u>	18.	It is only when a person devotes himself to an j ideal or cause that life becomes meaningful.
 	19.	In times like these it is often necessary to be <u>more</u> on guard against ideas put out by people or groups in one's <u>own</u> camp than by those in the <u>opposing</u> camp.
 	20.	In a discussion I often find it necessary to repeat myself several times to make sure I am being understood.
	Scor	e: Enter in IBM column 25 - 27 on page 16 of the appropriate Interview Schedule Form. Make <u>certain</u> that the subject number on this statement agrees with the subject number on the interview schedule form.

1

i

v

APPENDIX C

Letters of Introduction

COLLEGE OF COMMUNICATION ARTS • DEPARTMENT OF COMMUNICATION • CABLE: COMMDEPT

November 2, 1966

Dear Mustang Owner:

The interviewer calling upon you at this time is associated with the Mustang Diffusion Study being conducted by Mr. John Holmes, a graduate student in Communication, at Michigan State University.

This person will ask you a number of questions about your communication patterns and your Mustang at this time.

All information provided by you will be held in strict confidence. Your name will not in any way be identified with the answers you may give. So, may we urge you to express yourself freely.

If you have any questions about this interview at this time, you may contact either:

Mr. John H. Holmes Student Director 329 Union Building Michigan State University East Lansing, Michigan Phone: 353-3820 Dr. Everett M. Rogers Faculty Advisor 320 Union Building Michigan State University East Lansing, Michigan Phone: 355-3480

We would like to thank you in advance for your cooperation in this research study.

Yours very truly,

John H. Holmes Student Director

Everett M. Rogers Faculty Advisor

BOWLING GREEN STATE UNIVERSITY

BOWLING GREEN, OHIO 43402

November 19, 1966

Dear Mustang Owner:

The young gentleman who is about to interview you is a student at Bowling Green State University.

The information which you give him will be kept in strict confidence. The material is being compiled for my Ph.D. dissertation at Michigan State University.

If you have any questions concerning the interview please feel free to contact me. My telephone number is 353-6341 in Bowling Green.

Thank you very much for your time, cooperation, and assistance.

Yours very truly,

Holmes

John H. Holmes Marketing Department

APPENDIX D

Summary of Data Collection

Appendix D

Summary of Data Collection

Completed Interviews: "A"-60; "B"-40; "C"-24; "D"-16; "E"-10	-150
Inaccessible: no telephone listing; no answers; geographic relocati	ons-139
Refusals: too busy; not interested	- 39
Disqualified: decision maker not principal user	- 12
Aborted: subject could not comprehend questions	- 1

THE PARTY NEWS

APPENDIX E

Tabular Description of Sample

Ages	Frequency	Percentage
18 or younger	3	2 0
10_22	5 42	2.0
24-29	42	20.0
24-20	21	14.0
29-33	13	8.7
34-38	18	12.0
39-43	13	8.7
44-48	16	10.7
49-53	10	6.7
54-58	8	5.3
59-63	4	2.7
64-68	1	.7
84 or older	1	
Total	150	100.0%
Mean age categ Median age cat	ory: 29-33 egory: 29-33	

Table 8 - Age Distribution of the Respondents

.

•

North-Hatt Classifications	Frequency	Percentage
40-49	1	.7
50 - 59	23	15.3
60-69	66	44.0
70-79	43	28.7
80-89	14	9.3
90-99	<u>3</u>	2.0
Total	150	100.0%

Table 9 - Occupational Ranks Held by Respondents

Geographic Mobility Scores*	Frequency	Percentage
0	77	51.3%
1	32	21.3
2	20	13.3
3	6	4.0
4	4	2.7
5	5	3.3
6	2	1.3
7	3	2.0
8	1	7
Total	150	100.0%

Table 10 - Geographic Mobility Scores

*One point is awarded for each change of address and for each different city in which the subject has resided during the five year period preceding the date of the interview.

