

1-1-1989

## **Consumer responses to liked and disliked affective stimuli, repetition and involvement.**

Rajendar Kumar Garg  
*University of Massachusetts Amherst*

Follow this and additional works at: [https://scholarworks.umass.edu/dissertations\\_1](https://scholarworks.umass.edu/dissertations_1)

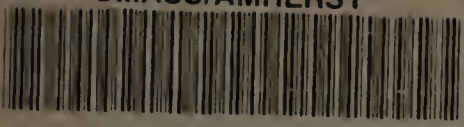
---

### **Recommended Citation**

Garg, Rajendar Kumar, "Consumer responses to liked and disliked affective stimuli, repetition and involvement." (1989). *Doctoral Dissertations 1896 - February 2014*. 6073.  
[https://scholarworks.umass.edu/dissertations\\_1/6073](https://scholarworks.umass.edu/dissertations_1/6073)

This Open Access Dissertation is brought to you for free and open access by ScholarWorks@UMass Amherst. It has been accepted for inclusion in Doctoral Dissertations 1896 - February 2014 by an authorized administrator of ScholarWorks@UMass Amherst. For more information, please contact [scholarworks@library.umass.edu](mailto:scholarworks@library.umass.edu).

UMASS/AMHERST



312066009051580

CONSUMER RESPONSES TO LIKED AND DISLIKED  
AFFECTIVE STIMULI, REPETITION AND INVOLVEMENT

A Dissertation Presented

By

RAJENDAR KUMAR GARG

Submitted to the Graduate School of the  
University of Massachusetts in partial fulfillment  
of the requirements for the degree of

DOCTOR OF PHILOSOPHY

February 1989

School of Management

© Copyright by Rajendar Kumar Garg 1989

All Rights Reserved

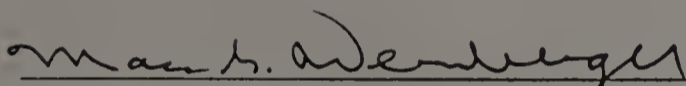
CONSUMER RESPONSES TO LIKED AND DISLIKED AFFECTIVE  
ADVERTISING STIMULI, REPETITION AND INVOLVEMENT

A Dissertation Presented

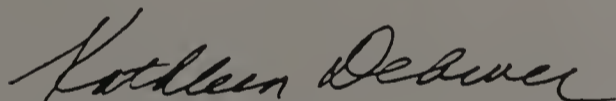
by

RAJENDAR KUMAR GARG

Approved as to style and content:



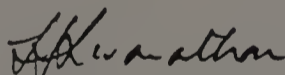
Marc G. Weinberger, Chairperson of Committee



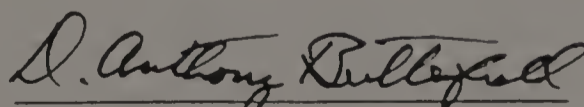
Kathleen Debevec, Member



William D. Diamond, Member



Hariharan Swaminathan, Member



D. Anthony Butterfield  
Ph.D. Program Director  
School of Management

## DEDICATION

I dedicate this work and all my education to my family's eldest Babaji Shri Kundan Lal Garg.

## ACKNOWLEDGEMENTS

A lot of thanks are due to my committee chairman Marc Weinberger, who I admire most not only as a Dissertation Committee Chairman, but also as a fine human and a great teacher. Marc taught me humility and patience, and helped me immensely throughout all the stages of this dissertation. I sometime wonder if I would ever be able to repay this graciousness through my actions to others, although it does seem unlikely. Marc has changed my understanding of the student-professor relationship and helped me become a better teacher.

Thanks are also due to Kathy Debevec and Bill Diamond. They were the ideal committee members who provided help and guidance every step of the way, and understood my fears and strengths. Their straight forward guidance made this project all the more manageable.

Thanks to Hariharan Swaminathan for being an ideal outside member. He contributed more than he received. Without his guidance, the LISREL portion of the statistical analysis would not have been completed.

I will be failing in my duty if I did not express my gratitude toward my great grandfather, and my parents for bringing me up and providing me strength and advice

on everything I did and keep doing. Thank are also due to my only brother Virendar for letting me go but always being there for me.

Thanks to my wife Vipul who brought so much love and pleasure in my life that made me want to work harder against all odds. Thanks for your understanding and support, dear.

Thanks are also due to some of my friends and colleagues who helped me finish this long ordeal of 5 years. Evangelos Kechris remains the dearest friend and colleague who understood me and provided guidance anytime I needed it. Thelma Snuggs, Rick Widdows, and Bill Buffington helped me collect data and carry out the research at Purdue very smoothly.

Finally, much gratitude to the almighty Lord Krishna. It is all his doing.



ABSTRACT

CONSUMER RESPONSES TO LIKED AND DISLIKED AFFECTIVE  
ADVERTISING STIMULI, REPETITION AND INVOLVEMENT

FEBRUARY, 1989

RAJENDAR KUMAR GARG, B.COM., UNIVERSITY OF DELHI

M.COM., AGRA UNIVERSITY

D.P.M., Y.M.C.A. INSTITUTE OF MANAGEMENT STUDIES

D.A.L., INDIAN LAW INSTITUTE

M.B.A., OKLAHOMA STATE UNIVERSITY

Ph.D., UNIVERSITY OF MASSACHUSETTS

Directed by: Professor Marc G. Weinberger

The study looked at attitude toward the ad in the context of affective stimuli. The affective stimulus was polarized (liked versus disliked) background music. The study investigated the impact of this background music under conditions of high and low involvement and in the context of varied advertising repetitions.

The study also investigated the role of affective and attitudinal responses within the framework of an advertising effectiveness model. The study utilized the affect-transfer hypothesis between attitude toward the ad and brand attitudes. Causal modeling (LISREL) was used to explore and confirm the structure of the advertising effectiveness model.

The study employed a 3 x 2 x 2 completely randomized factorial design in which the effects of the

polarity of background music (liked versus disliked versus no music), repetition (one versus three times), and involvement (high versus low) on subjects' affective and attitudinal responses to the test commercial were assessed.

Seven measures of consumer responses were employed: affective responses, cognitive responses toward the ad and the brand, attitude toward the ad, attitude toward the brand, music affect, distraction.

Overall, the results of the study suggest that affective and attitudinal responses were affected by differences in the polarity of music, involvement and varying repetitions. Under the high involvement condition, however, attitudinal responses remained unaffected. The advertising effectiveness model supported the affect-transfer relationship between the attitude toward the ad and the brand attitudes.

It would appear that the liked musical advertising may be most effective for the low involvement situations. Commercials with no music at all may be better for the high involvement situations. Finally, affective responses do get increasingly polarized with higher levels of commercial repetition.

## TABLE OF CONTENTS

	<u>Page</u>
ACKNOWLEDGEMENTS .....	v
ABSTRACT .....	vii
LIST OF TABLES .....	xiii
TABLE OF FIGURES .....	xiv
 Chapter	
I. INTRODUCTION .....	1
Consumers' Affective Response and Persuasion .	1
Consumer's Affective and Attitudinal Response:A Brief Genesis .....	3
Proposed Investigation .....	6
Method .....	8
Contributions to Marketing .....	9
Conceptual .....	9
Pragmatic .....	10
Organization of the Proposal .....	11
 II. THE ROLE OF ATTITUDE TOWARD THE AD, MERE EXPOSURE, BACKGROUND MUSIC AND DISTRACTION ON CONSUMER RESPONSE TO ADVERTISING .....	 13
Introduction .....	13
Attitude Toward the Ad .....	13
Summary .....	20
The Role of Mere Exposure Hypothesis and Repetition .....	21
Introduction .....	21
Theoretical Perspectives and Explanations .....	25
Mere Exposure Effect: An Experimental Artifact .....	25
Response Competition .....	27
Expectancy Arousal .....	30
Two-factor Theories .....	31
Semantic Satiation and Semantic Generation ..	33
Exposure Effects: Musical Selections .....	36
Repetition and Attitude Change .....	38
Summary and Conclusions .....	39
Effects of Background Music on Affect and Attitudes .....	41

Summary .....	47
Distraction Effects .....	47
Summary .....	50
Conclusion .....	51
III. THE ROLE OF INVOLVEMENT IN CONSUMER RESPONSE TO ADVERTISING .....	53
Introduction .....	53
History .....	55
Hierarchies of Effects' Models .....	61
Three Orders Models .....	62
Four Orders Models .....	66
Kassarjian's Personality Model .....	68
Mitchell's Model .....	71
Levitt, Greenwald and Obermiller Model .....	76
Summary .....	76
The Attitude Theory Approach .....	78
An Overview of the Fishbein-Ajzen Model.....	78
Petty and Cacioppo's Elaboration Likelihood Model .....	81
Smith and Swinyard's Integrated Information Model .....	84
Summary .....	84
Conclusion .....	86
IV. HYPOTHESES AND METHODS .....	88
Introduction .....	88
An Overview and Conceptual Framework .....	88
Purpose .....	93
Operationalization of the Design .....	93
Repetition .....	93
Background Music .....	94
Involvement .....	95
Advertising Effectiveness Model .....	98
Hypotheses .....	98
Hypothesis 1 .....	98
Hypothesis 2 .....	99
Rationale for hypothesis 1 and 2 .....	99
Hypothesis 3 .....	100
Hypothesis 4 .....	101
Rationale for hypotheses 3 and 4 .....	101
Hypothesis 5 .....	101
Hypothesis 6 .....	102
Rationale for hypotheses 5 and 6 .....	102
Hypothesis 7 .....	103
Hypothesis 8 .....	103
Hypothesis 9 .....	103
Hypothesis 10 .....	103
Rationale for hypotheses 7 through 10 .....	103

Method .....	105
Stage One .....	106
Product Selection .....	106
Sample .....	110
Stimuli .....	111
Instrument .....	111
Procedure for Stage One .....	116
Results .....	116
Preparation of the Radio Commercials .....	123
Filler Ads and the Questionnaire .....	123
Stage Two .....	126
Procedure for Stage Two .....	126
Stage Three .....	129
Procedure for Stage Three .....	129
Sample .....	133
Stimuli .....	135
Instrument .....	136
Conclusion .....	136

V. RESULTS AND ANALYSIS .....138

Measurement Indices .....	138
Affective Response (AFR) .....	138
Ad Cognitions and Brand Cognitions .....	139
Attitude toward the Ad .....	140
Attitude toward the Brand .....	141
Affect toward the Music .....	142
Distraction (DISTRAC) .....	143
Multivariate Analysis of Variance (MANOVA) ...	143
Results of the First Six Hypotheses .....	145
Hypothesis 1 .....	147
Hypothesis 2 .....	148
Hypothesis 3 .....	150
Hypothesis 4 .....	152
Hypothesis 5 .....	155
Hypothesis 6 .....	158
Summary Results of the First Six Hypotheses.	159
Linear Structural Relations (LISREL) Analysis.	161
Results for the LISREL Models Employed .....	163
Results of the Hypotheses 7 through 10 .....	172
Hypothesis 7 .....	174
Hypothesis 8 .....	174
Hypothesis 9 .....	175
Hypothesis 10 .....	176
Summary Results of the Hypotheses	
7 through 10 .....	177
Conclusion .....	179

## LIST OF TABLES

4.1	List of Klezmer Music Excerpts performed by Andy Statman Orchestra.....	112
4.2	Sample Page of the Stage One Questionnaire..	113
4.3	Sample Page of Questionnaire Soliciting Salient Attributes.....	115
4.4	Factors representing Scale Items based on highest loadings.....	118
4.5	Discriminant Analysis - Loadings.....	120
4.6	Contrasts between Musical Selections (P-values).....	122
4.7	Reliability Coefficients for Measurements...	128
5.1	Significance of Fs.....	146
5.2	Music x Repetition Simple Main Effects (Cell Means).....	149
5.3	Music x Involvement Interaction Simple Main Effects (Cell Means).....	153
5.4	Involvement x Music Interaction Simple Main Effects (Cell Means).....	156
5.5	Summary Results of MANOVA.....	160
5.6	Experimental Conditions Illustrating different LISREL Models.....	164
5.7	Correlation Matrices for Models 1, 2 and 3.....	166
5.8	Correlation Matrices for Models 4, 5 and 6.....	167
5.9	Reliability of the Indicators, Variance extracted by constructs, and Fit Indices for the Models.....	171
5.10	Estimated Path Coefficients for the Six Models.....	173
5.11	Summary Results of LISREL.....	178

## LIST OF FIGURES

2.1	Zajonc's Dual Systems Model.....	23
3.1	Krugman's Dichotomy.....	58
3.2	The Three Orders Model.....	63
3.3	A Hierarchy of Learning Theories.....	65
3.4	The Four Orders Model.....	67
3.5	The Path of Least Resistance Model.....	69
3.6	Kassarjian's Personality Based Model.....	70
3.7	Michell's Conceptual Model.....	72
3.8	Alternative Models of Information Acquisition.....	73
3.9	Leavitt, Greenwald, and Obermiller Model....	75
3.10	Fishbein and Ajzen Model of Attitude Formation.....	79
3.11	Elaboration Likelihood Model of Attitude Change.....	82
3.12	Integrated Information Response Model.....	85
4.1	Experimental Design of the Study.....	90
4.2	Theoretical Model of LISREL.....	91
4.3	Manipulation of High Involvement.....	96
4.4	Manipulation of Low Involvement.....	97
4.5	Flow Chart of Activities during the Pre- test Stage One.....	107
4.6	Flow Chart of Activities during the Pre- test Stage Two.....	108
4.7	Flow Chart of Activities during the Final Stage Three of the Study.....	109
4.8	Ad Copy for the High Involvement Condition..	124

4.9	Ad Copy for the Low Involvement Condition...	125
4.10	Cover Story for High Involvement Condition..	130
4.11	Cover Story for Low Involvement Condition...	131
4.12	Format of the Radio Program.....	132
5.1	Music x Repetition Interaction - Plot of Means.....	151
5.2	Music x Involvement Interaction - Plot of Means.....	154
5.3	Involvement x Music Interaction - Plot of Means.....	157
5.4	Proposed Measurement Model of LISREL.....	168
5.5	Revised Measurement Model of LISREL.....	170



## CHAPTER I

### INTRODUCTION

#### Consumers' Affective Response and Persuasion

Marketing researchers recently have been interested in the effects of affective or emotive responses to persuasive communications (Silk and Vavra 1974; Lutz 1975; Holbrook 1981; Zajonc and Markus 1982; Isen 1984; Park and Young 1986; MacKenzie, Lutz and Belch 1986). The basic premise of the work of these scholars is that brand attitudes can be formed or changed based on affect (positive or negative feelings, emotions, etc.). Researchers have manifested their interest in affect through building affect-based models of advertising effectiveness. As a consequence, Attitude toward the Ad (Aad), a relatively recent theoretical construct, has emerged in their models which seeks to mediate the change in brand attitudes due to affect. Several empirical studies have supported the usage of the attitude toward the ad construct to determine brand attitudes and subsequent purchase intentions (for example, Mitchell and Olson 1981; Shimp 1981; MacKenzie and Lutz 1982; Moore and Hutchinson 1983).

Researchers contributing to the view that affective reactions can play a dominant role in the formation or change of some brand attitudes have utilized a number of cues (for example, humor, attractive colors) to test their notion. Recently, Gorn (1982) and Park and Young (1986) have utilized background music that may evoke affective reactions, to determine its impact on choice behavior and brand attitudes respectively.

This study looks at attitude toward the ad in the context of affective stimuli. The approach taken in this study attempts to investigate affective and attitudinal responses to advertising under high and low involvement conditions as they are affected by repeated exposures to polarized (liked versus disliked) background music embedded in the ad. The background music is used in this study as an affect variable. The work draws on the mere exposure hypothesis, repetition and the distraction hypothesis to refine the outcome of exposure to affective stimuli. Since the study deals with the effects of an affective stimulus (i.e., background music) on attitude toward the ad, several sources of variation of this affective stimulus are considered. First, background music can be initially liked or disliked. Second, the repetition of the affective stimulus is considered at varied levels. Third, the role of an affective stimulus under varying

levels of personal relevance (involvement) is considered.

This study suggests that a consumer's affective and attitudinal response to advertising will be more complex when polarized (liked versus disliked) background music is embedded into the commercial. Further, an impact on affect is expected with repeated exposure to the commercial and under varying conditions of involvement (personal relevance).

Consumer's Affective and Attitudinal Response: A  
Brief Genesis

Much of the consumer research in advertising based on Fishbein and Ajzen (1975) models of attitude has focussed on demonstrating statistically significant correlations between a direct measure of attitude (Ao) through a cognitive structure index of product attributes. Recently, Mitchell and Olson (1981) contended that product attributes are not the only mediators of brand attitudes, and that attitude toward the advertising and affect also mediated their impact on brand attitudes and subsequent purchase intentions. The relationship between the attitude toward the ad and brand attitudes is typically explained by affective conditioning (Mitchell and Olson 1981; Shimp 1981; MacKenzie and Lutz 1982; Madden 1982; Moore and Hutchinson 1983; Allen and Madden 1983a, 1983b and 1985; Park and Young 1986). This relatively new orientation

from the work by Zajonc (1968) and Zajonc and Markus (1982) sparked the interest of many authors to examine the low involvement phenomenon, and has modified the earlier orientations of the hierarchy of learning effects and a purely cognitive structure. Zajonc's approach is unique in that it denies, under certain circumstances (e.g., low involvement), the efficacy of the prevailing cognitive processing view. The direction suggested in this study is that although Zajonc suggests a new and important level of response for some situations, additional situations and factors, e.g. repetition and polarity of initial affect, must be factored into the evaluation for a more complete understanding of consumer response.

Within the marketing literature, work of Zajonc has sparked an interest in the area of attitude toward the ad (Aad) as a concept that has been linked to affective responses to advertising. Zajonc and Markus (1982) discussed the role of affective and cognitive factors in preferences. The major theme of their work is that cognition and affect are not devoid of each other. They state that affect may include thoughtfulness, consciousness and rationality, and that cognition may also include affective reasoning, emotions, and situational factors. Thus, the dividing line between affect and cognition is not clear cut. However, affect plays an important role in the formation

of attitudes, according to them. For example, Kroeber-Riel (1984) has shown that emotions generate arousal, that is, affective feelings, that are transferred to the evaluation of a product or brand.

According to Petty and Cacioppo (1981), peripheral cues which include affective stimuli or background features such as humor, music, and attractive colors, may have either a facilitating or inhibiting role in persuasion. A facilitating effect may occur if the music is liked. Conversely, an inhibiting effect may result from disliked music. The assumption here is that the facilitating effect of liked music will generate favorable thoughts or attitudes toward the ad and thus, the brand attitudes will be more favorable. Additionally, disliked music may inhibit consumers from engaging in extensive information processing, and A<sub>ad</sub> and A<sub>b</sub> will be less favorable because the evaluations will be based on initial precognitive reactions to the ad and brand.

Therefore, one would expect, at a minimum, that A<sub>ad</sub> would have a positive facilitating effect if a positive affective response is generated (Shimp 1981). In addition, there seems to be a growing consensus based on empirical evidence that positive A<sub>ad</sub> is related to positive A<sub>b</sub> and an increased likelihood of brand purchase (for example, Shimp 1981; Mitchell and Olson 1981; Lutz, MacKenzie and Belch 1983; Lutz 1985;

MacKenzie, Lutz and Belch 1986). This represents an evaluative consistency rationale (Fishbein and Ajzen 1975). Bartos (1981) implies that the initial consumer reaction to a brand's advertisement affects the consumers' reaction to the brand itself. This notion has also been supported by Gelb and Pickett (1983).

Research on attitude toward the Ad presents a dual systems approach (for example, Zajonc and Markus 1982) which denies the prepotency of cognitive responses. Rather than continuing to emphasize the role of cognition in the formation of attitudes, it presents a separate systems orientation, viewing affective (lower order) and cognitive (higher order) systems as distinct from one another and equally capable of instigating consumer behavior. Under the recent treatment of Aad, affect based behavior need not be prompted by any cognition whatsoever; beliefs and attitudes are not viewed as necessary pre-requisites to behavior. In order to fully understand what goes on in the mind of consumer, a dual mediation hypothesis has been proposed and supported by Lutz and his colleagues (c.f. Lutz 1985).

#### Proposed Investigation

The questions that arise now are if the different type of information processing in the consumer's mind

can trigger negative or positive affect and whether repetition strengthens or weakens that affect in attitude formation. This calls for an approach that can simultaneously study several different types of effects of affective stimuli on consumer's affective and attitudinal responses. Therefore, this study proposes to investigate affective and attitudinal responses to an affective stimulus (i.e., advertising) under high and low involvement conditions as they are affected by varied exposures to polarized (liked and disliked) background music embedded in the advertising.

Secondarily, this study attempts to explore if the negatively polarized background music works as a distraction under those conditions. To address these questions, this study utilizes Grush's (1976) semantic generation explanation. This explanation provides an interesting view that initial valence may produce simultaneous polarization of affective and attitudinal responses with repeated exposures. Further research using musical selections, however, is needed to provide any evidence in support of the semantic generation explanation of the mere exposure hypothesis.

To fully understand the consumer response, it may be necessary to understand the conditions under which individuals follow different processing strategies. According to Petty and Cacioppo (1981), peripheral cues may have a significantly favorable impact on consumers'

response in the low personal relevance (involvement) condition. Conversely, under the high personal relevance (involvement) condition, these peripheral cues may serve as distraction in the formation of favorable brand attitudes. That is, even the liked music may have a negative impact on consumers' affective and attitudinal responses.

### Method

This study employs a 3 x 2 x 2 design in which the effects of the polarity of background music (liked versus disliked versus no music), repetition (one versus three times), and involvement (high versus low) on subjects' affective and attitudinal responses to the test commercial were assessed. The test commercial was embedded in a radio program at its regular commercial breaks and at the beginning and end of the radio program. The main experiments were conducted in a language lab where subjects sat in separate cubicles with their individual headsets. Affective and attitudinal responses to the test commercial were obtained on a questionnaire following the exposure to the radio program.

The methodology proposed in this study allowed an examination of the interaction effects of repetition and polarity of background music on



- (1) consumers' affective responses to liked and disliked musical commercial with 1 and 3 repetitions under conditions of high versus low involvement,
- (2) consumers' attitudinal responses to liked and disliked musical commercial with 1 and 3 repetitions under the same conditions as in (1), and
- (3) the proposed advertising effects model under the same conditions as in (1) and (2) above.

### Contributions to Marketing

#### Conceptual

This study makes several important contributions to the marketing discipline on a conceptual level.

First, it extends the work of Park and Young (1986) and MacKenzie, Lutz and Belch (1986) by using polarized music. Second, this study attempts to determine the affective and attitudinal impact of both positive and negative affect generated by polarized background music, which has not been determined as yet by anybody in the marketing field. Third, it attempts to determine the impact of the mere exposure in an advertising setting, using several levels of repetitions.

Overall, by using the dual systems approach relating affect to cognition and consequently brand attitudes, this study takes a more holistic approach to

consumer response. An appealing aspect of affective response as a construct is the primitive nature of the response while the traditional attitudinal models require at least some degree of cognitive processing which is not the case with affective response.

Consequently, this approach is more cogent to a low involvement condition where the assumption of high ability and high motivation to process the advertising communications is not required.

#### Pragmatic

From a pragmatic perspective, several contributions can be anticipated from the proposed study. First, it will provide a better understanding of the impact of commercial repetition on the affective and attitudinal response to advertising. Marketers in the actual setting spend billions of dollars in using repeated exposures to cut through the clutter in the media. This study will help marketers understand the potential use of repeated exposures so they can make better use of their limited funds.

Secondly, this study will provide marketers a better understanding of consumers' perceptual predispositions which enhance the likelihood of attitude change via the central or peripheral route to persuasion (Petty and Cacioppo 1981).

Thirdly, the study will help marketers make better use of background music for inclusion in their commercials. Liked music, for example, could be used as a facilitating factor while disliked music could serve as a distraction to persuade consumers to their discrepant position. Disliked music may be especially useful for products that are new and radical to the current social norms.

Finally, relating affective responses to the number of repetitions and polarity of background music may allow some quantification for the creative impact of an ad. This may be particularly helpful to marketers who either are attempting to develop or test new ads or are interested in determining the relative contribution of several elements of their ad. This aspect traditionally has been measured intuitively by the marketers.

#### Organization of the Proposal

The organization of the proposal remains traditional. This chapter presented the introduction to the topic, a brief genesis of the consumers' affective and attitudinal response, the purpose of the study and its contributions to the marketing. Chapter II will review and summarize the literature on Attitude toward the Ad, Mere Exposure hypothesis and repetition, Music and Distraction hypothesis. Chapter III will review and

summarize the literature on consumer involvement (personal relevance). Chapter IV then will be based on the ideas developed in chapters I, II and III, and will present the conceptual framework of the study, the methodology to be employed, and the hypotheses to be tested in this study. Chapter V will be concerned with analysis and results. Finally, Chapter VI will provide a discussion of the results, a summary of the investigation and discuss the usefulness, limitations, managerial action, future research recommendations. It will also provide conclusions resulting from this study.

## CHAPTER II

### THE ROLE OF ATTITUDE TOWARD THE AD, MERE EXPOSURE, BACKGROUND MUSIC AND DISTRACTION ON CONSUMER RESPONSE TO ADVERTISING

#### Introduction

This chapter is designed to accomplish one major objective - to review and summarize the major theoretical developments in the marketing literature in the areas of Attitude toward the Ad, Mere Exposure, Music and Affect, and Distraction. These areas are divided into four different sections and follow the order of presentation outlined above. A synthesized and conclusive summary is then presented which offers unique strengths cogent to the proposed study.

#### Attitude Toward the Ad

Much of the consumer research in advertising based on Fishbein and Ajzen (1975) models of attitude has focussed on demonstrating statistically significant correlations between a direct measure of attitude (Ao) through the cognitive structure index of product or brand attributes. This index of attitude typically has

employed multiattribute models of attitude (for example, Mitchell and Olson 1981).

