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PERSUASION AND THE MASS COMMUNICATION PROCESS

DISSERTATION

Presented in Partial Fulfillment of the Requirements for
the Degree Doctor of Philosophy in the Graduate
School of The Ohio State University

By

Brian Sternthal, B.S., M.A.

The Ohio State University
1972

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CHAPTER I
INTRODUCTION

The decade of the sixties attests to the pervasive influence of mass communications on American life. Mass communications have helped turn popular sentiment against the Vietnam War, awakened public concern about environmental pollution, and kindled the desire for change in this nation's academic institutions. Mass communication media have been instrumental in the ascent of certain iconoclasts to positions of national prominence, the election of candidates to political office, and the demise of governments.

The breadth of marketing situations in which mass communication has an impact is no less compelling. Mass communication is an essential element in the dissemination of marketing information to consumers. It is the vehicle that has propelled a diverse set of product and service offerings to established positions in the market place. Though infrequently recognized, mass communications do have the potential to enhance co-ordination of the marketing effort, both within the firm and between members of the distribution channel (Stern, 1969). Furthermore, the current Federal Trade Commission investigation of the advertising industry reflects the influence government attributes to marketing mass communications.
Purpose and Scope

The basic purpose of this dissertation is to provide a foundation of knowledge concerning persuasive mass communications that may serve as a basis for its understanding, practical application, and systematic research. No attempt is made to elaborate a general theory of mass communications; gaps in current knowledge negate such an undertaking. Moreover, this dissertation is not intended to be a compendium of all that is known about persuasive mass communications. In fact, the communication literature is rather selectively reviewed. In certain areas too little is known to present meaningful insights or to integrate extant data; in others, the evidence available is not directly relevant to understanding or practical application. However, the presentation of contradictory findings is not avoided. Such findings reflect the ongoing refinement in the body of communication knowledge and suggests those substantive areas where research is needed to resolve equivocal findings.

This dissertation is addressed specifically to two audiences: practitioners and researchers. For the practitioner interested in updating his knowledge concerning mass communication phenomena, this review provides a current treatment. Though the perspective is that of a marketer, the evidence reviewed is presented in a sufficiently general manner to be informative to psychologists, political scientists, and students of speech. For the researcher, whose goal is to advance

1 The reader who is interested in previous reviews of the mass communication literature should consult Berlo (1960), Hovland, Janis, and Kelley (1953), Klapper (1960), and McGuire (1969).
communication practice, this dissertation is intended to be a starting point from which the systematic pursuit of knowledge will ultimately improve communication decision making.

Consistent with the overall purpose of the dissertation specific objectives are established for the target audiences. For practitioners the objective is to present an integration of the empirically based knowledge that reflects current understanding of mass communication persuasion from a marketing perspective. Specifically, the central objective is to address such questions as:

1. What critical variables underlie persuasive mass communication?
2. What influential effect is derived by altering the content of mass communications?
3. What is the relative persuasive impact of various manipulation of the communication's structure?

To achieve this purpose both published and unpublished literature from marketing, psychology, speech, and related disciplines is reviewed. Moreover, emphasis is placed on those investigations which employ experimental approaches. The correlational, observational, and survey studies which abound in the advertising literature are not reported as basic evidence. Rather, findings that involve these approaches are utilized to assess the real-world validity of experimentally derived assertions.

The rationale for the relative emphasis on experimentation becomes apparent when the nature of the alternative approaches are examined in light of this dissertation's purpose. Correlational, observational, and survey techniques infrequently allow the specification of causal relationships between communication variables. Even in those cases where
such techniques permit delineation of cause and effect, the relationship so found may be indigenous to the situation being investigated. On the other hand, experimental paradigms afford the opportunity to investigate causality and provide results that may be generalized to many mass communication situations. Since a central purpose of this dissertation is to elaborate on the mechanisms underlying a wide variety of persuasive mass communications, emphasis of experimental findings appears to be warranted.

For researchers the objective is to explore the utility of accumulated knowledge concerning mass communication phenomena. More specifically, the aim is to present an empirical foundation on which marketing communication practice may be advanced. To this end, only evidence dealing with substantive areas that have persistently concerned the marketing communication researcher and practitioner is selected for review. In those few instances that the data have immediate ramifications for the communication practitioner, their applicability is articulated. In the more prevalent situation, where no ready practical implications are evident, specific testable constructs are developed to bridge the gap between current knowledge and that needed for practical application.
Rationale

There can be little doubt that persuasive mass communication is an important topic for scientific inquiry. This contention is supported by the observation that mass communications have a pervasive influence on American life. Moreover, the recent proliferation of communication studies and literature reviews that have appeared in scholarly publications is indicative of the growing academic interest in understanding the nature of persuasive mass communications.

To help evaluate the potential contribution of this dissertation, current marketing approaches to the investigation of mass communication phenomena are described. Since a comprehensive review of these various research approaches is beyond the scope of this effort, only the salient characteristics of the most often used strategies are presented. Finally some of the deficiencies in current marketing mass communication research and reporting practices are examined.

As a function of a pragmatic discipline, marketing mass communication research has necessarily focused on improving decision making. Research with immediate relevance and practical application has been stressed. Investigations typically involve data from large sample surveys or panels. Usually measures of communication effectiveness such as exposure to the persuasive appeal, attitude change induced by the message, and the alteration of purchase patterns are gathered. In some studies information on such audience characteristics as personality and

2 Truncated communication models, especially those examining the attitude-behavior relationship are currently very popular in consumer behavior. The interested reader should see Cohen and Ahtola (1971), Fishbein and Ajzen (1972), and Triandis (1971).
demography are also collected. The analysis of these data involves the correlation of audience characteristics with communication effects to determine the profile of those who have been influenced by the persuasive message. Also, the association between communication effectiveness measures are examined to assess the relationship between mass communication variables. Thus the essence of these approaches is mass collection of data and reliance on correlational analysis.

Given these research paradigms and the quantitative orientation of many investigators, it is not surprising to find this emphasis on data collection and analysis techniques. In fact, the thrust of much marketing communication research is directed at the assessment of currently available psychometric and econometric techniques. On the other hand, consistent with the pragmatic focus, relatively little attention has been given to experimental paradigms. Even though there is little dispute that the determination of causal relationships between communication variables is important, few marketers give this approach precedence in their own research. Thus there remains a discrepancy between what is acknowledged as critical for investigation and what is actually investigated. Consequently marketing knowledge concerning the process of mass communications is borrowed, in great part, from the psychology and speech disciplines.

**Deficiencies of the Marketing Approach**

Two basic deficiencies exist in the current marketing approach to mass communication research: (1) an imbalance between correlational and experimental approaches, and (2) inadequate mass communication reviews.
Imbalance between correlational and experimental approaches.

Correlational paradigms typically employed in marketing mass communication research are useful in defining crucial communication variables. Additionally, these approaches have generated predictions concerning communication effects that are relevant to communication practitioners. However, the emphasis on correlational techniques has resulted in an impoverished understanding of the mass communication process.

The point is not that correlational approaches have contributed little to the understanding of mass communication phenomena; rather, that the lack of a balance between correlational and experimental methodologies has inhibited the rapid advancement of knowledge. This assertion is not new. The efficacy of a balanced approach to the study of most substantive areas in behavioral science is often verbalized. It is all but a truism that correlational and experimental paradigms ought to be used sequentially. When little is known about the phenomenon under investigation, correlational techniques are useful in determining the critical variables and their likely parameters. Once this information has been established, experimentation may facilitate the specification of causal relationships between variables. Finally, correlational analysis may be employed to check the real-world validity of experimental findings.

Why then do many marketing communication researchers act not only as if correlational and experimental approaches are mutually exclusive, 3

---

3Correlational paradigms refer to the marketing approaches to persuasive mass communication research described in the previous section.
but also as if experimentation is of little relevance? Certainly part of the answer lies in the myopic philosophy adhered to by many marketers that only studies with direct marketing application should be undertaken. Since experimental studies often do not yield immediately useful inferences to management (especially when checks for the real-world applicability of experimental findings are not instituted), they are often considered inappropriate.

Part of the answer also lies in the quality of some experimental marketing investigations. Too often psychological theories have been borrowed by marketers without sufficient consideration of the theory's original scope (e.g., cognitive dissonance theory). When these experimentally based theories fail to predict in marketing settings, they are discarded. More important, in failure a disdain for experimental techniques is acquired.

Marketers stress of correlational approaches is explained, in part, by their tendency to be highly sensitive and prejudicial toward techniques currently in vogue. Since psychometric and econometric techniques are at the forefront of what is new and different in marketing, they constitute the preferred approach to communication research.

Finally, these methods are often the only ones actively disseminated to students by many business schools. The result is a perpetuation of the predilection for correlational approaches, and a misunderstanding of experimentation in the next generation of researchers. That this is the case is reflected in the repeated and naive complaints voiced by many marketing students that experimentation is of little value because it
involves the use of convenient, non-representative samples and artificial settings.

Thus, though a balanced research effort may be difficult to justify in commercial settings, it appears to be congruent with the objectives maintained in an academic milieu. Without the pressures of producing immediately applicable results, academic marketing research programs should be able to pursue an understanding of the mass communication mechanism that will contribute to knowledge and ultimately will be useful to commercial enterprises.

**Inadequate mass communication reviews.** The most comprehensive marketing reviews of mass communication phenomena appear in recent consumer-behavior texts (Engel, Kollat, and Blackwell, 1968; Howard and Sheth, 1969). However, even these treatments: (1) lack currency (2) tend to be overselective (3) are not adapted to marketing situations and (4) have little heuristic value. These criticisms are not meant to demean the contributions made in consumer behavior texts. Quite the contrary, they question the efficacy of a research strategy that requires marketers to rely upon other disciplines in developing a theoretical basis for understanding mass communications. Moreover, the criticisms suggest the difficulties encountered when the burden of integrating vast literatures is left to very few reviewers. Given the breadth of topics covered in consumer behavior texts, it is not surprising that the treatment of mass communication suffers.

Currency in reporting the mass communication literature is lacking in two senses. First, the discussion of certain mass communication phenomena is often outdated. Howard and Sheth (1969), for example, utilize
an attention model that fails to reflect the important contributions to the understanding of this process made during the last decade (Deutsch and Deutsch, 1963; Norman, 1969; Treisman, 1960, 1965, 1969). Engel, Kollat, and Blackwell (1968) terminated their review of selective exposure without assessing much of the empirical and theoretical work done since 1960 (Freedman and Sears, 1965; Sears and Freedman, 1967). The currency of the mass communication literature is also hampered by the substantial delay between the completion of texts and their dissemination. In the interim the entire complexion of knowledge may have undergone significant change. Parenthetically, it may be noted that publication of communication reviews in academic marketing journals would resolve this currency problem. To date, however, marketing journals have been reluctant to publish such reviews.

A second problem with marketing mass communication reviews is their tendency to be overselective. The marketing writer typically has relied upon marketing and social psychology findings as his primary sources of information. The vast number of investigations performed under the rubrics of speech, communication, and experimental psychology remain virtually untapped. This overselectivity presents the reader with an incomplete picture of the current mass communication findings.

Closely related to the overselectivity problem is the lack of adaptation of the communication literature to a marketing setting.

---

4 A comparison of the reviews dealing with the persuasive effects of fear appeals presented in consumer behavior texts (Engel, Kollat, Blackwell, 1968; Howard and Sheth, 1969) with Higbee's (1969) review is one example supporting the contention that the complexion of knowledge may undergo rapid change.
Social psychology texts which are a major source of information for consumer behavior test writers often present an historical development of knowledge and, as such, tend to stress the main effects of variables under investigation. Frequently this literature is transferred to marketing without considering the findings from a marketer's standpoint. For example, the persuasive effects of fear-arousing or discrepant messages are of little direct concern to the marketer. Much more important are the interactive effects of these communication variables with source and audience characteristics. Since these interactive studies often are published in speech and communication journals, and are segregated from a discussion of the main effects in psychology texts, they are infrequently cited in marketing literature surveys.

Finally, a more general problem with the marketing mass communication reviews is their lack of heuristic value. Reviews often terminate with the phrase that "more research is needed." While this statement is undoubtedly true in many cases, it gives the investigator little direction. Seldom is it specified what research sequence and which paradigms would be appropriate in advancing knowledge.

Perhaps more harmful are cases in which marketing implications are drawn directly from the body of psychological communication knowledge. When these inferences fail to be supported empirically in a marketing context, the theory on which they are based is discarded. Given the complexity of the marketing milieu, it behooves marketing reviewers to present psychological findings as hypothesis for marketing research, rather than as conclusions.
Contribution of this Volume

Several strategies are employed in this dissertation to help overcome the deficiencies in the current marketing mass communication literature. Marketing mass communication investigators traditionally have stressed correlational techniques. To provide an overall balance, this dissertation places emphasis on experimental investigations of mass communication phenomena. In addition, emphasis of the current communication literature drawn from several disciplines will help overcome the currency and overselection problems mentioned earlier. Finally, the specification of paradigms for systematic research hopefully will provide direction to marketing communication researchers.

Working Definitions

Though the term persuasive mass communication has been used repeatedly, its meaning is still to be specified. For the purpose of this dissertation a persuasive mass communication is defined as the process by which a communicator or source unidirectionally transmits symbols to influence the behavior of an audience (adapted from Hovland, Janis, and Kelley, 1953). Though the definition chosen is a familiar one, some of its basic terms need clarification.

The terms communicator and source are used interchangeably to refer to the individual or group responsible for the communication. Often in mass communication research, for convenience and control

5 Though familiar, the Hovland, Janis, and Kelley definition is not the only one with wide usage. The interested reader should see Minter (1968) for other popular definitions.
purposes, the communication is attributed to a particular source rather than communicated by the source directly.

Unidirectional transmission refers to the fact that the persuasive mass communications to be discussed in this dissertation involve the one-way dissemination of symbols. The implication is that there is no feedback from communication recipients to the source.

The term symbols refers to the type of stimuli or messages that are transmitted from the source to communication recipients. Symbols include such auditory stimuli as the spoken word as well as visual stimuli such as graphics, illustrations, and photographs. It is assumed that both auditory and visual symbols are transmitted via particular communication media or channels. Certain communication channels are capable of transmitting only auditory symbols (e.g. radio); others allow for the transmission of visual symbols (e.g. print media), or audio-visual transmission (e.g. television).

The word influence may refer to at least five different types of situations (McGuire, 1969). These include suggestion, conformity, group discussion, persuasive message and intensive indoctrination situations. Of special interest in mass communication research are situations that generally fall under the rubric of persuasive messages. Typically in this social influence situation, arguments are constructed and presented to an audience in an attempt to get recipients to adopt the position advocated (e.g. Hovland, Janis, and Kelley, 1953). The majority of the studies reported in this dissertation will involve this type of influence situation.
Somewhat less reliance will be placed on social influence studies that fall under the heading of conformity. Conformity situations involve communicating the fact that a normative belief is discrepant with a respondent's own initial beliefs, and observing the amount of change toward the majority position made (McGuire, 1969). Though conformity studies do not appear to be directly relevant to mass communication situations, they will be reported when the findings of such studies clarify understanding of persuasive message investigations, or when the latter type of investigations are silent on a particular topic.

Thus the terms influence, persuasion, and conformity will not be used interchangeably. Influence will refer to both persuasive and conformity situations. On the other hand, persuasion and conformity will refer to the particular types of influence paradigms specified previously.

In the persuasive mass communication definition stated above, behavior refers to the action taken by an audience in response to a communication. Behaviors such as product purchase, service utilization, or voting are often the objective of persuasion. Though the behavioral consequences of communications are of primary concern to the marketer, relatively little consideration is given this topic in the present volume. It has been examined in detail in several recent reviews (Cohen and Ahtola, 1971; Fishbein and Ajzen, 1972; Triandis, 1971).

Finally, the term audience is defined as those individuals who are exposed to a persuasive mass communication, and implies more than a single individual. Though respondents are sometimes tested one at a time, generally data on many subjects are aggregated in analysis.
Organization of the Volume

To present a review of persuasion and the mass communication process from a marketing perspective this dissertation is divided into three parts. In Part I, which includes Chapters II and III, a model for persuasive mass communications is presented and assessed. More specifically, Chapter II briefly reviews recent conceptualizations of the mass communication process and elaborates a model specifying the critical mass communication variables as well as their interrelationships. In this model the persuasive mass communication process is conceived as a series of necessary steps by which information is processed by the human organism. Consideration is also given to the moderating influence of the communicator and audience on information processing. Chapter III introduces empirical evidence relevant to the assessment of the adequacy of the model developed.

The persuasive mass communication model advanced in Part I serves as a vehicle for determining why communications have their observed influential effect. In addition, the model will be employed as a framework for the discussion of variations in communication content and structure, which constitutes the remainder of this dissertation's substance.

In Part II, the effects of manipulating the content of persuasive appeals is assessed within the context of the communication model. The literature dealing with discrepant, fear-arousing, and humorous communications is reviewed in Chapters IV, V, and VI respectively. Within each of these chapters the main effects of the relevant communication variable is discussed. Next, studies involving communication-communicator
and communication-audience interactions are examined. Finally, the practical implications derived from the review are enumerated.

In Part III the influence of structural communication variables is discussed. Specifically, Chapter VII reviews the influential effects of various channels of communication such as radio, television, and print. Chapter VIII assesses the influential impact of repetition, presentation of one versus two-sided communications, the order of argument presentation, and conclusion-drawing. The relative emphasis given the discussion of repetition and communication channels reflects the importance of these variables to marketers, especially those concerned with media selection and scheduling.

Finally, Chapter IX reviews the major findings of this dissertation. The level of current knowledge about persuasive mass communication phenomena is described and implications for future research and communication practice are elaborated.

**Summary**

There are two primary objectives for this dissertation: First, to document the empirically derived knowledge that reflects current understanding of the mass communication process for practitioners, and, second, to explore the utility of this information for communication researchers. To achieve these purposes literature is drawn from marketing, social psychology, speech, and related disciplines. Moreover, emphasis is placed on those empirical studies which are experimental in nature. In drawing implications an effort is made to advance positions consistent with the knowledge accumulated. When findings are equivocal, specific research approaches are suggested to resolve these
inconsistencies. When the empirical knowledge base is quite univocal, communication applications are asserted.

The overall rationale for this dissertation is to deal with a topic that is relevant to practitioners in several disciplines, communication researchers, and the lay public. In addition, it provides a treatment of mass communication phenomena that balances and updates previous marketing reviews.

Finally, persuasive mass communication is defined as the process by which a communicator or source unidirectionally transmits symbols to influence the behavior of an audience. Though the organization of this dissertation reflects this definition, there is not a one-to-one correspondence between the components of this definition and the nine chapters of this volume. Rather, the organization reflects the attempt to provide a sequencing that is particularly useful to the marketing mass communicator.
PART I

A MODEL OF THE PERSUASIVE MASS COMMUNICATION PROCESS:
THEORY AND EVIDENCE

In Part I, a model of the persuasive mass communication process is described and evaluated. Chapter II presents a model to explain how communication recipients process persuasive information. Chapter III examines evidence pertaining to the model developed and assesses the adequacy of the model. The objective is to provide a framework for integrating the persuasive mass communication literature and to suggest a paradigm for communication research.
CHAPTER II

THE PERSUASIVE MASS COMMUNICATION PROCESS: THEORY

The purpose of this chapter is to present a model that integrates extant knowledge of the mass communication process. To this end, the role of modeling in scientific investigations is described. Next, the similarities and differences among several of the more popular marketing communication models are noted. Using these conceptualizations as a basis, an information processing model is elaborated and its applicability assessed.

Modeling and Theory Development

During the last decade marketing theorists have made extensive use of models to depict the persuasive mass communication process. Conceptually, the modeling process may be considered one of several necessary steps in the pursuit of scientific inquiry (Figure 1). It involves the abstraction of real-world observation into a miniaturized replica or model. Once the model has been specified, its logically derived predictions undergo empirical tests that may range from descriptions and anecdotes to rigorous and replicated experimentation. The empirical data so generated are interpreted to impart understanding of real-world observations. When the model's predictions are not confirmed
Figure 1

The Scientific Investigation Process

Source: Adapted from Coombs, Dawes, and Tversky (1970).
by data, or when the conclusions derived are incongruent with real-world observations, the model is modified and the process is repeated.

Though this schematic representation of the scientific investigation process is less than comprehensive, it does place the modeling process in perspective. Furthermore, it suggests the utility of mass communication models. Models force the specification of critical communication variables and their interrelationships. They aid in the design of appropriate research paradigms. Also, they connote that investigations should be contingent on current findings, emphasizing the importance of systematic research. Finally, since models depend on and must conform to real-world observations, they stress the need for a pragmatic orientation in the development of theory (Lunn, 1971).

**Marketing Mass Communication Models**

The models advanced to explain the persuasive impact of marketing mass communications have several properties in common. Perhaps most basic are the motivational similarities underlying model development. Mass communication models typically are formulated to explain the impact of communications on consumer decision making (Engel, Kollat, Blackwell, 1968, 1971; Howard and Sheth, 1969; Nicosia, 1966). Also, the currently available models are deterministic; communication effects are conceived to be dependent upon a sequence of causes. Moreover, most models tend to be eclectic; they draw upon the findings of marketing and the behavioral sciences. Finally, the models developed concentrate on depicting how the human organism processes persuasive mass communications. On the other hand, few of the currently available
models have attempted to indicate how such variables as source, audience, and channel characteristics moderate the processing of persuasive communications.

**Information Processing Component**

Marketing attempts to model the mass communication process have been influenced significantly by models advanced in the behavioral sciences. Characteristic of these latter efforts is the conceptualization of the communication process as a multi-component system. As Figure 2 illustrates, information is thought to be encoded by a source into transmittible form, conveyed through some medium or channel, and decoded at the destination by the message recipient. In specifying the components of the communication process, this model provides a useful pedagogical tool. However, the level of abstraction is such that it obscures rather than clarifies the variables responsible for information processing.

Thus marketing theoreticians have concentrated their effort on enumerating critical information processing variables. A cursory examination of Figure 3 suggests that the models presented have very little in common. Models differ in the number of information processing variables specified. Some theorists have operationalized all their model's

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1For a detailed description of the communication process which employs the encoding-transmission-decoding model see Berlo (1960). For a briefer but more marketing-oriented treatment the interested reader should consult Markin (1969).

2A detailed review of the models cited in Figure 3 is not directly relevant to the present discussion. The interested reader is referred to Kassarjian and Robertson (1967), Engel, Kollat, and Blackwell (1968), Lunn (1971), or the original sources.
Figure 2

The Communication Process

Figure 3
Marketing Models of the Persuasive Mass Communication Process

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<tr>
<th>INFORMATION</th>
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<th>VARIABLES</th>
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variables; others have mixed conceptual and operational variables (e.g. Andreasen, 1965; Lavidge and Steiner, 1961). Variables given the same label are often operationalized somewhat differently (e.g. Engel, Kollat, Blackwell (1971), versus Howard and Sheth (1969) definition of attention). Nevertheless, a closer examination of the marketing mass communication models reveals the underlying similarities among them. All models hypothesize the existence of an exposure variable, though in some models this variable is explicitly noted (Engel, Kollat, Blackwell, 1971; Nicosia, 1966), while in others it is assumed (Andreasen, 1965; Howard and Sheth, 1969; Lavidge and Steiner, 1961). Filtration, attention, comprehension, and knowledge all refer to information reception processes. The attitude variable is sometimes dissected into components such as beliefs, feelings, and dispositions (Andreasen, 1965), or liking and preference (Lavidge and Steiner, 1961); however, most theorists operationalize it in a similar manner. Conversely, to date the memory or retention variable has been noted in only one model (Engel, Kollat, Blackwell, 1971).

Thus, despite the apparent diversity in marketing mass communication models, an underlying communality may be achieved. The mediators of mass communication include exposure, reception, attitude, and retention. Furthermore, the relationship between these mediators is conceived as a hierarchy (Howard and Sheth, 1969; Lavidge and Steiner, 1961) or a Markov chain (Engel, Kollat, Blackwell, 1971). Specification of more definite relationships between mediators appears to be awaiting empirical developments.
Information Processing Moderators

Those variables that might moderate the processing of persuasive communications have received little consideration in marketing models. The impact of audience characteristics on the processing of information has not been specified, nor have empirical studies thoroughly examined these linkages. Quite the contrary, the preponderance of empirical literature is addressed to the determination of the relationship between audience characteristics and exposure or purchase behavior (Walton, 1972).

Relatively little consideration is given source and channel variables. Perhaps this neglect reflects the fact that these components are not critical in the context of consumer behavior models. However, in the face of mounting knowledge both about source (Sternthal, 1970) and channel (Weiss, 1970) influence, it is difficult to reconcile their omission from models directly concerned with the mass communication process.

Summary

It appears that there is an underlying consistency among communication models. Generally, they have identified the same information processing variables. They have also neglected the influence of audience, source, and channel factors. This conformity suggests two guidelines that are important if subsequent models are to add to extant knowledge. First, models should adhere in a general way to the information processing variables specified in the current mass communication models. In addition, future efforts should incorporate audience, source, and
channel components into models of the persuasive mass communication process.

A Persuasive Mass Communication Model

The persuasive mass communication model developed in this section incorporates four component models: an information processing component, an audience characteristics component, a source characteristics component, and a channel component. As Figure 4 illustrates, the component models interact to determine the persuasiveness of a mass communication.

The information processing component includes exposure to information, communication reception, attitude modification, and retention (Figure 4). These variables, when considered together, depict the process of persuasion. Alternatively stated, the information processing variables specified in Figure 4 mediate persuasion.

The persuasive mass communication model also includes an audience characteristics component. Any variable that makes one person different than another (e.g. age, self-confidence) may facilitate or inhibit the processing of information by moderating information processing. Thus differences between audience members are determinants of persuasion by affecting information processing. Similarly, the characteristics of the communication source and channel may help determine persuasion by moderating information processing mediators.

Information Processing Component

The information processing model that is developed in this section closely follows the conceptualization pioneered by Hovland (Hovland, Janis, and Kelley, 1953), revitalized by McGuire (1968, 1969), and
Figure 4
The Persuasive Mass Communication Model

Information Processing Component

Audience Characteristics Component

Source Characteristics Component

Channel Component

Exposure to Persuasive Communication

Communication Reception

Attitude Modification

Retention of Communication-Relevant Information

+: facilitation of information processing mediator

-: inhibition of information processing mediator

Persuasion
recently adopted in marketing (Howard and Sheth, 1969; Engel, Kollat, and Blackwell, 1971). The model is depicted in Figure 5 as a four-step Markov chain. Specifically, each of the variables or mediators specified in Figure 5 is necessary but not sufficient for a response to be observed on the ensuing variable. Thus there is some probability of exposure to a persuasive mass communication. Given exposure, there is some conditional probability that the communication will be received. Reception is a necessary though not sufficient condition for attitude modification. Finally, if attitude modification does occur, there is only some probability that it will be retained.

The meaning and function of the information processing mediators require further elaboration.