Hours of Exposure	Newspapers	Magazines	Radio	Television
_				_
0	3	18	4	8
1 - 5	85	103	43	14
6 - 10	53	22	39	35
11 - 15	7	4	18	36
16 - 20	1	1	5	6
21- 25	1	2	8	25
26 - 30			6	12
31 - 35			4	9
36 - 40			2	1
41 - 45			2	2
46 - 50			6	1
51 - 55			2	1
56 - 60			1	_
61 - 65			3	
66 - 70			Å	
70+			3	
Total	150	150	150	150

Table	11	-	Number	of	Hour	's (of	Exposu	ıre	to	the	Mass
			Me	die	i in	an	A٦	verage	Wee	ek		

Number of Mass				
Media Channels	Newspapers	Magazines	Radio	Television
0	3	18	4	8
1	53	14	36	5
2	64	21	40	45
3	23	28	41	30
4	7	34	16	22
5		17	5	15
6		9	5	22
7		6	2	2
8		2		1
9				
10			1	
20		1		
Total	150	150	150	150

Table 12 - Number of Mass Media Communication Channels Seen and/or Heard in An Average Week

Number of Commercials				
Recalled	Newspaper	Magazine	Radio	Television
0	89	79	80	5 9
1-5	52	67	52	82
6-10	8	2	13	5
11-15		2	2	2
16-20	1		3	
21-25				1
26-30		<u> </u>		1
Total	150	150	150	150

Table 13 - Number of Mustang Commercials Recalled During the Week Preceding the Interview

Month of Adoption	Adoptions	Percentage
April 1964	3	2.0%
May	4	2.7
June	3	2.0
July	2	1.3
August	2	1.3
September	4	2.7
October	6	4.0
November	8	5.3
December	4	2.7
January 1965	6	4.0
February	6	4.0
March	6	4.0
April	10	6.7
May	8	5.3
June	10	6.7
July	5	3.3
August	6	4.0
September	2	1.3
October	9	6.0
November	3	2.0
December	5	3.3
January 1966	4	2.7
February	1	.7
March	4	2.7
April	5	3.3
May	6	4.0
June	5	3.3
July	8	5.3
August	2	1.3
September	<u>3</u>	
Total	150	100.0%
Median Category: June 1965		

Table 14 - Adoption Dates for 150 Subjects

Number of		
Conversations	Frequency	Percentage
0	19	12.7%
1 - 5	54	36.0
6 - 10	37	24.7
11 - 15	19	12.7
16 - 20	9	6.0
21 - 25	5	3.3
26 - 30	3	2.0
31 - 45	2	1.3
36 - 40	1	.7
More than 40	1	
Total	150	100.0%

Table 15 - Number and Frequency of Conversations about the Mustang during the Week Preceding the Interviews
Table	16	-	Number	of C	Conve	ersations	About	the	Must	ang	with	People	Living
			in Simi	lar	Neig	ghborhoods	s, Hav	ing 3	Simil:	ar C	ccupa	tions,	and
			Having	Simi	llar	Education	ns as	a Pe	rcent	of	Total	Conver	rsations
						abou	it the	Mus	tang				

n Similar eighborhood	Similar Occupation	Similar
eighborhood	Occupation	Education
		Luucacion
6	3	8
17	29	12
8	7	7
8	12	9
1	5	1
5	7	3
18	26	14
6	7	6
16	17	19
5	5	7
60	32	64
150	150	150
	6 17 8 8 1 5 18 6 16 5 60 150	$\begin{array}{ccccccc} 6 & 3 \\ 17 & 29 \\ 8 & 7 \\ 8 & 12 \\ 1 & 5 \\ 5 & 7 \\ 18 & 26 \\ 6 & 7 \\ 16 & 17 \\ 5 & 5 \\ 60 & 32 \\ 150 & 150 \end{array}$

Table 17 - Number	r of Others	Who Drove	Respondents'	Mustangs

Number of Others Who Drove	7	Porcontago
Respondents Mustangs	Frequency	reicentage
0	44	29.3%
1 - 5	68	45.3
6 - 10	26	17.3
11 - 15	8	5.3
16 - 20	1	.7
20 - 2 5	2	1.3
More than 25	1	
Total	150	100.0%

Table 18 - Number of Persons	Allegedly	Influenced	by	the	Respondents
------------------------------	-----------	------------	----	-----	-------------

Number of Persons Allegedly Influenced	Frequency	Percentage
$ \begin{array}{r} 0 \\ 1 - 3 \\ 4 - 6 \\ 7 - 9 \\ 10 - 12 \end{array} $	73 68 4 1 3	48.7% 45.3 2.7 .7 2.0
More than 12 Total	<u> </u>	100.0%

Table 19 - Number of Other Mustang Owners Known by the Respondents

Number of Other		
Mustang Owners	Frequency	Percentage
0	37	24.7%
1 - 5	94	62.7
6 - 10	12	8.0
11 - 15	3	2.0
16 - 20	1	.7
20 - 25	3	2.0
Total	150	100.0%