Recently, however, another emerging approach to the advertising response problem has been the use of a new theoretical construct -- Attitude toward the Ad (Aad). Aad has been considered as a mediator of affect between stimulus exposure and brand attitude (Ab). This operationalization variously has been supported by many empirical studies (for example, Mitchell and Olson 1981; Shimp 1981; MacKenzie and Lutz 1982; Moore and Hutchinson 1983; and MacKenzie, Lutz and Belch 1986) and differs from the more traditional explication of the learning hierarchy model (McGuire 1968) and many other advertising effect models in the marketing literature based on memory theories where recall measures have been employed.

The emphasis on Aad comes from a recognition that ads provide not only informational inputs to a cognitive decision process but also affective inputs. For example, Mitchell and Olson (1981) contend that product attributes are not the only mediators of brand attitude, and that Aad and affect also mediated their impact on brand attitudes and subsequent purchase intentions. This is also implicit in Petty and Cacioppo's (1981a) peripheral route to persuasion in the Elaboration Likelihood Model. In terms of the traditional model of Fishbein and Ajzen (1975), we could view this emphasis

as a distinction between an attitude toward the brand presented in an advertisement versus an attitude toward an ad presenting a brand.

The relationship between the Aad and Ab is typically explained by affective conditioning (Mitchell and Olson 1981; Allen and Madden 1985; Park and Young 1986). For example, Moore and Hutchinson (1983) tested several different hypothetical relationships between affect and brand consideration. They found that affective reactions to an ad are associated directly with the brand through a conditioning process, that is, Ab increases linearly with Aad. They also found that if distraction was the mediator of Aad effects, then ads eliciting strong affective reactions, regardless of valence, impair brand memory and attitude change. That is, Ab is an inverted U function of Aad under the condition where music may be used as a distraction. Their third hypothesis is concerned with distinctiveness. It assumes that consumers are able to separate their reactions to ads and brands in their own minds. Moore and Hutchinson thus conclude that if strong affective reactions to ad increase memory for the advertised brand, then attitudes may be more favorable for brands associated with ads eliciting little or no affective reaction. Thus, it results in a U or J shaped relationship between Aad and Ab.

The relationship between Aad and Ab can also be explained by a simple affect transfer from Aad to Ab (Allen and Madden 1985). While the role of affective conditioning has been of much dispute in the formation of attitudes (Allen and Madden 1985), it is argued here that several different explanations could account for the impact of affect on brand attitudes. For example, the following explanations are plausible.

Petty and Cacioppo (1981a) state that an individual either follows a central or a peripheral route of information processing to persuasion. A central route is usually, but not necessarily, taken when the ability and motivation of an individual to process the information is high (i.e., high involvement or personal relevance) and the emphasis remains on processing of brand related salient information. A peripheral route is usually and necessarily taken when the ability and motivation to process the information is low (i.e., low involvement or personal relevance). Therefore, in a low involvement condition an individual is influenced by the ad or brand affect and goes through a rather limited or no information processing relating to the brand attributes. Thus, brand attitude in this condition may be formed based on peripheral information, for example, affect of the music, ad or brand. Assuming that ability is not a limiting factor in most advertising communications for frequently purchased consumer products, it would appear



that motivation to process the ad will determine whether the central or peripheral processing strategies are used in a given situation.

According to Petty and Cacioppo (1981), background features like humor, music, attractive colors, may have either a facilitating or inhibiting role in persuasion. A facilitating effect may occur if the music is liked. Conversely, an inhibiting effect may result from disliked music. The assumption here is that the facilitating effect of liked music will generate favorable thoughts or attitudes toward the ad and, thus, the brand attitudes will be more favorable.

Additionally, disliked music may inhibit consumers from engaging in extensive information processing and Aad and Ab will be less favorable because the evaluations will be based on initial precognitive reactions to the ad and brand.

Therefore, one would expect, at a minimum, that Aad would be positive if a positive affective response is generated (Shimp 1981). There seems to be a growing consensus based on empirical evidence that positive Aad is related to positive Ab and an increased likelihood of brand purchase (for example, Shimp 1981; Mitchell and Olson 1981; Lutz, MacKenzie and Belch 1983; Lutz 1985; MacKenzie, Lutz and Belch 1986). This represents an evaluative consistency rationale (Fishbein and Ajzen 1975). Bartos (1981) implies that the initial consumer

reaction to a brand's advertisement affects the consumers' reaction to the brand itself. This notion has been supported by Gelb and Pickett (1983).

These studies, for the most part, have measured Aad by the traditional technique of consumer response to evaluative scales concerning the attitude object (a summary of these studies is provided in Appendix A). This method is commonly referred to as expectancy value formulation (EV), which was originally proposed by Fishbein (1967) and later popularized by Fishbein and Ajzen (1975). Consequently, these responses are different in degree but not in kind from the measures of Ab. Although some authors contend that the processes leading to Aad differ substantially from the processes leading to Ab (Rossiter and Percy 1978, 1980), the measures certainly are not indicative of this difference, much less the distinction between high and low order processes.

Therefore, the results of Mitchell and Olson (1981) can be classified as based on inferential beliefs based on Fishbein and Ajzen (1975). Recently, however, several authors have employed different measures for Aad and Ab (for example, Madden 1982; Allen and Madden 1983b, Lutz 1985; Lutz, MacKenzie and Belch 1983; and MacKenzie, Lutz and Belch 1986). The argument here is that if we are to support the notion that Aad and Ab are derived from conceptually different processes, then we

must make that distinction in our measurements of Aad and Ab. Abelson, et al. (1982) make a similar point when differentiating between the wording of affect questions and wording of trait questions.

Based on the concern raised by Zajonc (1980) that affective and cognitive processes may not be independent of each other, Lutz (1985) proposed a dual-mediation hypothesis which specifies two roles for the Aad construct: a direct effect on Ab and an indirect effect on Ab through cognitions toward the brand (Cb). The dual mediation hypothesis grows out of the work on joint cognitive structure/cognitive response models of advertising effects (Lutz and Swasy 1977). Under that specification, perceptions of the source of the message are seen as leading to an attitude toward the source which in turn governs the cognitive and affective reaction to the contents of the ad. Under the dual mediation hypothesis, therefore, the source of the message is substituted by the advertising stimulus. Thus, consumers' affective reactions to an ad influence their propensity to accept the claims made for the brand in the ad; that is, the more favorable they feel toward the ad, the more receptive they are to its content. This relationship can be viewed as a general class of persuasion "cues" under Fishbein and Ajzen's framework of analysis. The direct role between Aad and Ab uses the affect transfer hypothesis, which has been supported

by many studies (Park and Young 1986). The indirect relationship has been supported recently by MacKenzie, Lutz and Belch (1986), who found that the dual mediation hypothesis was superior to simple affect transfer hypothesis. The point they supported is that the affect and cognition are not, as suggested by Zajonc (1980), independent of each other. The link between attitude toward the brand and purchase intentions has been supported by many scholars (for example, Mitchell and Olson 1981; Park and Young 1986; MacKenzie, Lutz and Belch 1986; among others).

#### Summary

Research on Attitude toward the Ad presents a dual systems approach (for example, Zajonc and Markus 1982) which denies the prepotency of cognitive responses. Rather than continuing to emphasize the role of cognition in the formation of attitudes, it presents a separate systems orientation, viewing affective (lower order) and cognitive (higher order) systems as distinct from one another and equally capable of instigating consumer behavior. Under the recent treatment of Aad, affect based behavior need not be prompted by any cognition whatsoever; beliefs and attitudes are not viewed as necessary prerequisites to behavior. In order to fully understand what goes on in the mind of a

consumer, a dual mediation hypothesis has been proposed and supported by Lutz and his colleagues.

The question that arises now is whether the negative or positive affect trigger different type of information processing in the consumer's mind and whether repetition strengthens or weakens that information processing or attitude formation. To understand this issue, research on the mere exposure hypothesis and repetition effects is reviewed in the following section.

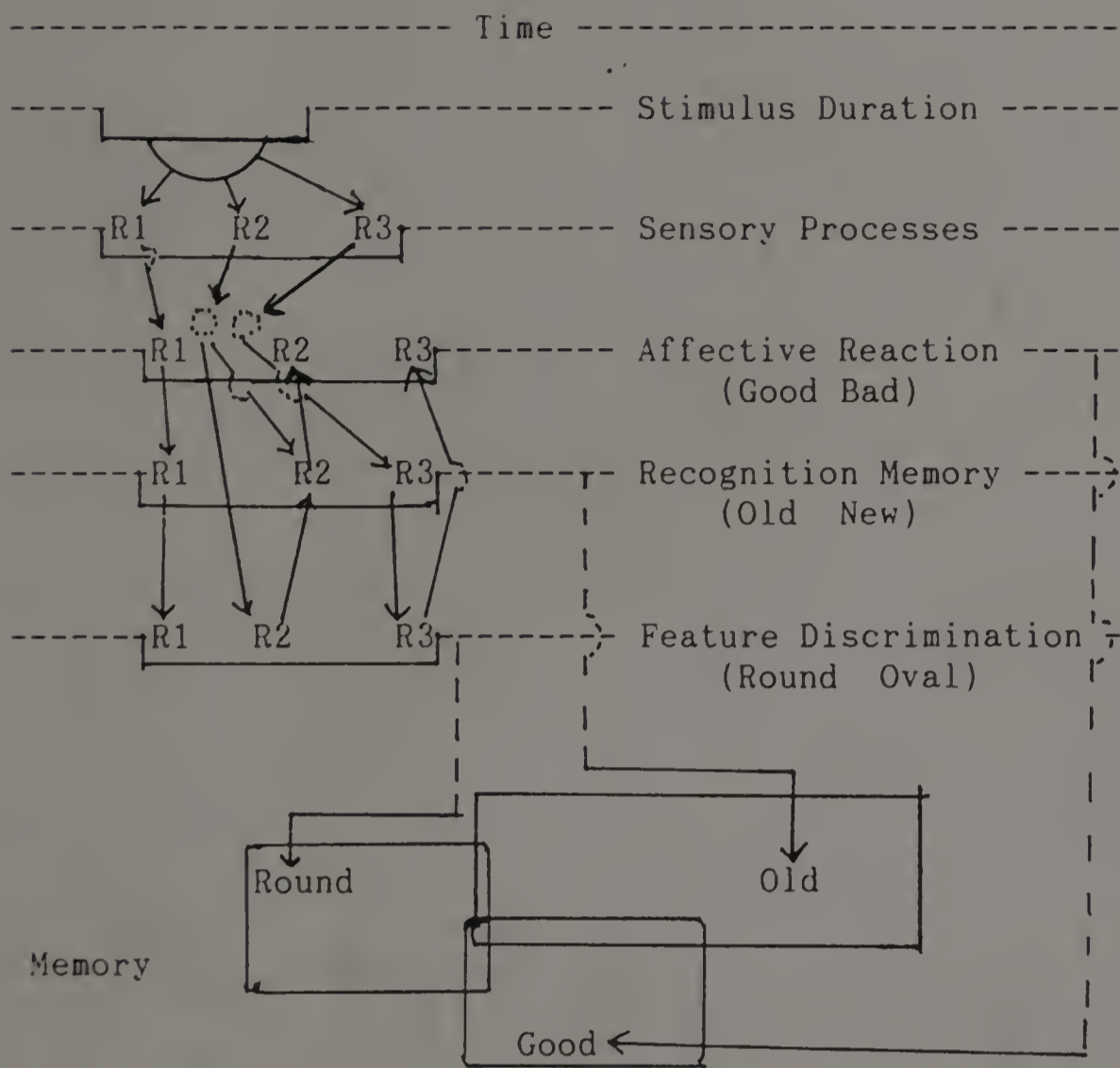
### The Role of Mere Exposure Hypothesis and Repetition

#### Introduction

Zajonc (1968) marshaled an impressive array of evidence to support the hypothesis of mere exposure. According to this hypothesis, the repeated exposure of an individual to a stimulus is a sufficient condition for the enhancement of his/her attitude toward the stimulus. Zajonc's (1968, 1980) initial interest centered on preferences and the "mere exposure" hypothesis of consumer learning. He argued that preferences are affective, primary and preconscious responses to a novel stimulus which can be made more positive through repeated exposure to the stimulus. He distinguishes affect from its typical usage in the marketing literature as a synonym for attitude.

Zajonc (1968) suggests that the function describing the relationship between repeated exposure and liking takes the form of a positive, decelerating curve, with attitude enhancement a function of the logarithm of the exposure frequency. "Mere" exposure refers to conditions that make the stimuli accessible to the organism's perception. This type of reaction is termed a preference, and requires no cognitive processing, according to Zajonc. This contrasts with differentiation, the more elaborated and cognitively based evaluation of stimuli that results in the formation of an attitude. Figure 2.1 depicts this relationship through a simple model in which Zajonc presents the relationship between stimulus and sensory processes, the affective response, and some cognitive responses over time.

More recently, Zajonc and Markus (1982) argues that these preferences are instrumental inputs to subsequent cognitive responses, "...there are many circumstances in which affective reaction precedes the very cognitive appraisal on which the affective reaction is presumed to be based." They further propose, "since attitudes contain such a substantial affective component, they are likely to have multiple representations... and somatic representations are probably among the more significant ones." Basically, this approach can be considered as an



Source: Moore (1985).

Figure 2.1. Zajonc's Dual Systems Model.

attempt to blend the affective and cognitive perspectives.

Since the proposal of the mere exposure hypothesis, Zajonc (1968, 1970) reported on a number of experiments in which a variety of novel stimuli are evaluated by subjects on "good-bad" scales. In general, Zajonc assembled evidence to support his hypothesis by reporting strong positive correlations between good ratings and familiarity, that is, that more frequently exposed stimuli are generally rated as "better" than the less frequently exposed stimuli. Since 1968, this frequency-positive affect relationship has been replicated in different settings, with different novel stimuli, and different subject populations. Many of these studies have yielded confirming exposure effects, and very few studies doubt that exposure sometimes leads to liking (Harrison 1977). What is disputed in these few studies is the generality of the principle arguing that liking does not increase indefinitely with each successive exposure, and that each successive exposure leads to successively smaller increments in liking. Most commonly proposed relationship is an inverted U relationship between exposure and liking (Harrison 1977).

While several comprehensive reviews of mere exposure literature are available (Harrison 1977; Stang 1974, 1976; Zajonc 1980, 1984), the purpose of the



present review is three-fold: first, to review major theoretical developments and explanations in the literature; second, to review studies that relate to the familiarity of music and other aesthetic stimuli; and finally, to review empirical studies that deal with repetition specifically and are closely related to the proposed study. Therefore, our review of the literature will attempt to accomplish these objectives hierarchically.

### Theoretical Perspectives and Explanations

Many theoretical explanations have been advanced to account for the mere exposure effect (Harrison 1977). Among the major theoretical perspectives are the experimental artifact, response competition, expectancy arousal, two-factor, and satiation/generation. We will now discuss these perspectives and review the studies that have applied or used these explanations.

#### Mere Exposure Effect - An Experimental Artifact

Several authors have invoked demand characteristics, subject expectancies and other artifacts of experimentation to explain the exposure effect (Harrison 1977). Harrison (1977) reviewed much of the literature and termed these effects as

experimental artifacts. According to Harrison, several examples of experimental artifacts are available .

Burgess and Sales (1971) consider the mere exposure effect to be a form of incidental learning during which favorable attitude toward science and experimentation are transferred to the exposure stimuli. They had their subjects engage in a learning task in which nonsense words of varying frequency were paired with meaningful words of differing affective values. They found that repeated exposure led to increasingly favorable ratings for stimuli paired with positively toned associates, but to decreasingly favorably ratings of words paired with negatively toned associates. Therefore, when stimuli are presented in such a way that the perceiver is encouraged to make attributions, evaluations are influenced. However, if the presentation of positive toned vs. negative toned associates is included as a part of the experimental design, such effects offer meaningful information.

Similarly, Perlman and Oskamp (1971) have shown exposure effects when stimulus persons are presented in desirable or neutral roles. They did not include stimulus persons in undesirable roles. Kanouse and Hanson (1972) reviewed the earlier studies and conclude that exposure effects under positive conditions (positively presented) are more pronounced than under

negative conditions, although negative information is usually assigned great weight.

Stang (1974b) suggests that subjects guess the mere exposure hypothesis and then perform according to it. Stang reports replication of two experiments of role playing reported by Zajonc (1968,1980) in which he conducted post-experimental inquiries. He found that subjects guessed the hypothesis, and thus, the exposure effects are an experimental artifact. Stang, however, suggests that the pre-experimental information given to the subjects (cover stories) is critical to the successful investigation of the mere exposure hypothesis. Harrison's (1977) review similarly suggests that mere exposure effects are gained when subjects are led to form conflicting hypothesis.

#### Response Competition

Harrison (1968) has proposed a response competition interpretation to explain Zajonc's (1968) findings. According to this explanation, the strength of the conflict depends upon: (1) the number of competing responses; (2) the absolute and relative strength of these responses; and (3) their compatibility (Harrison 1977). This explanation assumes that a novel stimulus initially arouses negative affect because many response tendencies toward the stimulus compete to identify the stimulus as a particular object or entity. Repeated

exposures lead to a few tendencies to become dominant, while others are weakened or crowded out. Thus, a dominant response emerges and increases positive affect toward the stimulus. This dominant response decreases response competition and its negative affect by repeated exposure; hence, the positive evaluation.

According to Harrison (1977), three measures of response competition have been employed in the literature. These are (1) response latencies in a free-association task, on the assumption that the greater competition among a number of responses, the longer it will take for one of them to become dominant; (2) recall errors in a free-association task, on the assumption that the greater the number of responses attached to a stimulus, the less likely any one will be repeated, i.e., the absolute number of alternative responses will be lower; and (3) response communality in a free-association task, on the assumption that the more responses associated with a stimulus, the less likely one subject's initial associate will be matched by the initial associate of another subject, i.e., the greater the number of responses the lower the liking score on the stimulus.

Support for the response competition explanation has been found in several studies using (Harrison 1968, 1968b; Matlin 1970, 1971; Harrison, Tutone and McFadgen 1971). Some studies (Brickman, Redfield, Harrison and

Crandall 1972; Perlman and Oskamp 1971) show that exposure can lead to more negative as well as more positive evaluations using the response competition explanation. Other studies show that exposure effects may be mediated by "affect transference" rather than response competition. For example, Burgess and Sales (1971) have shown that subjects with positive attitudes toward the experimental setting produce positive affect ratings, while subjects with negative attitudes toward experimental setting produce negative affect ratings.

Harrison (1977) notes several difficulties with the response competition explanation. Among the major ones are individual variations in drive or arousal and meaningfulness of the stimuli. It appears quite likely that if the subjects are divided based on their personal relevance (involvement) to the message, then these problems can be removed. As we will see in Chapter III, Petty and Cacioppo's (1981) approach to low and high involvement is particularly cogent to these type of variations.

To resolve the inconsistencies in findings of several studies, Grush (1976) has offered a polarized affect explanation. He presented his subjects with some positive and some negative words (determined a priori) and found that with repeated exposures, positive words were increasingly liked (produced more positive ratings) while negative words were increasingly disliked

(produced more negative ratings). Therefore, he concludes that repeated exposures produce a simultaneous polarization of positive and negative evaluations or attitudes.

Grush's (1976) approach is particularly impressive because he recognizes the initial valences of people toward a stimulus and then attempts to measure the repeated exposure effects. This approach is quite pragmatic in nature since in most advertising background music initially can be either liked or disliked, which may have its evaluative impact polarized on subsequent exposures.

#### Expectancy Arousal

Crandall (1967, 1968, 1970a, 1970b) has proposed the expectancy arousal explanation for the mere exposure effects. According to this explanation, expectancies mediate between familiarity and liking so that people like those stimuli that are anticipated and predictable. Crandall, Montgomery and Roes (1973) suggest that fragmentary cues encountered while inspecting a stimulus give rise to expectancies which are confirmed or denied as stimulus inspection continues. As familiarity with repeated exposures increases, increasingly stronger expectancies are aroused. Stronger expectancies are better liked than the weaker ones. Thus, an inverted U

curve describes the relationship between familiarity with repeated exposures and liking.

Crandall (1967, 1968, 1970a, 1970b) reports several experiments in which a distinction between expectancy arousal (cues encountered early in the sequence) and expectancy confirmation (cues encountered later in in the sequence confirming or denying the earlier ones) was made. For example, in one experiment, subjects rated two-syllable paralogos on a number of scales. Following the exposure, ratings were obtained for the first syllable, the second syllable and the two syllable word. It was found that the ratings of the first syllable correlated more highly with the ratings of the two-syllable word than the second syllable. He suggests that the expectancy arousal rather than expectancy confirmation mediated between exposure and liking.

Research using expectancy arousal explanation has not yet gained momentum. Therefore, the findings resulting from this explanation can be considered only exploratory. More research in this area is needed to provide any conclusive evidence of the expectancy arousal explanation.

### Two-factor Theories

Berlyne (1970) has proposed a two-factor theory explaining the relationship between familiarity due to repeated exposures and liking. The theory proposes an

inverted U relationship by invoking two separate factors. These two factors are positive habituation ( a reduction of uncertainty or conflict ) and tedium (boredom). According to Berlyne (1970), positive habituation predominates early in the exposures and repeated exposures lead to increased liking. However, later exposures generate tedium or boredom which decreases liking. Therefore, habituation and tedium have opposing effects and vary in their relative strength so that the effects of habituation and then tedium predominate. Harrison (1977) suggests that variables such as complexity and presentation sequence may also affect the relative strength of the two factors; predominance of habituation and then tedium thus occur after relatively few exposures when the stimuli are simple and presented in homogeneous sequences.

Stang (1973, 1974a, 1974b, 1975a, 1975b, 1976a, 1976b) has used Berlyne's two factor explanation for developing his own analysis. Stang describes his two factors as learning and satiation. He argues that with repeated exposures to the stimulus, an individual learns about the stimulus, and thus, the favorability in ratings increase. However, once learning has occurred, further repetition leads to satiation, which causes a decline in the affective or evaluative ratings. Stang describes learning in terms of attachment of new



associative responses in the course of exposures. He argues that stimuli gain in meaningfulness during the course of repeated exposures. Stang's two-factor explanation also predicts an inverted U relationship between the exposure and liking. Stang's explanation, as we will see in the next section, is similar to the explanation of semantic generation/satiation explanation.

#### Semantic Satiation and Semantic Generation

Semantic satiation explanation was proposed by Jakobovits (1968). He suggests that repetition leads to a decrease in meaningfulness of the stimuli with the consequence that initially negatively toned stimuli become less positive. A semantic generation explanation was proposed by Grush (1976). This explanation suggests that repetition leads to increased rather than decreased polarization of subjects' ratings of the stimuli.

Note that semantic satiation and semantic generation explanations are two opposing views. Therefore, much of the empirical evidence which supports one of these explanations disconfirms the other. Both explanations maintain that repeated exposure effects depend on the initial stimulus valence. Both explanations predict that the generalized changes in meaningfulness should appear on evaluative as well as

non-evaluative scales. We will first review the literature on semantic generation explanation.

Stang (1976a) and Grush (1976), in their experiments, find that initially liked and disliked stimuli (words) increased in polarization of both evaluative and non-evaluative ratings with repeated exposures to subjects. Lieberman and Walters (1968) report an experiment in which liked and disliked music were used. They found that with repeated exposures, liked music received increasingly liked ratings and disliked music received increasingly disliked ratings on the evaluative scales.

Zajonc, et al. (1974) reports some experiments in which subjects were shown portraits of Chinese. These portraits were pretested and divided into liked and disliked portraits. On repeated exposures to the stimuli, they received mixed results. They found that evaluative ratings of liking and goodness became increasingly polarized upon repeated exposures, but ratings of honesty and complexity remained unaffected.

Johnson (1973) also reports that the evaluative ratings of good-bad in his experiments became increasingly polarized with repeated exposures in both pleasant and unpleasant contexts, but that ratings of activity and potency factors were not affected.

Finally, Grush (1976) showed his student subjects six positive and six negative words obtained from and

pre-classified in the Thorndike-Lorge (1944) study. He found that initially positive words received increasingly positive evaluative ratings, and that initially negative words received increasingly negative evaluative ratings by the subjects on several repetitions. Thus, he argues for a simultaneous polarization effect.

Research on semantic satiation has not been supported by any empirical study. In addition, research on response competition has yielded the opposite results; that is, increased exposure leads to decreased response latencies and to increased communalities and ratings. In view of this, semantic satiation explanation cannot be considered a viable alternative to semantic generation due to the lack of empirical evidence supporting its arguments.

Semantic generation explanation proposed by Grush (1976), however, offers tremendous evidence, especially for the production of evaluative ratings as well as attitudes. This explanation is especially relevant to advertising/marketing researchers because advertising is repeated several times and polarized attitudinal effects with repetition can be of prime importance to marketers in developing and testing their ad copies.

Musical selections have variably been used to determine the exposure effects. However, a vast majority of studies have used semantic words, paralogos,

etc. Since the present study is aimed at investigating the effects of repetition and polarity of background music, the following section reviews studies in which musical selections were used as stimuli.

#### Exposure Effects: Musical Selections

According to Harrison (1977), early studies of exposure and liking effects were predominantly carried out in attempts to understand and often to improve people's musical tastes. Meyer (1903) played a novel composition "12 to 15" times and found that, with increasing levels of exposure, subjects increasingly liked rather than disliked the music by four to one. Gilliland and Moore (1924) similarly found changed scores in the direction of increased liking for three of the four selections played five times a session for five sessions. Downey and Knapp (1927) presented musical selections at five weekly sessions and found continuous increase in the evaluative ratings of subjects. Similarly, Washburn, Child and Abel (1927), Krugman (1943) and Mull (1957) have reported strong repetition effects in the predicted directions of the mere exposure hypothesis for various types of musical selections. Several studies during the 1960s and 1970s (for example, Lieberman and Walters 1968; Bradley 1971) also reported consistently significant results in favor of the mere exposure hypothesis.

Recently, Heingartner and Hall (1974) played initially liked and disliked Pakistani music to children and adults and found polarized evaluative ratings with repetitions. This study provides additional support for Grush's (1976) semantic generation explanation of mere exposure effects.