Exposure. This variable involves the determination of whether or not respondents were physically present during the communication presentation. In field research exposure is operationalized by observing respondents' presence or absence. Alternatively, respondents may be asked if they were exposed to the communication in question. On the other hand, in laboratory research exposure generally is assumed rather than measured.

Given the large number of stimuli available to the human organism at a particular time, it is not surprising that exposure is selective. People are continually forced to choose between competing stimuli. It has been observed repeatedly that an individual's initial opinion is a major determinant of his exposure patterns; when his initial opinion toward a communication issue is favorable the probability of exposure is
Figure 5
The Information Processing Component

EXPOSURE TO PERSUASIVE COMMUNICATION

↓

RECEPTION

ARIOUSAL

↓

ATTENTION

↓

COMPREHENSION

↓

ATTITUDE MODIFICATION

ACCEPTANCE / REJECTION

↓

RETENTION OF COMMUNICATION-RELEVANT INFORMATION
quite high. On the other hand, when initial opinion is unfavorable, the likelihood of exposure is low.

These observations should not be interpreted to mean that people deliberately avoid information that is nonsupportive. Rather, selective exposure to supporting information is probably attributable to the fact that people gravitate to an environment in which a disproportionate amount of the information available supports their initial opinion (Freedman and Sears, 1965; Sears and Freedman, 1967). Thus an individual's characteristics as well as his initial opinion may be important determinants of exposure. The present model accounts for the possibility that audience, source, and channel characteristics moderate exposure.

Reception. The reception variable involves three distinct mediators - arousal, attention, and comprehension. Arousal may be conceived as the on-off switch of attention. It energizes the central nervous system to attend to incoming information. Attention refers to the selective aspect of perception and response (Treisman, 1969). As such it involves not only the information received by the central nervous system, but the subset of that information on which a response is based.

Once the communication is attended, it may or may not be comprehended. Comprehension implies a congruity between the meaning of the communication intended by the source and that attributed to it by the recipient. It is the comprehension aspect of communication reception that is most easily measured. Typically the audience is asked to play back the communication in as much detail as possible. Besides this unaided recall technique, aided recall and recognition tests may also be used to
test communication reception. Usually these instruments are administered as soon after the communication as possible. When comprehension is good it can be assumed that attention and arousal are also good since these are necessary precursors of comprehension. However, when comprehension is poor, the reason may be difficult to specify. It may be attributable to inadequate arousal, attention, or comprehension. Though physiological measures show some promise as direct measures of attention, their applicability has not been fully tested. (Hensel, Sternthal, and Blackwell, in preparation)

Reception of persuasive communications is selective. Incoming information passes through the sensory system and is analyzed. On the basis of this analysis, cues are extracted which excite their representation stored in memory. Simultaneously, pertinent information, determined by an individual's prior experience with the class of events and his expectations, excites it stored representation. The items receiving the greatest combined excitation from both sensory and pertinent systems are selected for further analysis (adapted from Norman, 1969).

Thus the substance of a persuasive communication may be discarded at some stage of analysis because the signal it emits is not sufficient to excite a stored representation. Alternatively, the message may not be attended because it lacks pertinence to the recipient.

Attitude modification and retention. Since the attitude modification and retention mediators are closely related, they are considered together. Attitude modification involves the acceptance or rejection of the arguments advanced in a persuasive communication. Rating scale measurements of agreement or disagreement with the position advanced in
the persuasive communication may be used to determine attitude modification. An alternative measurement technique entails an assessment of the communication-relevant thoughts generated by subjects in response to a persuasive communication. The attitude modification inventory may be administered immediately after message presentation, as well as after some temporal delay.

Retention is generally measured by unaided recall, aided recall, and recognition tests. It is often measured at several points in time after the communication has been received.

The influence of communications on individuals' attitudes may be explained within the framework of cognitive response analysis advanced by Greenwald (1968). In brief, this approach is based on the assumption that "attitude change can be achieved by the modification, through learning, of the recipients' repertory of attitude-relevant cognitions" (Greenwald, 1968, p. 151). Greenwald emphasizes that attitude change requires active rehearsal of material relevant to the issue being communicated. Thus, if the message recipient chooses to rehearse cognitions or thoughts consistent with the communication, the message is accepted and persuasion ensues. Moreover, those thoughts that are rehearsed are likely to be retained. Conversely, if the message recipient counter­argues by rehearsing cognitions opposing the position advocated, the communication is rejected. However, an associative bond may link the communicated material to counterarguments, allowing for simultaneous rejection of the persuasive arguments and retention of their content.

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Alternatively, subjects may discount the arguments presented in a persuasive communication by rejecting the persuasive communication without generating specific reasons for its rejection. In such cases, the individual may remain susceptible to subsequent persuasion.

**Summary and implications.** The information processing component of the model depicted in Figure 4 interprets the persuasive impact of a mass communication as a function of exposure, reception, attitude modification, and retention. When these variables are measured the model provides a diagnostic tool to help determine why a persuasive communication may be ineffective. However, the model per se does not indicate how ineffective communications may be improved. Thus implementation of the model may indicate that the non-persuasiveness of a communication is attributable to poor message reception, but it does not suggest how reception may be improved. In fact, methods for improving mass communications constitute the subject matter for the remainder of this volume.

Cognitive response analysis indicates that message recipients' retention of the communication content, taken in isolation, is inadequate to determine communication effectiveness. It may well be that some message recipients who reject the persuasive arguments advanced in the communication retain these arguments by associating them with the counterarguments they have generated in response to the persuasive appeal. Thus good retention of the mass communication may reflect either acceptance or rejection.

**Audience Characteristics Component**

Advertisers' behavior attests to their belief that audience characteristics moderate the influence of mass communications. These
practitioners expend considerable energy developing demographic and personality profiles of their target market. They utilize these profiles as a basic ingredient in the construction of appeals and the selection of media. Yet, despite its apparent importance, few marketing theoreticians have attempted to explicate the moderating affect of audience characteristics on information processing. In fact, the most adequate treatment of this phenomenon has been advanced by McGuire (1968), a social psychologist. Though McGuire's formulation is equally applicable to all types of audience characteristics, only those demographic and dynamic differences that have directly concerned marketers will be entertained in the discussion to follow.  

McGuire's analysis of audience characteristics is based on three assumptions which he has labeled multi-mediation, compensation, and situational weighting.

**Multi-mediation assumption.** It is postulated that any audience characteristic that makes one individual different from another may moderate one or more of the information processing mediators. That is, an individual difference may act to facilitate or inhibit one or more of the information processing stages. Thus, to understand the relationship between (say) a person's self-confidence and his influencibility

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4McGuire categorizes individual differences into demographic dynamic and capacity categories. Demographic differences such as age, sex, and race are familiar to marketers. Recently, dynamic or personality differences, especially self-confidence and dogmatism, have come under close marketing scrutiny. Capacity differences which include intelligence, aptitude, etc., have not been extensively considered in marketing.
requires the examination of this individual difference variable's impact on all information processing mediators.

Suppose it is suspected that a person's self-confidence is an important determinant of toothpaste brand preference. More specifically, it is felt that an individual low in self-confidence prefers a toothpaste with whitening ingredients. A survey is conducted and it is found that there is a very low association between self-confidence and brand preference. The logical conclusion would be to assume that self-confidence does not affect toothpaste preference. However, the multi-mediation assumption suggests that self-confidence may moderate exposure patterns to various toothpaste commercials, reception of the message content, message acceptance and retention, or some combination of these variables. If the survey had included measurement of these information processing variables, it may have been determined that many people who are low in self-confidence consistently fail to pay attention to toothpaste commercials that stress whitening ingredients. The few that do attend indicate a preference for the brands that emphasized the whitening power of their product. Thus it might be concluded that self-confidence is an important determinant of toothpaste brand preference, because of its influence on the reception of information.

To the marketer, who has traditionally attempted to determine the association between audience characteristics and exposure or purchase, the multi-mediation assumption provides an alternative approach. It suggests that audience characteristics may moderate persuasion by affecting more than one of the information processing mediators. In this manner, the multi-mediation assumption may provide a more powerful basis
for explaining an observed relationship between a particular audience characteristic and persuasion.

**Compensation assumption.** It is not only assumed that audience characteristics may moderate several information processing mediators, but also that they do so in a compensatory manner. Formally stated, this assumption asserts that, when individual differences affect more than one information processing mediator, enhancement of transmission through one mediator may be compensated by inhibition of transmission through another.

Suppose it is observed that an individual's self-confidence, as described before, moderates reception of a toothpaste commercial that stresses a brand's whitening power. More specifically, it is found that people low in self-confidence are not attentive to this persuasive message, whereas highly self-confident people are quite attentive (Figure 6). Thus as self-confidence increases so does the probability of message reception (Figure 7). If self-confidence also moderates message acceptance, the compensation assumption suggests that low self-confidence should enhance message acceptance (Figure 6a), while high self-confidence should inhibit acceptance (Figure 6b). In other words, as self-confidence increases the probability of message acceptance diminishes (Figure 7a). Assuming in this instance that reception and acceptance are the only mediators affected by self-confidence, the relationship between self-confidence and persuasion may be derived by multiplying the

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5The term acceptance is used in the present discussion to refer to a positive impact on the attitude modification mediator. It should be noted that message rejection (negative impact) can also occur.
Figure 6
The Compensation Assumption

(a)

- MESSAGE RECEPTION
- ATTITUDE MODIFICATION (ACCEPTANCE)

- LOW SELF-CONFIDENCE

(b)

+ MESSAGE RECEPTION
- ATTITUDE MODIFICATION (ACCEPTANCE)

+ HIGH SELF-CONFIDENCE

+-: self-confidence facilitates information processing
-:-: self-confidence inhibits information processing
Figure 7

The Compensation Assumption

(a) probability of mediator operating

(b) Influence
\[ p(\text{Reception}) \times p(\text{Acceptance}) \]

↑ chronic
↑ induced
probabilities of reception and acceptance at the various levels of self-confidence. If the compensation principle is borne out it implies an overall nonmonotonic relationship between self-confidence and influence such that the people most influenced by the toothpaste commercial are those exhibiting an intermediate level of self-confidence (Figure 7b).

The compensation assumption also implies the manner in which chronic and induced individual differences interact. The chronic level refers to a person's characteristic or trait level of some individual difference variable. On the other hand, induced refers to a level of an individual difference variable attributable to the situation or an experimental induction (sometimes called an acute or state level). Given a low chronic level of self-confidence (low refers to all abscissa points to the left of the maximum, M, in Figure 7b), the presentation of a confidence-raising induction would increase influence (e.g. from c to i in Figure 7b). For persons with relatively high chronic self-confidence, inducing even higher levels of self-confidence reduces influence (from c' to i' in Figure 7b).

Thus the compensation assumption has two direct implications. It suggests that the overall relationship between an individual difference variable and influence may be nonmonotonic (inverted U-shape). Moreover, it indicates the nature of the interaction between chronic and induced individual difference variables.

Situational weighting assumption. The specification of a nonmonotonic relationship between audience characteristics and influence must be approached with caution. For instance, if some studies report a direct relationship between a particular characteristic and influence,
and others an inverse relationship, it is tempting to conclude that the two groups of studies involved different levels of the audience characteristic variable. Those studies which indicate a direct relationship could have involved measurements of the audience characteristic that were to the left of the maximum point, M (Figure 7b); those which report an inverse relationship could have involved individual difference measurements to the right of the maximum point. Unfortunately, this reconciliation is so general, that it is difficult to refute.

The situational weighting assumption guards against such indulgences. It specifies the particular relationship between an audience characteristic variable and influence to be expected in various situations.

Influence situations may differ in terms of message complexity. For example, conformity situations or laboratory advertising experiments in which the audience is presented with a series of brand names can be characterized by their simplicity. In such situations influence is determined predominantly by the degree of communication acceptance or rejection; the variance in message reception is likely to be low regardless of the individual differences between audience members. Thus in simple message situations, though persons of high self-confidence are likely to be more attentive than persons low in self-confidence, message reception is relatively high for all audience members. As Figure 8 indicates, the relationship between self-esteem and influence is dependent primarily on the moderating effect of self-confidence on message

6Conformity situations involve communication of the fact that a normative belief is discrepant with a respondent's own initial beliefs, and observation of the amount of change toward the majority position made.
Figure 8
The Situational Weighting Assumption: Simple Message Case

Probability of mediator operating

High
Low
Reception
Attitude modification (acceptance)

High Low
Self-Confidence

Influence
p(Reception) x
p(Acceptance)

High
Low
Self-Confidence
acceptance. Since acceptance decreases as self-confidence increases, overall influence is a decreasing function of self-confidence.

As was illustrated in the discussion of the compensation assumption (See Figure 7), when relatively complex messages such as television commercials are presented, both the variance in reception and attitude modification contribute to overall influence. In this type of situation the relationship between self-confidence and influence is expected to be nonmonotonic.

Finally, consider a situation in which the persuasive communication is so complex that a substantial portion of the audience may not comprehend it. In this case the self-confidence-influence relationship may depend primarily upon the moderating influence of different levels of self-confidence on message reception. Only highly self-confident people may be attentive to the message. If this assumption is correct, then influence should be an increasing function of self-confidence, at least over the relevant range of self-confidence (Figure 9).

Thus the situation weighting assumption gives specificity to the audience individual difference model. It indicates the expected relationship between audience individual difference variables and influence for different types of influence situations. Though this assumption was illustrated for situations varying in message complexity, there are many other types of influence situations that may be explored. It is a challenge to the marketing communication researcher to determine the situations that are important for marketing consideration and to investigate empirically the moderating effect of individual differences in these situations.
Figure 9

The Situational Weighting Assumption: Presentation of Complex Information Case

Probability of mediator operating

Influence

\[ p(\text{Reception}) \times p(\text{Acceptance}) \]

Self-Confidence
Summary and Implications. The audience characteristics model presents an initial attempt to develop a basis for understanding the moderating effect of audience variables on information processing. The result is a prediction of the relationship between audience individual difference variables and social influence in specific types of situations. To researchers who have experienced repeated failure in their attempts to understand the association between audience characteristics and purchase, the audience characteristics model provides a cogent method for data collection and interpretation. It indicates that audience characteristics may moderate information processing mediators rather than merely having a direct influence on purchase. To the communication literature reviewer, who has historically merely enumerated extant audience differences studies, the model provides a framework for integration. Moreover, these advantages of the audience characteristics model obtain whether or not its specific predictions are maintained empirically.

Source Characteristics Component

Mass communication practitioners in general and advertisers in particular employ strategies to enhance the credibility of the communication's source. The source may be presented as an expert. He is the professional who testifies to the quality of the product or service. Alternatively the source is presented as a trustworthy person, with attributes and problems similar to those of the audience. Typically this is achieved by presenting slice-of-life episodes, or by using such well-known personalities as Arthur Godfrey and Danny Thomas. Whatever the specific strategy, the fact that attempts are made to present
the communication source as a credible person reflects the importance attributed this variable by practitioners.

The importance of the source variable is also recognized by communication researchers involved in basic research. When the source's credibility is not experimentally controlled it may confound the observed effect of experimental communication variables. (Holtzman, 1966; Holtzman, McCroskey, and Dunham, 1967; McCroskey and Dunham, 1966; Tompkins, 1967). On the other hand, manipulation of the source's credibility may aid in explaining the main effects of communication variables as well as in understanding how credibility moderates information transmission.

These reasons for including source credibility as a mass communication model component are rather compelling. Nevertheless, some dissidents might claim that inclusion of the credibility variable is unwarranted on the basis that it has no persistent communication effect. Since this argument is based on "sleeper effect" studies, it is somewhat tenuous. Recent investigations and reviews have failed to confirm the existence of the sleeper effect phenomenon.  

In light of this fact, and for reasons specified earlier, a source credibility component will be included in the mass communication model. However, the mechanism by which credibility moderates information processing will not be examined in the same mediator-by-mediator detail accorded audience differences; very few studies have been addressed to this question. Consistent with the audience individual difference model,

7A review of studies that have examined the sleeper effect will be presented in Chapter III.
it is assumed that the source variable can moderate multiple information transmission mediators. However, no a priori assumption is made concerning the specific way in which source credibility influences the mass communication process.

Channel Characteristics Component

The model depicted in Figure 4 indicates that the communication channel or medium may moderate one or more information processing mediators. To date, however, advertisers have concentrated their efforts on determining the exposure patterns and profiles of audiences for various communication channels. Relatively little emphasis has been placed on understanding the impact of various communication channels on message reception, attitude modification, and retention. The few studies that do examine this relationship are reviewed in Chapter VII.

Summary

This chapter focused on the development of a persuasive mass communication model. Since most marketing attempts to explain the communication phase of consumer behavior have involved the use of modeling, a brief perspective was given indicating how this approach was a part of scientific inquiry. Next, several marketing models of the communication process were reviewed. Though a cursory analysis indicated that there was little communality among these depictions, closer examination revealed that the currently available communication models were quite consistent. In general, the models specified the same information processing mediators. These included exposure, reception, attitude modification, and retention. In addition, the influence of source, audience,
and media characteristics were considered important moderators of the mass communication process. However, little attempt has been made to specify the impact these variables had on information processing.

Using existing models as a basis, a model of the persuasive mass communication process was developed. This model included an information processing component, an audience characteristics component, a source characteristics component, and a channel component. Although the specificity of the relationships between model variables was considered to be less than satisfying, it appeared to provide a means of determining the stage at which communication ineffectiveness occurred.
CHAPTER III

THE PERSUASIVE MASS COMMUNICATION PROCESS:
EVIDENCE

This chapter reports evidence relevant to the persuasive mass communication model. In the first section research is reviewed that deals with the information processing mediators specified in the model. The two subsequent sections examine the moderating effect of audience and source characteristics on the processing of persuasive information. Then the influence of particular audience-source interactions is assessed. In the final section the findings are summarized and their implications are noted.

The purpose of this chapter is to establish the efficacy of the persuasive mass communication model in handling extant data. Equally important is the elaboration of inadequacies in both the model and current empirical work. In those cases where the preponderance of evidence is contradictory to the model, modifications are made to include these data. On the other hand, in situations where the available studies fail to test the model's prescriptions, specific methodologies are suggested.
Information Processing Component

Exposure to Persuasive Communications

The mass communication model indicates that exposure to a persuasive message is the first necessary precondition for influence to occur. Given the vast array of stimuli competing for the human organism's limited receptive capacity, it is not surprising that persons selectively expose themselves to a subset of these stimuli. Selective exposure conceived in this broad sense is of no particular concern to the communication researcher; it merely describes a phenomenon. Of considerable interest, however, is the mechanism by which certain messages are selected for exposure while others are not.

It has long been maintained that persons selectively expose themselves to information that agrees or confirms their initial opinion and selectively avoid communications that are discrepant with these opinions (Festinger, 1957; Hovland, 1959; Lazarsfeld, Berelson, and Gaudet, 1948). People that align themselves with the Democratic party expose themselves to Democratic propaganda; smokers tend to avoid appeals enumerating the hazards of smoking; religious people seek out information to strengthen their convictions.

To support this selective exposure hypothesis, two main lines of research are generally cited; (1) studies reporting biases in audience composition, and (2) investigations finding respondent preference for supporting communications.

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1 Much of the discussion presented in this section is adapted from Sears and Freedman (1967).
Bias in audience composition. These studies typically are performed in natural settings. They require subjects to recall whether or not they were exposed to a particular communication, as well as their initial opinion toward the message topic or source. Correlation of these exposure and initial opinion data consistently has led to the inference that the audience for a persuasive communication is partisan (See Table 1). For example, Schramm and Carter (1959) conducted a survey shortly after Senator Knowland had presented a twenty-nine hour telethon in an attempt to win the 1958 California gubernatorial race. Respondents were queried as to the extent of their exposure to Knowland's broadcast and their political party affiliation. Consistent with the selective exposure hypothesis, Schramm and Carter's findings revealed that significantly more Republicans than Democrats were exposed to Knowland's appeal. Several other studies that employ a similar methodology confirm Schramm and Carter's results (Table 1).

Although the investigations reporting a bias in audience composition provide support for the contention that exposure is selective, they suffer from methodological inadequacies and ambiguous findings. Sears and Freedman conclude:

... often it has not been established that those attitudes actually did exist beforehand, and often it is not entirely clear what the pattern of exposure actually was. The magnitude of the effects seems rather small, or limited to one set of partisans in some cases ... (Sears and Freedman, 1967, p. 202).

Even if the measurement problems do not distort the data, studies that have found a bias in audience composition provide, at best, a viable descriptive generalization. It may be concluded that an audience shares,
### Table 1.
SOME REPRESENTATIVE STUDIES THAT SUPPORT THE SELECTIVE EXPOSURE HYPOTHESIS

<table>
<thead>
<tr>
<th>INITIAL DISPOSITION</th>
<th>MEDIA EXPOSURE PATTERNS</th>
<th>FINDING</th>
<th>INVESTIGATOR(S)</th>
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</thead>
<tbody>
<tr>
<td>Republican versus Democratic Party Affiliation</td>
<td>Of those people with Republican affiliation, 69.7% were exposed to predominantly Republican party propaganda and 30.3% to predominantly Democratic propaganda</td>
<td>Lazarsfeld, Berelson, and Gaudet (1948)</td>
<td></td>
</tr>
<tr>
<td>Republican or Democratic Election Propaganda</td>
<td>Of those exposed 47.7% were Republicans 41.5% were Democrats</td>
<td>Schramm &amp; Carter (1959)</td>
<td></td>
</tr>
<tr>
<td>Christian Anti-Communist Crusade School^a</td>
<td>Of those exposed 66% were Democrats 8% were Republicans</td>
<td>Wolfinger, Wolfinger, Prewitt, &amp; Rosenhack (1964)</td>
<td></td>
</tr>
<tr>
<td>Smoker versus Non-Smoker Anti-Smoking Propaganda</td>
<td>44% of smokers, and 67% of non-smokers claimed high readership</td>
<td>Cannell &amp; MacDonald (1956)</td>
<td></td>
</tr>
</tbody>
</table>

Source: Adapted from Sears and Freedman (1967).

^aThe Christian Anti-Communist Crusade School is, in large part, organized and run by white Protestants who are politically conservative.
to an unusual extent, the position advanced by the communication source. However, the reason underlying this bias has not been specified. For this reason Sears and Freedman (1967) have termed this form of the selective exposure hypothesis de facto selectivity.

Preference for supportive information. The observation of unusual agreement between a communicator and his audience might be explained by the fact that people prefer to expose themselves to communications that support rather than refute their initial predispositions. The experimental research bearing of this topic is considerable. Typically, these studies involve measurement of initial opinion, and a subsequent choice of reading (or hearing) communications that are consistent or discrepant with the initial opinion expressed. Subjects' interest in supportive versus non-supportive information most often serves as the dependent variable. For example, Mills, Aronson, and Robinson (1959) informed a class of undergraduate students that they were going to be given an exam. Subjects were asked if they would prefer a multiple choice or essay format. Once the students had made a decision, they were shown the titles of several articles, some of which presented positions favoring multiple choice exams, while the remainder developed arguments supporting essay exams. A questionnaire was then administered to determine which article they would prefer reading. Consistent with the selective exposure hypothesis, those students who had chosen an essay format indicated that they preferred to read information supporting essay exams. On the other hand, those students who had chosen a multiple choice exam indicated a preference for material supporting that decision.
Several other investigations have yielded findings that are consistent with those reported by Mills and his co-workers (Table 2). On the other hand, a substantial number of investigations have found preference for non-supportive communications or no preference.

These inconsistent findings may be attributable to basic problems in the research designs employed (Rhine, 1967). Information selectivity studies have most often used the same measure to determine information seeking and avoiding. For instance in the Mills, Aronson, and Robinson (1959) study described earlier, the articles preferred by subjects were taken as an indication of seeking, whereas the non-preferred articles indicated avoidance. Although the findings showed that subjects preferred supportive articles relative to opposing material, the ordinally scaled preference measure does not allow the conclusion that subjects actually avoided the opposing material. Given the opportunity, subjects may have exposed themselves to both supporting and opposing information, neither type of information, or only the supporting information.

It is apparent that where seeking stops and avoidance begins is difficult to determine. To alleviate this problem a control group that receives the same treatment as the experimental group, except for the experimental induction, should be included (Rhine, 1967). In the Mills et al. (1959) experiment, inclusion of a group that was required to indicate their preference for the various articles, without having made a prior choice as to the type of exam they preferred, would have allowed the specification of a neutral point separating seeking and avoiding. Moreover, this control group would have provided insights into such factors
<table>
<thead>
<tr>
<th>TYPE OF COMMUNICATION PREFERRED</th>
<th>INVESTIGATOR(S)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUPPORTIVE</td>
<td>Adams (1961)</td>
</tr>
<tr>
<td></td>
<td>Ehrlich, Guttman, Schonbach, &amp; Mills (1957)</td>
</tr>
<tr>
<td></td>
<td>Freedman &amp; Sears (1963)</td>
</tr>
<tr>
<td></td>
<td>Mills, Aronson, &amp; Robinson (1959)(^a)</td>
</tr>
<tr>
<td></td>
<td>Rosen (1961)(^b)</td>
</tr>
<tr>
<td>NO PREFERENCE</td>
<td>Feather (1962, 1963)(^c)</td>
</tr>
<tr>
<td></td>
<td>Jecker (1964)</td>
</tr>
<tr>
<td></td>
<td>Mills, Aronson, &amp; Robinson (1959)(^d)</td>
</tr>
<tr>
<td></td>
<td>Mills &amp; Ross (1964)</td>
</tr>
<tr>
<td></td>
<td>Sears (1966)</td>
</tr>
<tr>
<td></td>
<td>Sears &amp; Freedman (1963, 1965)</td>
</tr>
<tr>
<td>NON-SUPPORTIVE</td>
<td>Broadbeck (1956)</td>
</tr>
<tr>
<td></td>
<td>Feather (1962)(^e)</td>
</tr>
<tr>
<td></td>
<td>Freedman (1965)(^f)</td>
</tr>
<tr>
<td></td>
<td>Rosen (1961) (^f)</td>
</tr>
<tr>
<td></td>
<td>Sears (1965)</td>
</tr>
</tbody>
</table>

\(^a\)Choice was between positively oriented articles.

\(^b\)Choice was between articles that were relevant and irrelevant to prior belief.

\(^c\)No preference was found for one subset of subjects (non-smokers).

\(^d\)Choice was between negatively oriented articles.

\(^e\)Choice was between articles that were directly relevant to prior belief.

\(^f\)Preference for non-supportive information found for one subset of subjects (smokers).
as the relative interest in the different articles and subjects' strategies in performing the experiment.

The inconsistent findings have also led several authors to believe that unmeasured variables have confounded the relationship between a subject's prior disposition and his exposure patterns (Brock, Albert, and Becker, 1970; Rhine, 1967). More specifically, it has been suggested that subjects' familiarity with the information is an important determinant of selectivity. If an individual has strong convictions and considerable knowledge about an issue, he may be more curious as to the nature of arguments that attempt to refute this belief. For instance, it would seem logical that an advertiser would be more interested in a communication arguing that advertising contributes little to the sale of products than in one which presented familiar arguments supporting the contribution of advertising.

This line of reasoning has received some experimental support. Brock, Albert, and Becker (1970) reported that subjects preferred information that was novel rather than familiar, and useful rather than non-useful. Moreover, there was a preference for information that was unfamiliar and useful as opposed to material that was familiar and nonuseful.

Summary and conclusion. It appears that a disproportionate amount of information to which people are exposed is consistent with their initial opinion. The repeated finding of bias in audience composition is probably attributable to the fact that people gravitate to environments where a disproportionate amount of information to which they are exposed is supportive. Thus, audience attributes such as level of
education (Key, 1961; Star and Hughes, 1950) and self-confidence (Canon, 1964) may be good predictors of exposure selectivity.

There is little evidence to suggest that people deliberately avoid exposure to information opposing their initial opinion. The inconsistent findings of information preference studies probably reflects methodological inadequacies. Recent evidence indicates that information utility is a major determinant of exposure patterns.

**Information Reception**

Once an individual has been exposed to a communication there is some conditional probability that it will be received. The information processing model indicates that reception is dependent upon the level of arousal, attention, and comprehension. The research relevant to understanding the function of these reception mediators is reviewed in this section.

**Arousal.** In Chapter II, arousal was conceptualized as the on-off switch of attention. Though this depiction is indicative of arousal function, it should not be taken too literally. Even during sleep the human organism maintains some minimal level of arousal. On the other hand, the presentation of a novel stimulus or change in stimulation heightens arousal and causes an orienting toward the stimulus.\(^2\) Thus exposure to a persuasive mass communication or some other overt form of stimulation may increase arousal and allow for subsequent information processing. Though arousal does not necessarily depend upon overt

\(^2\)The determinants of orienting are given elaborate coverage by Lynn (1966).
stimulation, in the context of the present discussion the covert determinants of arousal need not be elaborated.

Current knowledge concerning arousal function is derived mainly from investigations that utilized physiological instrumentation. Studies employing galvanic skin response (GSR) and electroencephalograph (EEG) measures of arousal indicate that heightened arousal facilitates learning (Blackwell and Sternthal, 1970; Hensel, 1970; Kleinsmith and Kaplan, 1963, 1964; Kleinsmith, Kaplan, and Tarte, 1963; Levonian, 1967; Maltzman and Raskin, 1965; Sokolov, 1963). For instance, Hensel (1970) continuously measured subjects' GSR during the presentation of four sixty second radio commercials. Depending on the experimental treatment, respondents' retention of the persuasive arguments was measured either immediately, six hours, or one day after they had heard the radio commercials. The GSR and retention scores were then dichotomized. For each subject, the two commercials that yielded the highest GSR scores were termed high arousal commercials, the remaining two termed low arousal commercials. The same strategy was employed to dichotomize retention scores.

Analysis of these data revealed that high arousal was associated with good retention and low arousal with poor retention. Though these results indicate a direct relationship between arousal and retention, it is unlikely that retention is a monotonically increasing function of arousal for the entire range of human arousal levels. In fact,  

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3 For a comprehensive review of this literature the reader should consult Berlyne (1967), Hensel (1970).
beyond a difficult-to-specify threshold, increases in arousal appear to inhibit learning, at least temporarily (Kleinsmith and Kaplan, 1963, 1964; Kleinsmith, Kaplan, and Tarte, 1963; Levonian, 1967). Despite the elegance of the theory developed to explain this phenomenon, its elaboration here is not justified since it is improbable that most mass communications would evoke sufficient levels of arousal to produce a learning deficit (Hensel, 1970).

It should be recognized that EEG and GSR monitor distinctly different aspects of arousal. An increase in EEG (e.g. from an alpha to a beta rhythm) is believed to reflect a heightening of cortical arousal (Berlyne, 1967), which is associated with structuring, organizing, and interpreting the stimulus material (Berlyne and Borsa, 1968). On the other hand, behavioral arousal (Berlyne, 1967; Lacey, 1967), detected by the GSR, is thought to reflect the organism's preparation for motor activity and response (Berlyne and Borsa, 1968).

The literature appears to be consistent with the information processing model. It suggests that arousal is necessary for learning and retention of information. Arousal alerts the central nervous system, enabling further processing. Whether further information processing ensues depends upon the attention paid the incoming stimulus.

Attention. For the last decade Broadbent's (1958) "filter theory" has dominated marketing theorists' attempts to explain the mechanism of attention (Engel, Kollat, and Blackwell, 1968; Howard and Sheth, 1969). Briefly, Broadbent theorized that the presentation of several communications simultaneously would cause the recipient's sensory apparatus to process this information in parallel channels. At some lower central
nervous level the incoming information is thought to reach a channel of limited capacity. To insure that the limited channel is not overloaded, a selective filter blocks out irrelevant communications before they reach the limited capacity channel. Message relevancy is determined by certain physical features of the stimulus information (e.g. pitch and intensity) as well as characteristics of the situation. Communications which possess the properties toward which the filter has been biased receive higher central nervous processing. Other messages are rejected before they can be identified or stored in memory.

Although Broadbent's theory summarized much of the research available at that time, recent investigations suggest modifications to his theory. As was the case in the discussion of selective exposure, this review focuses on the mechanisms that enable the individual to attend selectively to pertinent aspects of a communication, while disregarding those elements which hold little significance. In choosing the studies for review an attempt was made to include those paradigms that have contributed most significantly to the understanding of attentional selectivity in a mass communication setting. More specifically, studies utilizing shadowing, visual search, and pupillometric paradigms are considered.4

Shadowing. Though only recently developed, (Cherry, 1953) the shadowing technique has led to experimentation that has changed the complexion of current knowledge about the attentional mechanism. Shadowing requires the subject to repeat (or shadow) an auditorally or

4The discussion to follow is adapted from Egeth's (1967) presentation.
visually presented communication, and at the same time confronts him
with one or several other irrelevant messages. Some measure of the
information retained from the non-shadowed message often serves as
the dependent variable.

In a series of experiments, Cherry (1953) had subjects shadow
auditory messages fed through earphones to the right ear. While
shadowing right ear messages, the input to the non-shadowed ear was
manipulated in various ways. At the beginning and end of each trial
normal English speech was presented in the non-shadowed left ear.
During the middle portions of a trial subjects received either a pure
tone, normal English spoken by a male or female, reversed male speech
(which has the same spectrum as normal speech but no semantic content),
or German speech in the non-shadowed left ear. When subjects were
questioned at the end of a trial about the nature and content of the
non-attended message, it was found that they always noticed the change
from speech to a pure tone. Often participants observed changes in
voice from male to female. In all instances, however, subjects were
unable to identify the message content or the language presented to
the left ear.

In a subsequent study, Moray (1959) confirmed Cherry's findings.
Subjects shadowed a relevant message presented to one ear while re-
ceiving a short list of English words repeated 35 times to the other
ear. It was found that subjects recognized the repeated but non-
attended words only at chance level - regardless of whether or not
they were told about the recognition test beforehand.

Taken together these two studies indicate that at least certain
properties of unattended messages are processed by higher centers. Moreover, it appears that the content of the unattended message is rejected. However, this latter conclusion rests on a somewhat tenuous methodology. The administration of the recognition test after message presentation allows for the possibility that noticed aspects of the unattended messages were forgotten.

The findings of early shadowing experiments may be easily incorporated into Broadbent's theory. All that is required is a slight modification in the nature of the filter to permit the processing of certain physical message attributes not considered by Broadbent. However, subsequent investigations have presented evidence that is damaging to filter theory. Gray and Wedderburn (1960) had subjects shadow syllables presented to one ear and disregard the irrelevant syllables presented to the other ear. If the subject performed the shadowing task without error, he verbalized nonsense words. On the other hand, if the subject attended syllables from both ears (and failed to shadow as instructed), the result was a meaningful word. In fact, it was found that subjects repeated words rather than combinations of nonsense syllables. This result was confirmed by Treisman (1960) employing a similar paradigm.

It is apparent from the above studies and recent reviews of selective attention (Deutsch and Deutsch, 1963; Norman, 1969; Treisman, 1969) that seemingly unattended information is not necessarily filtered out at low central nervous levels. Quite the contrary, it is often processed at higher levels and is available for retrieval. Whether or not this information is retrieved depends upon its relevance in the
context of a particular situation as well as its history of relevance to the individual (Hodge, 1959; Montague, 1965; Stroop, 1935).

Visual search. Experiments employing a visual search paradigm provide another approach to the study of the attentional mechanism. Subjects are presented a stimulus array, such as a 50 line list, with each line containing four letters. As soon as the array appears, the subjects' task is to search it and indicate the line which contains the target letter; or respondents may be asked to state which line does not contain the target letter. Most often, the latency between onset of the stimulus array and appropriate target location serves as the dependent measure.

In a series of experiments Neisser and his co-workers (Neisser, 1963, 1964; Neisser and Beller, 1965; Neisser and Lazar, 1964; Neisser, Novick, and Lazar, 1963; Neisser and Stoper, 1965) report that subjects identify the target item (s) without appearing to notice or remember the field items. When similarity between target and field items is increased, the time required to find the target increases. Also, the search for a target requires less time than the search for its absence. Moreover, sufficiently practiced searchers can find any one of ten targets as rapidly as they can find a single one (Neisser, Novick, and Lazar, 1963).

To explain these findings, Neisser (1967) theorized that a hierarchical decision model guides attention. Initially, a preattentive system analyzes the array. On the basis of some decision rule (e.g. when

5 In Neisser's (1967) terminology the non-target letters are called field items.
search is for a target letter, decision rule may be the openness and/or angularity of letters scanned), neural energy is recruited to segregate potential targets from irrelevant field items. The fact that pre-attentive processing allows simultaneous testing of decision rules accounts for the observed facility in searching for multiple targets. Individuals' inability to recognize field items, and the increased difficulty in locating target items when they are highly similar to irrelevant field items, indicates the gross nature of preattentive analysis. Consequently, much of the array may have to undergo additional lower level as well as higher level processing. Similarly, the relative difficulty in locating the line in which the target item is not present, reflects the necessity of additional processing. As a result, there is a substantial delay in successful task completion.

It should be pointed out that Neisser's conceptualization is consistent with the one generated from shadowing experiments. Of course the decision rules specified by Neisser must be modified to account for the type of stimuli typically presented in shadowing experiments. However, both formulations conceive attention as a process that involves a sequence of decisions at several levels of the central nervous system.

Pupilometric research. The shadowing and visual search paradigms impart an understanding of the attentional mechanism. They do not, however, provide a method for determining the level of attention associated with various mass communications. Nor do retention tests provide a satisfactory alternative; they are likely to be confounded by memory decay. There is some optimism that pupilometry will provide a technique
useful in monitoring attention. Evidence is mounting that pupil dilations reflect the amount of information or load actively processed by the human organism. By analogy, pupil dilations may be likened to the meter outside one's house that indicates the total aggregate demand for electricity. When appliances are operated the meter turns more rapidly. Similarly when information is actively processed (i.e., attended), the pupil dilates. This conceptualization of pupil dilation as a measure of attention has been confirmed experimentally, whether the task was one of pitch discrimination (Kahneman and Beatty, 1967), recall of a familiar association (Kahneman and Beatty, 1966), or performance of mental arithmetic problems (Hess and Polt, 1964; Payne, Parry, and Harasymiw, 1968). Some tentative support for the contention that pupil dilations monitor attention in mass communication situations is reported by Hensel, Sternthal, and Blackwell (in preparation) though not by Carver (1971).

However exciting is its potential, the persistent measurement problems, high rates of subject attrition, and considerable cost associated with pupillometry limit its present value. Even if these problems could be rectified, pupilometric techniques would have questionable utility to the marketer. Pupil dilation research presently must be

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7 This analogy was borrowed from Kahneman and Beatty (1967).

8 For example, it has been the author's experience that more than 100 subjects are required to obtain useable pupilometric data from 60 people.
performed in a controlled experimental setting where subjects are all but forced to pay attention to the stimuli presented. As a result, there is very little variance in receptivity either between subjects in response to the same stimulus, or within a particular subject in response to different stimuli. Thus the inability of pupilometric instrumentation to measure attentional differences may be attributable to the fact that little variance in attention exists in the typical experimental setting.

Comprehension. Communication experiments that purportedly measure message reception usually operationalize this variable to reflect respondents' comprehension of the message. As a result there is a considerable body of knowledge that examines the determinants of comprehension. Given the diverse nature of these determinants, they are given only a cursory review here. A more complete treatment of the research pertaining to the comprehension mediator is presented in the subsequent discussion dealing with the determinants of communication effectiveness.

The substantive nature of a communication is an important determinant of message comprehension. Increasing the complexity of a persuasive communication not only decreases the likelihood of its comprehension, but also increases the variability in comprehension between message recipients. Thus a commercial that develops complex arguments probably will result in a relatively low level of understanding by the audience as a whole. Moreover, it is likely that the more intelligent members of the audience will have a considerably
better understanding of the message than will persons of lower intelligence.

The structural aspects of a communication also may determine how well that communication is understood. Experimental studies indicate that speech rate (Foulke, 1968; Goldhaber, 1970), and degree of organization (Thistlethwaite, de Hann, and Kamenetzky, 1955) affect comprehension. In addition, presentation of conclusions at the outset of the persuasive message rather than at its termination facilitates comprehension (McGuire, 1969). Finally, comprehension is more easily achieved when the communication is read rather than heard (Beighley, 1952; Toussaint, 1960; Westover, 1958).

Most investigations that examine message comprehension measured it as a dependent variable. Recently, a time-compression technique has been developed which allows the systematic manipulation of comprehension.

Time-compression is a technique that involves the deletion of numerous but small portions of a tape-recorded speech at regular intervals. If normal tape-recorded speech is at say one hundred and forty-five words per minute (wpm), then fifty per cent compression requires deletion at regular intervals so that two hundred and ninety wpm are presented.

Using this technique, Wheeless (1971) examined the relationship between comprehension (normal, fifty per cent compression) and persuasion. He observed that although fifty per cent compression did cause a significant decrease in message comprehension, there were no significant differences in the persuasiveness of normal and compressed speech.

It should be noted that this finding is congenial to the model. As
cognition response analysis suggests, only some minimal level of message reception is required for persuasion.

**Attitude Modification and Retention**

In Chapter II cognitive response analysis (Greenwald, 1968, 1970) was employed to describe the acceptance or rejection of persuasive communications and the subsequent level of retention. Evidence for cognitive response analysis is derived from several different types of investigation. The contention that individuals' initial opinion is an important determinant of response to persuasion has received some experimental substantiation. One approach requires the presentation of a persuasive communication that contains a specific number of arguments advocating a particular position. Subjects are then asked to record their thoughts concerning the communication issue, judge the favorability of each thought, and classify each thought as to its source (e.g. own thought, communication generated thought). In a series of studies employing this methodology, Cullen (reported by Greenwald, 1968) found that initial opinion accounted for a considerable portion of the variance in these responses to persuasion.

Several role playing studies are quite compatible with the cognitive response analysis contention that rehearsal of one's own arguments is fundamental to attitude change. The role playing situation often requires subjects to verbalize (e.g. write an essay) an opinion on an issue that is counter their initial opinion. Upon completion of this task, role players attitude change toward the issue is measured. Using this approach, it has been found that role playing results in significantly greater attitude change than does passive receipt of a comparable
persuasive message (Greenwald and Albert, 1968; Janis and Gilmore, 1965; Janis and Mann, 1965).

Cognitive response analysis also suggests that rejection of a persuasive communication can occur as a result of audience generation of counterarguments or discounting responses. The most relevant evidence for this contention is derived from studies employing inoculation techniques (McGuire, 1964, 1968). The inoculation approach involves pre-exposing subjects to a set of arguments useful in defending against a subsequent persuasive communication. The communication topic in this research always has dealt with cultural truisms in the health area. Cultural truisms are beliefs that are so widely held that most people would not have heard them attacked or believe that they were susceptible to attack. For example, one truism employed by McGuire (1962) stated that "Everyone should visit his doctor at least once a year for a routine physical checkup." It has not only been found that pre-exposure to information useful in defending against persuasive health truism reduces the communication's effect, but also that:

... pre-exposure to weakened forms of counterarguments (typically involving a mention and then a refutation of these arguments) is more effective in conferring resistance to strong subsequent attacks than is prior presentation of supportive arguments (McGuire, 1968, p. 264).

Though this result has only been found for cultural truisms, it is consistent with cognitive response analysis.

Weaker support for cognitive response analysis is obtained from distraction experiments. In this approach, the paradigm is such that

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9 See McGuire (1964, 1968), or Tannenbaum (1967) for a review of inoculation research.
subjects who are initially opposed to the position advocated in a persuasive communication are distracted by competing messages during the reception of the persuasive message. To the extent that distraction inhibits rehearsal of counterarguments in those subjects who initially oppose the arguments advanced in the persuasive message, cognitive response analysis predicts that persuasion would ensue. This prediction is maintained by Osterhouse and Brock (1970). Increasing the level of distraction yielded a decrease in counterargumentation and an increase in message acceptance. Festinger and Maccoby (1964) also found increased communication acceptance when subjects are distracted, however, no measure of counterargumentation was administered. Other investigations have not uniformly confirmed this finding (Haaland and Venkatesan, 1968; Silverman and Regula, 1968; Vohs and Garrett, 1968).

The equivocal results of distraction studies reduces the usefulness of these investigations in assessing the predictive validity of cognitive response analysis. A similar situation exists in the case of experiments that examine the effect of warning the message recipient as to the communication's persuasive attempt. From cognitive response analysis it is postulated that forewarning an audience that is initially opposed to arguments presented evokes counterargumentation and message rejection. Though there are several studies that maintain this prediction (Ewing, 1942; Freedman and Sears, 1965; Kiesler and Kiesler, 1964), many studies report no main effect of forewarning (Allyn and Festinger, 1961; McGinnies and Donelson, 1963; McGuire and Millman, 1965; McGuire and Papageorgis, 1961), or that forewarning
increases the communication's persuasive impact (Jones, 1964; Mills, 1966; Mills and Aronson, 1966).

Thus, the specific predictions of cognitive response analysis concerning message persuasiveness under conditions of distraction and forewarning receive only moderate support from the existing literature. This conclusion is not necessarily embarrassing to cognitive response analysis. Quite the contrary, it reflects the fact that the methodologies employed in many of the distraction and forewarning studies reviewed are inadequate to test cognitive response analysis. They seldom consider initial opinion as an independent variable; often they do not measure the counterargumentation generated by distraction or forewarning.

Thus the efficacy of cognitive response analysis in predicting persuasive effects in forewarning and distraction situations is still to be tested. That forewarning and distraction are the typical conditions under which consumers process advertising propaganda indicates the practical value of such research.

**Audience Characteristics Component**

This section reports literature dealing with the communication effects of demographic and personality individual difference variables. The specific variables selected for review are intended to exemplify the approach to audience characteristics suggested in Chapter II. From a theoretical standpoint the aim is to determine the mechanism

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10 This review draws heavily upon the literature searches performed by McGuire (1969) and Walton (1972).
underlying the persuasive effect attributable to audience differences. More practically, the analysis attempts to delineate the information processing mediators most directly affected by the audience characteristics considered.

Demographic Factors

Age. Only a very few studies examine the relationship between age and message reception. Steiner (1966) reported a positive relationship between age and attention to television commercials. On the other hand, in a test market brand awareness study it was found that age and awareness of advertisements (for food and bleach) were non-monotonically related (Stewart, 1964); middle age groups (35-49 years) exhibited the highest degree of awareness. The discrepancy between studies may be attributable to the differences in the stimuli employed. In fact, the nonmonotonic relationship reported by Stewart may reflect the relatively greater importance of the product studied to middle age groups.

A substantial number of investigations examine the relationship between age and social influence. It has been observed that by age seven children respond consistently to social influence (Lesser and Abeison, 1959). Young adults, between the ages of 15 and 21 repeatedly have been found to be highly persuasible (Janis and Field, 1959; King, 1959; Knower, 1936; Scheidel, 1963). Since these studies report communication influence for a single age group or small range of ages, the results are difficult to interpret. It is not known what the persuasive impact for other age groups might have been. Three studies
that have examined a relatively wide range of age groups within an adult population report a weak but negative relationship between age and persuasibility (Di Vesta and Cox, 1960; Janis and Rife, 1959; Whittaker and Meade, 1967).

Since only a few studies have related age to social influence it is difficult to assess the adequacy of the audience characteristics model. However, the extant data appear to indicate that age moderates more than one information processing mediator. Specifically, message reception appears to increase with age, and overall persuasion apparently decreases with age. These results suggest that age moderates some other information mediator. It may well be that as age increases, the probability of communication acceptance diminishes. Research is needed in which the relationships among age, message receptivity, attitude modification, and persuasion are examined. Furthermore, this research should include a wide age range and the manipulation of message complexity. This latter induction is suggested because the relationship between age and reception is likely to change as persuasive messages become increasingly complex. 11

Sex. In summarizing the literature dealing with the sex differences in attention, Silverman (1970) developed prototypes of male and female attentional styles. Silverman contends that through socialization females develop attentional styles that are characterized by a mechanism that heightens sensitivity to social stimuli but reduces the intensity of strong environmental stimulation. Conversely, the male

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11 See Chapter II, the situational weighting assumption.
attentional profile is typified by a relative insensitivity to social stimuli and a tendency to amplify the intensity of strong environmental stimulation. These culturally determined profiles may be utilized to integrate studies that explore the sex-attention relationship.

Consistent with Silverman's formulation, overall sex differences in message reception have not been found, though sex differences for specific types of stimuli have been reported consistently. Steiner (1966) observed no general sex differences in attention before or during the presentation of television commercials, but did report significant sex differences for specific commercials. Smith (1965) found no sex differences in newspaper advertising readership, though he did report differences in attention to specific products. Similarly, in several pupillometric studies significant sex differences in pupil dilations occurred in response to pictorial stimuli (Hess and Polt, 1960; Krugman, 1964).

The effect of the sex variable on attitude modification has been intensively researched. The overall conclusion is that females are more persuasible than males across a variety of social influence situations (Beloff, 1958; Di Vesta and Cox, 1960; Janis and Field, 1959; King, 1959; Knower, 1936; Patel and Gordon, 1960; Scheidel, 1963). However, there is some question as to the generality of this finding, since the subjects who participated in the above mentioned experiments were recruited from high school and college populations. For non-adolescents both younger (Abelson and Lesser, 1959) and older (Whittaker and Meade, 1967), no significant sex differences in persuasion were
found. Thus, while sex differences appear to exist, their effect on persuasion may be modulated by the communication recipient's age.

Assessment of sex differences in terms of the audience characteristics model is tenuous. Currently available studies do not allow such an analysis since attitude modification and reception data have not been collected in the same investigation. Moreover, previous research that examines the sex-attention relationship indicates the necessity of observing relationships between sex and information processing within the context of specific situations (e.g. social stimulation versus environmental stimulation situations).

**Education.** Education may be operationally defined as the number of years of formal schooling. For convenience, education level may be ordinally scaled as follows: grade school, high school, and college. Evidence relating educational attainment to communication exposure and reception indicates that these variables are positively related. Star and Hughes (1950), in measuring the effect of a multi-media information campaign for the United Nations, found that college educated respondents were four times as likely to be exposed to this campaign as were grade school educated respondents. Key (1961), in studying exposure to the 1956 presidential campaign, reported a remarkably similar pattern. Finally, Stewart (1964) observed that awareness for certain products in test market increased as educational attainment increased.

Research evidence that examines the relationship between education and attitude modification has historically presented a confusing array of results.\(^\text{12}\) To order these data, it is useful to consider the

\(^{12}\) For a more detailed review see McGuire (1969).
experiments dealing with the education variable in the context of the paradigm employed. Conformity studies provide a direct test of the relationship between education and acceptance. Subjects are informed that their initial belief is discrepant with a normative belief. Thus it is likely that most subjects will receive the communication. Conformity studies have consistently indicated a negative relationship between education and acceptance, despite the variability in the operational definitions of these variables (Carment and Miles, 1965; Crutchfield, 1955; Tuddenham, 1959).

Those studies employing a persuasion paradigm present a more equivocal picture. In a series of World War II experiments dealing with the topic "Why We Fight," it was found that the presentation of a propagandistic communication yielded a negative relationship between education and persuasion (Hovland, Lumsdaine, and Sheffield, 1949). On the other hand, when more subtle persuasive arguments on the same topic were developed, a positive relationship between education and persuasion was found (Hovland, Lumsdaine, and Sheffield, 1949). Cooper and Dinerman (1951) showed subjects a subtle persuasive film on prejudice and also observed a positive though non-significant relationship. It may well be that variance in receptivity to different types of presentations accounts for the discrepant findings concerning the persuasion-education relationship. This suspicion should be tested directly by measuring communication reception and examining the relationship between education and attitude modification.

Summary. The studies relating age, sex, and education variables to information mediators strongly suggest that marketers should examine
the moderating effect of demographic differences on variables preliminary to purchase. Clearly, demographic characteristics at very least influence information reception and attitude modification. In addition, there is limited support for the contention that demographic variables moderate information processing in accordance with the compensation assumption. Specifically, as age and education increase, receptivity to persuasive communications increases, and overall persuasion appears to decline. Though these findings suggest that age and education moderate some other information processing mediator such as attitude modification, this contention requires experimental verification. On the other hand, the lack of support for the compensation assumption in relating sex to persuasion may indicate that this assumption is inappropriate for dichotomous audience individual difference variables. This assertion should be tested by examining the relationship between such dichotomous audience differences as white versus non-white, sighted versus blind, and information processing mediators.

**Personality Factor**

The effect of an individual's self-esteem or self-confidence (here the terms are used interchangeably) on his influencibility has received extensive empirical study in both the social psychology and marketing literature. Moreover, self-confidence is considered a major conceptual variable in the Howard-Sheth (1969) buyer behavior model.

---

13 Self-esteem is the term employed in the psychological literature. Marketers have utilized the term self-confidence though both terms are operationalized similarly. An excellent review of the self-esteem literature is provided by McGuire (1968). Partial review of marketing studies is presented by Shuchman and Perry (1969).
Self-esteem refers to the "value an individual attributes to various facets of his person" (Cohen, 1959). In most investigations an individual's self-esteem is measured by the Janis and Field Scale (1959), though a variety of other measures have been used. These measures provide an indication of the audience's persistent or chronic level of self-esteem. Subjects then are categorized into high and low chronic self-esteem groups on the basis of test results, and their influencibility is measured. Alternatively, or additionally, self-esteem is manipulated experimentally prior to the presentation of a communication, by having subjects receive feedback that they were relatively successful or unsuccessful at some task, that is either related or unrelated to the main experiment. This procedure is referred to as an acute self-esteem induction.

A brief description of an experiment entailing the measurement of chronic self-esteem and the manipulation of acute self-esteem should clarify the meaning of these concepts. Gollob and Dittes (1965) measured chronic self-esteem by having subjects complete a 23 item feelings of inadequacy questionnaire (Janis and Field, 1959). In addition, subjects were administered a space relations test and were told that it was related to personal effectiveness and professional success. Depending upon the acute self-esteem treatment to which they were assigned, subjects were given feedback indicating that they had either performed relatively well or poorly on the space relations test. Finally, the persuasive communications were presented and their efforts measured.