Since 1974 no study has used musical selections to determine the exposure effects. Even earlier, Heingartner and Hall (1974) had placed strict controls on initial familiarity by using musical selections categorized as highly obscure by Harrison (1977). Harrison has doubts about the results of Heingartner and Hall's study in view of the demand artifacts that were possibly present in the study. Therefore, further research examining the exposure effects of liked and disliked music is clearly needed to confirm or disconfirm the findings.

Note that much of the literature research reviewed thus far was not conducted in an advertising setting. Only recently, marketers have attempted to use the repeated exposure phenomenon to determine the effectiveness of advertising. Therefore, the following section reports recent studies that attempted to determine repetition effects on affective and attitudinal responses in the advertising/marketing setting.

### Repetition and Attitude Change

Research on message repetition and attitude change has been limited in the marketing discipline. Only a few studies have been conducted that have direct implications for advertisers.

Wilson and Miller (1968) presented his subjects some message arguments either once or thrice, and found no difference in immediate attitudes toward the messages; but increased differences in attitudes were reported when they were measures sometime later.

Weiss (1971) reported that in his experiments subjects who heard an argument three times agreed more quickly with its conclusions than did subjects who heard the argument only once. Johnson and Watkins (1971) used one to five repetitions and found similar results. McCullough and Ostrom (1974) used the same basic argument with variations in phrasing and ordering of points and found that message repetition leads to an immediate shift of attitudes in the predicted direction.

Recently, Obermiller (1985) attempted to determine the impact of repetition on affective responses of consumers. He played his subjects sixteen melodies at 1,2,3 and 6 exposure levels. He found that focussed attention to the stimuli may be required for the exposure effects and suggests that more elaborative processing of the stimuli may invoke evaluative processes.

More recently, Rethans, Swasy and Marks (1986) presented their subjects two novel television commercials of 30 and 90 seconds for 1,3 and 5 times. They reported that repeated exposures increase viewers' familiarity with both the product and the commercial. Recall of ad contents also increased with frequency of exposures (Rethans, Swasy and Marks 1986). Their results however did not support the two-factor theory of Berlyne. Attitudinal effects for commercial repetition were reported for only 30-second commercial but not for 90-second commercial. In their findings, the ad length by repetition interaction was found to be significant.

#### Summary and Conclusions

Mere exposure literature presents a variety of theoretical explanations. Among the ones which were empirically researched by many authors, the response competition and semantic generation explanations provide the most consistent findings. Difficulties in operationalization and measurement were found to be present.

Grush's (1976) semantic generation explanation provides an interesting view that initial valence may produce simultaneous polarization of affective and attitudinal effects with repeated exposures. Further research using musical selections, however, is clearly

needed to provide any evidence in support of the hypothesis.

The literature lacks research in the area of advertising/marketing. Rethans, Swasy and Marks (1986) have taken the first step in applying mere exposure hypothesis to the advertising phenomenon directly using melodies. However, problems in the findings remain. For example, individual differences drive or arousal and meaningfulness of the stimuli can seriously devalue the findings of the studies. It has been argued here that inclusion of an involvement factor can significantly enhance the value and understanding of consumer response to repetitive advertising exposures with polarized background music. It is suggested that Petty and Cacioppo's (1981) approach to issue involvement can be conducive to eliminating such weaknesses in findings of mere exposure effects. Clearly, further research is needed to determine the effects of commercial repetition with its several variations in elements; for example, background music, under varying conditions of consumer's involvement to understand more fully the consumer response. Polarized background music embedded in the commercial provides an interesting area for further research since background music is frequently used in the commercial and may have a significant impact in the development and testing of the commercials.



## Effects of Background Music on Affect and Attitudes

In this section, we will review and summarize the studies that have been conducted using background music or other aesthetic variables in advertising.

Wintle (1978) was the first to formally explore the emotive or affective impact of music in television commercials. She conducted three experiments. The first experiment was a factor analytic study of emotional expression in music. Several excerpts of instrumental music were given to university student subjects who were asked to describe music on fifteen semantic differential scales. Similar to the results found in many multivariate studies of affective responses to music, Wintle found that music expressions can be explained by three dimensions: pleasantness, potency and activity (physical activity during exposure). The dimensional structure of emotional expression in television commercials was examined in the second experiment. Subjects were asked to rate eighteen thirty-second television commercials on the same fifteen bipolar adjective scales. Factor analysis detected three dimensions of commercial expression which were seemingly identical to the dimensions for music expression. Thus, stimuli and rating scales were selected from the first and second experiments for the third experiment. Three television commercials were

chosen from the second experiment which positively represented each of the three dimensions common to musical and commercial stimuli. Each of the commercials was then synchronized to three musical excerpts from the first experiment: a supporting musical excerpt, a counteracting excerpt and an irrelevant excerpt. A supporting musical excerpt or a counteracting music excerpt referred to a positive or negative characterization of the dimension positively represented by a commercial; and an irrelevant excerpt was a positive characterization of any common dimension other than the most positively represented in the commercial. The results (using t-tests and analysis of variance) indicated that the supporting background music routinely intensified the dimension positively characterized by a commercial; counteracting background music diminished in intensity the dimension positively characterized by a commercial; and the effects of irrelevant background music were varied, with music sometimes intensifying and sometimes diminishing in intensity ratings on scales portraying the dimensions positively illustrated by a commercial. Overall, Wintle's experiments support the practitioner's proposition that music can significantly influence the viewer's emotive assessment of a television commercial message. However, she made no attempt to explore if those emotive assessments of commercial messages favorably enhance attitude toward

the ad and brand attitude scores. Secondly, she did not attempt to investigate if the emotive assessments of commercial messages can actually be used for determining Aad and Ab.

Using the classical conditioning approach, Gorn (1982) attempted to analyze the effects of background music in advertising on choice behavior. He gave his subjects ten different excerpts of music from the movie "Grease" and asked them to rate those excerpts on a like-dislike semantic differential scale of 1 to 5. He formed a 2 x 2 x 2 matrix design by pairing an advertised color of the pen with a non-advertised color of the pen, a liked music with a disliked music, and color of the advertised pen chosen with the color of the non-advertised pen chosen. His rather robust results indicated a clear-cut impact of music in the expected direction: 79% of the subjects picked the advertised color of the pen associated with liked music and only 30% picked the pen associated with the disliked music. However, when subjects were asked to explain the reason for picking up a particular color of the pen, 91% of the subjects mentioned color preference and 5% mentioned that music had an influence on their choice behavior. Thus, Gorn concluded that the simple association between a brand (conditioned stimulus) paired with background music (unconditioned stimulus) affects brand preferences measured by brand choice. However, despite the novelty

and strengths of Gorn's experimental manipulations, there were several weaknesses arising from demand characteristics (Sawyer 1975) in his study which seriously devalued his findings. First, subjects could have guessed the hypotheses. Second, due to the large groups of 25-30 people employed, the choice behavior could have also been a function of the interaction with other subjects in the experiments. Thirdly, the choice behavior measure was obtained by asking subjects to walk over to one or other corner of the room. Some subjects may have simply made a selection to avoid the crowd at that particular moment on a particular side of the room.

To replicate and improve upon the experimental manipulations and demand characteristics, Allen and Madden (1985) conducted their experiments using subjects on one-to-one basis. The choice behavior task was simplified by allowing them to pick up the pen from among many that were placed right in front of the subjects by the experimenters. Allen and Madden used unpleasant and pleasant humor instead of music as their unconditioned stimuli. Their experiments also used an additional manipulation check called the "Buy Back Measure," which determined if the subjects would resell the pen for 25 or 50 cents. The idea was to see if the affect generated by humor inhibited subjects in reselling the pen. They provided partial support to the Gorn's hypothesis of affective conditioning and wondered

if background music and humor work differently to create emotive or affective responses, and consequently a different choice in behavior. Notice here that their buy back measure does not provide strong evidence to measure the strength of affect generated by humor. It still remains questionable whether 25 cents or 50 cents was enough incentive for the subjects to resell the pen. There can be several reasons for their agreeing to or refusing to resell the pen. First, their student subjects may not have sold the pen because they may have felt embarrassed in front of the experimenters (who were doctoral students teaching in the school). Second, subjects may have felt that their affects, feelings or decision to keep the pen were being monetarily evaluated for their worth, and thus may have refused to resell the pen to keep their self-image and prestige. It is argued here that due to the weaknesses inherent in both Gorn's and Allen and Madden's studies, further work on this issue is needed before some conclusive statements can be made.

Recently, Park and Young (1986) investigated the impact of presence or absence of background music in advertising on Aad and Ab under high, affective and low involvement conditions (emphasis added). The thrust of their work seems to be the difference in information processing under varying conditions of involvement where background music was an affect variable. They reported

that under a high involvement condition when music was absent, the expectancy value or cognitive response model had a greater impact on Ab than did the Aad. However, Aad had greater but not significant impact on Ab when the music was present. They also found that under affective and low involvement conditions, Aad had a greater impact on Ab than did the EV or the cognitive response (CR) model, regardless of whether music was present or absent. Their experiments did not predict different effects under affective and low involvement conditions. They also state that their involvement manipulations of affective involvement did not distinguish it from the low involvement manipulation. Overall, they report that subjects under the high involvement condition have more, but not significantly, favorable brand attitudes and behavioral intentions toward the brand in the commercial with no music than in the commercial with music. They also found that subjects in the affective and low involvement conditions have less, but not significantly less, favorable brand attitudes and behavioral intentions than those who saw a commercial with no music than a commercial with music. Their experiments therefore basically investigate the impact of presence or absence of music on the route to persuasion. They do not make any attempt to investigate the effects of the polarity of music and its repetitions. Differences in the affective responses to

liked music and disliked music can be significant and are useful information to marketers in determining advertising effectiveness and developing and testing new and creative advertising.

### Summary

Research on affective and attitudinal effects of background music has been of recent origin. In general, it indicates that background music embedded in commercials can significantly change preferences, attitudes and behavior.

Recent studies on music have been limited in scope in that they have investigated the impact of presence or absence of background music under varying conditions of involvement (emphasis added). Further work using other situational factors, such as polarized music with a number of repetitions, is needed to fully understand the usefulness of the music usage.

### Distraction Effects

Several comprehensive reviews of the distraction literature are available (e.g., Petty 1975, 1977; Petty, Wells and Brock 1976; Petty and Brock 1981; Duncun 1979). The purpose of this review is to provide an overview of the major theoretical views and findings in the literature.

The distraction hypothesis was originally conceptualized by Festinger and Maccoby (1964). According to this hypothesis, distraction during exposure to discrepant information in the stimulus interferes with subvocal counterargumentation, thereby increasing the audience's acceptance in the advocative direction of the message. The hypothesis suggests a facilitation effect of distraction in the yielding of counterattitudinal messages. It has been proposed that an individual tends to engage in active, subvocal counterarguing when confronted with a message with which he/she disagrees. When this counter-argumentation is interfered with some distraction, resistance to the communication is lessened and acceptance to the message thus increases. This hypothesis is similar to the views of Petty and Cacioppo (1981) regarding the inhibiting role of background features in persuasion in their Elaboration Likelihood Model.

Festinger and Maccoby (1964) in their experiments showed their subjects an amusing film during the message presentation and found that distraction enhanced subjects' attitudes toward fraternities (the content of the message). Kiesler and Mathog (1968), Osterhouse and Brock (1970) and Rosenblatt (1966) reported similar results that moderate distraction facilitated the message persuasion. However, Rosenblatt's data showed that recall was highest in the no distraction condition.



Silver and Regula (1968) raised doubts about the generalization of the distraction hypothesis and suggest that the results of Festinger and Maccoby (1964) were merely an experimental artifact since demand characteristics, such as guessing of hypotheses, were present in the study.

Subsequently, some authors tried to replicate the Festinger and Maccoby experiments and found results that were opposite to those predicted by the distraction hypothesis. For example, Gardner (1966, 1970), Haaland and Venkatesan (1968) and Venkatesan and Haaland (1968) reported that the greatest shifts in attitudes occurred in the no-distraction conditions in their experiments, with the least change occurring during higher levels of distraction. They also reported that recall scores in the no distraction conditions were higher than in the distraction conditions.

For a detailed summary of studies conducted using the distraction hypothesis see Appendix B. As can be seen from the summary, the findings in this literature have been mixed: some studies support the distraction hypothesis while others opposing it.

To explain the reasons for the less impressive results of the distraction hypothesis, Venkatesan and Gardner (1968) and Bither (1972) stated that the audiences' initial position and motivation to

counterargue must be very strong in order to obtain the hypothesized results. A second reason proposed is the absence of direct measures of the key constructs. Osterhouse and Brock (1970) noted that the distraction hypothesis produces attitude change by first interfering with the subject's counter-argumentation with the discrepant information, and that this is a progressive process. They argued that support of the hypothesis can be generated by measurements of perceived distraction and a number of counter-arguments generated by the subject that have not been measured in the earlier studies. Instead, advertisers have used intuitive judgments and failed to monitor the level of interferences. Finally, distraction manipulations in the studies have been unrelated or external to the message itself (Nelson, et.al. 1985). Nelson, et al. (1985) improved upon the weaknesses found earlier in the literature, but still do not find satisfactory results and question the strength of their distraction stimuli.

### Summary

The distraction hypothesis provides a sound theoretical basis for advertisers in decision making about their ads. What constitutes a distraction still needs to be clarified. Research findings on distraction

have been less than satisfactory because of the inherent operationalization, measurements and demand artifact difficulties in the experiments. Venkatesan and Haaland (1968) viewed distraction as "divided attention" while Gardner (1970) distinguished it from communication support elements such as mood, music and artwork. A clearer conceptual definition of distraction is therefore needed.

Research in this area has been quite limited in nature and scope in that no researcher has attempted to explore the effects of several other independent variables, such as subjects' involvement with the message, familiarity, confusion, empathy or stimulation value (Nelson, et al. 1985). Further research therefore is clearly needed to fully understand the underlying processes and variations of distraction elements.

Studies on the distraction hypothesis typically have been conducted using one-exposure experiments. Consequently, little is understood about repetition effects on respondents' counterarguing process and subsequent attitude change.

### Conclusion

In conclusion, research on attitude shows that Aad should be used to determine consumers' affective responses to advertising which may contribute to the

overall evaluation a brand. It appears that the mere exposure hypothesis can be useful theoretical framework to understand consumer's reaction to an ad. Two reasons for inconsistent findings in the mere exposure literature seem clear. They are individual differences in arousal or drive and meaningfulness of the stimuli. These reasons point toward the use of the personal relevance (involvement) factor with the mere exposure hypothesis to understand the impact of repetition. The literature provides a remarkable suggestion in exploring the use of bipolar music with repetition in advertising. It was also seen that distraction hypothesis can be of particular importance in the case of high involvement.

This calls for an approach to understanding consumer responses to advertising. This would entail combining different theoretical frameworks at the same time. In particular, the effects of repetition and polarized music embedded in an ad can be understood under varying conditions of involvement of the consumer with the message. Involvement seems to be an important factor which can provide a sound understanding of consumer response. Therefore, chapter III is aimed at reviewing the literature on involvement. It has been argued in chapter III, that Petty and Cacioppo's approach to issue involvement provides a unique advantage in understanding the role of repetition and polarized background music in advertising.

## CHAPTER III

### THE ROLE OF INVOLVEMENT IN CONSUMER RESPONSE TO ADVERTISING

#### Introduction

Consumer involvement is a resounding phrase bridging the gap between consumers and marketers. It echoes the millennial vision of 20th century marketing scholars, while heralding the evolution of new concepts, their definitions and applications, particularly during the past two decades. Several comprehensive reviews are available (DeBruicker 1979; Tyebjee 1979a; and Petty and Cacioppo 1981a).

Research on involvement construct is plentifully supplied with ideas, definitions, opinions and applications; however, it is woefully short on some basic facts. Virtually every scholar recognizes the need for a more precise explication of this construct and for procedures that would help a prior determination of consumers' involvement. Recently, Rothschild (1984) witnesses and recognizes some of the basic problems and broadly categorizes them into the following four facets:

"(1) There is too much theorizing.

- (2) There is too little data collection.
- (3) There is too much complaining about lack of structure.
- (4) There is too much repetitive reviewing of past review papers."

Rothschild (1984) expresses his pessimism toward future agreement on a conceptual framework, definition, and determinants of involvement construct. He further calls for a ten year moratorium on definitions of involvement and theoretical papers. However, he fails to recognize that his pessimism and the aura of fiasco in the involvement literature is temporal and very typical of the work of science, in view of Kuhn's logic of scientific discovery. To exemplify that the aura of fiasco in the involvement literature is typical, let us consider, for example, the theory of relativity, Newtons's laws of gravity, quantum mechanics or Einstein's revolutionary thoughts about physical science. Notice that it took all these scholars decades and decades before their ideas gained consensus. If this has been the pattern in physical sciences, how can one even think of having a unified theory of involvement in less than two decades especially in social sciences, that has (1) a consensus, (2) empirical support and (3) justified applications. Therefore, keeping in view the developments in the physical sciences, Rothschild's (1984) pessimism is unwarranted and unjustified. Without denigrating the issues raised by Rothschild, it

is recognized here that reconceptualization and empirical support are badly needed on the nature of involvement construct, its measurement and identification, and its potential use for advertisers and marketers.

The controversy in the involvement literature has grown over time so much that instead of attempting to reclarify this concept or reconceptualize it, the concentration has shifted to its applications.

### History

Marketers have increasingly expressed their dissatisfaction with the traditional hierarchy of learning model of the persuasion process for a number of years (for example, Appel 1966; Zajonc 1968; Bogart, Tolley and Orenstein 1970) and more so in recent years (for example, Lastovicka 1979a, 1979b; Lastovicka and Bonfield 1979; Olshavsky and Granbois 1979; and Kellog 1980). While criticizing the traditional multi-attribute formulation models (for example, Fishbein and Ajzen 1975), the interest recently has shifted to the refinement of the basic model (for example, Pinson and Roberto 1973; Nisbett and Wilson 1977; Bentler and Speckart 1979; Kassarian and Kassarian 1979). Therefore, new refinements of the original learning hierarchy concepts are now emerging in the involvement literature.

The idea of involvement and its impact on attitudes was first conceived by Sherifs and Nebergall (1965) and then developed by Krugman (1965, 1966). The thrust of the early proposition was that consumers do not learn everything they are exposed to, rather they selectively choose to learn. The concept of "active audience" had already filled the literature with conditions generating the AIDA model. During the late 1950s and early 1960s, research by Bauer (1958), Bauer and Bauer (1960) and Klapper (1960) began to reveal the limited influence of mass media, and hence the proposition of the selective attention phenomenon. Based on these developments, Sherifs and Nebergall (1965) suggested implications of consumer's selective attention and sensory discrimination, and also laid the groundwork for further development of the concept of involvement.

While Lavidge and Steiner (1961) were developing their six-stage model of hierarchical effects, Krugman (1965, 1966) became intrigued by the obvious success of television commercials in producing product sales and the concomitant failure of the then prevailing "active audience" hierarchy of learning. He proposed and defined involvement as "...the number of connections, conscious bridging experiences or personal references per minute that the viewer makes between the content of the persuasive stimuli and the content of his own life



(emphasis added)." He further clarified his definition by saying "...the main difference between involvement dispositions associated with topics and the actual involvement in exposure to persuasive stimuli concerns the factor of direct personal experience." This definition, however, required a report of immediate experiences, personal references or conscious reaction to a stimulus, and, also the "connections" needed identification and counted on protocols.

Krugman (1966), in an effort to formally conceptualize the parameters of low and high involvement among consumers parallel to the developments of the learning hierarchies, developed two models and tested them over advertising media in which television was considered as of low involvement area to magazine advertising with high reproductive quality and longer frequency of exposure (high involvement). He concluded that most television advertising viewers are not involved with either the advertising or the topics. This means that there is little perceptual defense against the message. However, in light of the developments of the learning hierarchies, he argued that the significance of having both low and high involvement conditions is not that one is better than the other; but that the processes of persuasion are different. Krugman's proposed dichotomy can be seen in figure 3.1,

High Involvement

Low Involvement

Cognitive



Affective



Conative

Cognitive



Conative



Affective (?)

Source: Moore (1985).

Figure 3.1. Krugman's Dichotomy.

which indicates a radical departure from the traditional learning hierarchies.

Krugman's definitions and conceptualization seem to suggest a cognitive response type of measurement procedure for determining the level of involvement a priori. However, in his own research, he has been guided by a more perceptual or affective type of analysis; hence, his view that, "To me a psychologist is first a biologist. I have always looked to the physiological side of attention and learning for cues as to what was really happening" (Krugman 1977). He views low involvement as a passive information processing activity, characterized by predominantly right-brain activity and a fixed eye (Krugman 1979). He has employed measures of eye movement, pupil size (Krugman 1970) and brain-wave activity analysis (Krugman 1971) to support his notion.

Much research in the involvement literature since its inception has been limited in marketing and social psychology to such highly involving issues as political races (for example, Rothschild 1978; Rothschild and Houston 1977, 1978) and products such as automobiles (for example, Newman and Dolich 1979). In general, this usage accompanying the involvement construct has been criticized as having limited relevance for marketers because of the relatively uninvolved products and issues of marketing (Hupfer and Gardner 1971; Kassarian

1981). Krugman (1977) argued that attitudes toward uninvolved issues and products were simply not held by consumers prior to trials or experience with the products in many cases. The essential difference between a social judgment/attitude theory conceptualization of an involvement construct and Krugman's approach is that the former views involvement as a modifier of attitude and attitude as preceding behavior (for example, Petty and Cacioppo 1981a), while the latter argues for behavior resulting from beliefs, without any need for the formation of attitudes (Krugman 1977). Recent studies have employed causal structure analysis (for example, Bagozzi 1981; Bentler and Speckart 1979) to support the notion that past behavior is an alternative determinant of proximal behavior. However, it can be argued that past behavior was a function of the attitudes formed in the past and that past behavior results as an alternative determinant in the causal models of Bentler and Speckart (1979) because the attitudes may not have changed from the time when past behavior was measured to the time proximal behavior is measured.

In essence, at least two major schools of thought offering slightly different explanations of low and high involvement have developed since the seminal work of Krugman (1965). First, there are those approaches that have their roots in Krugman's dichotomy. Second, there

are traditional models expressed by cognitive and social psychologists (for example, Petty and Cacioppo 1981a; Fishbein and Ajzen 1975). A third approach recently proposed by Zajonc (1968, 1980), called the dual systems approach, has already been discussed in Chapter II.

The remainder of this chapter, then, will review the above two approaches. A synthesis of the major similarities and points of contention will follow after the review. Finally, a case will be made for the combination of Petty and Cacioppo's and Zajonc's approach in order to fully understand the effects of the low involvement phenomenon in marketing. This hybrid approach, it is argued, will help us to understand the complex reactions of consumers when they are presented with several repetitions of liked and disliked music embedded in the commercials. The next chapter will present a conceptual framework of the study; hypotheses will then be developed and justified.

#### Hierarchies of Effects' Models

Perhaps the most pervasive controversy that exists in the literature concerns with the hierarchical explanations of the involvement construct. All the variants proposed originated from the seminal dichotomization of Krugman, as illustrated in figure 3.1 above. However, each varies somewhat in terms of

theoretical orientations, proposed moderators, order of hierarchies or expected outcomes. Major highlights of these hierarchies are now presented using the order of hierarchies as one of the discriminators between them.

### Three Orders Model

Ray, et al. (1973) proposed the first alternative to Krugman in the marketing literature. This three-order model came out of a post-hoc analysis of responses from over 8000 respondents. The model is depicted in figure 3.2. Ray et al. conclude that the low involvement hierarchy occurs somewhat more often than the learning one when there are "minimal differences between alternatives."

Ray and Webb (1976) manipulated involvement directly in a study to assess the impact of clutter on the recall of attitudes toward and purchase intentions for the test products. The television commercials tested were classified as to the level of involvement based on Krugman's connections' methodology (Krugman 1966). They found that the effects of involvement on recall, attitude and behavioral intention were less pronounced than expected by the three orders model.

Further damaging evidence for the universality of the traditional hierarchies' important affect-conation assumption comes from the multitude of studies reporting low correlations between measures of attitude and

Topical Involvement

P P D  
e r i  
r o f  
c d f  
e u e  
i c r  
v t e  
e n t  
d i a  
t i o  
n

		High	Low
P P D	H	<u>Learning Model</u>	<u>Low Involvement Model</u>
	I	Cognitive ↓	
	G	Affective ↓	
	H	Conative	
e r i c d f e u e i c r v t e e n t d i a t i o n	L	<u>Attribution/ Dissonance Model</u>	Cognitive ↓
	O	Conative ↓	Conative ↓
	W	Affective ↓ Cognitive	Affective

Source: Moore (1985).

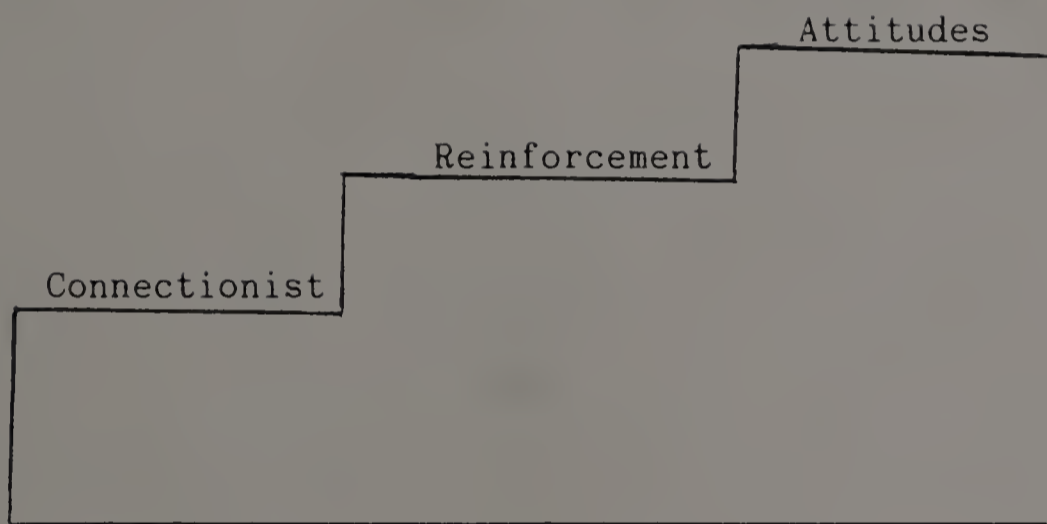
Figure 3.2. The Three Orders Model.

measures of behavior (or behavioral intentions). The typical range of correlations has been 0.0 to 0.30 (for example, Wicker 1969, Fazio and Zanna 1979). Similar results were found in other studies conducted by Heeler (1972), Rothschild (1974), Sawyer (1971) and Strong (1972). Ray et al. (1973) concludes that when the curves of all these studies are examined, it is clear that the low involvement hierarchy occurs somewhat more often than does the learning one. The results of all these studies were found consistent with the low involvement hypothesis proposed by Krugman (1966) and Ray's three-order model.

Lastovicka (1979b) presented an alternative conceptualization in a hierarchical fashion which reflects the thoughts of Ray and Webb (1974). Lastovicka's model (see figure 3.3) incorporates the three approaches to learning theory and views them as complementary rather than competing. He argues that the situation will mainly determine which theory is appropriate for the explanation of choice behavior, along with individual differences, perceptions and involvement.

Although Lastovicka's (1979b) work represents the conceptual perspective that he has garnered from past empirical work, he does not provide empirical support for his model. In the past he has employed multidimensional scaling (Lastovicka and Gardner 1978,





Simple Theory <----->Complex Theory  
 Simple Products <----->Complex Products

Source: Moore (1985).

Figure 3.3. A Hierarchy of Learning Theories.

1979), free elicitation of subjects' responses to brands (Lastovicka and Bonfield 1979), analysis of variance and regression analysis (Lastovicka 1979a) to explicate the involvement construct. Therefore, these studies should be viewed as exploratory and provide useful indications of potential orientations for future empirical work. These studies cannot be treated as compelling evidence for his model since the conceptualization of the model was as a post-hoc analysis (Ray, et al. 1973).

#### Four Orders Models

DeBruicker (1979) reviewed much of the literature in this area and made some succinct conclusions and observations. He posited that involvement had been viewed as a state, that is, either high or low. He argued that involvement may be viewed as both a process and a state. Thus, he presents a hierarchical model which can be seen in figure 3.4. He suggests that a series of paper and pencil measures can be employed to measure subjects' predispositions toward benefit structure, product/brand differentiation, and state of involvement on an a priori basis. Subjects could then be asked to participate in an information processing experiment utilizing a methodology similar to that suggested by Ray and his colleagues (Ray et al. 1973).

According to Moore (1985), DeBruicker concludes that the following three questions are basic to the explanations of the involvement construct:

Topical Involvement

P P D  
e r i  
r o f  
c d f  
e u e  
i c r  
v t e  
e n t  
d i a  
t i o  
n

		High	Low
H		<u>Learning Model</u>	<u>Low Involvement Model</u>
I		Cognitive	Cognitive
G		↓	↓
		Affective	Conative
		↓	↓
H		Conative	Affective
L		<u>Attribution/Dissonance Model</u>	<u>Modified Low Involvement Model</u>
O		Conative	Conative
		↓	↓
W		Affective	Cognitive
		↓	
		Cognitive	

Source: Moore (1985).

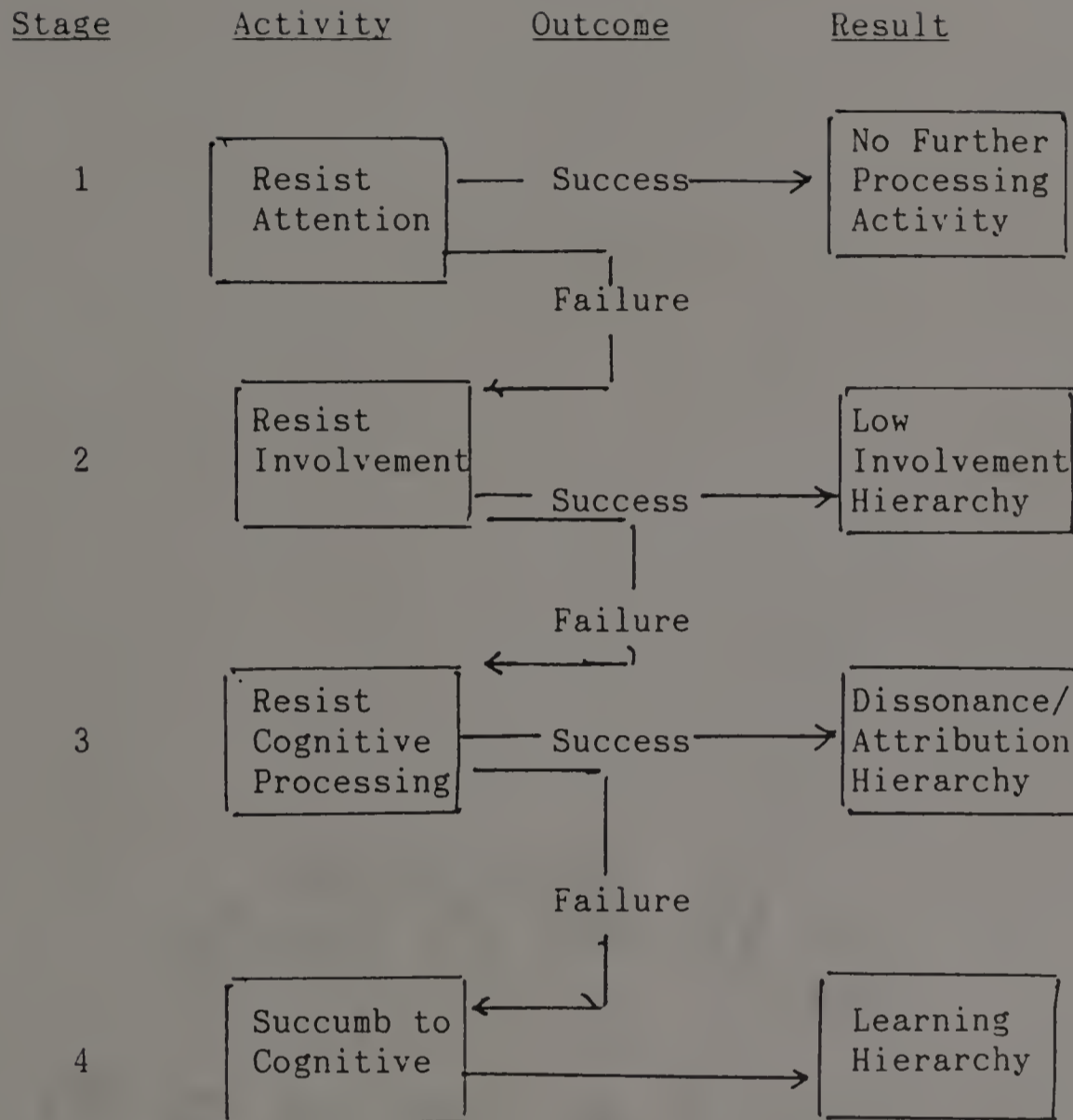
Figure 3.4. The Four Orders Model.

- "(1) Do consumers actually process information as the low involvement model suggests they do?
- (2) If so, what situational and personal factors account for such processing?
- (3) What does all this imply for promotion decision making if anything?"

Webb (1980) proposed a Path of Least Resistance Model, which is essentially a modification of the three order model of Ray et al. (1973). Webb's four-order model assumes that consumers are basically 'lazy' and choose the path of least resistance in their encounters with the media. He raises an interesting hypothesis but leaves the reader insatiated by a model which contributes little that is new (see figure 3.5). Because this model is based on clutter and is tenuous at best, it is not explained in detail here.

#### Kassarjian's Personality Model

Kassarjian (1981) presents a classification scheme of involvement possibilities in a 3 x 2 matrix (see figure 3.6). He echoes DeBruicker's (DeBruicker 1979) concern that laboratory settings may not provide a true test for involvement's "know-nothing" condition. Consequently, he calls for a more extensive employment of physiological and unobtrusive measurement, and observational techniques. As can be seen from his classification scheme, he recommends inclusion of situations and individual predispositions or personality



Source: Moore (1985).

Figure 3.5. The Path of Least Resistance Model

Situation Effect  
or  
Product Involvement

	High	Low	
I P F n e a d r c i s t v o o i n r d a u l a i l t y o r	High Involvement	Much of Consumer Knowledge as it Exists Today	Typical Low Involvement Research
	Low Involvement "Detached Type"	Minimal Interest but Narrowly and Intensely Focussed	Oblivious to Product/ Issues Other Interests
	Low Involvement "Know-Nothing"	Choice Determined by: Availability Packaging Affordability	Don't Know, Don't Care, and No Opinion

Source: Moore (1985).

Figure 3.6. Kassarian's Personality Based Model.

factors in the assessment of involvement. Note that no empirical research using this classification system has been carried out in the marketing literature. Therefore, his scheme must be classified as exploratory.

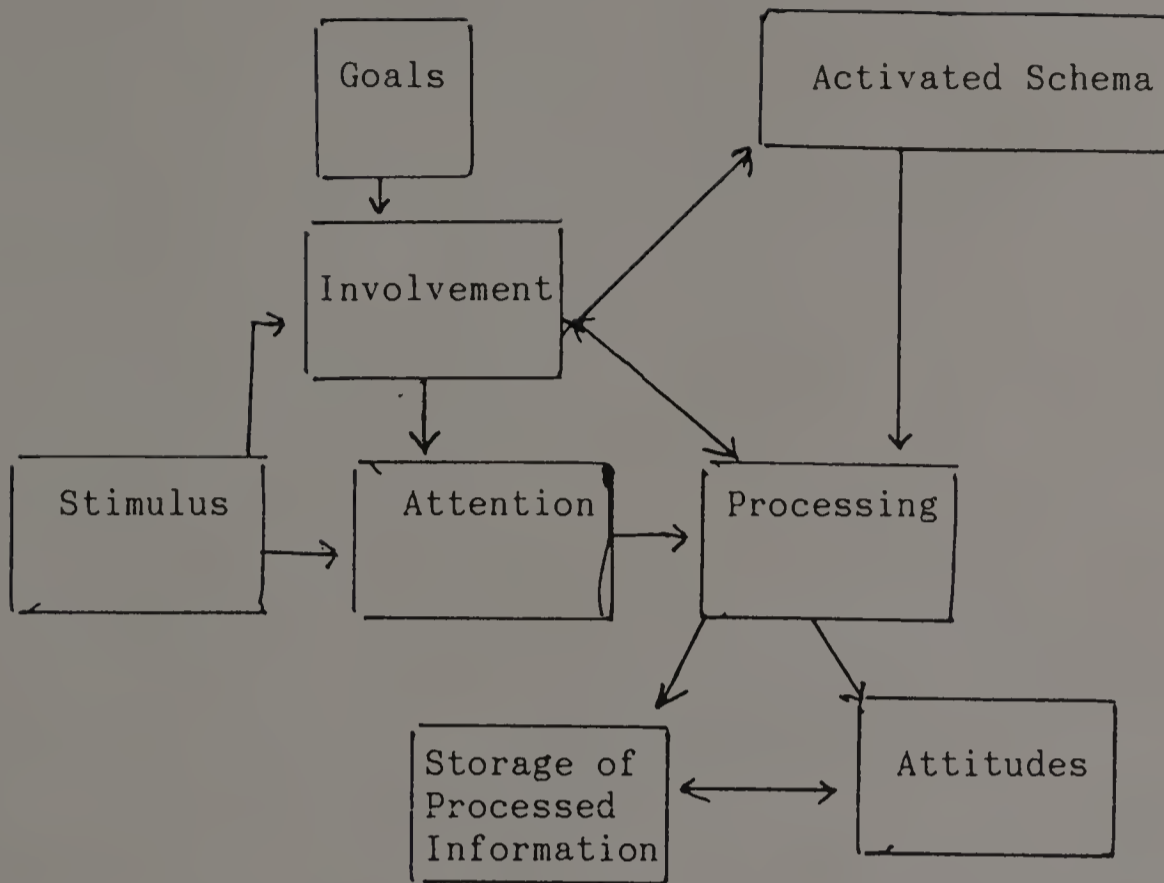
### Mitchell's Model

Mitchell's (1981) unique approach attempts to position involvement within a nomological network of related constructs. Within this network (see figure 3.7), involvement is viewed as a moderator variable as are particular memory schemata relevant to information processing. Mitchell (1981) states that

"In summary then, the content of the stimulus and the goals of the individual determine the amount and direction of involvement during exposure to the advertisement. The intensity of involvement determines how much attention is devoted to the advertisement. The direction of the involvement determines which memory schema is activated, which in turn determines the type of processing that occurs during exposure."

Mitchell's concept of involvement is therefore different from information processing itself in that he views it as a state variable, both conceptually and operationally. Figure 3.8 shows that Mitchell's information acquisition model clearly is a cognitive process model (Mitchell, Russo and Gardner 1980) utilizing the traditional hierarchical conceptualization of learning.

Note that Mitchell's model makes no assumption about the consistency in the structural aspects of the



(Stimulus content and goals determine amount and direction of involvement.)

Source: Moore (1985).

Figure 3.7. Mitchell's Conceptual Model.

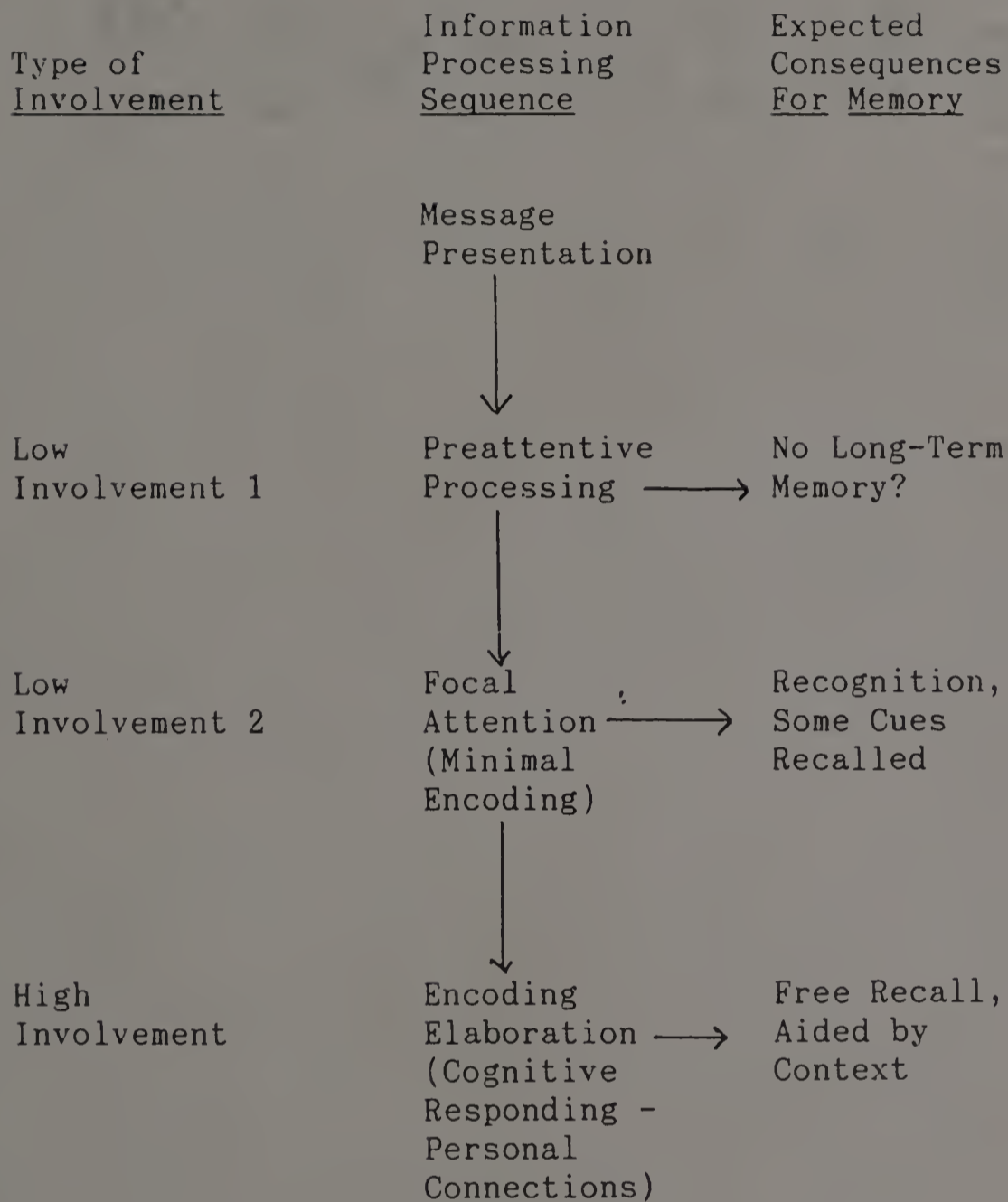




learning hierarchy. In fact, the stopping point of the model is either attitude (affect) as in model I and II, or beliefs (cognitions) as in model II. It is not clear from his models whether attitude formation precedes behavior, or behavior precedes attitude formation.

According to Mitchell's model, involvement is manipulated by assignment of subjects into brand evaluation and non-brand evaluation conditions. After subjects have fully attended and processed the print ads, they respond to a series of attitude items. Mitchell employed a technique based on response items (called the Chronometric analysis) for inferring underlying cognitive processing to support the hypothesis that different processing strategies lead to different levels of cognitive processing as hypothesized in the models above (for example, Mitchell, Russo and Gardner 1980; Gardner, Mitchell and Russo 1978).

A major problem with Mitchell's approach is that he views non-brand processing at full attention as low involvement processing. Therefore, the distinction between low and high involvement processing is not clear. It seems that subjects in the low involvement processing condition are also in the cognitive mode of high involvement rather than the affective mode of low involvement (Zajonc 1980). Therefore, the results obtained by Mitchell (1981) are not from high versus low involvement, but from high versus non-involvement.



Source: Moore (1985).

Figure 3.9. Leavitt, Greenwald, and Obermiller Model.

### Levitt, Greenwald and Obermiller Model

An effect based model proposed by Levitt, Greenwald and Obermiller (1981) is presented in figure 3.9. The basic premise of this empirically untested model is that the expected consequences for memory of a given message are determined by the level of the individual's cognitive processing while being presented the message. The roots of this model come from the cognitive response model of Greenwald (1968).

An empirical test of this model would require some form of thought listing methodology to determine the extent of cognitive responding. As Wright (1980) in his literature review on cognitive response models indicates, this may lead to insurmountable problems. This model also may not be appropriate in low involvement research since the procedure may itself induce high involvement with the message. Levitt, Greenwald and Obermiller (1981) acknowledge this weakness in their model and that their model's usefulness to the low involvement phenomenon may be limited.

### Summary

The hierarchical models presented in this section have one common characteristic - their cognitive orientation. These models therefore can at best be considered as alternatives to the Fishbein and Ajzen (1975) type multi-attribute models. Although the

authors of these hierarchical models concede to the fact that consumer decisions are based on limited cognitive processing or no processing at all, their models certainly do not reflect this distinction. In general, these models are constrained to a cognitive conceptualization of involvement in their operationalization.

Researchers contributing to the views of affective processing question the conceptual approaches of these hierarchical models as overly constraining (for example, Zajonc 1968, 1980; Langer 1978; Semenick 1982; Holbrook 1982; Kroeber-Riel 1984). These authors state, in general, that hierarchical models assume a rational decision-making process which reflects active cognitive processing. The measurement techniques used in these models derive the semantic representation of information in memory. According to Fishbein and Ajzen (1975), these models largely represent nothing more than an ordinal restructuring of the traditional learning hierarchy, and do not refute the high involvement hierarchy. Therefore, there seems to be hardly any difference between the learning hierarchy and these alternative models. Fishbein and Ajzen (1975) state that there is no compelling reason for rejecting the traditional learning hierarchy, in view of the developments of the hierarchical models.

## The Attitude Theory Approach

This section presents the work of those attitude theorists who maintain that low involvement effects can be fully explained within the framework of the traditional learning hierarchy. These authors contend that the purpose of a theory is to present a general framework of relationships between constructs, and that some adjustments and modifications can and should be made for the theory's application to some particular phenomena. Thus, these authors criticize the efforts for separate hierarchies as unwarranted and premature.

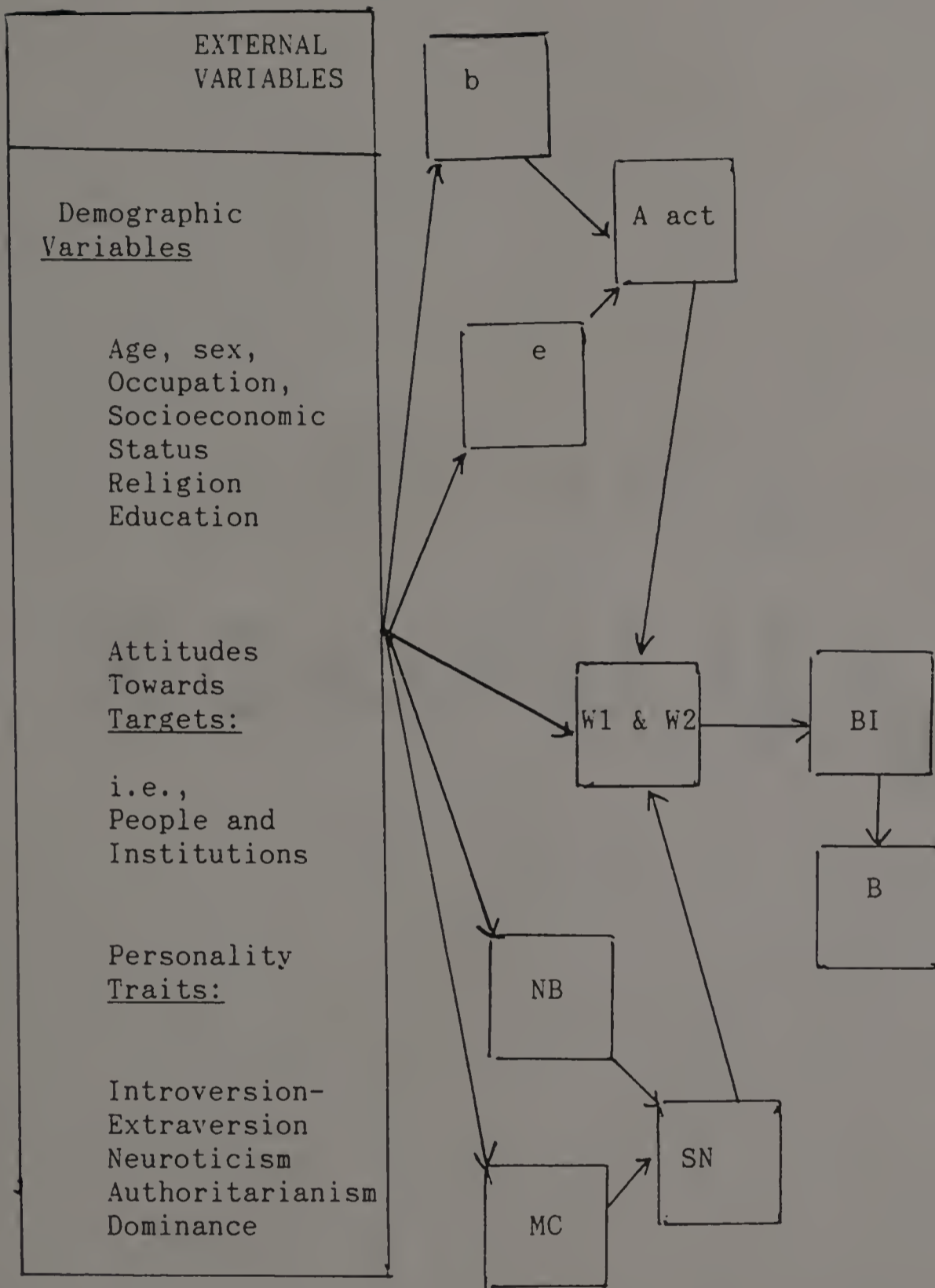
### An Overview of the Fishbein-Ajzen Model

The Theory of Reasoned Action is most pervasive in consumer research in the form of the multi-attribute models. The Fishbein-Ajzen model explicate the following relationships between constructs:

$$B \sim BI = A_{act} = \sum_{i=1}^n b_i \cdot e_i$$

where:

B is the behavior  
BI is the intention to perform the behavior  
A<sub>act</sub> is the attitude toward the behavior  
b<sub>i</sub> is the subjective probability of the i<sup>th</sup> belief with respect to the outcomes related to the performance of the behavior  
e<sub>i</sub> is the subjective probability of evaluation of the i<sup>th</sup> belief with respect to the outcomes related to the performance of the behavior



Source: Moore (1985).

Figure 3.10. Fishbein and Ajzen Model of Attitude Formation.

The model is presented in figure 3.10. According to the model, attitudes are divided into two components: a person's own attitude toward behavior and the normative attitude toward behavior. However, the normative component is generally considered irrelevant for consumer behavior since it is assumed that most consumption behaviors entail low involvement. This widespread approach has been applied in consumer behavior to virtual exclusion of other alternatives. However, these applications do not always conform to the specifications of the original model and lack support in their findings. Two major reasons for the lack-luster findings are most obvious. First, the model requires extreme specificity with regard to proximal behavior. Indeed, context, target, place and time of the behavior must all be specified. Most consumer behaviors cannot be specified to this level of specificity. Thus, consumer behaviors are not predicted very well. Secondly, the model specifies that attitudes may be actively established on the basis of descriptive, inferential or informational beliefs. This is simply not the case with consumer behaviors. The attitudes toward brands are not fully developed based on the belief structure proposed by Fishbein and Ajzen, let alone attitudes toward purchasing the brand.