The investigations that examine the self-esteem-persuasion
relationship present an array of seemingly contradictory findings. As indicated in Table 3, a substantial number of studies have reported an inverse relationship between self-esteem and influencibility. Subjects exhibiting relatively high levels of self-esteem were less influenced than their low esteem counterparts. In more recent studies, a curvilinear and occasionally a positive relationship between self-esteem and influence has been detected.

To assess the reasons underlying the equivocal relationship between self-esteem and influence, the investigations cited in Table 3 require some further elaboration. The majority of the studies that report an inverse relationship between self-esteem and influence dichotomize the self-esteem variable. Such a categorization does not allow the detection of an existing nonmonotonic relationship. Moreover, other investigations (Janis and Field, 1959; Lesser and Abelson, 1959; Leventhal and Perloe, 1962)\(^{14}\) reported inverse relationships only when analysis is done on extreme cells; that is, the influence increases as self-esteem decreases only when persons of very high and very low self-esteem are compared.

Further doubt as to the validity of this inverse finding is cast by Levonian (1968). For those subjects who received a persuasive communication he noted a negative correlation \(r = -0.14\) between self-esteem and persuasion that was significantly different than zero. However, there was not a significant difference between this correlation

\(^{14}\) The Leventhal and Perloe (1962) and Lehmann (1970) studies were not reported in Table 3 since the main finding deals with the interaction between fear and self-esteem. They are considered in subsequent sections.
<table>
<thead>
<tr>
<th>RELATIONSHIP BETWEEN SELF-ESTEEM &amp; INFLUENCE</th>
<th>REFERENCE</th>
<th>OPERATIONALIZATION OF SELF-ESTEEM</th>
<th>SITUATION</th>
<th>SEX OF SUBJECTS TESTED</th>
<th>RELATIONSHIP OBTAINED FOR</th>
<th>AGE/EDUCATION</th>
</tr>
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<tr>
<td></td>
<td></td>
<td>Chronic</td>
<td>Induced</td>
<td>Generalized</td>
<td>Specific</td>
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<tr>
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<tr>
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<tr>
<td>Silverman et al. (1966)</td>
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<tr>
<td>Eagly (1969)</td>
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<tr>
<td>Nisbett &amp; Gordon (1967)</td>
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<td>+</td>
<td></td>
<td>Conformity</td>
</tr>
<tr>
<td>Zellner (1970)</td>
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<td>+</td>
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<tr>
<td>Silverman (1964)</td>
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<td>+</td>
<td>-</td>
<td>+</td>
<td>+</td>
<td>Persuasion</td>
</tr>
</tbody>
</table>

Key: +: Relationship was found under conditions specified.
-: The variable was examined, but variance in influence was not attributable to it.
M: Male subjects
F: Female subjects
PS: Public School students
HS: High School students
UG: Undergraduates
NC: Sex differences not checked
and the one obtained for the no-message control condition ($r = -0.12$). Thus, although there appears to be considerable evidence inversely relating self-esteem and persuasion, on closer examination the data fail to provide conclusive support for this contention.

Recent experiments most often have indicated that self-esteem is nonmonotonically (inverted U) related to influence. Nisbett and Gordon (1967) experimentally manipulated self-esteem and the influence situation (e.g. conformity and persuasion); in addition, subjects' chronic self-esteem was measured. It was observed that the induction of self-esteem had no social influence effect. Furthermore, some persons who were low in self-esteem exhibited more conformity and persuasibility after they had experienced failure than after success. On the other hand, high self-esteem individuals were more influenced after success. Employing McGuire's (1968) audience characteristics model, Nisbett and Gordon reasoned that in the persuasive situation communication reception and attitude modification would contribute to the variance in influence, whereas in the conformity situation the variance in influence would be associated most directly with message acceptance. Since self-esteem was expected to moderate message receptivity directly and acceptance inversely, a nonmonotonic (inverted U) self-esteem-influence relationship was expected in the persuasive situation and a monotonically increasing relationship was predicted in conformity treatments. These expectations were maintained. In a subsequent study, the relative importance of communication receptivity in persuasion situations was experimentally confirmed (Zellner, 1970).

Systematic differences in the substantive content of the influence
situation may also be responsible for the array of observed relationships between self-esteem and persuasion. Cohen (1959) hypothesized that persons who exhibited different levels of self-esteem would employ different mechanisms to defend against influence attempts. Specifically, persons of high esteem were expected to defend against threatening appeals and react favorably to reassuring communications. Several studies confirm this prediction (Cohen, 1959; Lehmann, 1970; Leventhal and Perloe, 1962; Silverman, 1964; but not Gollob and Dittes, 1965), only when the message recipients perceived the communication source to be dissimilar to themselves.\(^{15}\) The discrepant positive relationship between self-esteem and attitude modification observed by Gollob and Dittes (1965) may be attributable to the fact that peers served as communicators in their experiment.

Previously reviewed studies suggest that men and women employ different attentional styles (Silverman, 1970). Furthermore sex differences appear to moderate the resistance to persuasion, at least for younger persons. Unfortunately this sex effect has not been considered sufficiently. Of those studies that reported an inverse self-esteem influence relationship, only two provide evidence that this relationship did not hold for females (Lesser and Abelson, 1959; Silverman, Ford, and Morganti, 1966). The remainder of these studies either employed only males or did not check the sex differences. Similarly in the investigations that evidenced a nonmonotonic relationship, the moderating

\(^{15}\) Leventhal and Perloe (1962) found no relationship between self-esteem and persuasion when source's personality was similar to that of message recipient. Cohen (1959), Lehmann (1970), and Silverman (1964) all used sources that were dissimilar to subjects.
influence of the sex variable seldom was entertained. Of the eight studies reported in Table 3, four utilized only women subjects (Barach, 1967; Cox and Bauer, 1964; Eagly, 1969; Gergen and Bauer, 1967), two did not analyze the variance in influence attributable to sex (Bell, 1967; Zellner, 1970), one found only a female effect (Silverman, Ford, and Morganti, 1966), and the remaining study found no sex differences (Nisbett and Gordon, 1967).

A cursory examination of Table 3 suggests that the inverse relationship between self-esteem and influence is predominantly a male effect, and the curvilinear relationship a female effect. However, it is abundantly clear that the moderating role of sex has not undergone sufficient scrutiny to allow this conclusion.

Finally, it may be noted that the systematic influence of a subject's age and educational attainment has not been determined. Since investigations reporting inverse, curvilinear, and positive relationships each include studies that represent different levels of these variables, it is unlikely that age or education has any systematic effect.

To summarize, it seems that the research finding an inverse relationship between self-esteem and social influence is fraught with methodological artifacts. These studies have typically dichotomized the self-esteem variable and have failed to run no-message control groups. When these methodological artifacts are rectified, the predominant relationship between self-esteem and influence appears to be nonmonotonic or positive.

The conclusion that the self-esteem influence relationship is
nonmonotonic (or positive) is compatible with the prediction made by the audience individual difference model. Whether or not this nonmonotonic relationship is attributable to the moderating effect self-esteem has on reception and attitude modification requires further research.

Source Characteristics Component

In the majority of the studies that treat communicator characteristics as an independent variable, the source's trustworthiness and/or expertise (i.e. credibility) are manipulated in the introduction of the communication. The persuasive message is presented, and measures of agreement or attitude change are taken. Employing this paradigm, it has been found repeatedly that a high credibility source was more persuasive than a low credibility one, at least in the short run (Hovland, Janis, and Kelley, 1953). Moreover, highly credible sources induced greater positive attitude change than their low credibility counterpart, whether the message was fear-evoking (e.g. Miller and Hewgill, 1966; Powell and Miller, 1967), discrepant (e.g. Aronson, Turner, and Carlsmith, 1963; Hill, 1965), or was repeated several times (Johnson and Watkins, 1970).

The relative persistence of the persuasive effect induced by sources varying in credibility is less clear. In an investigation conducted by Hovland, Lumsdaine, and Sheffield (1949) during World War II, soldiers were presented an indoctrination film titled The Battle of Britain. The results indicated that a biased communicator was more persuasive after eleven weeks than immediately after the film had been shown. Apparently, the persuasiveness of a low credibility source increases with the passage of time. Though subsequent studies in which
communicator credibility was systematically manipulated failed to confirm this *sleeper effect* finding (Hovland and Weiss, 1951; Kelman and Hovland, 1953; Johnson and Watkins, 1970; Schulman and Worrall, 1970; Weiss, 1953), they did report that there were no significant differences in persuasion attributable to the communication source after a time delay. However, this result is probably attributable to a regression effect; since the high credibility source initially caused considerably more attitude change than the low credibility source, given equal amounts of message decay, it is expected that more attitude reversion toward one's initial opinion would occur in the high credibility condition. In a series of five studies, Greenwald and Gillig (1971) failed to observe a sleeper effect, though they did observe the source-time delay interaction reported in earlier studies. They concluded:

> . . . we suspect either that the sleeper effect is not a sufficiently powerful phenomenon to be detected reliably in experiments with moderately large numbers of subjects or that it is dependent on rather subtle forms of experimental manipulations . . . (Greenwald and Gillig, 1971, p. 1)

It seems apparent that the communicator's credibility is an important determinant of the persuasiveness of his message. High credibility sources have been found consistently to be more persuasive than low credibility communicators. Since marketing communicators often are perceived to be of low credibility, it behooves them to explore ways of enhancing credibility. Several suggestions to increase the credibility of marketing sources beyond those currently in use are made in subsequent sections.
Audience-Source Interactions

The interaction between the source's credibility and audience individual differences may also moderate the transmission of information. Weiss (1957) found that attitudinal congruence between audience and communicator on an irrelevant issue, prior to the presentation of the critical persuasive message, enhanced persuasion more than if the prior message had not been presented. Apparently, attitudinal similarity on one dimension results in positive perceptions of the source, and the subsequent facilitation of attitude change.

Coorientation between communicator and audience was also investigated by Aronson and Golden (1962). A persuasive communication extolling the virtues of arithmetic was presented to elementary school children whose prejudice toward Negroes had been ascertained. The communicator was Negro or white, and was introduced either as a M.I.T. engineering graduate or a dishwasher. Unprejudiced subjects changed their attitude toward arithmetic more than prejudiced subjects when the communication was presented by a Negro in both the dishwasher and engineer treatments. It was concluded that prejudiced subjects who resisted changing their attitude when a Negro presented the communication were irrational. Jones and Gerard (1967) take exception to this explanation, arguing that prejudiced subjects may have responded in the manner they did, because they felt that what was good for Negroes, a negative referent, was by definition bad for themselves.

Mausner and Mausner (1955) divided their respondents according to specific social class variables. They reported that a well educated
pro-science audience tended to be receptive to a communication on the basis of the source's credibility. Less educated persons tended to discount the communicator's expertise in favor of evidence substantiating his position.

Several studies have examined the persuasive effect of communications given by sources of varying credibility to audiences possessing different levels of a particular personality characteristic. Siegal, Miller, and Wotring (1969) categorized respondents in terms of their assumed similarity between opposites (ASO) scores. Consistent with Fiedler's definition (1960), persons who perceived great differences between their most and least acceptable sources were designated low ASO receivers. Conversely, high ASO receivers included subjects who perceived small differences between most and least acceptable sources. Siegal and his co-workers theorized that low ASO subjects had learned to make more sensitive discriminations between sources and thus were credibility prone. The findings indicated that low ASO receivers underwent significantly greater attitude change than did high ASO receivers when the communication was presented by a highly credible source. However, with a less credible communicator, there was a non-significant tendency for the high ASO subjects to be relatively more affected by the persuasive communication than low ASO receivers.

The investigations reviewed suggest that an audience's perception of similarity between themselves and a communication source facilitates persuasion. Perceived dissimilarity on the other hand inhibits persuasive attempts. Moreover, there appears to be identifiable individual
characteristics that underly persons' sensitivity to different sources (Siegal, Miller, and Wotring, 1969).

**Summary and Conclusions**

This chapter presents evidence to assess the adequacy of the persuasive mass communication model. As the model suggested, information processing appeared to involve a series of mediators. More specifically, exposure to persuasive appeals was found to be dependent upon a number of audience characteristics. Once exposed, people's receptivity to information was determined by its salience. Reception appeared to be a necessary condition for the stimulation of communication-relevant thoughts. In fact, the available data suggested that the thoughts generated by a persuasive message were important determinants of attitude modification and retention.

The studies pertaining to the persuasive effect of demographic and personality differences between people provided some support for the audience characteristics model. Consistent with the multi-mediation assumption, the existing studies indicated that audience characteristics may moderate one or more information processing mediators. Less support was found for the compensation assumption. However, it should be noted that the relationship between audience differences and multiple information processing mediators has seldom been determined in a single investigation. In addition, those experiments that do satisfy this condition have been performed in a laboratory setting which minimizes the variance in communication receptivity; regardless of the differences between people, the laboratory setting all but requires them to receive
the persuasive communication. Thus, the lack of support for the compensation assumption reflects, in part, the fact that it has not been rigorously tested. Finally, the situational weighting assumption is still to be tested for marketing-relevant situations.

The studies reported indicated that communicator credibility was an important determinant of persuasion. Moreover, when members of an audience perceive themselves to be similar to a communication source, persuasion is greater than when this perception is absent.
PART II

THE COMMUNICATION EFFECTS OF MESSAGE CONTENT VARIABLES

The persuasive mass communication model elaborated in Section I may serve as a diagnostic tool in determining the locus of communication ineffectiveness. It does not, however, specify the means for improving ineffective communications. In this section the manipulation of a communication's content is examined as a means of increasing persuasion. More specifically, the impact induced by varying the level of a communication's discrepancy, fear-arousal, and humor is assessed.

The selection of these variables is guided by the desire to study the motivational bases that have predominated the marketing communicator's empirical work and practical application. The persuasive effect of discrepant messages is discussed in Chapter IV. Though discrepancy is not a message content variable per se, it is considered in this section because attempts to persuade an individual, whether by inducing fear-arousal, humor, or some other motivational basis, often require the presentation of information that is discrepant with his initial opinion. The influence of fear-arousing communications is reviewed in Chapter V. The persuasive impact induced by fear appeals has recently come under intensive scrutiny by psychologists and marketers. Finally, in Chapter VI the communication effects of humor are discussed. Although
there has been relatively little empirical work reported regarding the influence of humorous messages, its inclusion is justified on the basis of its extensive use in a variety of mass communications situations.

In detailing the discrepancy, fear-arousal, and humor literatures a similar format is employed. First, the paradigms most often used are described. Then, the main effects of the message content variable are reviewed. Finally, where appropriate, their interaction with other message content variables as well as with audience and source characteristics is assessed.
A person decides that he needs a new car. Though he feels that (say) the Beauville automobile best suits his budget, upon reading Consumer Reports he discovers that this car has several deficiencies. Specifically, tests indicate that at speeds greater than twenty miles per hour collisions most often are fatal to Beauville passengers. In addition, the exterior finish begins to peel after six months. For the moment these claims discourage further inquiries about the Beauville. However, the next day he sees a Beauville television commercial which claims that scientific tests conducted at the Beauville test laboratories conclusively show the Beauville resists exterior erosion for at least three years. Furthermore, testimonials are presented by professional race car drivers stating that the braking and maneuverability of the Beauville make it a relatively safe automobile.

When questioned about the Beauville, this person states that the Beauville is attractively priced and is quite safe. However, he expresses some concern about the durability of the exterior finish.

This illustration raises several questions. Why was the potential Beauville buyer convinced by the arguments concerning safety but not by the arguments dealing with the durability of the exterior finish? How far removed should communicated arguments be from the audience's initial
opinion to induce maximum persuasion? How important a factor was the communication source in persuading this individual? Did this person's involvement with the various product attributes partially determine his persuasability? These questions are addressed in this chapter.

**Experimental Approaches to Discrepancy Research**

A common characteristic of marketing mass communications is the presentation of messages that are discrepant with recipients' initial opinion. The intent is to have message recipients embrace an attitudinal position that is aligned more closely with the one expressed in the persuasive communication. The efficacy of this strategy centers around the determination of an optimal discrepancy level. Messages that are too discrepant with an audience's initial opinion are likely to be rejected. On the other hand, messages that take positions very similar to those held by message recipients can be expected to induce little persuasion.

**Between-Subjects Designs**

Several paradigms have been employed to examine the persuasive effect of discrepant communications. Early discrepancy research was dominated by between-subjects designs. When this approach is used, subjects are assigned to treatment conditions on the basis of their initial opinion, and all subjects receive the same persuasive communication dealing with the topic on which they were partitioned. The level of discrepancy is determined by examining the distance between respondents' initial position and that advocated in the persuasive message.
The degree of attitude change or agreement serves as the dependent variable.

When between-subjects designs are employed, several precautions are often instituted. To insure internal validity (Campbell and Stanley, 1966) a control group is administered the attitudinal measures but not the critical persuasive communication. In addition, several persuasive communications are tested to indicate the generality of the finding. However, even when these controls are employed, between-subjects paradigms still allow for the possibility that unmeasured and perhaps unknown correlates of initial opinion contribute to the variance in persuasion. For example, there is evidence that persons who maintain extreme positions on an issue have extreme confidence (Cantril, 1946; Suchman, 1950) and high ego-involvement (Sherif and Hovland, 1961) in that opinion. Although these audience variables are not measured they may contribute substantially to the variance in subjects' response.

Between-subject designs also may suffer from the presence of a regression effect. When a moderate position is advocated in a persuasive communication, those subjects who hold extreme initial positions may regress more than those holding less extreme positions. Attitude change may be a function of the change possible, rather than solely the consequence of the persuasive communication. Conversely, subjects who maintain extreme initial opinions may not have the opportunity to indicate their attitude change in response to communications advocating even more extreme positions. If a subject expressed an initial opinion of 6 on a scale where 7 was the most favorable response possible, a persuasive message supporting the most favorable response would allow a
positive attitude change of one unit, regardless of the subject's actual degree of change. In such cases the subject is constrained by the scale extremity which may deflate his actual attitude change.

**Between-Communications Designs**

To alleviate the methodological inadequacies present in between-subjects discrepancy designs, a substantial number of discrepancy studies have utilized between-communications paradigms. In one variant of this approach, respondents are randomly assigned to discrepancy treatments and then are presented with a communication that is a specified distance away from their initial opinion. Although this paradigm is not susceptible to the criticisms leveled at between-subjects designs, it involves the somewhat tenuous assumption of equal discrepancy intervals. For example, it may not be true that the same discrepancy is perceived by subjects whose initial opinions are scaled at 7 and 3, when there are administered persuasive messages scaled at 5 and 1, respectively. Subjects with extreme initial opinions may be more resistant to persuasion than subjects whose initial opinions are less extreme.

This scaling problem has been solved by utilizing between-communications designs in which subjects initial opinion toward the communication issue is relatively homogeneous. In fact, this methodology provides the soundest approach to studying the persuasive effects of discrepant communications. However, since message issues must be restricted to ones in which the initial opinion variance is minimal, the generality of the findings employing this paradigm may be questioned.
The Influential Effect of Discrepancy

The influential effect of discrepant communications has received considerable attention in the psychological literature. As Table 4 indicates, early investigations that examined the main effects of discrepancy typically reported social influence to be a monotonically increasing function of message discrepancy. On the other hand, more recent studies have found that discrepancy and influence are curvilinearly related, or in a few cases negatively related.\(^1\)

It may be argued that the diverse array of relationships found are attributable to the systematically different levels of discrepancy induced in studies reporting each type of relationship. Specifically, those experiments that determined the discrepancy-influence relationship to be monotonically increasing may have induced only low levels of discrepancy, whereas studies that found a curvilinear relationship manipulated discrepancy over a broad range of levels (see Figure 10). Despite the intuitive appeal of this suggestion, there appears to be very little support for it. A comparison of the discrepancy inductions employed in studies that reported monotonically increasing relationships as opposed to those that found a curvilinear relationship failed to indicate any systematic differences. In fact, it appears the variability in discrepancy inductions is as great between experiments that

\(^1\) Several studies have reported a monotonically decreasing relationship between discrepancy and influence (e.g. Hovland, Harvey and Sherif, 1957; Sereno, 1968). Since these studies involve the manipulation of ego-involvement they are reviewed in the section dealing with audience-discrepancy interactions. Also those studies in which source credibility was manipulated experimentally are not included in Table 4, but are reviewed in the following section.
<table>
<thead>
<tr>
<th>Relationship Between Discrepancy and Influence</th>
<th>Design</th>
<th>Type of Influence</th>
<th>Probable Source of Influence</th>
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<td></td>
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<td>Unspecified</td>
<td>Sims (1938)</td>
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<td></td>
<td></td>
<td></td>
<td>Person who disguises intent to persuade</td>
<td>Ewing (1942)</td>
</tr>
<tr>
<td>Curvilinear</td>
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<tr>
<td>Between-Communications</td>
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<td>Conformity</td>
<td>Group of Peer Responses</td>
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</table>
Figure 10

A Potential Resolution of Inconsistent Findings Concerning the Relationship Between Discrepancy and Influence

- Studies reporting monotonically increasing discrepancy-influence relationship
- Studies reporting a curvilinear discrepancy-influence relationship
report the same relationship as it is between studies where findings are inconsistent with each other.

It may also be suggested that the type of design or the type of influence situation systematically affects the discrepancy-influence relationship. The evidence cited in Table 4 fails to confirm this suspicion. Perhaps the most cogent explanation is derived by attributing the inconsistent findings to differences between the communication sources. Although the communicator's credibility was not manipulated experimentally in the studies reported in Table 4, an analysis of the methodologies employed reveals subjects probable perception of source credibility. The studies that reported a monotonically increasing relationship between discrepancy and influence appeared to attribute the communication to sources that may be characterized by their high credibility. For instance, it is likely that the normative responses of peers (Fisher and Lubin, 1958; Goldberg, 1954; Nelson, Blake and Mouton, 1958; Tuddenham, 1958a, 1958b; Zimbardo, 1960), disguising the intent to persuade (Ewing, 1942), and the direct induction of a highly credible source (Hovland and Pritzker, 1957; Rosenbaum and Franc, 1960) led to subjects' perceptions of communication sources as highly trustworthy and/or expert.²

Subjects' perception of the communication source in studies reporting a curvilinear discrepancy-influence relationship is more difficult to ascertain. Carlson (1956) and Weiss (1961) neither attributed their communication to a particular source, nor measured the

²In the one remaining study that reported a monotonically increasing relationship (Sims, 1938), the perceived credibility of the source is difficult to assess.
communicator's perceived credibility. However, there is some evidence to suggest that when a message source is unspecified, subjects attribute the communication to the experimenter (McCroskey and Dunham, 1966). As a result, the source is believed to be moderately credible. On the other hand, the communicator's credibility in the experiments by Insko, Murashima, and Saiyadain, (1966) and Johnson (1966) may have been moderate because credibility was confounded by other variables. Finally, Whittaker (1963) stated that authoritative sources were employed as communicators. If this were true, it would present evidence contrary to the present contention that the communication sources in studies finding a curvilinear discrepancy-influence relationship are not of high credibility. However, it should be pointed out that Whittaker did not specify who the authoritative source was, nor did he check this manipulation.

Thus it appears that the relationship between message discrepancy and social influence found in extant research depends upon the communicator's credibility. When highly credible sources present increasingly discordant communications, influence is a monotonically increasing function of discrepancy. When the sources are perceived to be less than highly credible, discrepancy and influence are curvilinearly related. However, the reader is cautioned as to the tentative nature of this conclusion. It is based solely on an estimate of the source credibility that probably confounded the main effects of discrepancy. More rigorous

3In Insko, Murashima, and Saiyadain (1966) a study of the level of stimulus ambiguity might have caused an otherwise highly credible source to be perceived as only moderately credible. Johnson's (1966) confounding of ego-involvement may have had a similar effect.
evidence, entailing the direct manipulation of credibility and discrepancy, and the analysis of their interactive persuasive effects is required. This evidence is reviewed in the following section.

The Interaction of Source Credibility and Discrepancy

The empirical approaches employed to study the interactive effects of discrepancy and source credibility upon influence are similar to those utilized to research the main effects of discrepancy. Both employ between-subjects and between-communications designs. Moreover, in the interactive studies source credibility was manipulated experimentally, and the success of this induction was often checked.

In an early investigation, Bergin (1962) observed the influential effect of source credibility and discrepancy interactions in ego-involving situations. He found that when source credibility was high, as the level of discrepancy increased attitude changed in the direction advocated by the source. In the low credibility treatment attitude change was curvilinearly related to discrepancy.

This finding generally was substantiated in similar studies conducted by Aronson, Turner, and Carlsmith (1963) and Johnson and Steiner (1968). However, Johnson and Steiner reported no conformity to low credibility sources at low discrepancy levels and some evidence of a boomerang effect when discrepancy was large. This discrepant finding may be attributable to the extremely negative perception of the low credibility source held by subjects.

The interactive persuasive effects of credibility and communication discrepancy also have been investigated in situations where the
message topic was less ego-involving. Choo (1964) found that when discrepancy was large, both high and low credibility groups changed more toward the message than when discrepancy was small. A similar experiment by Hill (1963) confirmed Choo's results. However, these findings involve the implementation of questionable methodologies. Both studies employed between-subjects designs, which allowed for the possibility that some variable which correlated with initial opinion influenced the degree of persuasion observed. Moreover, Choo employed only two discrepancy levels, an approach that does not allow for the examination of any existing nonmonotonic relationships. On the other hand, Hill used three levels of discrepancy, but introduced another source of variance when he permitted the communication source to vary from subject to subject. Thus the methodological inadequacies of Choo's and Hill's research renders their findings difficult to interpret.

A more adequate test of the credibility-discrepancy interaction has been provided by Bochner and Insko (1966). These investigators chose hours of sleep needed as the communication topic, since it was determined in a pretest that subjects held a homogeneous opinion on this issue (student participants felt that 7.89 plus or minus 1.05 hours of sleep per night was required). Subjects were presented with a three-page essay advocating a reduction in the number of hours a person should sleep. Depending upon the discrepancy condition, the hours of sleep advocated ranged between eight and zero. Credibility was manipulated by introducing the speaker as either a highly credible Nobel prize-winning physiologist, or a moderately credible YMCA director. Subjects' post-communication opinions regarding the number of hours of sleep
required, the degree of communication disparagement, and the degree of source disparagement served as dependent variables.

Bochner and Insko predicted that as the number of hours of sleep advocated dropped from eight to zero, discrepancy would be curvilinearly related to the amount of attitude change, for both high and medium credibility conditions. Furthermore, they hypothesized that the peak on the attitude change curve would occur at a higher level of discrepancy for the high rather than the medium credible source.