Indeed, an individual may perform some specific behavior toward some specific object or target at a

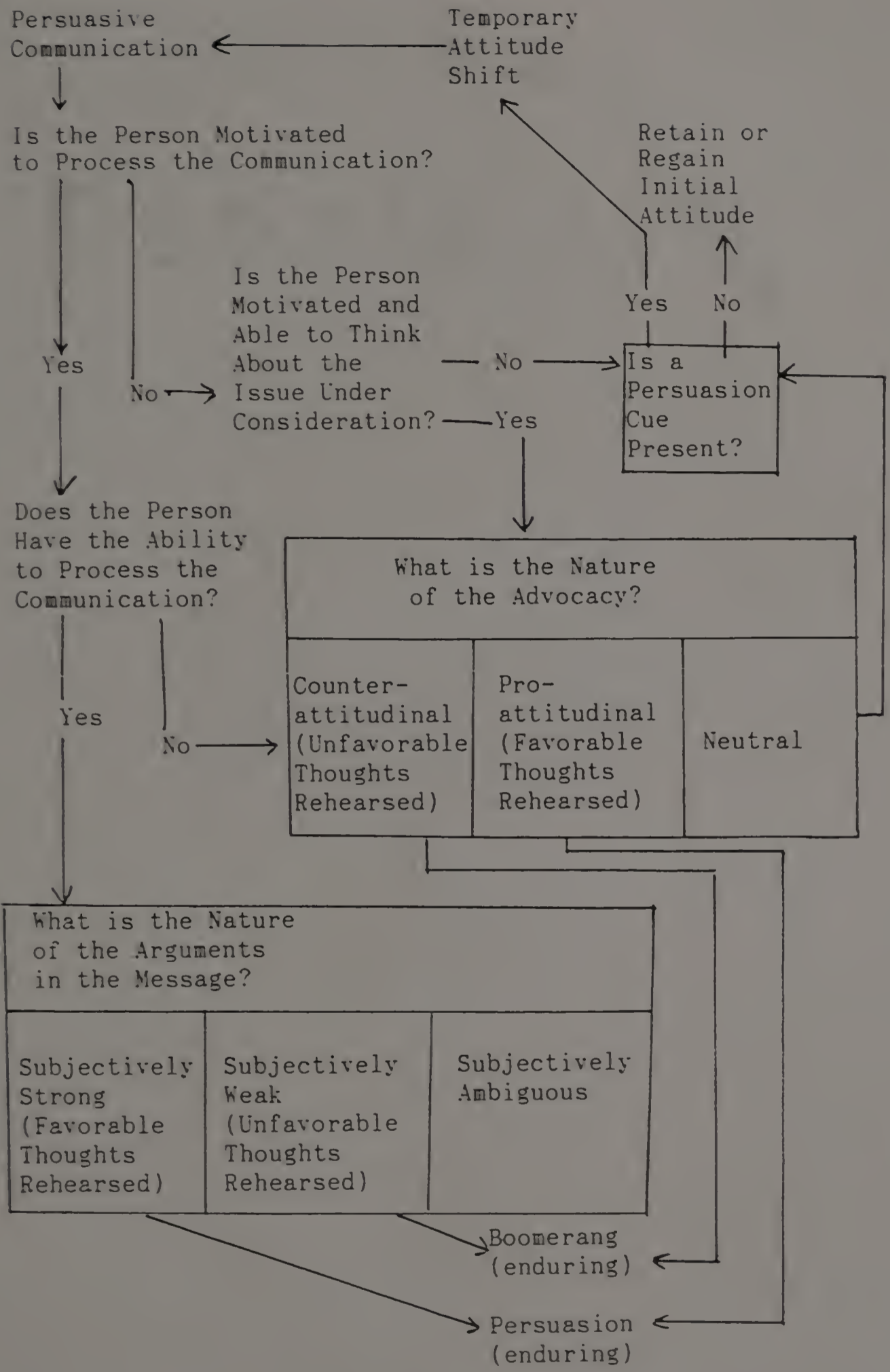


specific place and at a specific time, as an expression of direct observation. But, these behaviors, according to Fishbein and Ajzen (1975), are guided by global attitudes toward a class of behaviors. For example, trial behaviors may be performed for more information gathering while no specific attitude toward the behavior exists.

While the theory is appropriately criticized by consumer researchers for being overly specific and for its treatment of global attitudes, the usefulness of the theory in explaining the process of attitude formation through belief structures cannot be undermined. What may be more important to the marketers are factors -- outlined in the model as external factors -- that influence the formation of belief structure. These external factors are assumed to influence the development of attitudes. It is possible that examination of these factors may prove useful in understanding the involvement construct (Antil 1984).

#### Petty and Cacioppo's Elaboration Likelihood Model

Petty and Cacioppo (1981a) developed their elaboration likelihood model of attitude change based on the "global" attitudes notion of Fishbein and Ajzen. These authors reject the low-involvement model presented by Krugman (1965) and argue that attitudes are less elaborated under low involvement than under high



Source: Moore (1985).

Figure 3.11. Elaboration Likelihood Model of Attitude Change.

involvement because they are based not on the issues themselves but on peripheral cues present with or in the message (see figure 3.11). The model states that involvement is a function of the ability and motivation to process the message. These two factors - ability and motivation - are presumed to affect the elaboration likelihood of the message. The authors state that:

"In practical terms, the model suggests that when a person seeks to change another person's attitudes, the elaboration likelihood of the persuasion situation should be assessed (i.e., how likely is it that the person will be motivated and able to think about the message?). If elaboration likelihood is high, and if there are compelling arguments to present, the central route may be the best strategy to pursue. This is the most ideal strategy, because a relatively permanent change in attitudes will be produced. On the other hand, if the only arguments available are weak or if elaboration likelihood is low, then the peripheral route will be a more promising strategy. (emphasis added) (Petty and Cacioppo 1981a).

According to Petty and Cacioppo (1981a), the peripheral route is based on peripheral "cues" that may be present in or with the message, such as, attractive source, attractive colors, humor, music, etc. Although they believe that the peripheral route leads to temporary change in attitudes, they also hypothesize that once a temporary change in attitudes has occurred, a person may become motivated to think about the object and generate a belief structure that may then produce a permanent change in attitude. Calder's (1979) view, and

Smith and Swinyard's (1982) approach to involvement are also consistent with this hypothesis.

Petty and Cacioppo themselves and several others have applied this approach in many empirical studies (see Appendix-C), and have found consistent results.

#### Smith and Swinyard's Integrated Information Model

Smith and Swinyard (1982) present an integrated information model which can be seen in figure 3.12. The basic premise of this model is that consumers engage in behaviors for information gathering rather than as an expression of their attitudes (i.e., affect). The model is based on the diffusion of innovation research in marketing. The major element of their model is trial or direct personal experience which is assumed of a higher order and less subject to refutation than advertising elements. They suggest that efforts should be made by advertisers on inducing trial usage of the product through advertising elements rather than on changing attitudes which may ultimately change attitudes by generating higher order belief. The thrust of their arguments is similar to Petty and Cacioppo's peripheral route to attitude change.

#### Summary

The basic position of attitude theorists, as it appears, is that low-involvement effects can be fully

Summary Labels

Cognition -----> Trial -----> Affect -----> Commitment

---

Detailed Sequence

<u>Information Source</u>	<u>Information Acceptance</u>	<u>Cognition</u>	<u>Affect</u>	<u>Conation</u>
---------------------------	-------------------------------	------------------	---------------	-----------------

Advertising	--> Low	--> Lower Order Beliefs	+ Lower Order Affect	--> Trial
-------------	---------	-------------------------	----------------------	-----------

---

Experience	--> High	--> Higher Order Beliefs	+ Higher Order Affect	--> Commitment
------------	----------	--------------------------	-----------------------	----------------

Source: Moore (1985).

Figure 3.12. Integrated Information Response Model.

explained within the framework of the traditional learning hierarchy. As Smith and Swinyard (1982) conceptualize, the two sequences of involvement are not separate processes and low involvement behavior is simply a source of information to aid in the eventual formation of an attitude.

### Conclusion

There are at least two major schools of thought on the involvement phenomenon. First, approaches that have their roots in Krugman's (1965) dichotomization of involvement into two learning hierarchies. These hierarchies have two common characters. First, different processing strategies are proposed for different conditions of involvement. Secondly, attitude is not considered necessary to precede behavior. Beliefs or affect alone are considered sufficient to trigger behavior.

Secondly, the attitude theory approach argues that the need for alternative explanations is not clearly demonstrated and thus, the efforts to provide alternative explanations are unwarranted and premature. Petty and Cacioppo's elaboration likelihood model with its roots in the theory of reasoned action and support of Smith and Swinyard's integrated information response model, provides an impressive framework for

understanding the processes of attitude formation. The ELM model has been extensively supported by empirical research.

As it can be seen, Petty and Cacioppo (1981a) and Zajonc (1968, 1980) have suggested usage of peripheral cues as potentially useful factors in the eventual formation of attitudes.

A review of the literature on mere exposure, attitude toward the ad, music and distraction indicates that the effects of repetition of peripheral cues (music, humor, etc.) can have significant impact on affective responses and can ultimately contribute to changing the attitudes. It, however, needs to be determined how repetitive exposure to an affective stimulus will affect the affective and attitudinal responses under varying conditions of consumer involvement.

## CHAPTER IV

### HYPOTHESES AND METHODS

#### Introduction

This chapter provides an overview of the study, and examines its conceptual and operational bases. First, it presents an overview of the study including a discussion of the conceptual framework, and operationalization of key constructs. Then, it provides the specific research hypotheses derived and justified from the general review of the earlier literature. The second section of the chapter will present the methodology to be employed followed by a discussion of some major issues relevant for execution of this study.

#### An Overview and Conceptual Framework

The primary purpose of this research is to investigate the effect of repeated exposures to liked and disliked background music on consumers' affective and attitudinal responses to advertising under conditions of high and low involvement (personal relevance). The model employed is a 3 x 2 x 2 design in which the effects of the polarity of background music



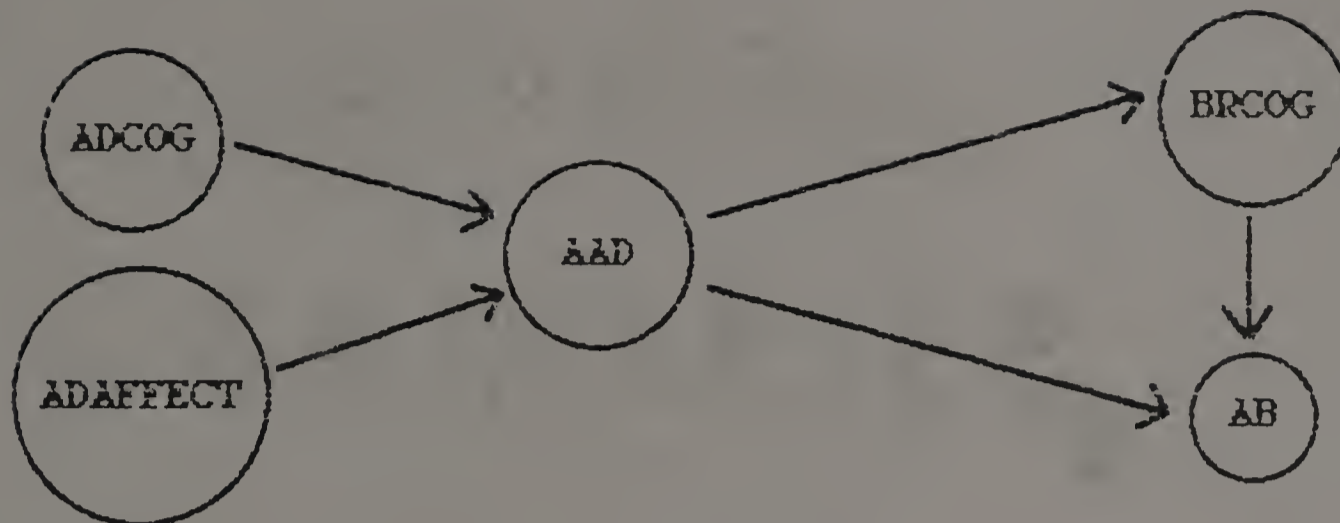
(liked versus disliked versus no music), repetition (one versus three times), and involvement (high versus low) on subjects' affective and attitudinal responses to the test commercial are assessed. The layout of the experimental design appears in Figure 4.1. The study employs an advertising effectiveness model in which the causal relations between affective responses and attitudinal responses through the attitude toward the ad construct are evaluated. This model can be seen in Figure 4.2. Since the study deals with the effects of an affective stimulus (i.e., background music) on attitude toward the ad, several sources of the variation of that affective stimulus are considered. For example, firstly, background music could be initially liked or disliked. Secondly, the repetition of the affective stimuli may intensify subjects' liking or disliking. And thirdly, the level of personal relevance of consumers may make them choose different processing strategies. Additionally, the role of affective stimuli as a distraction in the formation of ad and brand attitudes is considered.

The conceptual framework for this study derives from a synthesis of five areas of research reviewed in chapters II and III. To recapitulate the major findings and theoretical relationships, the following discussion is offered.

BACKGROUND MUSIC						
	LIKED		DISLIKED		CONTROL (NO MUSIC)	
Repetitions	1	3	1	3	1	3
HIGH	37	37	36	36	36	35
LOW	36	38	35	36	36	35

Note: Figures in the cells represent sample sizes used in the main study (i.e. stage three).

Figure 4.1. Experimental Design of the Study



Notations:

**ADCOG** - cognitions toward the advertising  
**ADAEFFECT** - affect toward the ad  
**AAD** - attitude toward the ad  
**BRCOG** - cognitions toward the brand  
**AB** - attitude toward the brand

Figure 4.2. Theoretical Model of LISREL.

Attitude toward the Ad, as was seen in chapter II, has variously been used to measure ad affect (Park and Young 1986) and ad cognitions (MacKenzie, Lutz and Belch 1986). Most studies, however, utilize only one of these constructs. It is argued here that both ad affect and ad cognitions should be measured to determine the attitude toward the ad (Lutz 1985). It is assumed in this study that the main source of ad affect comes from liked and disliked background music which becomes polarized with repeated exposures.

The relationship between the Aad and Ab constructs is typically explained by affective conditioning (Mitchell and Olson 1981; Shimp 1981; MacKenzie and Lutz 1982; Madden 1982; Moore and Hutchinson 1983; Allen and Madden 1983a, 1983b, 1985; Park and Young 1986; MacKenzie, Lutz and Belch 1986). Recently, Lutz (1985) proposed a dual-mediation hypothesis which specifies two roles for the Aad construct: a direct effect on Ab and an indirect effect on Ab through Cb (cognitions toward the brand). The direct role between Aad and Ab uses the affect transfer hypothesis or affective conditioning which has been supported by many studies (for example, Mitchell and Olson 1981; Park and Young 1986). The indirect relationship recently has been supported by MacKenzie, Lutz and Belch (1986) who found that the dual mediation hypothesis was superior to simple transfer hypothesis. The point here is that the affect and

cognition may not be independent of each other, as suggested by Zajonc (1980, 1982).

### Purpose

The primary purpose of this study is to investigate the effects of repetition and polarity of background music on consumers' affective and attitudinal responses to advertising under conditions of high and low involvement. Affect is used here to describe "feeling" types of responses as defined by Zajonc and Markus (1982). This approach allows for an examination of

- (1) consumer's affective responses to both liked and disliked musical commercial with one and three repetitions under high and low involvement conditions.
- (2) consumer's attitudinal responses to both liked & disliked musical commercial with one and three repetitions; and the brand depicted in those commercials under the same conditions as in (1).
- (3) the proposed advertising effects' model under the same conditions as in (1) and (2).

### Operationalization of the Design

The following section presents the operationalization of key factors in the design and proposes a model for advertising effectiveness used and tested in this study.

### Repetition

The repetition was operationalized in this study at the two levels of commercial exposure: one and three

(Belch 1982; Cacioppo and Petty 1979, 1980; Gorn and Goldberg 1980). Four groups were exposed once to the commercial which was inserted at the end of the program. Four additional groups received three exposures of the commercial inserted at the beginning, middle and end of the program. These groups were compared with control groups who received one and three repetitions. These control groups did not expose subjects to any kind of background music in the advertising. Thus, in each group the last commercial to which subjects were exposed was the stimulus ad. This procedure and the levels of exposure recently have been used and supported by Rethans, Swasy and Marks (1986).

#### Background Music

The background music variable was operationalized here as a distinction between liked and disliked music. The liking and disliking of the music were differentiated through measures of subjects' directional structure of affective assessment. The method was similar to the work of Wintle (1978) who demonstrated that subjects show their emotive appreciation or liking and disliking of music along three dimensions: activity, pleasantness and potency/personal relevance. These dimensions commonly have been measured with semantic differential scales and are also commonly used as direct measurements of attitude. These directions are

determined by principal components analysis and common factor analysis.

### Involvement

Involvement was operationalized here as the distinction between low and high relevance of the message for the consumer. This was accomplished in the manner employed by Petty, Cacioppo and Heesacker (1981). In their study, one group of subjects in the low involvement condition was told that the advertised brand/product will not be marketed in their area of the country. The other group in the high involvement condition was told that the brand/product advertised will be marketed in their area of the country in the following season and that they will receive a sample of the product/brand in the next week or two. The actual text for the manipulation of involvement in this study can be seen in figures 4.3 and 4.4.

Commercials for consumer goods are relatively simple communications. Assuming that the ability to process is not a limiting factor, there is little reason to believe that the information will not be processed regardless of the format of presentation if the consumer is motivated. Therefore, motivation to process the message became the major criterion for the manipulation of involvement.

Please remember that some of the products for which ads have been placed are currently being introduced in the Lafayette area and are available in stores in the Lafayette area. For example, Crystal shampoo is currently being introduced in the Lafayette area, and is available in the stores near you.

Figure 4.3. Manipulation of High Involvement.



Please remember that some of the products for which ads have been placed are not available in the Lafayette area and would not be introduced in the near future in the Lafayette area. For example, Crystal Shampoo is currently not available in stores in Lafayette. Crystal is available only in the New England states.

Figure 4.4. Manipulation of Low Involvement

## Advertising Effectiveness Model

The advertising effects model which is to be tested in this study appears in Figure 4.2. The model draws support from the conceptual framework presented earlier in this chapter. This is also a modified model of Lutz, MacKenzie and Belch (1983).

Notice that affective response has been used to denote the affect generated by the ad. Ad cognitions and ad affect, which are primarily a result of the background music have been kept separately to support the view of Zajonc (1982) that affect and cognitions may be separate processes and that, in some cases, affect may precede cognition. The relationship between attitude toward the ad, brand cognitions, and attitude toward the brand variables has been hypothesized based on the dual mediation hypothesis of Lutz (1985). The hypotheses proposed by the study are developed in the next section and justified.

### Hypotheses

The following hypotheses were tested by this study. The rationale for each of these hypotheses is provided following the presentation of each of the hypotheses.

#### Hypothesis 1

There will be significantly higher scores on affective responses toward the ad (ad affect) under high

and low involvement conditions with increasing levels of exposure to the liked musical commercial.

### Hypothesis 2

There will be significantly lower scores on affective response toward the ad (ad affect) under high and low involvement conditions with increasing levels of exposure to the disliked musical commercial.

### Rationale for hypotheses 1 and 2

These hypotheses generate support from the mere exposure hypothesis literature. Zajonc's (1968) work provided evidence to support the hypothesis that the mere exposure of a stimulus is a sufficient condition to enhance an individual's evaluation of it. Since then, the frequency-positive affect relationship has been replicated in different settings, with different stimuli and subject populations.

As noted in chapter II, research on mere exposure generated several inconsistent results and competing explanations for the exposure effects were proposed. Harrison (1968) proposed a response competition hypothesis to explain exposure effects. This explanation assumes that a novel stimulus initially arouses negative affect because many response tendencies toward the stimulus compete to identify the stimulus as a particular object or entity. Repeated stimulus exposure then leads a few response tendencies to become

dominant, while others are weakened or crowded out; hence, the positive affect. This explanation seems to have played a dominant role throughout the stream of mere exposure research.

Grush (1976), who tries to reconcile the inconsistent findings in the literature, proposed a semantic generation hypothesis which was an improvement over the response competition hypothesis. The hypothesis maintains that repeated exposure effects depend on the initial stimulus valences which become increasingly polarized with repeated exposures. That is, if a stimulus is initially liked, the liking will become increasingly polarized and intense with repetition. If the stimulus is initially disliked, the disliking becomes intensified with repeated exposures. Therefore, he suggests a simultaneous polarization effect of repeated exposures, that is, favorable and unfavorable judgments become more polarized with increasing levels of exposure.

It is argued here that ad affect and attitude toward background music should become increasingly polarized with repeated exposures. Therefore, the initially liked and disliked music excerpts can be used to enhance polarization with repeated exposures.

### Hypothesis 3

Attitude toward the ad scores will be significantly higher under the low involvement condition than under

the high involvement condition with the liked musical commercial.

#### Hypothesis 4

Attitude toward the ad scores will be significantly lower under the low involvement condition than under the high involvement condition with the disliked musical commercial.

#### Rationale for hypotheses 3 and 4

These hypotheses follow from the discussion of involvement literature. According to Petty and Cacioppo (1981a), subjects under the high involvement condition will follow a central route and thus are expected to pay more attention to message content than to the peripheral cues such as background music or other elements of the ad. Subjects in the low involvement condition, on the other hand, will follow the peripheral route and thus are expected to pay more attention to the peripheral contents of the ad.

#### Hypothesis 5

Attitude toward the brand scores under the low involvement condition will be higher with the liked musical commercial than with the disliked musical commercial; but no music condition will have higher Ab scores than the disliked musical commercial condition.

### Hypothesis 6

Attitude toward the brand scores under the high involvement condition will be highest under no music condition than the liked or disliked musical commercial condition; but Ab scores will be higher under the liked than disliked musical commercial.

### Rationale for hypotheses 5 and 6

These hypotheses follow from the discussion of distraction and involvement research. It is suggested that under the high involvement condition, music may work as a distraction to the central processing. However, the liked music may be more tolerable than the disliked music. Under the low involvement condition, however, music may work more as a facilitator than as a distraction. However, disliked music may arouse negative affect, which may be transferred to the brand attitudes.

Literature on the distraction hypothesis suggests that repeated exposures to stimuli could be used to distract consumers in their cognitive processing, thereby enhancing attitude change in the positive direction. This study does not attempt to measure distraction effects directly. However, any differences on Aad and Ab found between liked, disliked and no music (control) conditions are good attributions to the distraction effects under the high and the low involvement conditions.

#### Hypothesis 7

Under the high involvement condition, when the music is liked, the attitude toward the ad will have a greater effect on attitude toward the brand than the brand cognitions.

#### Hypothesis 8

Under the high involvement condition, when the music is disliked or absent, attitude toward the ad will have less favorable (positive) effect on attitude toward the brand than brand cognitions; but attitude toward the ad will have a greater effect than brand cognitions in the no-music condition than in the disliked music condition.

#### Hypothesis 9

Under the low involvement condition, when the music is liked, attitude toward the ad will have a greater impact on the brand attitudes than brand cognitions.

#### Hypothesis 10

Under the low involvement condition, when music is disliked or absent, attitude toward the ad will have a greater effect on attitude toward the brand than brand cognitions.

#### Rationale for hypotheses 7 through 10

These hypotheses relate to the advertising effectiveness model proposed in Figure 4.1. They follow

from the discussion of music, attitude toward the ad and involvement research and were partially tested by Park and Young (1986). However, Park and Young did not include the disliked music in their design and only tested the presence or absence of music. Other researchers have proposed and tested the relationships between Aad and Ab using the dual-mediation hypothesis (Lutz, 1985; MacKenzie, Lutz and Belch, 1986).

According to Petty and Cacioppo's (1981a) ELM model, an individual either follows a central or a peripheral route of information processing to persuasion/attitude change. The central route is usually but not necessarily taken when the ability and motivation of an individual to process the information is high (that is, high involvement) and the emphasis remains on cognitive processing of brand related salient information. A peripheral route is usually taken when the ability and motivation to process the message is low. Consistent with Petty and Cacioppo's model, it is argued here that a person under a high involvement condition will process information related to brand attributes; thus, the impact of brand cognitions measured through a cognitive structure index or expectancy value formulation (EV) will be higher than Aad on brand attitudes. However, in the low involvement condition, a person is likely to base his/her evaluations of the ad and brand on the affective



reactions to the liked and disliked music in the ad. Therefore, the impact of Aad on Ab should be greater than that of Cb, which will get even more polarized with repeated exposures to the stimuli.

Park and Young (1986) however, argue that although the attitude toward the ad is not a dominant factor under the high involvement condition, its impact cannot be ignored. For example, a highly visual aspect of the commercial may facilitate understanding of the message contents thereby affecting the formation of brand attitudes. In addition, Lutz, MacKenzie and Belch (1983) found a significant impact of attitude toward the ad even under the high involvement condition. Hypotheses 7 and 8 in this study, therefore, have been proposed based on the arguments and results of the Park and Young (1986), and Lutz, MacKenzie and Belch (1983) studies.

The effects relating to disliked music and no music conditions are argued on the basis that no music condition is better than the disliked music since the negative affect generated by the music is not transferred from Aad to Ab. That is, disliked music may either distract or suppress the overall impact on attitude toward the brand.

#### Method

The study was implemented in three major stages. Stage one was used to pretest and select the liked and

disliked music. Stage two was used to pretest the instrument and stimuli. Stage three was used to collect the data for hypothesis testing. The flow-chart of activities during these stages appears as Figures 4.5, 4.6 and 4.7. The detailed description of these stages will now be provided.

### Stage One

As indicated in Figure 4.5, stage one includes three steps. The first two steps were necessary to provide the researcher with quality data concerning the selection of (1) liked and disliked background music, and (2) salient product attributes. These data facilitated the construction of test ads and the questionnaire to be used in the main study.

Product Selection. In this stage the first task was to identify a product which was relevant for the subject population (i.e. students). It was also desirable to select a product which was not, in and of itself, highly involving to the subjects. Therefore, guidance from the literature was sought to identify an uninvolved product. Zaichkowsky (1985) provided that guidance. In her experiments with measuring involvement of products to student population, products like instant coffee, bubble bath, breakfast cereal and mouthwash were classified as low involving products based on the mean differences. She also indicated that products such as

Sample - 46 students

Exposure to the Music

- Step 1 Identification of Liked and Disliked Music through exposure, administration of preliminary questionnaire, and utilizing dimensional structure of affective expressions in music.
- Step 2 Identification of salient product attributes through a preliminary questionnaire.
- Step 3 Construction of test ads based on the above results. Construction of a complete questionnaire for the pre-test two. Selection of filler ads.

Figure 4.5. Flow Chart of Activities during the Pre-test Stage One.

Sample - 52 students

Exposure to the Test Ads

- Step 1. Pretesting of the questionnaire for highly reliable measures of attitudes, affective response and manipulation checks.
- Step 2. Administration of Post-experimental Evaluation Questionnaire for the determination of demand artifacts, if any, that may be present.
- Step 3. Assessment and revision of the questionnaire for the final data collection in Stage Three. Incorporation of test ads within the Jackie Gleason Radio Program with filler ads.

Figure 4.6. Flow Chart of Activities during the Pre-test Stage Two.

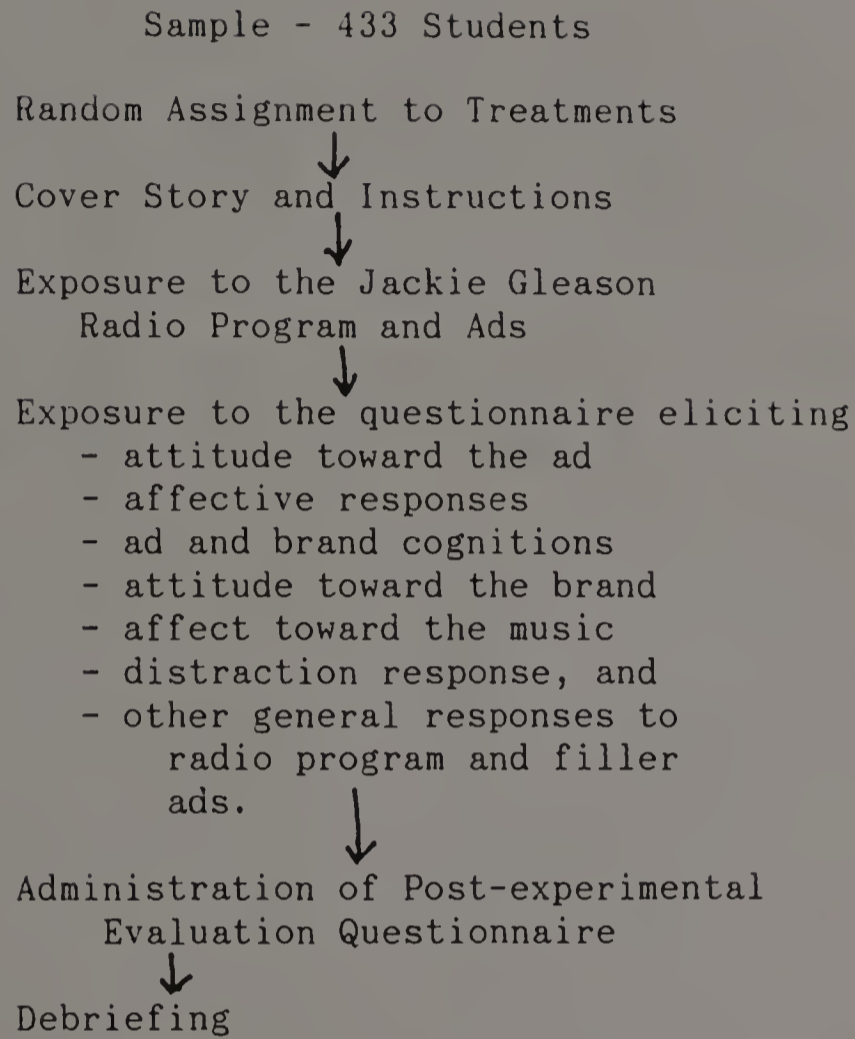


Figure 4.7. Flow Chart of Activities during the final Stage Three of the Study.

nails or canned foods might not even be involving. Ratchford (1987) classified hair shampoo as low involving product in his work with the FCB grid. Therefore, in accordance with his results, a hair shampoo product fictiously named Crystal, was selected. Crystal shampoo brand may be considered in the same product category as bubble bath.

Sample. A total of 46 students from undergraduate business classes at the University of Massachusetts participated in three different sessions. These sessions differed with respect to the order of stimuli presented. •

Although there have been questions raised about the appropriateness of student samples (for example, Cunningham, Anderson and Murphy 1975), provided that they are used in relevant situations, the problem is not considered serious by most researchers (for example, Lamb and Stern 1979), i.e. situations in which the status of the subjects as students is not expected to affect their behavior as subjects. Since the product used in this study, a hair shampoo is relevant for the students as consumers, student status should not compromise the validity of this study. This does not imply that the results of this study can be generalized to other populations without extreme caution.

Stimuli. Subjects were exposed to 12 pieces of 45 seconds duration of Klezmer music performed by the Andy Statman Orchestra (for a list of musical selections, see Table 4.1). Musical selections were recorded on tape. Three audio tapes for three sessions were prepared as follows: one tape ordered musical excerpts from 1 to 12. A second tape musical selections ordered from 12 to 1. A third tape ordered musical selections from 7 to 12, and 1 to 6 in that order. These three versions were created to avoid any order effects. Each of these tapes had a pause of 1 minute after every musical excerpt of 45 seconds duration so that subjects' affective reaction to the music could be obtained.

Instrument. The instrument used for obtaining the subjects' affective or emotional response toward the music was the same as in Wintle (1978) experiments (see Table 4.2). These rating scales represented the three dimensional structure of people's emotional or affective expressions toward the music. While phrasing an appropriate question for soliciting emotive responses, Wintle cited Rigg (1964) who suggested that it is not appropriate to ask subjects for their emotive responses especially in a research where subjects listen to musical selections in quick succession. In Rigg's (1964) own words,

"In some of these experiments, the Os were asked to state what affective or emotional responses are

Table 4.1. List of Klezmer Music Excerpts  
performed by Andy Statman Orchestra

<u>Music No.</u>	<u>Music Title</u>
1	Jewish Dance
2	Golden Wedding
3	Rumanian Dance
4	Ariela Perle-Perle from Warshaw
5	Ukrainer Chosid'l (Barbara's Tune)
6	Terkisher (Turkish Dance)
7	Onga Bucharesti (Dance of Bucharest)
8	Adele Dear
9	Mazel Tov (Good Luck)
10	Kaleh Bazetsen (Seating of the Bride)
11	Midnight Zhok (Midnight Dance)
12	Galitzianer Chusid (Hassidic Dance from Galicia)



Table 4.2. Sample Page of the Stage One Questionnaire

Stimulus # \_\_\_\_\_

PLEASE RATE THE MUSICAL EXCERPT ON THE BASIS OF EMOTIONS  
OR FEELINGS IT EXPRESSES USING THE FOLLOWING SCALES:

Active : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : Passive  
Pleasant : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : Unpleasant  
Happy : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : Sad  
Fast : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : Slow  
Powerful : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : Weak  
Masculine : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : Feminine  
Lively : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : Peaceful  
Agitated : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : Calm  
Cheerful : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : Solemn  
Light : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : Serious  
Liked : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : Disliked  
Valuable : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : Worthless  
Interesting: \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : Boring  
Spirited : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : Dull

IS THIS MUSICAL EXCERPT FAMILIAR TO YOU?

YES \_\_\_\_\_ NO \_\_\_\_\_

aroused, while in others they were asked to name the affective qualities which characterized the music. The latter approach seems, to the writer, to be the correct one since it is doubtful whether, under the conditions of the experiments, emotional responses were actually "experienced" by the Os. Is it possible to listen to musical selections in quick succession and have each arouse a different emotional response? Can sadness and joy, or love and disgust, be so easily aroused? Even though the actual emotions may not be experienced when listening to the music, the emotional characteristics which the music portrays may, however, be recognized and musical selections portraying very different emotional patterns may be identified."

Therefore, in this study, subjects were asked to rate musical selections on the basis of emotions or feelings those musical selections expressed on the rating scales provided. Subjects rated each of the 12 musical selections on all of the 14 scales.

An additional consideration in the selection of music for this study was its familiarity. In order to control for the familiarity effects, a truly obscure music had to be found. Therefore, subjects were asked if each of the musical selection was familiar to them.

In order to obtain the salient product attributes for a hair shampoo product, subjects responded to three questions after they had listened and responded to the rating scale pertaining to the musical excerpts. These three questions solicited attributes they liked and disliked in a hair shampoo product (see Table 4.3 for the actual content and format of these questions). Since salient attributes are uppermost in the



individuals' minds, it can be assumed that the first 3-4 attributes that subjects' emit are actually the attributes that are salient to them. According to Ajzen and Fishbein (1980), the first few beliefs (i.e., attributes in this study) emitted by subjects are considered as "salient" and are usually the primary determinants of brand attitudes.

Procedure for Stage One. The experiments were disguised with a cover story. Subjects were told that they were participating in a music appreciation test in which they would hear a variety of musical excerpts, which they would then be asked to rate individually. After these instructions, subjects listened to 12 excerpts of Klezmer musical excerpts and after each excerpt they were asked to rate it on several semantic differential scales. Once they had listened to all excerpts and had rated each of them, they were asked to respond to the three questions soliciting their personal preferences for attributes in a hair shampoo product. They were then thanked for their participation and dismissed.

Results. Subjects' ratings for each of the 12 musical excerpts on the 14 semantic differential scales were first subjected to factor analysis in order to assess the dimensional structure of the data. This method is primarily used to obtain a few linear

combinations of a large set of variables. The ease of working with a few factors, instead of many variables, spells much of the popularity of this method. Factor analysis was performed on the data using the SPSS program. A principal components analysis with iterations was performed. The solution was orthogonally rotated using the varimax criterion. Since the magnitude of a factor loading represents the relationship between a factor and a variable, it is clear that some variables that load heavily on one factor and very low on others represent that factor. Thus, based on the highest loadings, three distinct factors representing 14 scale items were obtained (see Table 4.4). Factor 1, which accounted for 69.6% of the common variance was bipolar and reflected the level of activity. The bipolar scales representing the first factor were active-passive, fast-slow, happy-sad, lively-peaceful, agitated-calm, light-serious, spirited-dull, and cheerful-solemn. In summation, factor 1 was designated as the activity factor. This result was similar to Wintle (1978). Factor 2, which explained 21.9% of the common variance was also bipolar and reflected the pleasantness factor. The bipolar scales representing the pleasantness factor were pleasant-unpleasantness, liked-disliked, interesting-boring and valuable-worthless. These results were similar to Wintle (1978) in that similar scales represented the

Table 4.4. Factors representing Scale Items based on highest loadings

FACTOR 1 (Activity)	FACTOR 2 (Pleasantness)	FACTOR 3 (Potency)
Active-Passive	Pleasant-Unpleasant	Powerful-Weak
Happy-sad	Liked-Disliked	Masculine-Feminine
Fast-Slow	Valuable-Worthless	
Lively-Peaceful	Interesting-boring	
Agitated-Solemn		
Light-Serious		
Spirited-Dull		

pleasantness factor in her experiments. Factor 3, which accounted for the remaining 8.4% of the common variance was bipolar and reflected the properties of power and masculinity. Wintle's (1978) study supports these results and consequently the third factor was designated as the potency factor.

The three dimensional structure of emotive or affective expression in music resulting from this study is not only comparable to the factors found in Wintle (1978) study, but they are also reminiscent of Osgood, Suci and Tannenbaum's (1958) three major factors of meaning and the principal aspects of affective expression.

Thus, having found the similar three dimensional structure of affective expression of music, musical selections were to be maximally discriminated based on these three factors. In order to retain the dimensional structure, factor scores from the principal components analysis were submitted to the Discriminant Analysis using SPSS. The results of the discriminant analysis are placed in Table 4.5.

The purpose of this Discriminant Analysis was to select two excerpts of music which varied maximally on the pleasantness factor but remained closer on the potency and activity factors. As Table 4.5 shows, the musical excerpt No.4 (which was most liked by the subjects) differed maximally with the musical excerpt

Table 4.5. Discriminant Analysis - Loadings

Music selctions ordered based on the loadings on the Pleasantness factor from negative to positive

Music No.	FACTOR 1 (Activity)	FACTOR 2 (Potency)	FACTOR 3 (Pleasantness)
10	0.92	1.23	-1.14
8	1.73	1.66	-1.07
1	1.62	-0.71	-0.64
5	-0.18	-1.15	-0.63
2	0.75	0.25	-0.45
3	-1.24	-0.45	-0.38
7	-1.74	-1.66	-0.32
6	-0.41	-0.03	-0.32
12	0.43	-0.23	0.20
11	0.04	1.03	1.34
9	-0.89	-1.25	1.49
4	2.18	1.30	2.24



No.8 and No. 10 (which were disliked by the subjects). Musical excerpt No.10, however, was quite distant in its activity factor ratings from musical excerpt 4. Therefore, it was deemed appropriate to test the hypotheses if music excerpts No.4 and No.8, and the music excerpt No.4 and No.10 are significantly different. The Student Newman Keuls a posteriori contrast was thus employed. Three independent indices each representing activity, potency and pleasantness factor, were formed by the means of the items as represented in the dimensional structure. As Table 4.6 shows musical excerpt No.4 differed with musical excerpt No.10 on the activity factor at .02 level. However, musical excerpts No. 4 and No.10 satisfied the requirements for this study's purpose. That is, they did not differ on activity and potency factors, but differed significantly on the pleasantness factor at .01 level. Therefore, the musical excerpts No. 4 and No.8 were selected and classified as liked and disliked musical excerpts respectively.

A second purpose of the stage one experiment was to select the salient-attributes of a hair shampoo product. The attributes desired by the subjects were rank ordered based on the frequency counts. Attributes most desired by the subjects were reasonable price, cleanliness, removal of dandruff flakes, nice fragrance, not dry formula, and a good brand name. Therefore, these six

Table 4.6. Contrasts between Musical Selections  
(P-values)

Between Musical selections	Factors		
	Activity	Potency	Pleasantness
No.4 & 10	.02*	.16	.007*
No.4 & 8	.07	.23	.012*

\* - represents significant difference at .05 level.

attributes were used to obtain attitudes toward the brand ratings in the pre-test stage two and main experimental stage three. These salient attributes were also used to provide the text to the radio commercials prepared for this study.

Preparation of the Radio Commercials. Two radio commercials were professionally prepared by a radio station in Indiana (see Figures 4.8 and 4.9 for the complete text of the ad copies). One ad was prepared for the high involvement condition and another for the low involvement conditions. Both versions of the ad incorporated the salient attributes identified in stage one.

Filler Ads and the Questionnaire. Two filler ads were selected which reflected much similarity with the test ads in terms of the presentation of information, quality of reproduction, and the format of the ad. These filler ads were for Ecko chainsaw and Sony Trinitron television. These commercials were recorded off the air in the western region of the U.S. In order to provide realism to the cover story and avoid guessing of the hypotheses, attitudinal responses to the Sony T.V. filler ad were solicited at the end of the questionnaire.

Announcer: (Male)

Crystal shampoo is now being introduced in the Lafayette area. Listen to what Mrs. White of West Lafayette has to say about Crystal.

Woman (Mrs. White):

It seems like hair shampoos are a dime a dozen . . . . . But New Crystal is one in a million. Last December I was so fed up with the way my hair looked. Then I discovered Crystal. Crystal kept my hair clean and got rid of my husband's dandruff flakes. Now our hair stays soft and shiny -- not dry. Crystal gave us the control we needed, and everybody in our family uses it. We especially like its "natural" fresh scent. It offered us high quality without the high price. (brief pause) . . . . Thank you Crystal for keeping our hair silky, shiny and clean.

Announcer: (Male)

Keep your hair Crystal clean with New Crystal shampoo. Now available at Smitty's, Oscos, and other Lafayette area stores.

Figure 4.8. Ad Copy for the High Involvement Condition.

Announcer: (Male)

Crystal shampoo is NOT currently available in the Lafayette area. Crystal is available only in the New England states. Listen to what Mrs. White of Boston has to say about Crystal.

Woman: (Mrs. White)

It seems like hair shampoos are a dime a dozen.... But New Crystal is one in a million. Last December I was so fed up with the way my hair looked. Then I discovered Crystal. Crystal kept my hair clean and got rid of my husband's dandruff flakes. Now our hair stays soft and shiny -- not dry. Crystal gave us the control we needed, and everybody in our family uses it. We especially like its "natural" fresh scent. It offered us high quality without the high price. (brief pause).... Thank you Crystal for keeping our hair silky, shiny and clean.

Announcer: (Male)

Keep your hair Crystal clean with New Crystal shampoo. Now available at all Bradley's, Caldor and other stores in the New England area.

Figure 4.9. Ad Copy for the Low Involvement Condition.

## Stage Two

As indicated in Figure 4.6, stage two includes three steps. This stage was necessary to provide the researcher with quality data concerning the reliability of measurement scales and the instrument. This stage also served as the pretest of the professionally prepared test ads. The procedure for this stage follows.

Procedure for Stage Two. Data was collected from fifty-two students at the Purdue University campus enrolled in consumer sciences and retailing classes in two sessions of 25 and 27 students. Upon entering the laboratory, subjects were told a cover story that a regional manufacturer is testing a commercial for a new product (i.e. the Crystal hair shampoo) and that their cooperation will be greatly appreciated. The market for this new product was identified as Boston (low relevance/involvement) or the Lafayette area (high relevance/involvement). They were then given a set of response sheets to record their responses to the test commercial. The researcher then instructed subjects to read the instructions to fill out the response sheets while the researcher read them aloud as well. After reading the instructions, any questions that subjects had about completing the instrument were answered by the researcher. Once these questions, if any, were

resolved, subjects were exposed to the radio commercial (without music for both conditions) and then instructed to complete the instruments. These two commercials without music were selected to avoid any familiarity effects of music when actual experiments are carried out. Once all the instruments had been completed and collected, subjects were given a post-experimental evaluation questionnaire, which asked them to guess the hypotheses of the study, among other questions for the manipulation checks.

The completed instruments were then tested for reliability of the measurements employed using Cronbach Alpha, and factor analysis was performed on the data to check for the unidimensionality of the scaled measurements. The results of this pretest are shown in Table 4.7. As the results show all the reliability coefficients were in the range of .8 or greater indicating high reliability of the measurements.

The results of this pretest stage were also examined for the understandability of the individual items of the questionnaire, the effectiveness of the cover story for the manipulation of involvement, and the extent to which subjects were able to guess the study's actual hypotheses. The post-experimental evaluation questionnaire was designed to identify any problems involving these concerns. Therefore, the questionnaires

Table 4.7. Reliability Coefficients for Measurements

Measurements	Indices	Cronbach Alpha
Affective Response	AFRP	.9706
	AFRN	.8312
Attitude toward the ad	AADS	.9130
	AADL	.8637
Attitude toward the brand	ATBRS	.9418
	ATBRL	.8962
Affect toward the Music	MUSAFCT	.9369
Distraction	DISTRAC	.9093



did not need any revision for the collection of data for the main study, and the study proceeded to stage three.

### Stage Three

Stage three was the main study of this research project. The outline of the steps involved during this stage can be seen in Figure 4.7. Aspects of the study which have not been addressed above will now be specified in detail.

Procedure for Stage Three. Upon entering the Foreign Languages and Literature laboratory at Purdue University for this session, subjects were informed that they were to take part in a survey jointly sponsored by WZFM 94 (a local radio station) and the Advertising Assessment Association. They were told that the sponsors are interested in peoples' reactions to their programming and various ads, and that their responses would be greatly appreciated. They were then told a cover story which manipulated their involvement (see Figures 4.10 and 4.11 for the complete texts of the cover story and the manipulation of involvement). The researcher then passed out the questionnaire and instructed the subjects to read the instructions for the experiment. After reading instructions and answering of questions, if any, the subjects were exposed to the Jackie Gleason Radio Program with one commercial break.

Thank you for coming and agreeing to participate in this study. This project has been jointly sponsored by WZFM 94, the Lafayette Radio Station and the Advertising Assessment Association. The sponsors are interested in people's reactions to their radio programming content and style, as well as your reactions to the various ads during the program.

In this study, you will first listen to a radio program and then be asked to fill out a survey questionnaire designed to solicit your reactions. The radio program could be considered for airing on WZFM 94 depending on your reactions. The ads placed during the radio program have been provided by the regional chapter of the National Advertising Assessment Association who are interested in your reactions to their ads and products.

Please remember that some of the products for which ads have been placed are currently being introduced in the Lafayette area and are available in stores in the Lafayette area. For example, Crystal shampoo is currently being introduced in the Lafayette area, and is available in the stores near you.

Please do not start responding to the questionnaire until you are asked to do so after you have listened to the entire radio program. Let us now go through some instructions as to how the questionnaire will need to be filled out.

Figure 4.10. Cover Story for High Involvement Condition.

Thank you for coming and agreeing to participate in this study. This project has been jointly sponsored by WZFM 94, the Lafayette Radio Station and the Advertising Assessment Association. The sponsors are interested in people's reactions to their radio programming content and style, as well as your reactions to the various ads during the program.

In this study, you will first listen to a radio program and then be asked to fill out a survey questionnaire designed to solicit your reactions. The radio program could be considered for airing on WZFM 94 depending on your reactions. The ads placed during the radio program have been provided by the regional chapter of the National Advertising Assessment Association who are interested in your reactions to their ads and products.

Please remember that some of the products for which ads have been placed are not available in the Lafayette area and would not be introduced in the near future in the Lafayette area. For example, Crystal Shampoo is currently not available in stores in Lafayette. Crystal is available only in New England states.

Please do not start responding to the questionnaire until you are asked to do so after you have listened to the entire radio program. Let us now go through some instructions as to how the questionnaire will need to be filled out.

Figure 4.11. Cover Story for Low Involvement Condition.

Ad Placements	REPETITIONS	
	ONE	THREE
COVER STORY AND INSTRUCTIONS		
1 BEFORE	Sony T.V.	Sony T.V. Crystal Shampoo
Jackie Gleason Program Starts		
2 MIDDLE	Ecko Chainsaw	Ecko Chainsaw Crystal Shampoo
Jackie Gleason Program continues till its end		
3 AFTER	Sony T.V. Crystal Shampoo	Sony T.V. Crystal Shampoo
END OF THE PROGRAM		

Figure 4.12. Format of the Radio Program

The complete format of the radio program with test and filler ads is placed in Figure 4.12. Each subject listened to the program with commercials in the FLL language laboratory cubicle which, along with the use of individual headsets, allowed for the simultaneous manipulation of all treatment conditions. Subjects completed the questionnaire relating to the program and commercials immediately after listening to the whole radio program. Upon completion of all responses, the questionnaires were collected from all subjects by the researcher and his two associates. The researcher then administered a post-experimental evaluation questionnaire designed to test for the presence of demand artifacts such as hypothesis guessing. Following collection of the post-experimental evaluation questionnaires, subjects were thanked for their time and participation and then dismissed.

The data was collected in nine sessions over one week period. Subjects were debriefed only after all the sessions were conducted by going into classes where subjects were drawn. Also a debriefing note was posted on the bulletin board of the department so that students who may have missed the debriefing session could be served.

Sample. The sample consisted of 433 undergraduate students enrolled in the Consumer and Family Science courses at the Purdue University, West Lafayette campus.

Sample size was set at this level to provide sufficient internal experimental validity for subsequent statistical analyses. As can be seen in Figure 4.1, there are 12 cells in the experimental design. Approximately 35-38 subjects were randomly assigned to each of the cells (see Figure 4.1 for cell sample sizes). Experiments were conducted in large groups of 50-60 students in each session at the Foreign Languages and Literature laboratory which provided a separate cubicle for each subject with their individual headsets. This laboratory also allowed random assignment of each of those 50-60 to one of the four experimental conditions that could be and were carried out in any session.

Although there have been questions raised about the appropriateness of student samples (for example, Cunningham, Anderson and Murphy 1975), provided that they are used in relevant situations, the problem is not considered serious by most researchers (for example, Lamb and Stern 1979), i.e., situations in which the status of the subjects as students is not expected to affect their behavior as subjects. Since the product (Crystal hair shampoo) used in this study is relevant for the students as consumers, student status should not compromise the validity of this study. This does not imply that the results of this study can be generalized to other populations without extreme caution.

Stimuli. Two radio commercials for the Crystal hair shampoo were professionally prepared by a radio station in Indiana. These two radio commercials had either the liked or the disliked background music. The background music excerpts (liked and disliked) were selected in stage one of this study.

The commercials were incorporated into an old Jackie Gleason program during its regular commercial breaks. Subjects were exposed to the test commercial under two exposure conditions: one and three times. The radio program also include 2 other filler ads for the Ecko chainsaw and the Sony Trinitron T.V. These filler ads were selected from many ads aired on radio in the western region of the U.S. The outline of the positions of test ads and filler ads in the complete radio program under the three exposure conditions can be seen in Figure 4.12.

As can be seen in Figure 4.12, under the one-exposure condition, the test ad was positioned only once at the end of the program and all filler ads. That is, the test ad was the last ad to which subjects were exposed. Under the three-exposure condition, subjects were exposed to the test ad at the beginning, middle and at the end of the program.

It was expected that the underlying design of the exposure conditions within a radio program would help minimize demand artifacts. Subjects should not have been

able to guess the hypotheses of the present study with this design. To further minimize the potential of hypothesis guessing, some questions about the program and filler ads were also asked in the questionnaire. The content of the questionnaire design is discussed next.

Instrument. The main study utilized two questionnaires: one for the collection of data concerning test ads, and the other for the post-experimental evaluation. The first questionnaire consisted of multiple measures of affective and attitudinal responses to test ads and brands that were employed in the present study. Similar types of responses in much less quantity were obtained for the filler ads and the overall radio program. The post-experimental evaluation questionnaire was designed to identify the presence of demand artifacts (if any) such as hypothesis guessing. The instruments can be seen in Appendix D.