The results confirmed the expectation of a linear and curvilinear relationship between discrepancy and attitude change in only the medium credibility condition. For the high credibility source, there was a significant linear but a non-significant curvilinear relation, despite the fact that influence declined when very few hours of sleep was advocated. Also, Bochner and Insko found a significant linear relationship between source disparagement and message discrepancy for the YMCA director but not for the Nobel prize winner. Apparently, when credibility is high, source disparagement seldom is employed as a means of coping with discrepant information. Rather, subjects conform to the position advocated in the persuasive communication. However, if Bochner and Insko had chosen an issue that allowed for the sampling of even more discrepant positions, it is likely that discrepancy would have been curvilinearly related to persuasion. This suspicion is confirmed by Koslin, Stoops, and Loh (1967) who observed a curvilinear relationship for both high and low credibility sources when a sufficiently wide range of discrepancy treatments were manipulated experimentally. On the other hand, when the message source has only moderate credibility, his
disparagement becomes a viable alternative mode of coping with discrep-
ant information. Moreover, it is likely that the availability of this alternative mode is responsible for the observed curvilinear relation-
ship between discrepancy and attitude change in the medium source credibility condition.

Brewer and Crano (1968) extended the previous discrepancy studies by introducing three sources of influence - positive, neutral, and negative. Unlike most previous investigations, subjects were not pre-

tested a persuasive communication. Instead they were shown modal attitudinal ratings on the experimental issues that were attributed to sources varying in credibility. Consistent with Bochner and Insko, Brewer and Crano hypothesized that attitude change following influence would vary directly with the source's credibility, and curvilinearly with the discrepancy between the communicator's position and the respondents' initial attitude. As predicted, the positive source produced the greatest amount of attitude change and the negative source produced the least. The results also indicated that the relationship between dis-
crepancy and attitude change was significantly linear for the positive source, approaching significant curvilinearity ($p < .10$) for the negative source, and nonsignificant for the neutral source.

Summary

The studies examining the discrepancy-credibility interaction present fairly consistent results. Seven of the studies reviewed found a positive linear relationship between discrepancy and attitude change when the message was attributed to a highly credible source. The one
study that employed an extreme range of discrepancy treatments reported a curvilinear relationship (Koslin, Stoops, and Loh, 1967). Additionally five of the eight studies (Aronson, Turner, and Carlsmith, 1963; Bergin, 1962; Bochner and Insko, 1966; Brewer and Crano, 1968; Koslin, Stoops and Loh, 1967) reported a curvilinear relationship between discrepancy and attitude change when the message source was of moderate or low credibility. The three remaining studies (Choo, 1964; Hill, 1963; Johnson and Steiner, 1968) found a linear relationship for this condition. However, as was indicated earlier, methodological artifacts may account for these discrepant findings.

If it is in fact true that source credibility moderates the discrepancy-influence relationship in the manner suggested above, then it provides a means of reconciling the inconsistent findings regarding the effect of discrepancy on influence cited earlier (Table 4). It may well be that these discrepant findings are attributable to the confounding of systematically different credibility levels. Those studies that determined the relationship between discrepancy and influence to be monotonically increasing utilized high credibility sources. On the other hand, investigations that reported a curvilinear relationship probably employed sources of moderate credibility. This suspicion, which was raised in the analysis of the main effects of discrepancy, is confirmed by the interactive source credibility-discrepancy studies just described.

From a communication practitioner's standpoint, the literature suggests the importance of measuring the communication recipient's perception of the source's credibility. Since it is unlikely that source
credibility is high in most commercial message presentations, discrepancy is likely to be curvilinearly related to persuasion. Thus the knowledge of the source's perceived credibility may be utilized to determine the extent of the discrepancy that can be presented in a persuasive communication.

At present this knowledge may be employed in only a general way. The current attempts to predict the discrepancy level which induces maximum influence have most often failed (Bergin, 1962; Johnson and Steiner, 1968). However, the information processing model suggests a way of overcoming this problem. Given the laboratory setting of most experimental discrepancy studies it may be assumed that social influence is dependent primarily upon the probability of message acceptance. It also appears plausible to assume that messages attributed to sources of high credibility induce greater probabilities of communication acceptance than do sources of low credibility, especially at higher levels of discrepancy between a person's initial opinion and that advocated in the communication (Figure 11a). If these assumptions are correct, then the relationship between discrepancy and influence can be depicted by a family of curves (Figure 11b). As Figure 11b indicates, increases in communicator credibility are accompanied by increases in their influence. Furthermore, the more discrepant the communication the more influential it is - up to a point.

Thus the information processing model provides a potential means of determining that level of communication discrepancy which induces a maximum influence. It suggests the measurement of communication
The nonmonotonic discrepancy-influence relationship for a low credibility communicator illustrated above is the product of the probability of message acceptance and the discrepancy of the communication. For example, $a \times a' = A$, $b \times b' = B$, and $c \times c' = C$. Using a similar procedure, the relationship between influence and discrepancy for communications attributed to sources of moderate and high credibility may be generated.
acceptance probabilities for sources varying in credibility who present messages varying in discrepancy. Of course, this theoretical analysis must be validated experimentally.

**Interaction Between Audience Characteristics and Discrepancy**

In examining the relationship between discrepancy and influence, several investigations employed communication issues that were ego-involving (Aronson, Turner, and Carlsmith, 1963; Bergin, 1962; Johnson and Steiner, 1968). However, the systematic persuasive effects of this audience variable were not determined. In fact, ego-involvement was permitted to confound the discrepancy-influence relationship.

To develop a better understanding of the effect of ego-involvement, studies dealing more directly with this variable are reviewed here. Ego-involvement may be defined as "a concern with a given issue related to the individual's needs and values" (Sherif and Hovland, 1961). Employing this definition, Freedman (1964) tested the persuasive effect of experimentally manipulated discrepant and ego-involving communications in the context of a concept formation task. He noted that when involvement was low, change in opinion and discrepancy were related linearly. In the high involvement condition these variables were curvilinearly related.

The relationship between ego-involvement and discrepancy has also been examined in persuasive situations. For a communication dealing with the prohibition of alcoholic beverages, it was found that highly involved subjects changed their attitude less in the direction advocated than subjects who had low involvement (Hovland, Harvey, and Sherif,
Moreover, this finding was maintained in subsequent investigations (Greenwald, 1964; Miller, 1965).

There are several studies in the literature that check the influence of source credibility on the ego-involvement-discrepancy relationship. Sereno (1968) presented a belief-discrepant communication concerning the "use of (the) contraceptive pill by unmarried females" to audiences that were either of high or low involvement. Additionally, the communication was attributed to a highly credible source. Consistent with earlier findings, Sereno observed that highly involved subjects changed their attitude significantly less than did subjects who were less involved. There was some support for the contention that highly involved participants disparaged the communication source to a greater extent than did their low-involved counterparts. Moreover, the relationship between discrepancy and ego-involvement reported by Sereno was substantiated in a subsequent experiment (Johnson and Scileppi, 1969), where the level of source credibility also was manipulated.

The studies reviewed in this section suggest that subjects' level of ego-involvement moderates the persuasive impact of discrepant communications. In fact, the data indicate that highly involved subjects are less likely to be persuaded by a discrepant communication than less involved message recipients. Furthermore, the Johnson-Steiner and Sereno studies demonstrate quite clearly that high credibility is not a sufficient condition to induce persuasion to discrepant communications. The audiences' level of ego-involvement may moderate the source's impact.

The exact nature of the relationship between discrepancy and influence under varying levels of source credibility and ego-involvement
cannot be specified since the studies in which these variables were systematically manipulated typically employed only a single discrepant communication. However, in a recent study Rhine and Severance (1970) did manipulate message discrepancy. It was found that attitude change was an increasing function of discrepancy when ego-involvement was low and a non-monotonic function when ego-involvement was high. Furthermore, systematic variation of source credibility had little impact on attitude change when the persuasive communication was highly ego-involving.

The audience characteristics model suggests that the moderating effect of ego-involvement on communication reception and acceptance should be investigated. Such an undertaking would help evaluate the systematic effect of ego-involvement on persuasion observed by Rhine and Severance (1970).

Summary and Conclusion

The evidence reviewed in this chapter suggests that the persuasive impact of discrepant communications is moderated by the communicator's credibility and the audience's involvement. When the communication source is perceived to be highly credible, it has been found repeatedly that influence is a monotonically increasing and most often linear function of discrepancy. On the other hand, when the message source is perceived to be of low credibility, influence and discrepancy are non-monotonically and most often curvilinearly related. There is also some tentative evidence intimating that when subjects are highly involved in the communication issue, the range of discrepant communications which induce persuasion is significantly reduced.

The systematic effects of the source and audience variables
presents a cogent explanation for the extant studies' findings. Given the levels of these variables typically encountered in marketing settings, one might expect to find a curvilinear relationship between discrepancy and persuasion. Unfortunately, present attempts to predict the optimal discrepancy level beyond which persuasion declines have met with little success. However, the information processing model may provide a means of determining the optimal level of discrepancy for sources varying in credibility. Such information would allow communication practitioners to maximize the persuasive impact of their communications without risking message rejection. Indeed, if discrepancy research is to have much utility to the communication practitioner, discovery of the optimal discrepancy level is required.

The discrepancy literature presented in this chapter provides a tentative explanation for the attitudes manifested by the potential Beauville buyer. As it may be remembered, this individual believed that the Beauville was safe and attractively priced, but he was concerned about the quality of the external finish. Though the Beauville advertisement attempted to minimize this concern, it apparently failed. In fact, this failure to persuade is probably attributable to the fact that a low credibility source, the Beauville manufacturer, presented a communication that was highly discrepant with the individual's initial belief. On the other hand, the persuasiveness of Beauville's argument concerning its safety is explained in part, by the fact that it was only moderately discrepant and was presented by highly credible race car drivers. Another determinant of persuasion in this situation may have been the individual's ego-involvement with Beauville's various attributes.
Perhaps, for the person observed, what the car looked like was very important whereas safety was a low priority consideration. Had the subject's initial opinion, perception of source credibility, and ego-involvement been measured a priori, it is likely that his persuasability could have been predicted.
CHAPTER V

FEAR-AROUSING PERSUASIVE COMMUNICATIONS

Historically, marketing practitioners have been reluctant to employ fear-arousal or threat as the motivational basis for their persuasive communications. In fact, the use of persuasive fear appeals has been relegated to communications dealing with health care and personal safety issues. The American Cancer Society has utilized a variety of fear-arousing messages in their anti-smoking campaign, and in isolated cases fear has been induced to promote pedicare products, airlines, and insurance companies (Stuteville, 1970).

The guarded use of fear in marketing communications apparently was based on the results of Janis and Feshbach's (1953) classical study which revealed a negative relationship between fear-arousal and persuasion. Since persuasion apparently decreased with increased fear-arousal there was little point in evoking fear. The application of the evidence from more than ninety investigations performed subsequent to the Janis and Feshbach experiment has largely been ignored (Ray and Wilkie, 1970). Moreover, advertisers current neglect of the behavioral fear appeal studies may be attributable to the cursory treatment given this variable in the marketing literature. Ray and Wilkie (1970), in their selective review of the fear literature, indicated authors of advertising (e.g. Cox, 1961; Crane, 1965) and consumer behavior texts
(Engel, Kollat, and Blackwell, 1968; Myers and Reynolds, 1967) for fostering ignorance as to the marketing potential of fear appeals. They suggested that a great deal more marketing-relevant information is known about the persuasive effect of fear appeals than the current literature would have one believe.

There can be little dispute with Ray and Wilkie's contention that advertisers' limited use of fear-arousing communications is attributable to the limited evidence cited in academic reviews. However, the indictment of marketing reviewers is erroneous. Indeed, when most of the manuscripts cited by Ray and Wilkie were written, the preponderance of then available evidence was consistent with the treatment given fear appeals in the behavioral literature. As Table 5 clearly indicates, the empirical work suggesting the potential applicability of fear-arousal in a marketing context is of very recent vintage. The majority of the studies evidencing a positive relationship between fear and persuasion have been performed after 1964. However, the large number of fear reviews that appear in the recent psychological literature (Higbee, 1969; Janis, 1967, 1968; Janis and Leventhal, 1968; Leventhal, 1970; McGuire, 1969) attest to the fact that current knowledge concerning the persuasive impact of fear appeals is still quite equivocal.

Ray and Wilkie's proposition that fear appeal studies have direct relevance to marketing communicators has had a significant impact on the marketing research community. However, as Ray and Wilkie admitted,

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1In the past two years for example, Spence and Moinpour (1972), Stuteville (1970), Vavra and Winn (undated), and Wheatley and Oshikawa (1970) have examined the fear variable in a marketing context.
TABLE 5
STUDIES FINDING A POSITIVE AND NEGATIVE RELATIONSHIP
BETWEEN FEAR AND PERSUASION
BEFORE AND AFTER 1965

<table>
<thead>
<tr>
<th>RELATIONSHIP BETWEEN FEAR-AROUSAL AND PERSUASION</th>
<th>YEARS IN WHICH EXPERIMENT WAS REPORTED</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1953 - 1964</td>
</tr>
<tr>
<td></td>
<td>1965 - 1971</td>
</tr>
</tbody>
</table>
their proposal was based on selective evidence. Thus before accepting their contention, a more exhaustive review of the fear literature is required.

In this chapter, as in the treatment of discrepancy, the prevailing approaches to fear research are examined first. This characterization is followed by an assessment of the main effects of fear on persuasion. Next, the studies involving the persuasive effects of attributing fear-evoking communications to sources varying in credibility, and the effect of fear on audiences differing in personal attributes are reviewed. Finally, the utility of these findings for marketing practice is evaluated.

Paradigms for Fear Research

The development of an adequate paradigm for fear research presents the researcher with a formidable task. Persuasive communications that successfully differentiate levels of fear-arousal are required. At the same time, there must be a high degree of comparability between these different inductions on all dimensions other than fear-arousal (Insko, 1967). Thus, within a particular investigation, the persuasive communications evoking the various levels of fear should not differ in their length, the arguments developed, the position advocated by these arguments, or the order in which persuasive arguments are presented.

Several approaches taken in the literature conform to these

2Excellent summaries of the fear-arousal research are provided by Higbee (1969), Insko (1967), and Leventhal (1970). Much of the discussion in this and subsequent sections is based on these reviews.
criteria for the construction of fear-arousing communications. One approach entails the presentation of a persuasive message that describes a dangerous practice and depicts its damaging consequences in great detail (e.g. smoking). Alternatively, fear is evoked by providing information as to proper practice and elaborating the dangerous outcomes so avoided (dental hygiene practices).³

Unlike most attitudinal research, fear experimentation often has involved the collection of subjects' responses on several dependent variables. Some studies document subjects' receptivity to communications that evoke various levels of fear. In addition, the majority of the fear investigations measure the persuasiveness of the communication and/or the behavioral compliance with the communications' prescriptions. Since marketers often view attitude change variables as proxy-measures for behavior, fear paradigms which incorporate a more direct measurement of action tendency are of particular interest.

Thus, regardless of the substantive findings that may be gleaned from fear research, the specification of a paradigm in which the behavioral consequences as well as the communication effectiveness of fear appeals are determined is extremely useful to the marketer. When behavior is found to be compliant with the position advocated, it may be inferred that message recipients are persuaded by the communication. On the other hand, when subjects do not comply with the prescriptions specified in a persuasive message, receptivity and acceptance measures may serve as

³The characterization of the approaches to fear research is adapted from Higbee's (1969) review.
diagnostics in determining why the communication failed to elicit the desired response.

Besides the various measures of communication effects, information on two other types of dependent variables often is collected in fear research. A measure is taken to check the success of the various fear manipulations. Data is also gathered on variables that might confound the communication effects of fear appeals. Though it would be more satisfactory to control exogenous variables by developing rigorous designs, the current level of methodological sophistication makes statistical control more practical (Leventhal, 1970). Moreover, such an approach allows the collection of information concerning the probable moderators of fear communications persuasive impact.

The Main Effect of Fear-Arousing Communications

The Effect of Fear on Persuasion

A provocative study conducted by Janis and Feshbach (1953) demonstrated that a communication which induced a minimal amount of fear was more effective than one which evoked a high fear response, both in terms of positive attitude change and resistance to subsequent attitudinal reversion. The confirmation of this negative relationship between fear-arousal and persuasion in subsequent investigations (see Table 6. DeWolfe and Governale, 1964; Goldstein, 1959; Janis and Feshbach, 1954; Janis and Terwillinger, 1962) apparently led marketers to believe that the elicitation of fear was to be avoided in the presentation of mass communications. This belief has persisted despite the fact that most of the studies that are purported to support Janis and Feshbach involve
TABLE 6
THE RELATIONSHIP BETWEEN FEAR AND PERSUASION

<table>
<thead>
<tr>
<th>RELATIONSHIP BETWEEN FEAR &amp; PERSUASION</th>
<th>TOPIC</th>
<th>REFERENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEGATIVE</td>
<td>Dental Hygiene</td>
<td>Goldstein (1959), Janis &amp; Feshbach (1953, 1954)</td>
</tr>
<tr>
<td></td>
<td>Tuberculosis</td>
<td>DeWolfe &amp; Governale (1964)</td>
</tr>
<tr>
<td></td>
<td>Smoking</td>
<td>Janis &amp; Tervilliger (1962)</td>
</tr>
<tr>
<td></td>
<td>Smoking</td>
<td>Insko, Arkoff, &amp; Insko (1965),</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Leventhal &amp; Watts (1966),</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Leventhal, Watts, &amp; Pagano (1967), Niles (1964),</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Snider (1962)</td>
</tr>
<tr>
<td></td>
<td>Dental Hygiene</td>
<td>Haefner (1965), Leventhal &amp; Singer (1966),</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Singer (1965)</td>
</tr>
<tr>
<td></td>
<td>Auto Safety</td>
<td>Berkowitz &amp; Cottingham (1960),</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Leventhal &amp; Niles (1964)</td>
</tr>
<tr>
<td>POSITIVE</td>
<td>Fallout Shelters</td>
<td>Hewgill &amp; Miller (1965), Miller</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&amp; Hewgill (1966), Powell (1965)</td>
</tr>
<tr>
<td></td>
<td>Tetanus</td>
<td>Dabbs &amp; Leventhal (1966), Kornzweig (1968),</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Leventhal, Jones, &amp; Trembley (1966)</td>
</tr>
<tr>
<td></td>
<td>Roundworms</td>
<td>Chu (1966)</td>
</tr>
<tr>
<td></td>
<td>Tuberculosis</td>
<td>Rosenblatt (1962)</td>
</tr>
<tr>
<td></td>
<td>Political Issues</td>
<td>Simonson &amp; Lundy (1966)</td>
</tr>
<tr>
<td></td>
<td>Atomic Bomb Testing</td>
<td>Haefner (1956)</td>
</tr>
</tbody>
</table>

Source: Adapted from Higbee (1969).
findings that have marginal statistical significance (DeWolfe and Governale, 1964; Goldstein, 1959; Janis and Terwillinger, 1962). An unequivocal statement of the relationship between fear and persuasion is further complicated by the several investigations that have reported no relationship between fear and persuasion (Frandsen, 1963; Millman, 1968; Moore, 1965; Payne, 1963). However, as Higbee pointed out, these results may be attributable to methodological inadequacies, and thus are not representative of the true state of affairs.

In most recent investigations, fear and influence appear to be positively related (Table 6). The apparent inference to be drawn by the communication practitioner is that the use of fear-evoking appeals will induce persuasion. However, this conclusion is unwarranted. Despite the large number of studies supporting a positive fear-persuasion relationship, the generality of this finding is not currently known. As Table 6 illustrates, the topics utilized to find the positive relationship are fairly narrow in their scope. They deal with issues that are characterized by their gravity. Thus, the application of such studies to the often more mundane marketing topics is questionable.

The generality of the positive fear-persuasion relationship is also questionable because of the fear inductions employed. Though most investigations employ two levels of fear, comparability of the fear levels actually induced across studies is difficult to determine. Thus minimal, mild, weak, and low fear may refer to very similar or quite different levels. A similar situation exists in the case of high fear. If the levels of fear induced actually sample the range of possible levels, confidence in the positive relationship would be justified. On the other
hand, if the currently available studies have sampled a narrow and homogeneous set of fear levels the finding that fear is positively related to persuasion may be specific to the studies that determined this relationship. An adequate test of the positive relationships requires the induction of at least three levels of fear that sample substantial ranges of fear arousal within the same study. Unfortunately, only five studies have induced more than two fear levels, and the range of these inductions is unknown. (Chu, 1966; Dabbs and Leventhal, 1966; Janis and Feshbach, 1953; Leventhal, Jones and Trembley, 1966; Leventhal and Singer, 1966)

If the above analysis is correct, it suggests the possibility that fear may be nonmonotonically related to persuasion (i.e. inverted U relationship). Furthermore, the presence of a nonmonotonic relationship may be employed to reconcile the differences between studies reporting positive and negative fear-persuasion relationships. For example, Ray and Wilkie (1970) state that studies finding a positive relationship probably involved the induction of fear levels that were relatively lower than were utilized in experiments reporting a negative relationship. When a wide range of fear inductions are considered, it is concluded that the overall relationship between fear and persuasion is nonmonotonic.

While this reconciliation of the discrepant findings between fear studies may be valid, the a posteriori categorization of fear levels in accordance with the relationship found renders the reconciliation difficult to refute; if a positive fear-persuasion relationship is found, it is concluded that low levels of fear were induced; if a negative relationship is observed, it is noted that relatively high levels of fear
must have been generated. Moreover, such an analysis gives more weight to the studies that reported a negative relationship than they appear to warrant. In light of the paucity of studies finding a negative relationship and their marginal significances, reconciliation between these studies and those reporting a positive relationship seems to be of secondary importance. In fact, interest in pursuing the possibility that fear is nonmonotonically related to persuasion may be rationalized primarily on the basis of the current methodological inadequacies in studies reporting a positive relationship.

The Effect of Fear on Message Reception and Attitude Modification

Though there is little direct evidence concerning the persuasive effects of fear appeals over a wide range of threat inductions, some indication of its nature may be gleaned by examining the effect of fear on information processing mediators. It has been found consistently that the manipulation of fear has no systematic effect on message comprehension (Fischer, Cohen, Schlesinger, and Bloomer, 1967; Goldstein, 1959; Gollob and Dittes, 1965; Janis and Feshbach, 1953; Millman, 1968; Singer, 1965). This result has emerged despite the fact that communication length may have confounded the fear induction (Duke, 1967). High fear-evoking messages generally have included the same persuasive arguments as those included in the low fear-evoking appeal as well as statements to arouse a high level of fear. Thus high fear-arousal treatment conditions often entail the presentation of a more lengthy communication than do low fear-arousal conditions. Since short communications are easier to learn (Duke,
1967), one would expect low fear-evoking messages to be better learned. That they are not strongly implies that comprehension is not an important information processing mediator.

The arousal of fear may affect communication receptivity by facilitating or inhibiting attention. In laboratory settings, subjects may feel that the success of the experiment is dependent upon their cooperation, and therefore they are likely to be highly attentive to the persuasive communication regardless of the fear aroused. If this assertion is correct, then in laboratory settings communication reception is likely to be a constant function of fear-arousal (Figure 12a).

The relationship between the level of fear aroused and communication acceptance has been examined experimentally. It has been found that in laboratory settings subjects were more accepting of highly fear-arousing communications than they were of ones that evoked only a mild fear (Berkowitz and Cottingham, 1960; Robbins, 1962). This result is represented graphically in Figure 12a. If the communication persuasiveness is assumed to be the product of the probabilities of message reception and acceptance, then persuasion is a monotonically increasing function of fear-arousal (Figure 12b).

This analysis, though it has not yet been fully tested, is consistent with the majority of fear studies conducted since 1964. However, it is not particularly salient to the marketing communication researcher. Of greater importance is a determination and understanding of fear-persuasion relationships in natural settings. For instance, how persuasive is a television commercial that evokes fear versus one that does not? In natural settings it seems logical to assume that the communication
Figure 12

The Persuasive Effects of Fear-Arousal in a Laboratory Setting

(a) Probability of mediator operating

(b) Persuasion

\[ p(\text{Reception}) \times p(\text{Acceptance}) \]
recipient would become less receptive as the fear induced by the message increased (Figure 13a). In addition, there is some evidence to indicate that the arousal of fear facilitates message acceptance (Cannell and MacDonald, 1956; Nunally and Bobren, 1959). Thus persuasion is a non-monotonic function of fear-arousal (Figure 13b). The implication is that when individuals do not feel compelled to attend the persuasive communication, a moderate degree of fear-arousal is most persuasive.

The Relationship between Attitude, Intention, and Action.

The several studies that take multiple communication effects measures are of particular interest to the marketer. Howard and Sheth (1969) indicate that attitude is a determinant of intention which in turn determines behavior. Consistent with this prediction, one study reported that high fear induced more attitude change, greater intention, and actual behavior compliant with persuasive communication than did low fear (Dabbs and Leventhal, 1966). However, most experiments in which multiple measures of communication effects were administered failed to confirm this finding. Insko, Arkoff, and Insko (1965) observed that high and low fear were equally effective in changing message recipients' beliefs about the detrimental effects of smoking, but high fear appeals were more convincing in keeping non-smokers from smoking. Leventhal, Watts, and Pagano (1967) found that high fear-arousal induced more statements of intention to stop smoking than did low fear, but there were no differences in actual quitting attributable to the level of fear induced.

4 For a thorough review of the studies that examine the attitude, intention, and action relationships see Fishbein and Ajzen (1972).
Figure 13
The Persuasive Effects of Fear-Arousal in a Natural Setting

(a) Probability of mediator operating

(b) Persuasion
\[ p(\text{Reception}) \times p(\text{Acceptance}) \]

LEVEL OF FEAR-AROUSAL
A similar finding was reported for a communication advocating that subjects take tetanus shots (Leventhal, Singer, and Jones, 1965). Thus the majority of evidence suggests no specific relationship between attitude, intention, and behavior.

Summary

The preponderance of data indicate that persuasion is an increasing function of fear-arousal. However, the generality of this finding still remains in question. The studies reporting fear to be negatively related to persuasion and the investigations that examine the effects of fear-arousal on persuasion mediators both suggest the possibility of an overall nonmonotonic relationship between fear and persuasion.

Indeed further research is needed. Future research must examine the persuasive effects of fear appeals over a wide range of fear-arousal in both natural and controlled environments. In addition, the effects of fear on persuasion mediators such as message reception and acceptance should be measured. If these experimental guidelines are followed, the overall persuasive effects of fear-arousing communications may be clarified.

The fear appeal studies that examine the relationship between subjects' attitude modification, intention, and behavior are inconclusive. On the basis of the presently available evidence, it appears that no systematic relationship exists between attitudinal, intention, and behavior in response to persuasive fear-evoking communications.
The Persuasive Effects of Varying Source Credibility and Fear-Arousal

In the recent psychological literature it has been consistently found that persuasion is a monotonically increasing function of fear-arousal. However, the studies cited in support of this contention did not examine the variability in persuasion attributable to the communication source. To delimit the applicability of fear appeals in commercial settings, where it is unlikely that source credibility is very high, the studies that investigated the credibility-fear-arousal interaction are reviewed.

Hewgill and Miller (1965) reasoned from a cognitive consistency standpoint that message recipients in a laboratory setting had two alternatives in response to a persuasive fear-evoking message: (1) they could change their attitude to be consistent with the position recommended in the communication, or, (2) they could discredit the communicator. When source credibility was high, Hewgill and Miller hypothesized that it would be difficult for subjects to discredit the source. It was also expected that a strong fear-arousing communication should generate a greater level of cognitive imbalance than a less severe fear-evoking appeal. On this basis, it was predicted that subjects exposed to a strong fear communication attributed to a highly credible source would demonstrate the greatest shift toward the position advocated in the persuasive communication. This hypothesis was substantiated. Furthermore, respondents who experienced a mild fear communication presented by a highly credible source changed their attitude in the direction of the persuasive message significantly less than did subjects in the strong
fear-high credibility condition, but significantly more than subjects who were in the no communication control group. Subjects in the two low credibility conditions did not differ from each other, or from the group that received no communication.

In a similar study, Powell and Miller (1967) corroborated Hewgill and Miller's findings. They reported that attitude changed increasingly toward the position advocated in the persuasive communication as credibility and fear increased.

The above findings indicate that a low credibility source induces little persuasion whether he presents a mild or strong fear-evoking communication. However, it is unlikely that the recipients in these treatments are psychologically indifferent to the communication. Subjects who received a fear-arousing message from a low credibility communicator probably resolved cognitive imbalance by derogating the communication source. More specifically, in light of the greater imbalance caused by a strong fear induction one would expect that a strong fear appeal would arouse greater source disparagement than a mild fear communication when both are presented by a low credibility source. This hypothesis was maintained (Miller and Hewgill, 1966). Apparently, message recipients resolve cognitive imbalance by changing their attitude in the direction advocated when credibility is high, and by derogating the source when communicator credibility is low.

An example will help clarify the meaning of the research just reported. Suppose that Jesse Steinfeld, the Surgeon-General of the United States, presents a communication indicating the dangers of smoking. He states that smoking a pack of cigarettes a day probably decreases the
life-span by ten years. He also notes that smoking is associated with cancer, emphysema, heart disease, and wrinkling of the skin. Steinfeld concludes that smokers should be sure to have a substantial amount of life insurance; it will be needed to send their children to college.

The studies reviewed suggest that smokers exposed to Steinfeld's fear-arousing appeal probably will be persuaded by it. Since it is difficult to disparage the Surgeon-General, the greater the threat he induces the more convincing his message will be. On the other hand, if Steinfeld's arguments against smoking were presented without identifying the communication source, message recipients may have disparaged the source by noting that he was not an expert, or by concluding that the source was being paid to present the threatening message. When the source of a threatening communication is unidentified or perceived to be of low credibility people tend to disparage the source and tend not to be persuaded.

Consider another situation. A coffee manufacturer is attempting to switch people to his new brand. Research has indicated that it is very difficult to get people to switch from their favorite brands; they are highly sensitive to the fact that coffee commercials are presented by the manufacturer to enhance his own profitability. In light of this fact, the manufacturer chooses the following television vehicles for his campaign: The Bold Ones, Mission Impossible, and The CBS Evening News. He defends this media selection strategy on the basis that in the context of a stressful situation (i.e. the programs selected) people are insensitive to the credibility of the person presenting his coffee commercials.
There is some experimental support for the coffee manufacturer's contention. A few studies have examined the persuasive effect of threat induced not in the communication arguments but at the time the appeal is being presented. Sigall and Helmreich (1969) introduced two levels of stress independent of the persuasive communication. In the high stress condition, subjects were told that the purpose of the experiment was to study perception and its relationship to some physiological measures. They were shown blood sampling equipment and informed that they would be required to give a blood sample. In the low stress condition, subjects were shown only a few pieces of electrical apparatus and told that tests of their physiological responses such as GSR and blood pressure would be administered.

When this stress induction was completed, subjects were told that they would have to wait a few minutes while the physiological instrumentation was being prepared. In the interim they were to participate in an unrelated experiment dealing with the usefulness of videotape machines for presenting information. Under this guise, all subjects were shown a film favoring the legalization of certain drugs. Credibility was varied by introducing the communicator either as an expert in the area or the persuasive message that followed, an expert on some irrelevant topic, or merely as a person of low expertise. The results indicated that for subjects who had been placed under high stress, the agreement with the persuasive message was not affected by the source's credibility. Under low stress, agreement with the highly expert source was significantly greater than with the source whose expertise was irrelevant or low. This result confirms an earlier finding (Helmreich,
Kulken, and Collins, 1968) that subjects under high stress were not
differentially influenced by sources varying in credibility. Moreover,
Sigall and Helmreich observed that the low credibility source was sig­
nificantly more influential when stress was high rather than low.

From a theoretical standpoint, these results may be interpreted
in terms of people's relative need for agreement under high and low
stress (Sigall and Helmreich, 1969). When stress is high, the need for
social support is so great that it obviates the impact of the communi­
cator credibility. When stress is low, the need for social support is
diminished, and the source's credibility moderates the impact of the
persuasive communication. From a practical standpoint, Sigall and
Helmreich's data suggest the possibility that the influential impact
of a low credibility source may be enhanced by associating his appeal
with a stressful situation.

Summary

Recent fear-arousal experiments indicate that high credibility
sources are more persuasive when they employ strong rather than mild
fear-arousing communications. Conversely, low credibility communicators
appear to have little influence regardless of the fear evoked by their
appeal. Since marketing communicators are most often perceived to be
low credibility sources, their use of fear as the motivational basis
for persuasion seems unwarranted. Means of overcoming audience's per­
ception of advertisers low credibility must be developed before attempts
are made to employ fear-arousing techniques. As Ray and Wilkie note:

... in marketing the basic source will be the brand or company, and ways of overcoming the obvious bias of such a source will have to be developed. (Ray and Wilkie, 1970, p. 62).

Until these credibility enhancing strategies are developed the neglect of the fear variable by most marketers is warranted.

One way to obviate the source effect is to present a straightforward appeal in the context of a stressful situation. In such communication-independent highly fear-arousing situations there is some evidence to suggest that the communicator's credibility does not moderate the appeal's persuasiveness; low credibility sources are as persuasive as high credibility communicators. Conversely when message-independent fear-arousal is low, highly credible sources are more persuasive than low credibility ones.

The Persuasive Effects of Varying Audience Individual Differences and Fear-Arousal

The fear evoked by a persuasive communication may depend on certain audience predispositions. Ray and Wilkie (1970) suggest that audience individual differences may be responsible for the inconsistent relationships between fear and persuasion reported in the literature. If it can be assumed that persons with a particular predisposition are associated with a specific nonmonotonic curve relating fear to persuasion, a family of nonmonotonic curves are representative of the different levels of that predisposition (Figure 14).

Consider the effect of a person's self-esteem on his response to a fear-arousing communication. Within some range (AB in Figure 14) the
Figure 14
Fear Persuasion Relationship for Persons with Different Levels of Self-Esteem
presentation of increasingly fear-arousing communications results in increased persuasion for persons of high self-esteem (Figure 14), and decreased persuasion for those lower in self-esteem. Thus the audience's attributes may be an important determinant of the fear-persuasion relationship.

As was indicated in Chapter III, differences in message recipients' self-esteem level may contribute to differences in the persuasiveness of fear-arousing communications. Several studies indicate that high fear-arousing appeals are more persuasive in groups of high self-esteem, whereas low fear-arousal is more effective with audiences of low-esteem (Dabbs and Leventhal, 1966; Kornzweig, 1968; Leventhal and Trembly, 1968). On the other hand, several experiments suggest that persons of high-esteem defend against threatening appeals and react favorably to reassuring communications (Cohen, 1959; Lehmann, 1970; Leventhal and Perlof, 1962; Silverman, 1964). However, this latter finding must be qualified in that it was maintained only when the message source was perceived to have personality characteristics different than those of the message recipient.

**Summary**

In reviewing the fear literature, Ray and Wilkie (1970) concluded that neglect of this variable in marketing communications was unwarranted. However, this review fails to confirm their contention. Given the still equivocal nature of the fear-persuasion relation and the confounding influence of source variables, it appears that the marketing practitioner should make very limited use of fear-arousing
communications. Current knowledge indicates that fear appeals should be restricted to situations in which the source is perceived to be highly credible. Audience differences may also moderate the fear-persuasion relationship. Until these interactive influences on persuasion are clearly known, application of fear appeals to mass communications should be restricted to situations where it is known that the source is perceived to be highly credible. In fact, the methods of increasing the audience's perception of source credibility must be developed before wide-spread marketing use of fear appeals is seriously contemplated.
CHAPTER VI

HUMOROUS PERSUASIVE COMMUNICATIONS

During the past decade marketing mass communicators increasingly have employed humor as the motivational basis for their persuasive appeals. Puns, jokes, understatements, turns of phrase, and incongruities all have served as the vehicles of humor. In some cases the incorporation of humor into the persuasive communication has resulted in notable success. Humorous campaigns for Alka-Seltzer, Benson & Hedges, and Volkswagen have not only won the plaudits of the advertising industry, but also have been monetary successes (Weingarten, 1967). Unfortunately, the failures have been at least as numerous; Betty Crocker rice, Quaker Oats, and Rheingold's humor campaigns failed to stimulate sales even though these promotions were highly creative (Weingarten, 1967).

The sporadic success of humorous mass communications has generated diverse opinions as to their effectiveness. The proponents of humor argue that it is a universal language that humanizes advertising and helps the communicator speak to his audience on their own level (J. Walter Thompson, 1969). Conversely, the critics suggest that humor is not universal. What is funny in New York, often is not humorous to audiences located in other geographical areas. In television advertising

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1 This chapter draws on the review of D. Markiewicz (1971), and the communications written by advertisers to that author.
it is argued that humor requires too much of the available commercial time for proper development (Winters, 1971). In addition, it is felt that humor wears out quickly on repetition, and therefore, in the long-run is not persuasive.

Though these polar views appear with some regularity in the advertising trade journals, most practitioners appear to embrace more moderate positions. Engel, Wales and Warshaw (1971), citing research performed by the Schwerin Corporation, conclude that some humor is probably more effective than no humor. Phillips (1968) observes that employing humor involves a risk; if humor doesn't come off, it is a disaster; if it does it can be very effective. Hepner (1963) states that humor may be effective if it is used as a means and not an end in itself.

Perhaps the most succinct set of guidelines for the use of humorous persuasive appeals is developed by Paul Hoppe (1969) of Batten, Barton, Durstine, and Osborne. He states:

... Keep it (humor) relevant to the subject and make certain it's broad-based and not just a weak little in-joke. Don't think a pun, by definition, is either funny or arresting. Don't assume a tepid gag can be salvaged by using a top cartoonist... Don't think that all will be forgiven in an indifferent commercial if it hobbles up to a punchline. It's much more likely that all will be forgotten. Don't steal stale jokes. Don't be unkind... don't upset your prime target. Don't shout. Don't be inaudible. Don't be risqué. Don't be prim. And above all don't be flat... (Hoppe, 1969, p. 21).

That advertisers state guidelines to the use of humor in terms of what one should not do suggests that successful implementation of a humorous appeal requires substantial creative skill. Indeed, there are very few experimental studies to guide the practitioner's
trial-and-error creativity. Nevertheless, the available humor literature is reviewed to establish a basis for future research. More specifically, the effects of humor on communication reception and attitude modification are assessed from both an advertising and experimental research perspective. The interactive persuasive effects of humor and other variables are reviewed. Finally, criteria for humor research are developed, and future directions are discussed.

The Effects of Humor on Information Processing

Advertising Theories

Advertisers appear to agree that humor enhances audience attention, at least on the first few exposures to the persuasive communication (Winters, 1971). Leavitt (1970), in a factor analytic study, reported that an energy or attentional dimension accounted for 55% of the total variance in viewers ratings of television commercials. Moreover, Leavitt (1971) suggested that humor was one component of this energy dimension. Thus humor appears to be linked to the attentional value attributed television commercials. However, as Leavitt (1971) is careful to point out, the relationship between scores on the energy factor and communication effectiveness is not known.

Though few advertisers dispute that humor has an attention-getting quality, there is considerable debate as to the degree of message comprehension afforded by humorous communications (J. Walter Thompson, 1969). Despite the fact that humor enhances attention, by inhibiting comprehension its overall effect may be to reduce message reception. If this reasoning is correct, it provides an explanation of why humor may not be persuasive. At the very least this argument suggests that
humor experimentation include the measurement of comprehension as well as attitude modification variables.

Advertisers, who support the use of humorous commercials, maintain that humor increases the probability of communication acceptance (Herold, 1963; Phillips, 1968). Phillips (1968) suggests that humor may serve as a reward to the audience for listening and thus increase acceptance. Herold implies that humor provides an atmosphere in which communication recipients are unlikely to actively resist the persuasive attempt. However, even the proponents of humor caution that a humorous appeal must be relevant (Hoppe, 1969) and perceived as funny (Phillips, 1968) if it is to facilitate communication acceptance.

**Experimental Research**

The experimental humor literature is characterized by two types of designs. In one approach measures of attitude modification are taken before and after the presentation of a satirical communication (Berlo and Kumata, 1956; Gruner, 1964, 1965, 1966, 1967b). Often measures are taken to check the efficacy of the humor manipulation and to assure that the communication is comprehended. Alternatively, some designs involve the comparison of the persuasive effects of humorous versus serious messages (Gruner, 1967a, 1970; Lu1, 1940; Pokorny and Gruner, 1969; Taylor, 1964). Similar to the previous approach checks are made on the humor induction. In addition, retention measures are sometimes taken at some time after the administration of the persuasive communication.

From a practitioner's standpoint, designs which compare the persuasive effects of humorous and serious messages are preferable to ones which merely examine the influence of humor. Since the practitioner
often is faced with the choice between alternative versions of the same appeal, designs that allow for comparisons have the potential to aid decision making. However, in light of the small number of investigations examining the humor variable, both comparative and non-comparative approaches are examined.

The effect of humor on message reception. Several investigations that assessed the comprehension of humorous communications reported that they were understood by the audience (Berlo and Kumata, 1956; Gruner, 1966, 1967b). In the one study that found poor message comprehension, experimental subjects were not informed as to the nature of the communication (Gruner, 1965). More specifically, message recipients were unaware that the persuasive appeal was satirical. Unfortunately, the comprehensibility of humorous communications relative to a serious version was not known. Since the effects of serious appeals were not tested in the above investigations it is quite possible that the humorous appeal may have had an inhibiting effect on comprehension when its effect is compared to that of a serious message. However, the studies that compared the retention of persuasive humorous and serious material failed to find significant differences attributable to the level of humor present (Gruner, 1967a, 1970; Taylor, 1964).

In general, the data appear to indicate that humor does not affect message comprehension differently than serious communications. The hypothesis is quite tentative. It is based on data from only a few studies, the majority of which utilized a satirical form of humor. Future research must test the validity of this finding for other types of humor such as puns, one liners and slapstick. Moreover, subsequent
investigations should make direct comparisons of humorous and serious messages' relative comprehensibility.

The effect of humor on persuasion. The majority of the humor literature is centered around determining the attitudinal effects of humor. In an early study, Lull (1940), developed four messages dealing with state medicine. Of these, two presented arguments in support of state medicine; the remaining two argued against this issue. Within each of these viewpoints one message was humorous and the other serious. A control group, which received no communication but filled out the attitudinal questionnaire, was also included. All four messages were comparable in terms of the arguments developed, their order of presentation, and their total length.

A manipulation check indicated that the humor inductions had been successful. Additionally, it was reported that all experimental groups changed their attitude in the predicted direction on both the immediate and three week attitude posttest. However, no significant differences attributable to the humor induction were found; respondents indicated that all communications were equally interesting and convincing.

The Lull experiment appears to indicate that humor does not enhance or inhibit persuasion. However, the methodological artifacts present in his study make conclusion-drawing tenuous. The four speeches were presented by four different speakers which allowed source effects to confound the impact of humor. Furthermore, the use of speech students as subjects allowed for the possibility that the demand character of the experiment overrode the humor induction. Thus subjects' responses to the persuasive communications may have reflected their desire to react
as they believed the experimenter wanted, rather than reflecting their own feelings.

Pokorny and Gruner (1969) also compared the relative persuasiveness of satirical and straight-forward communications. The humor induction was such that a satirical passage was inserted into the straight-forward appeal. Pokorny and Gruner observed that both communications were successful in producing attitude shifts in the direction advocated. However, the introduction of satire resulted in about the same degree of persuasion as was exhibited by those receiving the serious appeal. Again, as in the Lull study, methodological shortcomings make interpretation difficult.

The two experiments reviewed (Lull, 1940; Pokorny and Gruner, 1969) indicate that humor induces attitude change. This finding is maintained in two other studies where no serious version of the persuasive appeal was administered (Berlo and Kumata, 1956; Gruner, 1967b). Furthermore, it appears that humorous communications are no more influential than serious versions of the same message. However, the generality of this conclusion is unknown. Existing studies suffer from several methodological inadequacies which make interpretation difficult. Moreover, only a few types of humor (most notably satire) have been tested experimentally, and then with audiences most often comprised of college students. Finally, all humor research has been performed in a laboratory setting where receptivity variance is likely to be relatively small. If humor enhances attention as many advertisers believe, then it is quite possible that in natural settings humorous appeals are more persuasive than serious versions of the same message.
The Persuasive Effects of Source Credibility and Humor

In the previous studies, the communication source was not identified. Though a few experiments have been performed in which the communication was attributed to a highly credible speaker, no studies have systematically manipulated the source variable. Windes (1961) told subjects that the speeches they were to hear were originally given by Adlai Stevenson. Gruner (1967b) informed subjects that the message source was Art Buchwald. Berlo and Kumata (1956) attributed the persuasive communication to the Canadian Broadcasting Corporation. In all these experiments humor was found to be persuasive.

Though these research efforts do not allow definite conclusions, they do suggest that high credibility communicators may facilitate persuasion. To test this hypothesis, source credibility should be manipulated systematically. Moreover, such an induction would permit examination of the persuasive effects of humor when presented by the more marketing-relevant moderate and low credibility sources.

Two studies performed by Gruner (1967a, 1970) indicate the potential usefulness of humor in advertising. In the first study Gruner (1967a) found that the source, who was not previously identified, was considered to have relatively greater attributes of character when he delivered a humorous rather than a serious message. In a subsequent study Gruner (1970) presented either a serious or humorous message that was either interesting or dull and observed a significant interaction between these variables. When the communication was interesting, the addition of humor did not enhance audience perceptions of the source's character. However, when a dull communication was presented, the
source was more highly rated when he presented the humorous rather than serious version of the persuasive appeal. If it can be agreed that most commercials are perceived to be dull, then the addition of humor may enhance the audience's perception of the message source. Thus humor may be a device that is useful in raising source credibility.

The Moderating Effects of Audience Characteristics

To date studies concerned with the persuasive effects of humor have neglected to examine the moderating effects of audience characteristics. Furthermore, since humor experiments have typically employed college students as subjects, no systematic effect of audiences with particular profiles may be suggested by examining audience differences across several studies. The few studies in which measures of individual differences were administered were aimed at determining what types of humor presentations are considered humorous by what types of audiences. Though this literature may be useful in determining creative strategy, given a particular audience profile, it does not address itself to the persuasive effects of humor on audiences with particular profiles.

The neglect of audience characteristics' moderating influence on persuasive humorous appeals should not be taken to indicate that audience variables are unimportant. There is little question that such variables as age, education, and involvement with the message issue mediate the persuasive effects of humor. The lack of interest in audience factors more probably is indicative of the fact that humor research is in an early developmental stage. Given that little is known about

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2 See Berlyne (1969) for a review of individual difference studies in humor.
the main effects of humor on information processing, it is difficult to reconcile the investigation of humor's interactive effects.

Summary and Future Directions

Advertisers hold a diverse set of opinions as to the persuasive effects of humor. Unfortunately, the available humor experimentation does little to clarify this situation. Though five studies indicate that humor is persuasive (Berlo and Kumata, 1956; Gruner, 1967b; Lull, 1940; Pokorny and Gruner, 1969; Windes, 1961), they have failed to exhibit that humor is more effective than a serious version of the same appeal. Moreover, no differences have been found in message reception that are attributable to humor (Lull, 1940; Pokorny and Gruner, 1969).

Though the attribution of a humorous communication to a high credibility source appears to enhance persuasion (Berlo and Kumata, 1956; Gruner, 1967b; Windes, 1961), the source variable has yet to be manipulated systematically. Thus, the relative influence of a humorous message presented by a moderate or low credibility communicator is unknown. However, there is some evidence which indicates that humor enhances the audience's perception of the source when he delivers a dull communication (Gruner 1967a, 1970).

Clearly research is needed. Future investigations must meet several basic criteria. They must develop communications that are both humorous and persuasive. Serious versions of the same appeal as well as no communication controls also are required. All communications should be equivalent in terms of their length, the number of arguments developed, the order in which the arguments are presented, and the content of the arguments. Also, since topics for which subjects indicate a
homogeneous initial opinion tend to minimize the probability that initial opinion confounds the humor-persuasion relationship, such topics are preferable to those where predispositions are divergent. Finally, dependent measures should include measures of reception, attitude modification, and message retention. Since verbal measures confound the attention and comprehension aspects of message reception, and since there is reason to believe that humor moderates attention and comprehension in opposite ways, it would be particularly interesting to measure attention physiologically. Physiological instrumentation such as the GSR, pupilograph, and electroencephalograph may be useful for this purpose.

The criteria specified as basic for humor research present the researcher with a formidable task. However, these requirements appear to be similar to those one would specify for the study of fear or discrepancy. Why then have investigators been so reluctant to pursue humor research? Most likely current reluctance reflects the difficulties encountered when one attempts to develop persuasive humorous appeals. Great skill is required to develop humor. When humor must also persuade, the task is even more demanding.

More generally, research that examines various kinds of humor is needed, if humor experimentation is to have an impact on marketing application. The influence of source credibility and audience predispositions on the persuasive impact of humor also requires investigation. In initial research the source variable may be manipulated experimentally whereas audience profiles may be collected as dependent measures.
Finally, studies which vary the placement of humor and the amount utilized are important to marketing practice. Do humorous introductions of an otherwise straightforward appeal enhance its persuasibility? Do humorous conclusions increase influence? Does the situational context (e.g., a television drama) moderate the influence of humor? These questions await empirical research.
PART III

THE COMMUNICATION EFFECTS OF STRUCTURAL VARIABLE MANIPULATION

This section examines the persuasive effect of manipulating communication structure. For the purpose of this volume structural variables are conceived rather broadly. They include those communication factors which basically do not involve the manipulation of the communication's content. Stated positively, Chapter VII assesses the persuasive effect of the communication medium or channel. Chapter VIII reviews the persuasion induced by repetition, one versus two-sided communications, order of presentation, and conclusion-drawing strategies.
CHAPTER VII

THE PERSUASIVE EFFECT OF MASS MEDIA

Advertisers expend a significant amount of time and energy in their attempt to select the appropriate media and vehicles for their persuasive communications.¹ Media selection strategy often entails matching the product, budget, and creative strategy with the most suitable communication channel. If an automobile manufacturer wishes to increase a national audience's awareness of his product's maneuverability, network television is a likely candidate. It provides the capability of illustrating the car's maneuverability and has the potential to reach an audience that is located throughout the United States. On the other hand, if the advertiser is promoting the quick and professional service of his local dry cleaning establishment, radio and newspapers may be the appropriate channels of communication. These media allow communication of the persuasive appeal to the advertiser's potential customers, and, at the same time, are within his budget.

Once the appropriate media have been chosen, the vehicles within

¹The term mass media refers to the generic communication channel. For example television, radio, newspapers, and magazines are four distinct media. On the other hand, vehicle refers to a particular advertising instrument within a medium. Time and Newsweek are vehicles within the magazine medium.
each medium are determined. This task is often achieved by selecting those vehicles whose audience profiles best match those of the advertiser's market target. More formally stated, advertisers attempt to select those vehicles which reach the largest number of persons in the advertiser's market target per unit cost. For example, an automobile manufacturer, whose market target is 21 to 35 year old American males who earn more than 8,500 dollars, might select The Tonight Show as its major advertising vehicle since it most adequately reaches the market target per unit cost. To facilitate and routinize this effort syndicated data services provide vehicle usage rates for audiences with different demographic profiles. Moreover, quantitative techniques have been developed to enable quick assessment of the relative efficacy of various media and vehicle strategies.  

Admittedly this characterization of the advertiser's approach to the choice of mass media is oversimplified. However, it is sufficient to indicate that stress has been placed on the moderating effect of media on exposure. Moreover, communication effects typically have been compared within a particular medium. On the other hand, relatively little emphasis has been placed on determining how various media influence message reception, attitude modification, and overall persuasion.

It is the purpose of this chapter to assess the impact of mass media on persuasion. To this end, the literature that examines the influence of media on message reception, attitude modification, and persuasion is reviewed. Finally, directions for future research are

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2 The interested reader should see Engel, Wales, and Warshaw (1971, Chapter 15) for a discussion of quantitative media and vehicle selection techniques.
suggested in light of these data. Throughout this review it is assumed that relevant audiences are exposed to the persuasive message.

**The Effect of Mass Media on Information Processing**

**Message Reception**

What effect do various mass media have on message reception? Experimental evidence indicates that comprehension is greater when message recipients read rather than listened to communications (Beighley, 1952; Harwood, 1951; Stromer, 1954; Toussaint, 1960; Westover, 1958; Young, 1953). These data appear to indicate that communications are more readily comprehended when presented in print media such as newspapers and magazines, rather than on television or radio.

This conclusion requires qualification. When detailed and complex persuasive arguments are being presented, print media are probably more effective than broadcast communication channels since they allow the message recipients to proceed at their own pace (Cheskin, undated). The Shell Oil Company used full page newspaper ads to develop arguments in support of its gasoline's economy. Undoubtedly, radio or television presentation of this communication would have reduced the audience's comprehension of the persuasive arguments developed. On the other hand, when demonstrations constitute the thrust of the persuasive message, it is likely that the use of television achieves the greatest comprehension.

This analysis suggests that research dealing with the effect of media on message reception employ designs in which the media and message factors are manipulated. Unfortunately, to date this approach has been neglected by communication practitioners.
Attitude Modification

Given that the audience receives the persuasive mass communication, the information processing model suggests that the attitudinal modification induced by various media be examined. Though experimental work has not addressed itself to this question, the observational data provided by Marshall McLuhan (1964) may be relevant. McLuhan argues that media may be categorized as either hot or cool. In McLuhan's terminology a hot medium like radio "is one that extends one single sense (e.g. audition) in 'high definition.' High definition is the state of being well filled with data." (McLuhan, 1964, p. 36). Since hot media leave little to be filled in by the communication recipient, they require little completion or participation by the audience. On the other hand, a cool medium such as television, although it may require the use of several senses, does not extend a single sense in high definition. Therefore, a cool medium requires the active participation of the audience to fill in many of the communication details.