### Conclusion

This chapter covered the methodology that was employed in this study. The study was conducted in three stages. Stages one and two were used to pre-test the musical excerpts, selection of music, preparation of



radio commercials, and assess the reliabilities of the measurements for quality data collection. Stage three was the main study of this research project. The next chapter presents the results and analysis of the data which were collected in stage three. The hypotheses are discussed as they relate to the results. And finally, these results are discussed in a more general fashion.

## CHAPTER V

### RESULTS AND ANALYSIS

This chapter presents the results and analysis performed in the present study. There are three major sections in this chapter. First, the measurement indices employed and the assessment of their reliabilities are briefly presented. Second, the results of the Multivariate Analysis of Variance (MANOVA) for the first six hypotheses are presented. Finally, the results of Linear Structural Relations (LISREL) for the remaining four hypothesis are presented.

#### Measurement Indices

##### Affective Response (AFR)

In this study, a measurement technique developed by Abelson et al.(1982) and later modified by Allen and Madden (1983) was utilized to measure affective responses to advertising. As Allen and Madden state:

"The approach is very simple: the subject is asked merely to try to recall what he or she was feeling during exposure to the treatment ad and is given a list of adjectives describing different kinds of feelings. Then, in response to the question, "Did This Commercial Make you feel," they checked a

response to each adjective on a six point scale that had end labels "Very Much So" and "Not At All"."

As was the case in the Allen and Madden (1983) study, the items in the scale were chosen to reflect subjects' positive as well as negative affective responses. Two subsets of items, positive and negative, were created. The positive subset consisting of the items, good, lively, cheerful, spirited, pleasant, happy, stimulated, soothed, light, amused and calm formed a positive affective response (AFRP) index. The reliability of the AFRP using Cronbach Alpha was 0.9516. The negative subset consisting of the items agitated, irritated, impatient, repulsed, angry and confused formed a negative affective response (AFRN) index. The reliability of the AFRN using Cronbach Alpha was 0.8971.

#### Ad Cognitions and Brand Cognitions

Two cognitive response measures were employed in this study. One measure was employed to measure subject's cognitions toward the ad. A second measure was employed to measure subject's cognitions toward the brand. Subjects were asked to try to recall what was going through their minds concerning the ad or brand while they listened to the ad. It was made very clear by highlighting letters that they were to try to recall what they were thinking or feeling while they were listening to the commercial. Subjects were instructed

to list their thoughts, one per box, on a page that provided five rectangular boxes. To help interpret these data, subjects were asked to rate each of their thoughts after they had listed all their thoughts by marking a positive or a negative sign in a small squared box provided against each rectangular box. Using subjects as their own thought raters eliminated the need for a post-hoc thought categorization. One index of commercial oriented cognitive response (CCR) and another index of brand oriented cognitive responses (BCR) were developed by subtracting the number of negative from positive thoughts for each subject.

#### Attitude toward the Ad

Since multiple measurements were needed for the LISREL analysis, two indices or indicators were employed to measure the attitude toward the ad construct.

A first measure utilizing 17 bipolar semantic differential scales (AADS) was employed to indicate subjects' overall reactions to the ads. These bipolar scales were selected from the evaluation, potency and activity factors of the semantic differential scales (see Osgood, Suci and Tannenbaum, 1957). Responses to the 17 scales were submitted to the principal components analysis. The first 16 scales with the exception of the familiar-novel scale had the highest loadings on the first evaluative factor making it unidimensional. Thus,

an attitude toward the ad index was represented by the mean of these 16 items (Cronbach alpha = .957).

A second measure of the attitude toward the ad construct was employed using three likert-type scales (AADL). Subjects responded to the three items (see Appendix D) on 7-point scales. This attitude toward the ad index was also represented by the mean of these three scales (Cronbach alpha = .8813).

#### Attitude toward the Brand

As with the attitude toward the ad construct, two measures were employed to indicate attitude toward the brand. First, a direct measure was employed utilizing 14 bipolar semantic differential scales selected from the evaluative, potency and activity factors of the semantic differential scales (see Osgood, Suci and Tannenbaum, 1957). Responses to the 14 scales were checked with the principal components analysis and were found to be unidimensional on the first evaluative scale. Thus, all the 14 scales were used and their mean represented one of the two indicators of the attitude toward the brand index (ATBRS). The Cronbach alpha reliability coefficient of this measure was .9607.

Secondly, an indirect measure of the attitude toward the brand was employed utilizing likert-type scales. These scales obtained subjects' probability of belief strength and evaluations on the salient

attributes (see Fishbein and Ajzen, 1975). Six salient attributes derived in stage one of this study (reasonable price, cleanliness, removal of dandruff, nice fragrance, no dry formula, and good brand name) were used. The measures of belief strength with respect to each outcome was multiplied by the corresponding evaluation of the outcome, and the sum over the six attributes served as a second indicator of the attitude toward the brand (ATBRL). The reliability coefficient of this measure was .8399.

#### Affect toward the Music

In order to check the manipulation of liked vs. disliked music, affect toward the music was obtained at the end of the questionnaire (MUSAFCT). It utilized 14 bipolar semantic differential scales. These scales were identical to that used in stage one of this study's experiments. The dimensional structure of the affect toward the music was identical to that in stage one. The mean of the pleasantness factor scales represented the music affect. The scales were pleasant-unpleasant, liked-disliked, interesting-boring and cheerful-solemn. A Newman Keuls test for a posteriori contrast and a t-test between the two means, i.e. liked vs. disliked music, resulted in significant difference at .0097 level indicating that the manipulation of music seems to have worked in this study. The manipulation of the music

seems to have worked in the three repetition condition (see Table 5.2 - MUSAFCT index) and across varying levels of involvement (see Table 5.4 - MUSAFCT index).

#### Distraction (DISTRAC)

In order to measure distraction which may occur especially under the high involvement condition due to the presence of background music in the commercials, three seven point scales were employed (see Appendix D). Subjects were asked to respond to these scales only if they noticed the presence of music in the commercial. Under control (no music) conditions, it was clear that subjects would not be distracted due to the presence of music and thus, they were not asked to respond to these questions. These scales were similar to the ones used by Nelson, Duncun and Frontczak (1985) to measure distraction. The mean of these three scales represented the distraction index.

#### Multivariate Analysis of Variance (MANOVA)

The data was analyzed using the SPSSX MANOVA program at the Purdue University. A between subjects model was employed to assess both interaction and main effects of the treatment conditions on subjects' responses. The sample consisted of 433 undergraduate students enrolled in the Consumer and Family Science courses at Purdue University. Approximately 35-38

subjects were randomly assigned to each of the 12 cells in the experimental design. The model employed was a 3 X 2 X 2 full factorial design in which the effects of music (liked vs. disliked vs. no music), repetition (one vs. three exposures) and personal relevance or involvement (high vs. low) on subjects' affective and attitudinal responses to the test commercial were assessed.

Since there were multiple nonmetric independent variables and multiple metric dependent variables, MANOVA was the appropriate technique for use in this study. MANOVA allows for the examination of the effects of independent variables on multiple dependent variables simultaneously.

In this study, there were three types of effects which needed to be analyzed. Two types of interaction effects: second and first order, were present here. The second order interaction effect is the effect taken together from background music, repetition and involvement. The first order interaction effect is the effect of these same three variables taken in pairs (i.e. music x repetition, music x involvement and repetition x involvement). Finally, the main effects refer simply to the individual effects of these variables taken one at a time.

The next section presents the results for the disposition of the first six hypothesis.



### Results of the First Six Hypotheses

The multivariate F statistics was used to test the interaction effects. The results of the interaction effects (see Table 5.1 show that the the second order interaction effect between music, involvement and repetition is not significant at .05 level. Although the first order interaction effects between music and repetition, and music and involvement are significant at alpha .05 level, they provide no information as to how the various levels of one variable interact with the levels of the other variable. The first six hypotheses in this study relate to the interaction effects between the levels of these variables. In order to examine the relationship between the levels of variables within the significant first order interaction effects, a posteriori Student Newman Keuls tests for the simple main effects were employed.

Kirk (1982) advocated the use of multiple comparison tests where an overall F is significant. He states, "If the overall hypothesis of equality of means is rejected, an experimenter is still faced with the problem of deciding which of the means are not equal. Thus, an overall F test is often merely the first step in analyzing a set of data. A significant F ratio indicates that something has happened in an experiment that has a small probability of happening by chance."

Table 5.1. Significance of Fs

EFFECT	UNIVARIATE							MULTIVARIATE OVERALL	
	AFRP	AFRN	AADS	AADL	ATBRS	ATBRL	MUSAFCT	DISTRAC	
MxRxI	.883	.228	.290	.859	.394	.430	.447	.294	.103
MxR	.015*	.001*	.062	.332	.098	.191	.006*	.005*	.039*
MxI	.039*	.092	.012*	.041*	.000*	.000*	.233	.425	.011*
RxI	.355	.032*	.193	.120	.454	.203	.297	.546	.234
M	.000*	.000*	.000*	.000*	.000*	.000*	.000*	.000*	.000*
R	.661	.000*	.051	.019*	.566	.211	.363	.402	.000*
I	.020*	.061	.404	.643	.538	.415	.183	.868	.064

\* = significant at .05 level

M = Music

R = Repetition

I = Involvement

AFRP = positive affect index

AFRN = negative affect index

AADS = attitude toward the ad (semantic differential scales)

AADL = Attitude toward the ad (likert scales)

ATBRS= Attitude toward the brand (Semantic differential scales)

ATBRL= Attitude toward the brand (Likert scales)

MUSAFCT= Music Affect index

DISTRAC= Distraction index

Therefore, the Student Newman Keuls test was applied to the results to look more closely at the means. This test was most appropriate for the purposes of this study since it allows for the unequal sample sizes among treatments. This test may also be considered appropriate since it is analogous to the unadjusted Bonferroni and simple t-test. The actual P-values for the comparisons are reported in Figures 5.2, 5.3 and 5.4 to allow an evaluation of the Type-I error. The Student Newman Keuls test is a posteriori test for simple main effects in which pairwise comparisons of the means can be evaluated. The null hypotheses of no difference in means is utilized. The results of this analysis are now presented for the disposition of each of the first six hypotheses.

#### Hypothesis 1

This hypothesis relates to the multivariate music by repetition first order interaction effects which were significant at the .039 level (see Table 5.1). It was expected in this hypothesis that there would be significantly higher mean scores on affective responses toward the ad (AFRP and AFRN) under high and low involvement conditions with increasing levels of exposure to the liked musical commercial.

A look at the Student Newman Keuls comparisons in Table 5.2 reveals that only two of the means are significant at .05 level for the liked music condition. On the negative affective response index (AFRN), subjects rated the liked musical commercial more negatively with increasing levels of exposure to the commercial. Contrary to the expectations created by the univariate Fs and by this hypothesis, no significant differences were found with increasing levels of repetition for the AFRP and MUSAFCT indices. However, these results were in the direction expected by this study. That is, the mean scores (see Table 5.2) in the three repetition condition on AFRP and MUSAFCT indices, although non-significant, were higher than those in the one repetition condition. Since the directional support for the expectations in the hypothesis was found, it is possible that more repetitions may have actually made these effects more pronounced and significant. Therefore, hypothesis 1 was partially supported. The mean scores are plotted in Figure 5.1.

#### Hypothesis 2

This hypothesis relates to the multivariate music by repetition first order interaction effects which were significant at .039 level (see Table 5.1). It was expected in this hypothesis that there would be significantly lower mean scores on affective response

Table 5.2. Music x Repetition Simple Main Effects  
(Cell Means)

INDICES	MUSIC				NO MUSIC	
	LIKED		DISLIKED		REP1	REP3
	REP1	REP3	REP1	REP3		
AFRP	3.59	3.74	2.99 <sup>1</sup>	2.40 <sup>1</sup>	3.02	3.23
AFRN	-3.30 <sup>2</sup>	-4.47 <sup>2</sup>	-3.30	-3.28	-3.61 <sup>3</sup>	-4.17 <sup>3</sup>
MUSAFCT	3.49	4.07	3.38 <sup>4</sup>	2.61 <sup>4</sup>		
DISTRAC	3.75 <sup>5</sup>	3.04 <sup>5</sup>	4.64 <sup>6</sup>	5.27 <sup>6</sup>		

1 = P-level was .0022

2 = P-level was .000

3 = P-level was .0087

4 = P-level was .0011

5 = P-level was .0359

6 = P-level was .0230

REP = Repetition

AFRP = Positive Affective response. A higher mean score indicates greater positive affect (liking) toward the ad.

AFRN = Negative Affect respons (scale from -1 to -7). A higher negative mean score indicates greater negative affect (disliking) toward the ad.

MUSAFCT = Music Affect. A higher mean score indicates greater music affect.

DISTRAC = Distraction index. A higher mean score indicates higher levels of distraction encountered by the subjects due to the presence of music.

toward the ad (AFRP and AFRN) under high and low involvement conditions with increasing levels of exposure to the disliked musical commercial.

As it can be seen from the Student Newman Keuls comparisons in Table 5.2 the affective responses (ad affect) as measured by AFRP and MUSAFCT indices were significantly different at .05 level. The means on these indices indicate that subjects' positive affect toward the ad and the affect toward the music (MUSAFCT) lowered with increasing levels of exposure to the ad (see Figure 5.1 for the plots of means on these indices). AFRN index, although in the expected direction, was not significant contrary to the expectations created by the univariate Fs. That is, the mean scores in the three repetition condition for the liked musical commercial on the AFRN index were lower, although not significant at .05 level, than those in the one repetition condition. Therefore, in the overall analysis hypothesis 2 was partially supported.

### Hypothesis 3

This hypothesis relates to the multivariate music by involvement first order interaction effects which were significant at .011 level (see Table 5.1). It was expected in this hypothesis that the mean of the Attitude toward the ad scores would be significantly higher under the low involvement condition than under

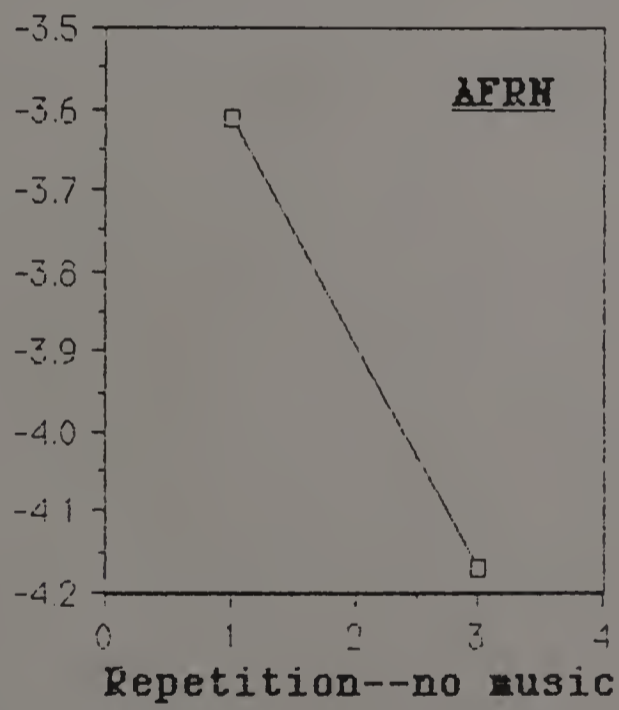
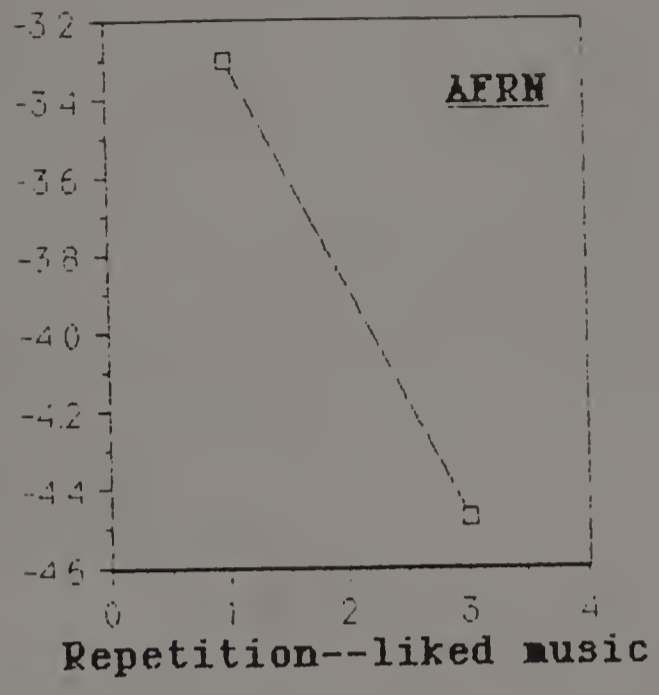
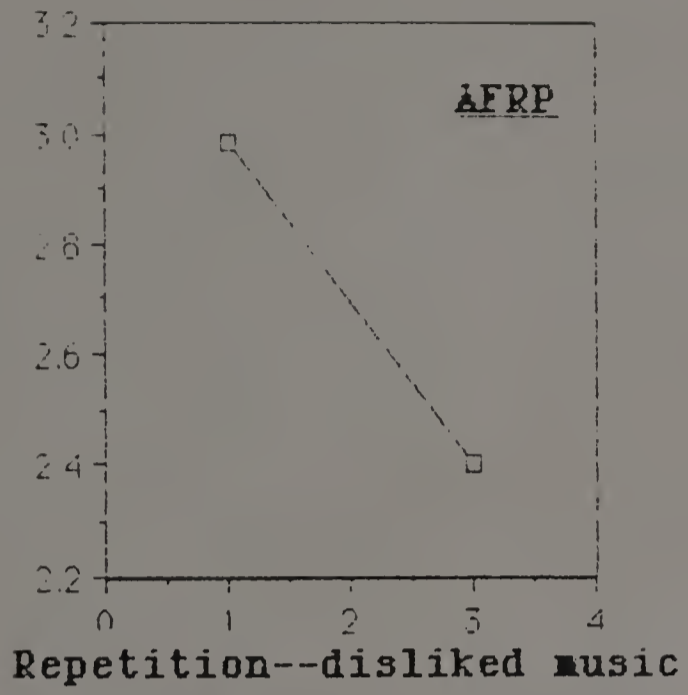


Figure 5.1. Music x Repetition Interaction - Plot of Means

the high involvement condition with the liked musical commercial.

The results of the Student Newman Keuls test for the simple main effects for all the significant indices are shown in Table 5.3. As expected in hypothesis 3, subjects' mean scores on attitude toward the ad measures (AADS and AADL) were significantly higher under the low involvement condition than under the high involvement condition with the liked musical commercial. Therefore, hypothesis 3 was supported. The mean scores on the AADS and AADL indices are plotted in Figure 5.2.

#### Hypothesis 4

This hypothesis relates to the multivariate music by involvement first order interaction effects which were significant at .011 level (see Table 5.1). It was expected in this hypothesis that the mean of the Attitude toward the ad scores would be significantly lower under the low involvement condition than under the high involvement condition with the disliked musical commercial.

As Student Newman Keuls test results show in Table 5.3, there was support for hypothesis 4. Subjects' mean scores on attitude toward the ad measures (AADS and AADL) were significantly lower under the low involvement condition than under the high involvement condition with the disliked musical commercial. The mean responses for



Table 5.3. Music x Involvement Interaction Simple Main Effects  
(Cell Means)

INDICES	MUSIC				NO MUSIC	
	LIKED		DISLIKED		HIGH	LOW
	HIGH	LOW	HIGH	LOW		
AFRP	3.28 <sup>1</sup>	4.07 <sup>1</sup>	2.78	2.61	3.02	3.22
AFRN	-3.57 <sup>2</sup>	-4.22 <sup>2</sup>	-3.31	-3.27	-3.89	-3.88
AADS	3.57 <sup>3</sup>	4.12 <sup>3</sup>	3.33 <sup>4</sup>	2.83 <sup>4</sup>	3.53	3.63
AADL	3.38 <sup>5</sup>	3.94 <sup>5</sup>	3.18 <sup>6</sup>	2.64 <sup>6</sup>	3.24	3.31
ATBRS	4.16 <sup>7</sup>	4.78 <sup>7</sup>	4.13 <sup>8</sup>	3.43 <sup>8</sup>	4.11	4.42
ATBRL	24.96 <sup>9</sup>	30.07 <sup>9</sup>	23.73 <sup>10</sup>	18.73 <sup>10</sup>	25.21	26.78
MUSAFCT	3.65	4.09	3.12	2.76		
DISTRAC	3.51	3.02	5.14	4.82		

- 1 - P value = .0039
- 2 - P value = .0218
- 3 - P value = .0188
- 4 - P value = .0053
- 5 - P value = .0444
- 6 - P value = .0145
- 7 - P value = .0016
- 8 - P value = .0001
- 9 - P value = .0008
- 10- P value = .0006

AFRP = Positive Affective response. A higher mean score indicates greater positive affect (liking) toward the ad.  
 AFRN = Negative Affect respons (scale from -1 to -7). A higher negative mean score indicates greater negative affect (disliking) toward the ad.

Note: A higher score on the following attitude toward the ad and brand attitude measures indicates more favorable (positive) attitudes.

AADS = attitude toward the ad (semantic differential scales)  
 AADL = Attitude toward the ad (likert scales)  
 ATBRS= Attitude toward the brand (Semantic differential scales)  
 ATBRL= Attitude toward the brand (Likert scales)

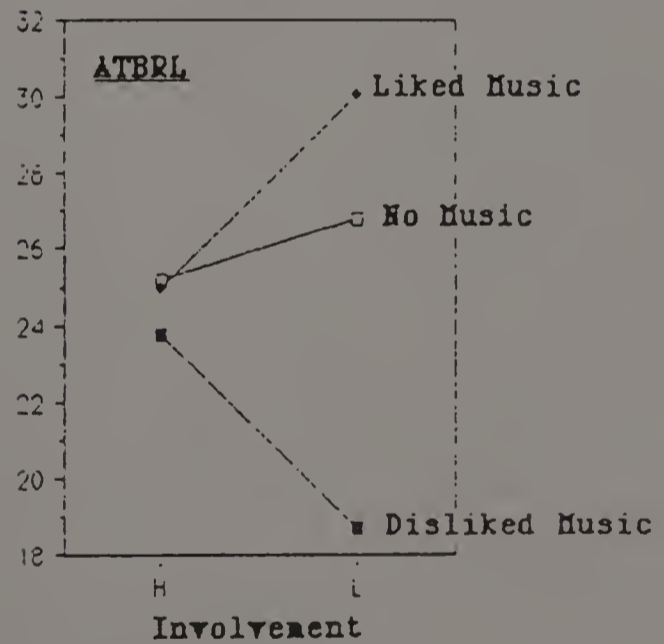
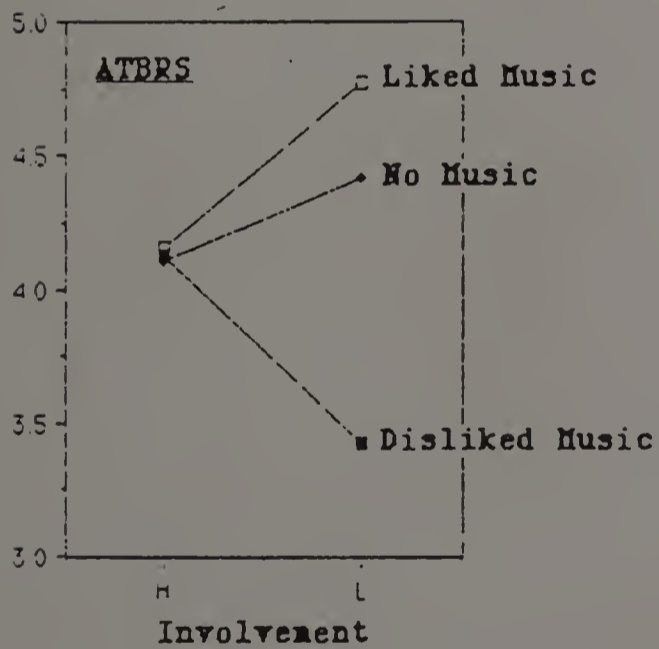
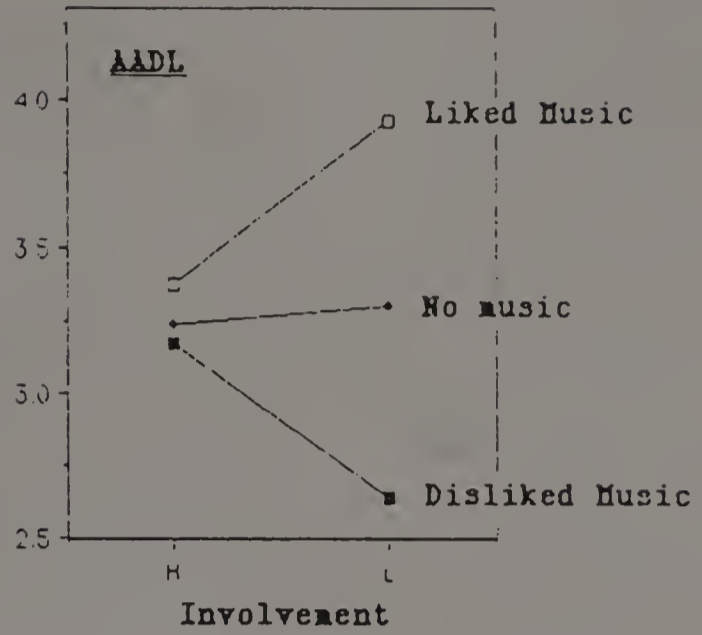
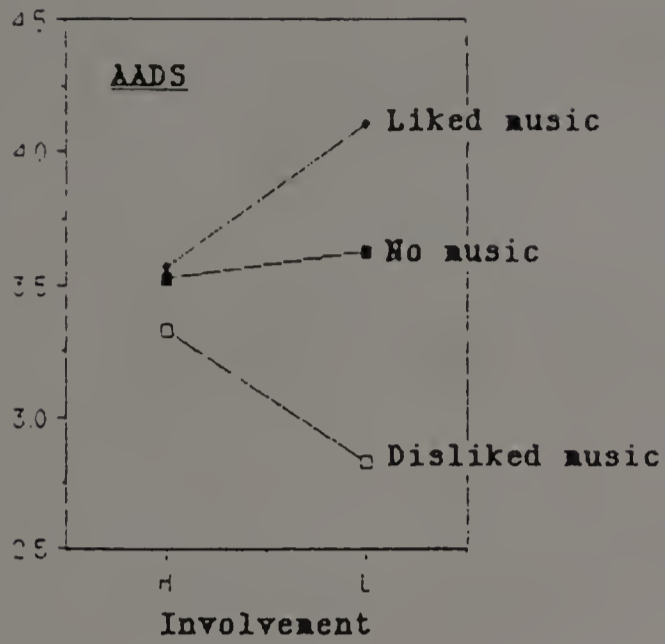


Figure 5.2. Music x Involvement Interaction - Plot of Means

the attitude toward the ad indices are plotted in Figure 5.2.