It should be noted that McLuhan's classification of media, at times, appears to be based on criteria other than the degree of extension of a particular sense. McLuhan considers movies a hot medium and television a cool one, though both of these media would appear to utilize the same sense organs to the same extent.

Although the criteria for classifying media as hot or cool require further elaboration, McLuhan's notion of the participation or involvement may be useful in analyzing the attitude modification induced by various media. Specifically, it is suggested that persons initially opposed to the position advocated in a persuasive communication presented
on a cool medium may be highly involved with the message. Moreover, this involvement induces the rehearsal of counterarguments, and communicator rejection ensues. For message recipients who have a favorable initial opinion toward a persuasive appeal, the involvement induced by a cool medium may lead to the rehearsal of thoughts supporting those in the communication and thus message acceptance follows. Conversely, an audience that received a communication from a hot medium would be expected to have relatively low involvement, generate relatively few message relevant thoughts, and undergo little attitude modification.

This analysis leads to the contention that the use of cool media such as television and magazines induces greater variation in the attitude modification mediator than does a hot medium such as radio. However, it should be pointed out that this prediction and its underlying rationale have not been subjected to experimental verification. Presently, it is based on the assumption that cool media induce more involvement than hot media and therefore cause the rehearsal of more message relevant thoughts. To test this contention subjects should be randomly assigned to media treatments (e.g. radio, television, magazines) that are differentiated by the involvement they require. All subjects should then be presented the same communication. Dependent variables might include measures of message reception, attitude modification, retention, and overall persuasion. A check should be made to determine the involvement induced by the various media. In addition, a no-message control group should be administered the persuasion measure to assess subjects' initial opinion. Finally, the experiment should be replicated using different persuasive appeals to insure that the
results observed are not attributable solely to the particular communication tested.

Media Persuasiveness

The preponderance of available evidence (McQuire, 1969), indicates that spoken communications are more persuasive than ones which are read. Thus, radio and television should be more persuasive than print media.

The implication is that despite the relatively poor comprehensibility of spoken communications their power in gaining message acceptance apparently induces persuasion. Clearly, this contention should be subjected to the experimental verification suggested in the previous section.

It should also be noted that the studies supporting the contention that radio and television communications are more persuasive than print messages have been performed exclusively in a laboratory setting. In natural settings receptivity may be substantially lower than it is in the controlled environment of the laboratory. Thus in most advertising situations audience receptivity may be sufficiently low that the spoken word loses its persuasive advantage. Moreover, as is indicated in the subsequent section of this chapter, the credibility of a medium may moderate the influence of that communication channel. Finally, there is some indication that auditory transmission of persuasive information results in better retention than does visual transmission (Elliot, 1937). Elliot (1937) tested 179 persons' retention of an exhibit presented via several different media. It was observed that the radio presentation was most memorable. Though the retention scores for those subjects who received the television presentation was surpassed by those
who were administered the radio version, the differences were small and unreliable. Of course this finding may be attributable to the era in which Elliot performed his study. In 1937 television was in an exploratory stage. The novelty of this communication channel to the subjects, as well as a lack of expertise in constructing the television communication, may have been responsible for its rather poor performance.

Summary

Relatively little evidence has been found which examines the relative persuasive impact of various mass communication media. The studies reported are dated and only marginally relevant to the topic addressed in this chapter. Nevertheless, they do suggest that different media moderate information processing variables in distinctly different manners. Generally, print media appear to enhance the comprehension of persuasive arguments, whereas broadcast media may facilitate communication acceptance. More direct investigations would serve in the assessment of the validity of this contention. Subsequent investigations could then be directed at the determination of how particular mass media affect information processing variables.

From a practical standpoint this approach to media research may be utilized to help determine which media are appropriate, given certain communication characteristics. Suppose media research has indicated that complex persuasive arguments are most easily understood when presented in print media. The advertiser, who expects message comprehension to be the most important determinant of a communication's persuasiveness, would be well-advised to use print media. On the other hand, if it is
anticipated that the arguments advanced will be received, but may not be convincing to the audience, then some broadcast medium such as television should be considered. Given the same communication, this medium is likely to induce greater message acceptance than print media and thus enhance overall persuasion.

The point of the above example is not that media selection should be based solely on how particular communication channels moderate information transmission, or that this criterion should necessarily enter the media selection decision. Rather, it is being suggested that the potential utility of communication variables be researched. That advertisers have neglected this approach reflects their long-standing belief that selection of media should be primarily based on matching media audience profiles to those of the target market.

*Media Credibility*[^3]

The audience's perception of a mass communication medium's credibility may affect the persuasibility of that channel's message. In general, both television and newspapers are perceived to be more accurate and truthful in reporting news than is radio (McGuire, 1969). However, this finding is sometimes contradicted when audiences with specific profiles are considered. For example, high socioeconomic urban males perceive newspapers to be more accurate and truthful than television for news coverage (McGuire, 1969). An opposite perception exists for low socioeconomic rural females.

[^3]: Media credibility refers to an audience's perception of trustworthiness and to a lesser extent the expertise of various communication channels (Weiss, 1970, 1971).
Whether these perceptions of each medium's news reporting credibility is generalizable to other types of presentations, and especially advertising, is unknown. McNeal (1965) did find that by age nine children mistrusted television as an advertising source. In fact, it was observed that 35 percent of the nine year olds tested did not want to buy or have purchased for them goods they saw advertised on television. Though no direct evidence is available, the success of television promotions indicates that this perception is modified as persons become older.

Future Research

The lack of relevant up-to-date information concerning the communication effects of mass media is indicative of the need for research. A priority is determination of how various media influence information processing. To answer this question the same persuasive message could be presented via different media. The number of arguments, order of presentation, and other exogenous variables that might cause variance in response should be kept constant across the channels tested. Measures of message reception, attitude modification, and retention should be collected immediately after the message presentation. Audience perceptions of communicator credibility also should be measured. Since the only differences between treatments is the channel of communication employed, source credibility may be used as a measure of media credibility. Finally, audience individual differences measures may be collected and their effect on media persuasibility tested.

Though subsequent research is contingent on the findings of this
initial investigation, the manipulation of independent variables other than media may be suggested. Investigators might consider varying the delay before the attitudinal and retention posttests are administered. Additionally, the manipulation of the motivational basis of the persuasive appeal should be entertained.

This research has several goals. First, it would indicate, in a relative way, how each medium tested moderates information processing in both the short and long term. Moreover, it would check the congruity between media and certain types of motivationally-based appeals. Finally, the research suggested would generate insights as to the contribution of media credibility and audience characteristics to the persuasiveness of various communication channels.
CHAPTER VIII

THE COMMUNICATION EFFECTS OF MANIPULATING STRUCTURAL VARIABLES

The literatures dealing with communication repetition, one versus two-sided communications, order of argument presentation, and conclusion-drawing are reviewed in this chapter. The inclusion of these topics within the same chapter is rationalized on the basis that they all deal predominantly with structural variation of a persuasive appeal. Since these four topics differ in terms of the degree of substantive manipulation they involve and the types of applications they suggest to communication practitioners, they are assessed independently in subsequent sections of this chapter.

Repetition studies involve the manipulation of the presentation frequency, but not the message itself. From the pragmatists standpoint, repetition investigations address themselves primarily to the question of media scheduling. The order of argument presentation literature deals with the variation of message structure (i.e., should prime argument be presented first or last) but not its substantive content. Finally, one versus two-sided communications and conclusion-drawing studies involve the discussion of both structural and substantive communication manipulations. The review of the three latter topics is intended to suggest guidelines for developing creative strategy.
Repetition

The advertising industry has long maintained the tenet that repeated exposure of the individual to advertisements is a significant condition for attitudinal enhancement toward the product or service advertised (Zajonc, 1968), and a necessary preliminary to stimulate sales (Media/Scope, 1962). Moreover, these contentions receive considerable support from empirical marketing research. Starch (1966) analyzed five years of historical data for 105 brands in thirteen product categories and observed a significant association between repetition and purchase. In fact, exposure to four print ads per year was the turnover point between decrease and increase in brand purchases. Dupont reported that "teflon" cookware sales were significantly greater in areas where high repetition was maintained (Becknell and McIsaac, 1963). Stewart (1964), employing a split-run newspaper technique, found that sales increased when repetition of advertising was increased from four to twenty exposures. However, fifteen consecutive ad exposures yielded the greatest number of customers per advertising dollar.

Although the repetition of persuasive appeals appears to stimulate sales, advertisers are quick to point out that there is a point beyond which the cost of an additional repetition is greater than the revenue it generates. In fact, the focal issue for communication practitioners is not whether repetition enhances persuasion and sales, but what level of repetition is optimal. Alternatively stated, advertising decision makers perceive an acute need for the knowledge of advertisement-specific repetition functions (Ray and Sawyer, 1971). Unfortunately, behavioral science research is virtually silent on this problem.
Nevertheless, the repetition literature does provide a theoretical basis for understanding the communication effects of repeated exposure. Moreover, it helps establish a general set of guidelines for the use of repetition which may serve as the foundation on which situation-specific repetition functions are built.

The Persuasive Effect of Repetition

The effect of repetition on the reception mediator is well known. It has been observed repeatedly that arousal diminishes in response to repeated presentations of the same stimulus. This occurrence, termed habituation, appears to involve the inhibition of sensory mechanisms by central nervous processes (Grossman, 1967). Moreover, habituation may occur whether repetitions are concentrated or widely spaced in time.

Although repetition may reduce arousal, it does not appear to reduce attention (Hebb, 1966; Melzack and Wall, 1965). This occurrence may be explained by the observation that the arousal attention relationship is nonmonotonic (inverted U shape). Repetition then may reduce arousal from a very high to moderate level and thus enhance attention. In turn, the enhancement of attention should increase the probability of comprehension.

It should be pointed out that the findings cited above were not observed in persuasive mass communication situations. In fact, there is

1Zajonc (1968) provides an excellent treatment of the studies linking repetition to attitude change. Much of this section is adapted from Zajonc's review.

little direct evidence documenting the effect of repetition on persuasive communication mediators. What direct evidence does exist deals with obscure topics and employs inadequate experimental techniques (Zajonc, 1968). However, Zajonc (1968) has marshalled data from studies involving several different paradigms that appear to support the inference that repeated exposure is a sufficient condition for attitudinal enhancement. Since these investigations traditionally have not been considered pertinent to understanding repetition, the evidence they provide is reviewed in some detail.

Several correlational studies from the word frequency literature provide tentative support for Zajonc's contention that repetition causes positive attitude change. The relationship between the Thorndike-Lorge word frequency in a language and the attribution of meaning is particularly intriguing. In the English language the word good appears five times more often than the word bad, things are in something five times as often as they are out, sweet seven times more often than sour, and full three times more often than empty. Zajonc's hypothesis also is supported by Johnson, Thomson, and Frincke (1960) who found substantial positive correlations between the Thorndike-Lorge word frequency counts and subjects' evaluations for three samples of randomly chosen words. In addition, Zajonc (1968) examined subjects' evaluations of 154 antonym pairs and observed a respondent preference for words that are more frequently used.

The correlational investigations cited are consistent with the thesis that repeated exposure is associated with positive attitudinal evaluations. Of course, these studies do not allow the attribution of
causation. However, a substantial number of experimental studies do allow this inference. Zajonc (1968) varied the frequency with which subjects were shown Turkish words and Chinese characters. It was found that subjects consistently rated the more frequently appearing stimuli to have more positive connotations. Apparently increased repetition causes attitudinal enhancement.

The finding of attitudinal enhancement with repeated exposure is somewhat surprising since it appears to contradict Berlyne's (1960) experimentally documented notion that the human organism is aroused, curious, and exploratory when the stimulus is novel rather than familiar. Though this behavior may be symptomatic of a positive affect toward the novel stimulus, Zajonc (1968) contends that it is more likely a manifestation of fear. Thus, on first exposure to a novel stimulus, recipients' fear induces heightened physiological arousal. As stimulus repetitions mount, arousal habituates and attitudinal enhancement ensues.

Support for the contention that arousal habituates on repetition is obtained from physiological research. Zajonc (1968) noted that physiological response declined on repeated stimulus exposure. Moreover, Zajonc points out that this set of responses is adaptive, since it allows persons to discover the nature of the novel stimulus.

To examine the conceptualization, Harrison (1968) conducted two experiments. He reasoned that a novel stimulus would tend to elicit several responses. The response competition so induced would create a tension state accompanied by negative affect and the desire to minimize that tension. On repeated presentation the stimulus is classified, resulting in the strengthening of certain response tendencies and the
weakening of others. The reduction of response competition alleviates subjects' feelings of negative affect toward the attitudinal object. Thus repetition allows for stimulus classification, the dropping out of weak response tendencies, and the concomitant reduction of tension and negative affect.

Similarly, the tension generated by the presentation of a novel stimulus is hypothesized to induce exploratory behavior and negative affect, both of which diminish on repeated exposure. Using a variety of stimuli, Harrison obtained some support for the repetition mechanism he postulated. Indeed, response competition decreased with repetition. Moreover, significant inverse relationships were observed between response competition and attitudinal liking, and between attitudinal liking and exploratory behavior (Harrison, 1968).

These findings not only support Zajonc's mere exposure hypothesis but also provide a theoretical explanation for its occurrence. Although several subsequent investigations have replicated Zajonc's findings (Burgess and Sales, 1971; Harrison, 1969; Harrison and Hines, 1970; Harrison and Zajonc, 1970; Zajonc and Rajecki, 1969) and Harrison's explanation (Harrison and Hines, 1970; Harrison and Zajonc, 1970; Matlin, 1970), support for the mere exposure effect has not been univocal (Brickman and Redfield, 1970; Perlman and Oskamp, 1970; Suedfeld and Epstein, 1970). Moreover, Burgess and Sales have suggested that the attitudinal effects of exposure can be explained in terms of classical conditioning. They reasoned that if the experimental settings in which the mere exposure effect was found were positively evaluated by subjects, then this positive affect could have been increasingly transferred to
the stimulus material as repetition increased (Burgess and Sales, 1971).

To test this hypothesis Burgess and Sales (1971) systematically manipulated the affect induced by the experimental milieu. Consistent with their expectation, it was found that repeated exposure enhanced attitude only when the experimental setting was positively toned. When the setting was negatively toned, repetition caused a negative change in attitude.

The research reviewed suggests that there is a substantial amount of indirect support for the hypothesis that repeated stimulus exposure enhances attitude toward that stimulus, or, more cautiously stated, repetition appears to reduce negative affect. To date two theoretical explanations have been presented to explain this phenomenon.

Admittedly, the stimuli used in studies cited in support of this thesis have not been persuasive mass communications. However, the available marketing-oriented literature has reported several studies that meet this criterion. Grey advertising agency (1968), in a correlational study, found that "frequent exposure to the TV shows carrying a brand's advertising reflects itself in a measurable higher attitude level, and in a greater likelihood of (positive) attitude change." Some support for the generality of Zajonc's hypothesis may also be found in several experimental investigations. McCullough (1971) exposed subjects to print ads either one or five times. Repetition induced greater attitude change than did single exposure. Weiss and Pasamanick (1964)

3Unlike most other repetition studies McCullough used net counterargumentation as his measure of attitude change.
reported that re-exposure facilitated agreement with the position advocated in a mass communication.

Not all existing data are congenial to the thesis that repetition enhances attitude. In a field experiment, Ray and Sawyer (1971) found that subjects' attitudinal responses toward certain products were not influenced by repetition of the persuasive communication. A possible explanation for this result is suggested in an experiment by Cook and Insko (1968). In one of their experimental conditions, subjects were re-exposed to the conclusion drawn in the original message after various temporal delays. Re-exposure was found to be most effective after sufficient time had elapsed to allow some decay in the impact of the original persuasive communication. Thus Ray and Sawyer's findings may be attributable to the fact that the immediate re-exposure procedure they employed minimized differences in persuasion attrition between repetition conditions.

Light (1967) observed that very high repetition (16 exposures) of print ads within a short time period led to negative attitude change. Though it is not possible to specify unequivocally the reason underlying this finding, one would suspect that a sufficiently wide range of repetition levels may be nonmonotonically related to persuasion.

Several investigations examined the delayed effects of repetition on persuasion. Johnson and Watkins (1970) varied the difficulty of a persuasive communication and repeated the message either one, three, or five times. It was found that repetition enhanced immediate persuasion only when the message was initially difficult to comprehend. When the communication was easily understood, the degree of repetition did not
have a significant effect on attitude change. Moreover, when retested after a two and one-half month delay, no differences in persuasion were found between subjects in the different repetition treatments. However, it should be pointed out that the lack of persistence of the persuasive effect of repetition may be attributable to the long delay between message presentation and the posttest.

To test this possibility, Johnson and Watkins (1971) presented subjects a persuasive message either one or five times and attributed it to either a high or low credibility source. Repeated measures of attitude change were taken immediately and four weeks after the message presentation. It was observed that the degree of message repetition did not affect immediate persuasion. On the other hand, Johnson and Watkins did find that increased repetition enhanced the persistence of attitude change, at least for subjects who received the communication from a high credibility source.

Summary. There appears to be a variety of evidence supporting Zajonc's hypothesis that mere repeated exposure induces positive attitude change. Moreover, this effect seems to persist over time when the communication source is highly credible. However, since currently available applied studies are divided as to the generality of this relationship, further empirical testing is required. More specifically, the limits within which attitude change is a positive function of repetition must be inspected more closely. In addition, the persuasive effect of repetition when different types of motivational appeals are used (e.g. fear and humor) has yet to be investigated. Finally, investigations should monitor the persuasive effects of repetition at several points in
time after the repetitive message and manipulate the credibility of the communication source.

The Effect of Repetition of Retention

Relatively little interest has been exhibited in the relationship between repetition and retention. Apparently, the belief that increasing repetition increases retention, even at repetition levels above those necessary for learning (Krueger, 1929, 1930; Luh, 1923; Postman, 1962), has been so strongly imprinted that there appears to be little point in further substantiating this fact. However, recent evidence presented by Craig and Sternthal (1972) suggests that the repetition-retention relationship is in need of further examination.

These investigators (Craig and Sternthal, 1972) determined that subjects required seven exposures to learn a series of twelve print ads. Thus seven repetitions constituted the hundred percent learning condition. Fourteen and twenty-one repetitions of the print ad series were defined as two hundred and three hundred percent learning respectively. Retention of the brand names taken either immediately, one day, one week, or one month after exposure to the print ads served as the dependent variable. The results indicated that some overlearning (i.e. 200 percent condition) yielded better delayed retention of brand names than did mere learning (i.e. 100 percent condition), or extensive overlearning (i.e. 300 percent condition). No retention differences between repetition treatments was observed when the dependent measure were administered immediately after the stimulus presentation.

Thus repetition appears to facilitate information consolidation
only up to a point, beyond which retention declines. This result may be attributable to the hostility generated in subjects who were required to view the same 12 prints ads twenty-one times each. Given this hostility, it is unlikely that subjects in the three hundred percent learning condition mustered the motivation required to retrieve brand names in the delayed posttest treatment. Future research should measure respondents' attitude toward viewing the prints ads and the attitudinal impact of each print ad, as well as their print ad retention. Also, subjects motivation to retrieve responses may be manipulated by offering a monetary reward for each brand name retained, or, each persuasive argument that they are able to verbalize. These approaches are currently under investigation at the Ohio State University. Until these experiments are performed, the Craig-Sternthal conclusion that extensive repetition induces a deficit in retention remains quite tentative.

Finally, in the Ray and Sawyer (1971) experiment discussed earlier, significant linear and quadratic trends were found when ad exposure was varied between zero and six and recall was the dependent variable. That is, as exposure was increased retention improved sharply, and then fell off at higher repetition levels. Furthermore, repetition functions differed according to product class, marketing position and advertising formats (Ray and Sawyer, 1971).

Summary and Conclusions

The data reviewed indicated that within limits message reception, attitudinal enhancement, and retention are facilitated by increasing stimulus repetition. Competing response and classical conditioning concepts were elaborated as possible explanations of the mechanism
underlying the effects of repetition on information processing mediators. At best, however, the existing research provides only very general guidelines to the communication practitioner. It is indicative of the fact that some repetition is useful, but the response functions for specific applied situations have yet to be examined. Future research must establish the communication effects of repetition for different types of motivational appeals (e.g. humor and fear), different media vehicles, and for different types of products. At present the literature has not addressed itself to these issues.

One Versus Two-Sided Communications

Most advertisers support the proposition that advertising should develop one-sided arguments that present the favorable attributes of the product or service being advertised. Two-sided communications, which entail the elaboration of the favorable product attributes and a defense of the negative attributes, are seldom used. Apparently, it is felt that acknowledgement or refutation of negative attributes is less persuasive than the mere specification of positive information.

Despite the predominant use of one-sided communications, there are some situations in which the presentation of two-sided appeals may enhance persuasion. Acknowledgement and refutation of negative product or service attributes may reduce counterargumentation in those subjects initially opposing the position advocated in an appeal and thus facilitate persuasion (Linder and Hass, 1971). For instance, Volkswagen advertisements acknowledge that VW is not a particularly stylish or large automobile, and then elaborate the other VW attributes made possible by eliminating these features. Advertising for Avis rent-a-car
noted that being the second largest rental agency made Avis try harder. Apparently Avis' strategy was to acknowledge the fact that they were only the second largest car-rental agency, and then to use this admission to indicate why Avis offered superior service.

Several studies examine the efficacy of one versus two-sided persuasive communications. In certain situations, it has been found that two-sided communications induce more persuasive than one-sided appeals. Research during World War II indicated that presenting both pro and consides of an issue produced the greatest attitude change in persons initially opposed to the major argument being advocated (Hovland, Lumsdaine, and Sheffield, 1949). Elaboration of the other side of the issue did have deleterious effects on the attitudes of those initially convinced of the position advocated. In addition, it was observed that persons with higher education were more influenced by a two-sided communication than those who were less educated (Hovland, Lumsdaine, and Sheffield, 1949).

From cognitive response analysis, it may be hypothesized that the presentation of a two-sided communication serves to inhibit the rehearsal of counterarguments. In turn, the diminution of counterargumentation results in increased persuasion. Employing Taiwanese high school students as subjects, Chu (1967) observed that for subjects initially opposed to the issue, creation of a free trade zone in a Taiwanese harbor, a one-sided communication was more effective than a two-sided version when issue familiarity was low. On the other hand, when message recipients were familiar with the issue, two-sided communications were more persuasive. Consistent with the Hovland, Lumsdaine,
and Sheffield (1949) finding, no such interaction was observed when subjects' initial opinion toward the issue was favorable. Moreover, regardless of initial opinion, or whether one or two-sided messages were presented, correlational analysis appeared to indicate that communication effectiveness was an inverse function of the source's bias perceived by subjects. When subjects' detection of bias was held constant, the differences in the persuasiveness of one and two-sided communications dealing with issues of high and low familiarity disappeared. Apparently subjects' perception of the communicator's credibility plays an important role in their persuasibility. Finally, Chu reported data supporting the hypothesis that one-sided communications induce significantly more counterargumentation than two-sided appeals.

The presentation of a one-sided communication appears to motivate subjects to counterargue, reducing the persuasive impact of the appeal. On the other hand, the specification of arguments favorable as well as acknowledgement of counterarguments inhibits counterargumentation and thus enhances persuasion. When message recipients are unfamiliar with the issue, or are of low intellect, counterargumentation may be absent regardless of whether one or both sides are presented. The thoughts evoked in these circumstances may depend entirely on the information disseminated in the persuasive communication.

In a series of experiments Linder and Hass (1971) examined the counterargumentation and persuasion induced by presenting arguments refuting the counterarguments the audience was likely to rehearse in response to a communication. Of specific interest was whether refutational arguments induced greater persuasion when they were presented
before or after supportive arguments to subjects forewarned of the communication's persuasive intent. Linder and Hass (1971) reasoned that when the audience was forewarned persuasion would be greatest if the refutational arguments preceeded the main supportive communication, since the presentation of a refutation first should eliminate the rehearsal of counterarguments and thus facilitate persuasion. On the other hand, if refutations of the audience's potential counterarguments were placed at the end of the message, it would be too late to eliminate prior counterargumentation and communication rejection would ensue.

In an experimental test of this hypothesis, Linder and Hass (1971) were unable to confirm their expectancy. In fact, it was found that presentation of the supportive element of the communication before the refutation yielded more persuasion than did presenting the refutation first. Moreover, a second experiment confirmed this finding (Linder and Hass, 1971).

There are several explanations for the Linder and Hass finding. Perhaps the refutations used by Linder and Hass were non-compelling to communication recipients. Alternatively, refutations presented may have been unfamiliar to the audience. If the audience is unaware of arguments opposing those presented in the message, the presentation of a refutation early in a communication may stimulate counterargument production. In a third experiment, Linder and Hass (1971) reported that when an audience was aware of opposing arguments, the placement of refutation first was more persuasive than if it were placed near the end of the communication.

Thus when the use of two-sided arguments are contemplated, the
refutational aspect of the message should be presented first. However, care must be taken to insure that the refutation developed is compelling and that it address only those counterarguments subjects are likely to generate in response to the persuasive appeal.

Finally, it should be noted that the efficacy of two-sided communications has not been tested extensively in market-relevant settings. Using cars, ranges, and floor waxes as attitudinal objects, he confirmed Hovland, Lumsdaine, and Sheffield (1949) findings. Obviously, more field research is needed. Future investigations should not only test the generality of existing experimental data but should attempt to uncover those audience individual differences that may moderate the effectiveness of one versus two-sided appeals.

**Order of Argument Presentation:**

*Primacy Versus Recency*

Advertisers' belief that increasing discrepancy between the position advocated in a persuasive communication and the one held by message recipients enhances attitude change is reflected in their almost exclusive use of appeals that present only favorable information concerning the product or service advertised. However, it has also been observed that the relationship between message discrepancy and attitude change is curvilinear when a source of moderate or low credibility presents the persuasive message (Chapter IV). Since advertisers seldom are perceived to be highly credible, it behooves communication practitioners not to pursue strategies involving the presentation of highly discrepant appeals. Alternatively, the presentation of arguments both favorable and unfavorable to the communicators best interest may increase the
audience's perception of source credibility sufficiently to allow for successful implementation of widely discrepant communications (Walster, Aronson, and Abrahams, 1966). Research dealing with the order of argument presentation also is of interest to the practitioner, since it addresses itself to the question of positioning of commercials relative to the competition as well as the placement of arguments within a particular communication.

The available evidence dealing with the effect of presentation order presents an equivocal picture. As Table 7 indicates, several studies have found a primacy effect; about an equal number have reported a recency effect; and some investigations have found no significant order effect. The inconsistency in these studies leads one to suspect that confounded variables are present in the existing studies. To investigate this possibility further elaboration of the experiments presented in Table 7 is necessary.

One variable that may confound the above studies is topic familiarity. Lana (1961) found that when subjects were familiar with the persuasive arguments a primacy effect was observed. However, Insko (1962) and Thomas, Webb, and Tweedie (1961) manipulated familiarity and found no order effect. Apparently, issue familiarity does not yield a consistent order effect. One method that may be useful in pursuing the effects of topic familiarity is to manipulate message repetition. Since repetition should enhance familiarity, this approach enables the experimenter to vary systematically the familiarity variable.

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4 A primacy effect refers to the fact that the first set of arguments developed (either pro or con) has a greater persuasive effect than a second set. A recency effect occurs when the later presented
<table>
<thead>
<tr>
<th>ORDER EFFECT</th>
<th>OTHER INDEPENDENT VARIABLES</th>
<th>DEPENDENT VARIABLES</th>
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<td>Topic familiarity (very familiar)(^a)</td>
<td>Attitude change</td>
<td>Knower, 1936; Lund, 1925.</td>
</tr>
<tr>
<td></td>
<td>Delay before administration of posttest</td>
<td>Attitude change and retention</td>
<td>Lana, 1961.</td>
</tr>
<tr>
<td></td>
<td>Topic familiarity (non-familiar)(^a)</td>
<td>Attitude change</td>
<td>Lana, 1961.</td>
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<tr>
<td>Recency</td>
<td>Delay between 2 sets of arguments and delay in administration of posttest</td>
<td>Attitude change and retention</td>
<td>Insko, 1964; Miller and Campbell, 1959.</td>
</tr>
<tr>
<td></td>
<td>Awareness of persuasive intent (not aware)(^a) and delay before posttest</td>
<td>Attitude change</td>
<td>Shultz, 1963.</td>
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<tr>
<td></td>
<td>Delay between 2 sets of arguments; posttest given immediately</td>
<td>Attitude change and retention</td>
<td>Miller and Campbell, 1959.</td>
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\(^a\)Bracketed term indicates level of variable that produced the observed order effect.
Other variables that potentially confound the effect of order include the variation in the delay between communication segments and variation between the presentation of the pro and con sides and the measurement of its persuasive effect. Miller and Campbell (1959) noted that delaying the posttest for one week yielded a primacy effect. On the other hand, a one week delay between communications followed immediately by the measurement of attitude change resulted in a recency effect. In a subsequent experiment, Insko (1964) generalized Miller and Campbell's findings. When the attitudinal measure was taken immediately after the persuasive communication, the longer the delay between the presentation of pro and con positions, the greater the recency effect. Furthermore, Insko observed that the greater the delay between the presentation of the second appeal and the posttest measure the smaller the recency effect. However, an experiment by Schultz (1963) casts some doubt of this conclusion. Contrary to Insko's prediction, the measurement of attitude change two weeks after subjects were given the persuasive communication resulted in a significant recency effect.

Despite the contradictory findings contained in the current literature, several marketing-relevant implications may be stated. The use of communications that elaborate both favorable and unfavorable arguments may enhance communicator credibility and thus facilitate persuasion. Moreover, since advertisers generally want a long term persuasive effect from their advertising, and since high repetition advertising strategies are often used, it would appear that the pro message should be presented arguments dominate persuasion.
first; the available evidence indicates that a primacy effect is likely. (Insko, 1964; Lana, 1961; Miller and Campbell, 1959.)

Order of presentation may be more broadly conceived to include the persuasive effect of a communication attributable to its position relative to that of several other communications. The fact that television audiences are bombarded with many commercials within programs as well as in between program spots suggests the salience of this conceptualization. In this context, current research is not so much equivocal as it is silent. Virtually no studies have been found in which more than two communication positions (i.e. first and last) have been examined. In light of this topic's importance to television advertisers, who often are faced with competition from three or four competing messages at each commercial break, it behooves marketers to examine this issue experimentally.

Strength of Arguments and Order of Presentation

If it can be agreed that the use of pro and con arguments is unwarranted at the present time, then what guidelines may be advanced to maximize the persuasive impact of more biased messages? More particularly, should the communication practitioner present his strongest arguments first, or save them for last? Logical points can be developed in support of both strategies.

The presentation of the strongest arguments first would attract attention and probably cause the audience to be receptive to subsequent

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See McGuire (1969) for an elaboration of the arguments developed in this section.
arguments. Moreover, since material presented first is best learned (Hovland, 1938), message recipients may be expected to learn the strongest arguments. However, the presentation of successively weaker arguments may tend to diminish the overall persuasive effect of the communication. On the other hand, saving the strongest arguments for last may cause an initial deficit in message reception but would boost reception when it is needed most - toward the end of the message. Moreover, the presentation of the strongest arguments last may be expected to enhance acceptance of the overall communication.

The empirical literature does little to help in the selection of the appropriate strategy. Though one experiment indicated that the presentation of strongest arguments first is more effective than leaving them to the end (Sponberg, 1946), most studies reported no differences (Gilkinson, Paulson, Sikkink, 1954; Gulley and Berlo, 1956).

Future research should examine the impact of various orders on information processing mediators. Also the specific situational and audiences variables may dictate whether strongest arguments should be presented first or last. It is quite possible when the persuasive message is to be repeated with some frequency that strength and order of argument presentation is no longer a critical consideration. Empirical resolution of these speculations is awaited.

Conclusion-Drawing

In recent years the advertising industry has relied increasingly on "mood commercials." This type of presentation allows message recipients to draw their own conclusions which are implicit in the persuasive
communication. The theoretical underpinnings for this practice are derived to a large extent from Carl Rogers' (1961) non-directive therapeutic methods. However, experimental research has determined repeatedly that explicit conclusion-drawing is more persuasive than allowing the audience to draw its own conclusions (Cooper and Dinerman, 1951; Fine, 1957; Hadley, 1963; Hovland and Mandell, 1952; Hovland, Lumsdaine, and Sheffield, 1949; Maier and Maier, 1957). Apparently, the problem with implicit conclusion-drawing is that the audience may either not be sufficiently motivated or intelligent to draw conclusions on their own. Yet, with the passage of time, it appears that communications with implicit conclusions approach the persuasive impact of messages in which the conclusion is explicitly stated (Cohen, 1957; McGuire, 1960; Stotland, Katz and Patchen, 1959).

Since communication practitioners are concerned most often with the long-term effect of their appeal, the use of persuasive messages that do not draw explicit conclusions appears justified empirically. When the audience is highly intelligent or motivated, communications that do not draw explicit conclusions may be particularly effective. However, further information concerning the effect of explicit and implicit conclusions on communication reception and acceptance is needed. Furthermore, the effect of conclusion-drawing for audiences with different profiles and for different situations should be investigated before deciding upon the relative efficacy of different conclusion-drawing strategies.
Summary and Implications

Behavioral science literature dealing with structural communication variables was reviewed in this chapter. These investigations provide a foundation for advertising practice.

The repetition literature indicated that some repetition enhances the persuasive impact of communications but gave no indication of the response functions for particular audiences and particular situations. The literature reviewed also suggested the circumstances in which two-sided appeals may be more effective than one-sided communications. The order of presentation studies indicated the conditions necessary for the observation of a primacy or recency effect. Finally, the conclusion-drawing literature indicated that explicit conclusion-drawing is probably more persuasive for most audiences. Again the type of format that is most effective when certain media and products are being utilized is unknown.

In light of this embryonic stage of development in understanding structural communication variables, emphasis was placed on future research directions rather than on attempting to glean strategies that are immediately relevant to marketing practice. Potential research directions were elaborated for each of the structural variables discussed.
CHAPTER IX

SUMMARY AND IMPLICATIONS

This dissertation reported the findings of a wide variety of published and unpublished mass communication research drawn primarily from the marketing, psychology, and speech literature. Although an attempt was made to review the existing literature from a marketing perspective, experimental studies were heavily emphasized. The objective was to develop a foundation of knowledge concerning mass communication phenomena on which understanding, practical application, and research may be built.

This chapter briefly summarizes the conclusions drawn that pertain to the persuasive mass communication model, communication content variables, and structural variables. Potential directions for future research in each of these areas is indicated. In the final section, the practical implications of current mass communication knowledge are suggested.

Summary and Research Implications

The Persuasive Mass Communication Model

Marketing communication theorists in general, and this author in particular, are indebted to the Yale School communication theorists. Indeed, the communication model advanced by Hovland and his co-workers (Hovland, Janis, and Kelley, 1953) and extended by McGuire (1968, 1969) underlies the model proposed in this volume. The hope is that the
present version of the Yale School model updates the currency of supporting evidence, and provides an understanding of mass communications from a marketer's vantage point.

The persuasive mass communication model elaborated entailed four component models: (1) information processing; (2) audience characteristics; (3) source characteristics; and, (4) communication channel. Together these component models provide a diagnostic to determine why a persuasive communication had its observed effect.

**Information processing component.** The mass communication process was conceived as a sequence of necessary but not sufficient phases. Exposure was depicted as being dependent upon the nature of the audience's characteristics, the communication channel, and the perceived attributes of the communication source. In turn, exposure to a communication was necessary but not sufficient for message reception. Given reception, there was only some conditional probability of attitude modification. Once an individual either accepted or rejected the communication there was only some chance of message retention.

The information processing depiction received considerable experimental support. Consistent with the model, the selective exposure literature indicated that there was little empirical justification for the hypothesis that initial opinion is the critical determinant of individuals' exposure patterns. On the basis of the available research it seems that audience characteristics and information utility may be better predictors of exposure than merely initial opinion.

Experimental psychological research has yielded data which indicate that message reception is attenuated at several different levels of the
central nervous system. Thus, information may be filtered out at low central nervous levels, or it may undergo further processing and be available for retrieval. Information retrieval apparently depends upon the relevance of the communication to the recipient.

Parenthetically, it should be noted that Yale School models typically have not considered a variety of cognitive and experimental psychology findings dealing with communication reception, though this research is congenial to those models. In light of the prescriptions they afford, these studies have been included in this volume.

Finally, the attitude modification and retention components of the mass communication model were considered. Cognitive response analysis suggested that a persuasive communication triggered various thought processes. The particular thoughts so elicited determined whether the message recipient accepted or rejected the communication, and the probable nature of material retained. For those initially opposed to the position advocated in the persuasive communication, the message may generate the rehearsal of counterarguments and communication rejection. However, the arguments developed in the communication may be retained if the communication recipient associates his counterarguments with the original arguments. Alternatively, individuals may discount the communicated arguments and not rehearse communication-relevant arguments or counterarguments. In such situations, subjects tend to reject the communication and retention of message-relevant material tends to be poor. Conversely, for those favorably predisposed, the persuasive communication is likely to elicit the rehearsal of arguments supporting the position advocated in the appeal. Subsequent retention of arguments that are
consistent with the persuasive communications tends to be good.

Since attitude modification may depend, in part, upon the extra-communication thoughts generated by the communication recipient, persuasion may require only some minimal level of message reception (Greenwald, 1968; Wheeless, 1971). Furthermore, cognitive response analysis is consistent with the contention that attitude modification preceeds retention. It also indicates that retention of a communication's content per se is not necessarily a good indicator of communication effectiveness. It may well be that both persons who reject the communication as well as those who accept it retain the contents of the persuasive appeal.

Perhaps more important from a practitioner's point of view, cognitive response analysis suggests the mechanism by which distraction and forewarning of the communication recipient attenuate persuasion. For those initially opposed to the position advocated in a persuasive communication, distraction is hypothesized to inhibit the generation of counterarguments and thus may enhance persuasion. This finding, though not strongly supported in the literature, may explain why television advertising tends to be a relatively effective persuasive instrument. The distraction of viewers with visual materials and simultaneous oral presentation of persuasive arguments may inhibit counterargumentation and thus facilitate persuasion.

Forewarning those initially opposed to the position advocated is hypothesized to elicit counterargumentation and inhibit persuasion. The lack of persuasiveness of many advertisements may be attributable to the fact that the audience is aware of the persuasive intent of those communications.
Unlike earlier attempts to describe the persuasive mass communication process (e.g., Engel, Kollat, and Blackwell, 1968; Howard and Sheth, 1969), which were deterministic in nature, the model presented in this volume is stochastic. Since each stage of information processing may depend upon a myriad of determinants, it is the author's contention that a probabilistic model more accurately reflects the manner in which the human organism processes information.

The conceptualization of persuasive mass communication as a stochastic process suggests that the relationships between model variables be expressed quantitatively. However, mathematical formalization of the model should be pursued with caution. Given the present state of knowledge, it is perhaps more useful to determine, with some degree of unequivocality, the variables critical to the processing of persuasive information. This end may be achieved by experimental manipulation of each persuasion mediator and the measurement of its effect on subsequent mediators.

**Audience individual difference component.** Marketing investigations have been unable to find an unequivocal relationship between audience personality characteristics and product purchase. In a recent review, Kassarjian (1971) concluded that these failures were attributable to the fact that audience characteristic studies often lacked a theoretical basis. That correlations between audience predispositions and purchase have been low and unreliable most likely reflects the fact that in many cases no significant association exists between these variables.

The audience characteristics model developed by McGuire may provide
a useful approach to understanding the impact of audience variables on persuasion. It suggests that audience individual differences may moderate one or more information processing mediators— and not merely purchase. Furthermore, when two or more mediators are involved, audience individual differences will influence them in a compensatory way. Thus, if a particular audience characteristic facilitates message reception, it may inhibit attitude modification. The prediction derived from this analysis is that persuasion is nonmonotonically related to the overall range of an individual difference variable. A sampling of the empirical research revealed that the persuasive effect of different levels of demographic and personality audience characteristics conformed to this prediction. Moreover, to guard against the possibility that the nonmonotonicity prediction was not subject to refutation, the situational weighting assumption was incorporated into the audience characteristics model. It indicated that in certain situations a particular audience characteristic would most heavily influence only certain information processing mediators. The marketing situations in which audience differences differentially weight information processing mediators is still to be determined.

The audience characteristics model directs attention to the impact of individuals' predispositions on the mediators of communication. Moreover, from a research perspective, the audience model indicates that categorization of individual differences into demographic and personality types is unnecessary. Both types of characteristics appear to influence information processing mediators in accordance with the multi-mediation, situational weighting assumptions. There is somewhat less support for
the contention that audience characteristics operate in the manner sug-
gested by the compensation assumption. Finally, the model implies that
a systematic investigation be made to determine which information pro-
cessing mediators are most salient in different situations and with
different audience types.

**Source credibility.** The literature is unequivocal concerning the
effect of source credibility on persuasion. Studies have shown repeat-
edly that a high credibility source is more influential than a low cred-
ibility communicator. Furthermore, this effect does not seem to persist
over time.

Since the audience is usually aware that the marketing mass com-
municator is paid for presenting a persuasive appeal, it is doubtful that
he achieves high credibility. In an attempt to enhance communicator
credibility advertisers have used several strategies. Basically these
approaches involve the employment of a source who is perceived to be
either trustworthy or an expert by the audience.

The data reviewed in this volume suggest alternative credibility-
enhancement strategies. For instance, it has been found that audiences
are not differentially affected by sources of varying credibility when
the persuasive appeal is presented in a highly stressful situation. Thus
the insertion of a commercial in a stress-inducing television program
may serve to minimize the ineffectiveness of a low credibility source.
Perhaps a more viable credibility-enhancement strategy involves the
presentation of information contrary to the communicator's best interest,
as well as the positive persuasive arguments. This strategy has been
shown to enhance the credibility and persuasiveness of an initially low
credibility source. Finally, the induction of humor may enhance source
credibility and increase the influence of his communication.

**Communication Content Variables**

**Discrepancy.** The section dealing with communication content variables examined the persuasive effects of discrepant, fear-arousing, and humorous communications. It is interesting to note that each of these literatures is at a distinctly different developmental stage. The discrepancy literature is well established. It has been found repeatedly that discrepancy is linearly related to persuasion when communication credibility is high and curvilinearly related to persuasion when source credibility is moderate or low. If it can be assumed that the sources of marketing communications are at best moderately credible, then accurate prediction of the point beyond which increasing discrepancy causes a decrease in persuasion is important to determine. Although the currently available theoretical formulations have failed in this task, the mass communication model provides a potentially useful approach. It suggests that changes in the information processing induced by systematic manipulation of discrepancy be measured directly. In this manner, the optimal level of discrepancy may be determined a priori (see Figure 11).

**Fear.** Unlike the discrepancy literature, the preponderance of studies dealing with the persuasive effect of fear-arousing communications have been reported during the last decade. Though recent studies appeared to indicate that persuasion is an increasing function of fear, it was suggested that the overall relationship between fear and persuasion was nonmonotonic when the communication was presented by a high
credibility source. When the communication source was of low credibility, fear-evoking messages appeared not to be persuasive.

The implication for marketers is that the use of fear appeals should be restricted to situations in which the message source is highly credible. Thus, on the basis of the evidence available, fear-arousing communications presented by sources such as the American Cancer Society seem justified. Conversely, use of fear to promote feminine hygiene deodorants, insurance companies, and detergents probably induces less persuasion than a non-fear-arousing appeal.

Humor. Of the communication content variables reviewed, humor has been least investigated. The few studies that have been reported concluded that humor is no more persuasive than serious messages that advance the same arguments. Since humor may require much of an advertiser's available air-time, it is likely to usurp time that might otherwise be used to develop persuasive arguments. When humor is used, the arguments advanced should be easy for the audience to understand. From a market standpoint humorous appeals may be useful in attracting attention and establishing rapport between the communicator and his audience.

Structural Communication Variables

Communication channels. Very few investigations have examined the persuasive impact of various communication channels. Since a knowledge of how different media moderate information processing may be useful in media selection, it behooves the marketer to pursue this line of research.

The few available studies indicate that print media probably induce greater message reception than broadcast media when audiences are exposed to complex verbal arguments. Conversely, when the persuasive appeal
requires a demonstration of the product or service, television is the most suitable medium to insure reception.

Published research has failed to examine the communication acceptance of different media. However a consideration of McLuhan's taxonomy of media suggested that a cool medium requires high audience involvement. If high involvement is associated with a high rate of counterargumentation in those people who initially oppose the communication, then the message is likely to be rejected. Employing the same reasoning, it was hypothesized that a hot medium by inducing low involvement probably inhibits the generation of counterarguments. Although this reasoning must be subjected to experimental study, it suggests that the communicator who is attempting to proselytize an audience that is opposed to his views, employ a hot medium. On the other hand when the audience is favorably disposed to the communication a cool medium may be useful to generate rehearsal or arguments that support the position advocated in the message.

Repetition. Studies dealing with message repetition provide a general set of guidelines for the communication practitioner. Repetition enhances both immediate and long-term retention and persuasion. It is particularly useful when messages are difficult to understand. However, extremely high levels of repetition may cause a decrease in the persuasiveness of a communication. To guard against this possibility, extensive repetition of a persuasive communication should be accompanied by a variation in the appeal presented.

Other structural variables. There is some evidence to indicate that the presentation of a two-sided communication may be more effective than the presentation of a one-sided message. However, when using
two-sided communications care must be taken to acknowledge or refute only those counterarguments that the audience would be likely to generate on its own. When subjects are familiar with the refutations advanced, presentation of the refutation at the beginning of the communication facilitates persuasion.

Investigations dealing with order of presentation have yielded equivocal results. Some studies indicated the presence of a primacy effect, while in others a recency effect was obtained. The observed effect, whether primacy or recency, appears to depend upon the nature of the arguments presented, the time interval between argument presentations, and the length of the delay between message presentation and measurement of its communication effects. For advertisers interested in the long-term effects of repeated persuasive communications, the existing evidence suggests that the prime argument be presented first.

Finally studies investigating the persuasive effects of conclusion-drawing have found explicit statement of a conclusion to be more effective than allowing the audience to infer the conclusion on their own. However, the advantage of presenting conclusions disappears with the passage of time. The generality of these findings to marketing-relevant communications is still to be tested.

Implications for Communication Practitioners

This section presents a discussion of the implications derived from the literature reviewed in this dissertation. The approach taken here will be to describe current communication practice and to indicate
how existing knowledge may improve that practice.

**Information Processing Component**

Marketing communication practitioners have focused their attention on the sales effect of persuasive mass communications. Less concern has been directed toward an understanding of the role of information processing mediators. When these mediators are considered, they are generally evaluated in isolation. For instance, measures of advertising effectiveness are available to evaluate either message reception, or attitude modification, or retention (Table 8). Seldom, however, are these measures employed simultaneously.

The information processing model indicates that the measurement of a communication's performance on all information processing mediators is necessary to determine the locus of communication ineffectiveness. Once the reason underlying ineffectiveness has been uncovered, knowledge of the effect of substantive and structural communication manipulations may be used to enhance persuasion.

**Exposure.** Suppose it has been determined that a persuasive message has failed to reach the desired audience. Several remedies may be suggested to rectify this problem. Increasing the number of times an appeal is presented should increase the probability of exposure. Also, a re-evaluation and alteration of the communication vehicles may increase the probability of exposing the target audience. Since a disproportionate amount of the information to which people are exposed is consistent with their initial opinion, appropriate vehicle selection should increase the likelihood of exposure. Moreover, it is unlikely that audience members will deliberately avoid exposure to a persuasive appeal merely on the
TABLE 8
MEASURES OF ADVERTISING EFFECTIVENESS

<table>
<thead>
<tr>
<th>INFORMATION PROCESSING MEDIATOR MEASURED</th>
<th>TECHNIQUE(^1)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Order of Merit Ratings</td>
</tr>
<tr>
<td>EXPOSURE</td>
<td>X</td>
</tr>
<tr>
<td>RECEPTION</td>
<td></td>
</tr>
<tr>
<td>ATTITUDE MODIFICATION</td>
<td>X</td>
</tr>
<tr>
<td>RETENTION</td>
<td></td>
</tr>
<tr>
<td>OVERALL PERSUASION</td>
<td>X</td>
</tr>
</tbody>
</table>

Source: Adapted from Engel, Wales, and Warshaw (1971, Chapters 17 and 18).

\(^1\)A description of each of these techniques is presented in Engel, Wales, and Warshaw (1971, Chapters 17 and 18).
basis that it opposes a previously held position. Finally, the probability of exposure may be increased by presenting information that is unfamiliar and useful to the audience.

It should be noted that these prescriptions are consistent with current marketing communication practice. In fact, advertisers have developed a sophisticated set of quantitative techniques to insure a high probability of relevant-audience exposure.

**Message reception.** If the target audience is adequately exposed, the ineffectiveness of a persuasive mass communication may be attributable to a lack of message reception. Reception may be enhanced in a variety of ways.

One strategy entails increasing the frequency of exposure. Repetition may lead to an arousal level that is optimal for the active processing of information. Moreover, repetition is likely to increase the probability of comprehension. Although sales response functions for various levels of repetition have not been sufficiently investigated, it appears that a minimum of four exposures and a maximum of about sixteen should guide advertisers frequency strategy, at least for print media.

Several other strategies may be useful to improve message reception. Simplification of the communication, drawing a conclusion rather than allowing the audience to come to its own conclusion, and employing print media for the presentation of complex arguments may all be useful to insure a high degree of comprehension. In addition, understanding is probably enhanced if a straightforward rather than humorous appeal is employed.

Despite the efficacy of these strategies, it may not be particularly
important to achieve a high level of message reception; the degree of persuasion may not be affected by less than complete reception. This inference is supported by cognitive response analysis. Since persuasion is considered to depend heavily upon extra-communication thoughts, only a level of reception sufficient to trigger the generation of these thoughts may be required for persuasion. Moreover, the results of the single study in which comprehension was systematically manipulated indicated that a significant decrease in comprehension did not affect the persuasiveness of the message (Wheeless, 1971).

Attitude modification and retention. Several strategies are available to the communication practitioner to enhance the acceptance of a persuasive message. From the work of Zajonc, Harrison, and their coworkers (see Chapter VIII), it appears that increasing audience exposure to a persuasive appeal increases message acceptance. This conclusion requires qualification in that the positive attitudinal effect of repeated exposure may occur only in situations where the message contexts are positively evaluated by the audience (e.g., a popular television program).

The probability of communication acceptance may also be increased by the presentation of a two-sided communication. However, care must be taken to acknowledge only those negative arguments (i.e., those detrimental to the communicator's best interest) of which the audience has prior awareness.

Another strategy to increase acceptance involves the use of distraction. For instance, visual distraction during the presentation of a persuasive message has been used with some success in television
commercials. Though distraction may increase communication acceptance it must be used sparingly to insure sufficient message reception.

Finally, it should be noted that the methods used to increase communication acceptance may also facilitate retention of the communication's content. Moreover, repetition appears to enhance retention directly, at least up to some point which is beyond the number of exposures required to learn the communication's content.

**Audience Characteristics Component**

Marketing communication practitioners traditionally have segmented markets on the basis of product or service usage. Demographic and personality audience profiles related to each level of consumption are developed. The communication channels that most closely approximate the target audience are then selected for the presentation of the persuasive appeal.

The essence of this approach is to relate the audience's characteristics to their probable media exposure patterns. Little attention has been focused on the impact of audience characteristics on other information processing mediators. However, the evidence presented in Chapter III indicates that audience characteristics may moderate one or more of these mediators. For example, audiences characterized by their low intelligence may decrease the probability of message reception (and especially the probability of comprehension). If these audiences do happen to understand the communication, they will, in all likelihood accept it. In such cases, message simplification or repetition may enhance comprehension and thus overall persuasion.
The point is that determination of the effect of audience characteristics on information processing mediators may be useful in determining the communication phase which underlies ineffective persuasive appeals. In fact, the knowledge of whether an audience is upscale (e.g., highly intelligent) or downscale (e.g., low intelligence) on a particular characteristic may be employed to determine the mediators critical to persuasion.

**Source Characteristics Component**

In a marketing setting, the source of a persuasive communication is often perceived to be biased by his audience. After all, he is being paid by an identified sponsor to present arguments in support of a product or service.

To overcome this audience perception, communication practitioners employ experts such as astronauts to evaluate an automobile's engine, or highly trusted persons like Arthur Godfrey, Art Linkletter, or Ed McMahon. Less common is the use of two-sided communications in which product or service shortcomings are acknowledged and then refuted or dismissed. The institution of corrective advertising, forced by the Federal Trade Commission, may increase the use of two-sided appeals in the near future.\(^1\)

If the communicator is perceived to be highly credible, then several strategies entailing the manipulation of message content are available to increase message persuasiveness. The highly credible communicator

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\(^1\) Corrective advertising requires an advertiser to spend approximately twenty-five percent of his advertising budget for a one-year period to acknowledge and correct false claims made in previous appeals.
can maximize his persuasiveness by stating arguments that are very discrepant with individuals initial opinion. In addition, fear-arousing communications tend to yield a high degree of persuasion. Conversely, if the message source is perceived to be of moderate or low credibility, the arguments he develops should probably be quite similar to recipients initial disposition. Moreover, in this situation fear-arousal should probably not be utilized as the motivational basis for persuasion.

**Conclusion**

The mass communication model described in this volume is useful to communication practitioners and researchers alike. For the practitioner it provides a framework for determining the locus of communication ineffectiveness and indicates strategies for enhancing persuasion. For the researcher, the model presents a means of cogently organizing existing knowledge and suggests the variables that should be manipulated and measured in the pursuit of an understanding of mass communication phenomena.


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