#### Hypothesis 5

This hypothesis relates to the multivariate involvement by music first order interaction effects which were significant at .011 level (see Table 5.1). It was expected in this hypothesis that the mean of the Attitude toward the brand scores under the low involvement condition would be higher with the liked musical commercial than with the disliked musical commercial; but no music condition would have higher attitude toward the brand mean scores than the disliked musical commercial condition.

A closer look at the attitude toward the brand indices (ATBRS and ATBRL) reveals that the hypothesis 5 is supported based on the Student Newman Keuls test of simple main effects presented in Table 5.4. Attitude toward the brand mean scores as measured by the ATBRS and ATBRL indices (see Table 5.4) under the low involvement condition were significantly higher with the liked musical commercial than with the disliked musical commercial. Also, the attitude toward the brand scores were significantly higher with the no musical commercial (control) than with the disliked musical commercial under the low involvement condition. Therefore,

Table 5.4. Involvement x Music Interaction Simple Main Effects  
(Cell Means)

INDICES	INVOLVEMENT					
	HIGH			LOW		
	LIKED	DISLIKED	NO MUSIC	LIKED	DISLIKED	NO MUSIC
AADS	3.57	3.33	3.53	4.12 <sup>1</sup>	2.83 <sup>1</sup>	3.63 <sup>1</sup>
AADL	3.38	3.18	3.24	3.94 <sup>2</sup>	2.64 <sup>2</sup>	3.31 <sup>2</sup>
ATBRS	4.16	4.13	4.12	4.78 <sup>3</sup>	3.43 <sup>3</sup>	4.42 <sup>3</sup>
ATBRL	24.96	23.73	25.22	30.07 <sup>4</sup>	18.73 <sup>4</sup>	26.78 <sup>4</sup>
DISTRAC	3.52 <sup>5</sup>	5.14 <sup>5</sup>		3.02 <sup>6</sup>	4.83 <sup>6</sup>	
MUSAFCT	3.66 <sup>7</sup>	3.12 <sup>7</sup>		4.10 <sup>8</sup>	2.76 <sup>8</sup>	

1 - P value = .0000

2 - P value = .0000

3 - P value = .0000

4 - P value = .0000

5 - P value = .0000

6 - P value = .0000

7 - P value = .0138

8 - P value = .0002

Note: A higher score on the following attitude toward the ad and brand attitude measures indicates more favorable (positive) attitudes.

AADS = Attitude toward the ad semantic differential measure

AADL = Attitude toward the ad likert scales measure

ATBRS= Attitude toward the brand (Semantic differential scales)

ATBRL= Attitude toward the brand (Likert scales)

DISTRAC = Distraction index. A higher mean score indicates higher levels of distraction encountered by the subjects due to the presence of music.

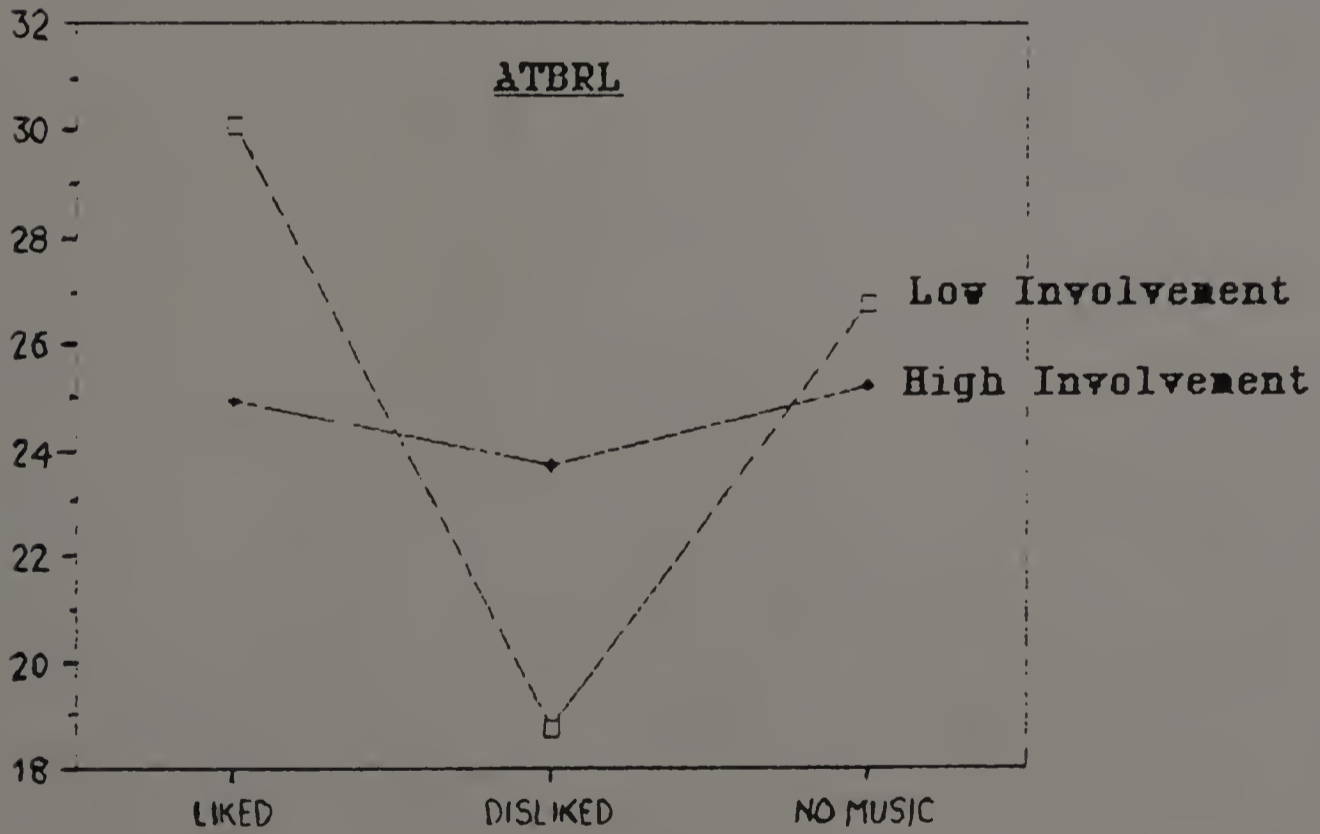
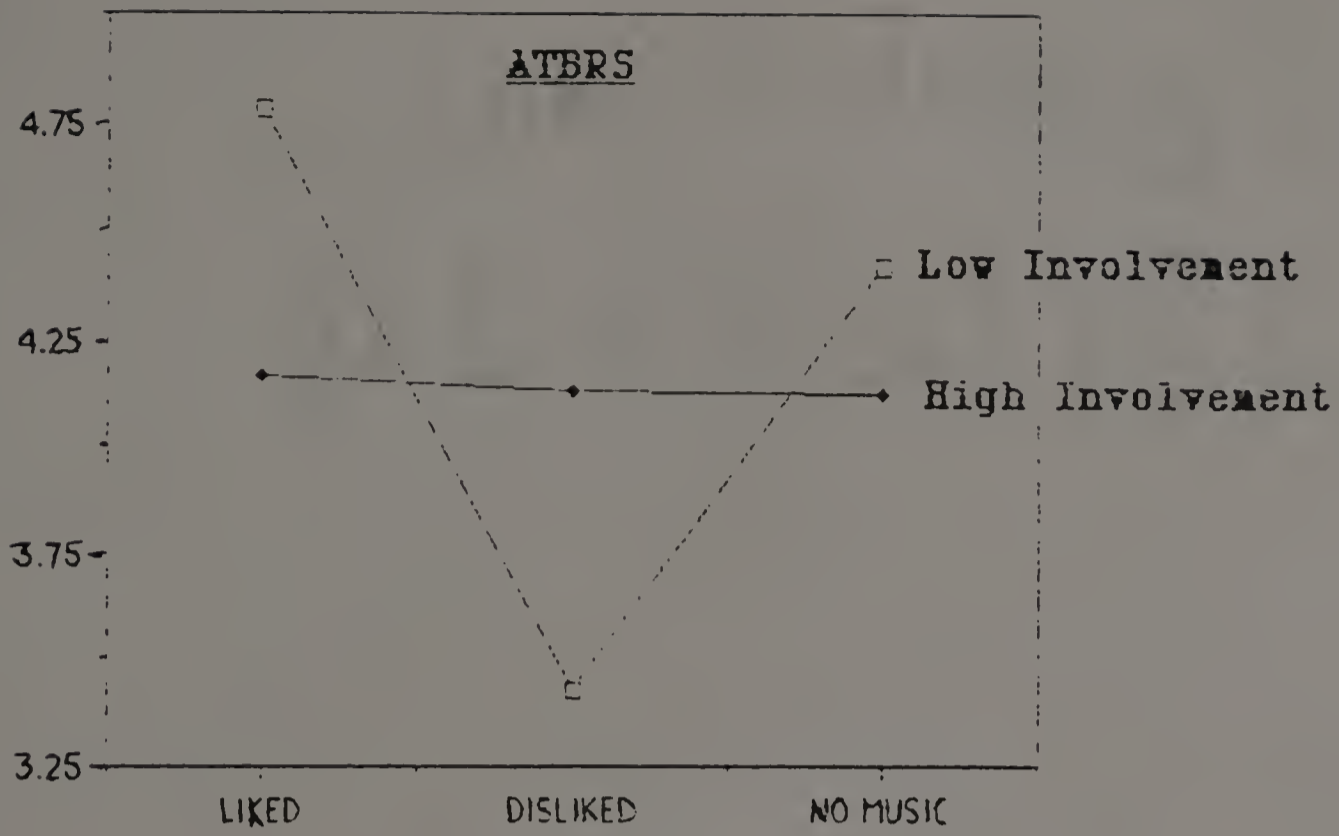


Figure 5.3. Involvement x Music Interaction - Plot of Means.

hypothesis 5 was supported. The mean responses of these analysis are plotted in Figure 5.3.

#### Hypothesis 6

This hypothesis relates to the multivariate involvement by music first order interaction effects which were significant at .011 level (see Table 5.1). It was expected in this hypothesis that the mean of the Attitude toward the brand scores under the high involvement condition would be highest under no music condition than the liked or disliked musical commercial condition; but attitude toward the brand mean scores would be higher under the liked than disliked musical commercial.

The Student Newman Keuls test results (see Table 5.4), however, did not support hypothesis 6. Attitude toward the brand mean scores as measured by ATBRS and ATBRL indices (see Table 5.4) under the high involvement condition across different music conditions were not significantly different. Since this hypothesis is specifically based on the distraction hypotheses effects (see Chapter 4), the distraction index (DISTRAC) results were presented in Table 5.4. The distraction index was significantly different. Distraction due to the presence of music in the commercial was significantly higher with the disliked music than with the liked musical commercial. No distraction effects were

expected in the no musical commercial condition. Therefore, it is clear that although the distraction occurred most in the disliked musical commercial condition followed by the liked musical commercial, subjects' attitude toward the brand remained unaffected by the impact of this distraction. A closer look at the means in Table 5.4 also reveals that for the ATBRS index the results were also in the opposite direction. That is, the mean score on the ATBRS index was highest in the liked musical commercial condition followed by the disliked musical commercial condition. Therefore, no directional support for this hypothesis was found. In the overall analysis, therefore, hypothesis 6 was rejected.

#### Summary Results of the First Six Hypotheses

Table 5.5 presents a summary of the results of the study's first six hypotheses. Hypotheses 1 and 2 relate to the AFRP and AFRN indices, and the results here concerning the effects of repetition are somewhat disappointing although the directional support was found for the effects of repetition. Hypotheses 3 and 4 relate to the AADS and AADL indices concerning the effects of personal relevance or involvement. The results here were as expected. Hypotheses 5 and 6 relate to the ATBRS, ATBRL and DISTRAC indices concerning the effects of the polarized background

Table 5.5. Summary Results of MANOVA

Hyp No.	Hypothesis (MRI)	Indices	Supported on Indices	P-value	Overall Supported	
1	L3. GT L1.	AFRP	Yes, directional	.604	YES, Partially	
		AFRN	Yes	.000		
		MUSAFCT	Yes, directional	.104		
2	D3. LT D1.	AFRP	Yes	.002	YES, Partially	
		AFRN	Yes, directional	.945		
		MUSAFCT	Yes	.001		
3	L.L GT L.H	AADS	Yes	.018	YES	
		AADL	Yes	.044		
4	D.L LT D.H	AADS	Yes	.005	YES	
		AADL	Yes	.014		
5	L.L GT D.L	ATBRS	Yes	.000	YES	
		ATBRL	Yes	.000		
		DISTRAC	Yes	.000		
	AND					
	N.L GT D.L	ATBRS	Yes	.000		
		ATBRL	Yes	.000		
DISTRAC		Yes	.000			
6	N.H GT L.H	ATBRS	No	.940	NO	
		ATBRL	No	.390		
		DISTRAC	Yes	.000		
	AND					
	N.H GT D.H	ATBRS	No	.940		
		ATBRL	No	.390		
		DISTRAC	Yes	.000		
	AND					
	L.H GT D.H	ATBRS	Yes, directional	.940		
ATBRL		Yes, directional	.390			
DISTRAC		Yes	.000			

Note: Hypotheses are stated in Music x Repetition x Involvement terms. A (.) indicates all conditions.

Music: L = Liked; D = -Disliked,

Repetition: 1 = One exposure; 3 = Three exposures

Involvement: H = High; L = Low

AFRP - Positive Affective Response

AFRN - Negative Affective Response

MUSAFCT - Affect toward the Music

AADS - Attitude toward the Ad semantic differential index

AADL - Attitude toward the Ad Likert type index

ATBRS - Attitude toward the Brand semantic differential index

ATBRL - Attitude toward the Brand Likert type index

DISTRAC - Distraction measure index



music. The results here were as expected for the low involvement condition (hypothesis 5), but not for the high involvement condition (hypothesis 6).

The results of the LISREL models employed in this study are presented in the next section after a brief introduction to the LISREL analysis. This is followed by the presentation of the LISREL results for the hypotheses 7 through 10. Finally, the results of both MANOVA and LISREL are then discussed in the next chapter along with the conclusions drawn from all the analyses.

#### Linear Structural Relations (LISREL) Analysis

The hypothesized model of advertising effectiveness was tested using causal structural analysis (LISREL) under conditions pertaining to the experimental design. These causal models were then compared to determine the causal effects of the polarity of music under varying conditions of involvement. This methodology has been used and supported by Lutz (1985) and MacKenzie, Lutz and Belch (1986). Results will be followed by a concluding remarks chapter which includes a discussion of the results in a general fashion.

Causal structural analysis is deemed appropriate since it deals with causal factors as unobservable phenomena. These unobservable causal factors are manifested in unobservable ways and events. These

observable manifestations are only indicators of the unobservable constructs and not the constructs themselves; hence, caution is necessary. Therefore, the more multiple indicators utilized to measure the unobservable event, the higher the confidence one can attribute to the causal linkage.

Similar to the traditional correlational and variance-covariance studies, causal analysis utilizes the independent (or exogenous) and the dependent (or endogenous) variables. They are, however, the unobservable cause and effect variables. Each of the unobservable constructs is measured with a set of observable manifest indicators. The structural parameters therefore represent relatively unmixed, invariant and autonomous features of the mechanism that generate the observable indicators.

LISREL (LInear Structural RELations) is a general computer program developed by Joreskog and Sorbom (1976) for estimating the causal effects of unknown coefficients in a set of linear structural equations. The variables in the equation system may be directly observed variables, unobserved hypothetical construct variables, or latent variables which are not observed but related to other observed variables. The model allows both for errors in the observed variables such as error of measurement and for observational errors. The latter is typically assumed to be error-free in

traditional variance-covariance analysis. LISREL yields estimates of the residual covariance matrix and the measurement error covariance matrix, as well as estimates of the causal effects in the structural equation. LISREL VI was employed in this study.

The next section presents the results of the models employed to test hypotheses 7 through 10 in this study. This is followed by the results for the disposition of the hypotheses 7 through 10.

#### Results for the LISREL Models Employed

In order to test the hypotheses 7 through 10, six identical but separate models were utilized across 12 experimental conditions. Since repetition effects were not hypothesized in any of these hypotheses, and the purpose of the analysis was to estimate causal structural relations for the music x involvement interaction, the data was pooled across repetition conditions. Experimental conditions illustrating different models used in this study are shown in Table 5.6. It was also necessary to pool the data across experimental conditions to generate sample sizes adequate for the use of the structural equation modeling. It should be noted at this time that the affective response measure which served as an indicator to the Ad Affect construct was not divided into positive and negative affective response indices since the

Table 5.6. Experimental Conditions Illustrating different LISREL Models

INVOLVEMENT	MUSIC		NO MUSIC
	LIKED	DISLIKED	
HIGH	MODEL 1	MODEL 2	MODEL 3
LOW	MODEL 4	MODEL 5	MODEL 6

measure was found to be unidimensional in nature. Tables 5.7 and 5.8 show the correlation matrices used in this study for the six models.

In the initial tests, the dual mediation hypothesis as hypothesized in the proposed measurement model (see Figure 5.4) was used for the six models. In these models, brand cognitions construct (BRCOG) was treated as an endogenous construct and a path from attitude toward the ad construct (AAD) to the brand cognitions construct (BRCOG) existed. These initial tests indicated a direct and an indirect causal relationship between the attitude toward the ad (AAD) and the attitude toward the brand (AB). However, this approach resulted in inadmissible solutions as indicated by high negative estimates of structural errors associated with the endogenous latent constructs (AAD, BRCOG and AB). The PSI matrix therefore was not positive definite. To avoid this problem and relax the models, the path from AAD to AB (the indirect effect of AAD on AB) was deleted and the BRCOG was treated as an exogenous construct. This resulted in the appropriate specification of the models for the analysis with the PSI matrix being positive definite. This new approach, however, changed the theoretical structure of relationships between attitude toward the ad and the brand attitude as dual mediation hypothesis to the affect transfer hypothesis between AAD and AB. The affect transfer hypothesis

Table 5.7. Correlation Matrices for Models 1, 2 and 3.

MODEL 1

	AADS	AADL	ATBRS	ATBRL	CCR	AFR	BCR
AADS	1.0						
AADL	.9	1.0					
ATBRS	.68	.54	1.0				
ATBRL	.44	.36	.73	1.0			
CCR	.70	.68	.52	.32	1.0		
AFR	.63	.52	.44	.37	.46	1.0	
BCR	.36	.27	.49	.38	.42	.19	1.0

MODEL 2

AADS	1.0						
AADL	.86	1.0					
ATBRS	.38	.45	1.0				
ATBRL	.42	.32	.47	1.0			
CCR	.61	.62	.40	.15	1.0		
AFR	.63	.49	.05	.38	.24	1.0	
BCR	.58	.55	.34	.28	.42	.32	1.0

MODEL 3

AADS	1.0						
AADL	.85	1.0					
ATBRS	.61	.60	1.0				
ATBRL	.38	.31	.61	1.0			
CCR	.49	.47	.41	.34	1.0		
AFR	.50	.53	.34	.14	.41	1.0	1.0

AADS - Attitude toward the Ad semantic differential measure  
 AADL - Attitude toward the Ad likert scales measure  
 ATBRS- Attitude toward the Brand semantic differential measure  
 ATBRL- Attitude toward the Brand likert scales measure  
 CCR - Cognitive response toward the ad (commercial) measure  
 BCR - Cognitive response toward the brand measure  
 AFR - Affective response toward the ad measure

Table 5.8. Correlation Matrices for Models 4, 5 and 6.

MODEL 4

	AADS	AADL	ATBRS	ATBRL	CCR	AFR	BCR
AADS	1.0						
AADL	.94	1.0					
ATBRS	.83	.82	1.0				
ATBRL	.81	.80	.92	1.0			
CCR	.74	.72	.63	.62	1.0		
AFR	.90	.85	.81	.79	.66	1.0	
BCR	.51	.52	.48	.46	.95	.44	1.0

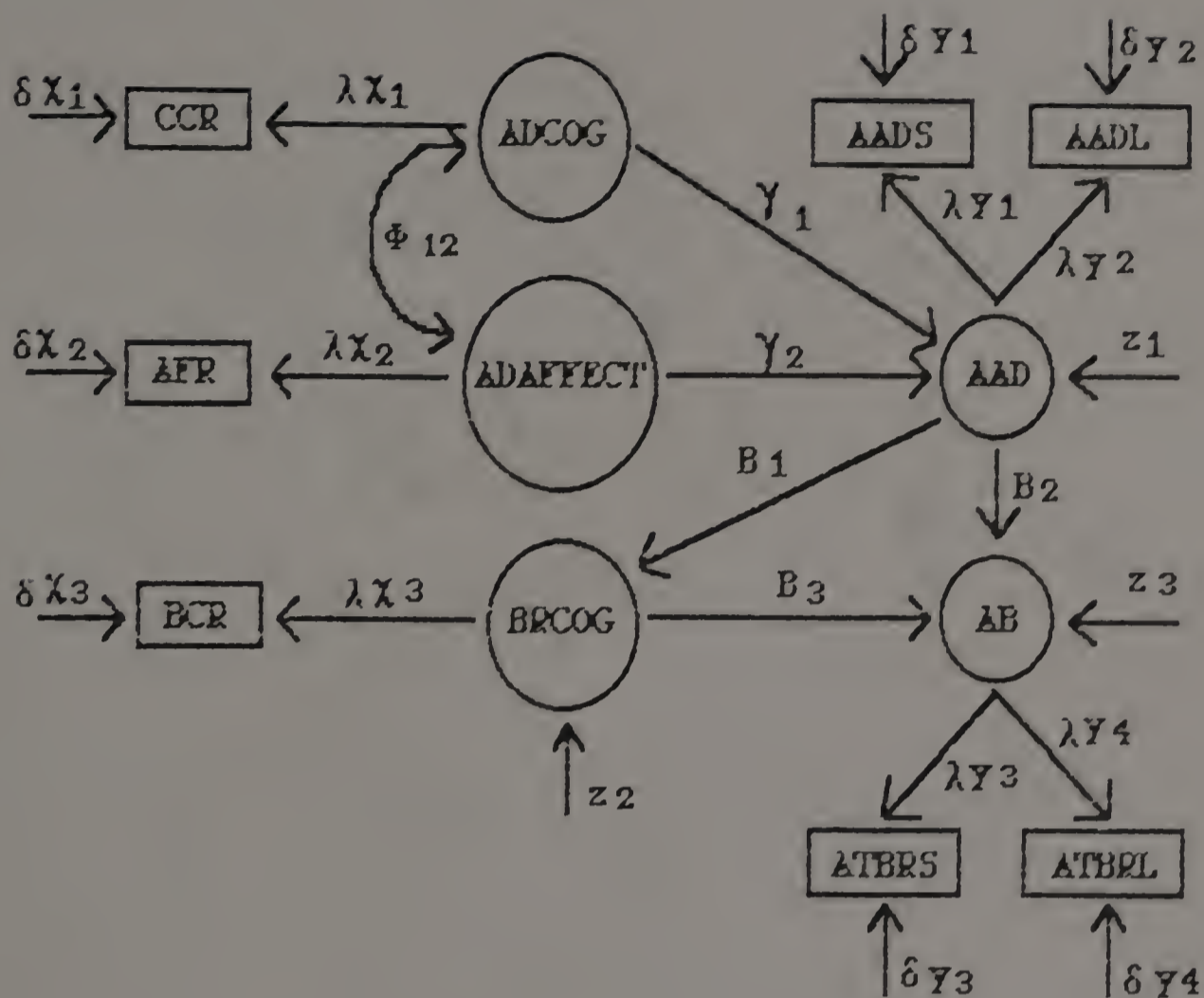
MODEL 5

AADS	1.0						
AADL	.84	1.0					
ATBRS	.71	.59	1.0				
ATBRL	.50	.43	.82	1.0			
CCR	.38	.44	.28	.12	1.0		
AFR	.59	.42	.62	.55	-.13	1.0	
BCR	.29	.27	.45	.39	.42	.04	1.0

MODEL 6

AADS	1.0						
AADL	.94	1.0					
ATBRS	.64	.67	1.0				
ATBRL	.55	.58	.72	1.0			
CCR	.66	.71	.41	.37	1.0		
AFR	.69	.63	.56	.46	.49	1.0	
BCR	.23	.31	.44	.56	.44	.26	1.0

AADS - Attitude toward the Ad semantic differential measure  
 AADL - Attitude toward the Ad likert scales measure  
 ATBRS- Attitude toward the Brand semantic differential measure  
 ATBRL- Attitude toward the Brand likert scales measure  
 CCR - Cognitive response toward the ad (commercial) measure  
 BCR - Cognitive response toward the brand measure  
 AFR - Affective response toward the ad measure



Notations:

- CCR - cognitive responses to commercial
- BCR - cognitive responses to brand
- $\Delta\text{FR}$  - effective response measure
- $\Delta\text{DCOG}$  - cognitions toward the advertising construct
- $\Delta\text{DAFFECT}$  - affect toward the ad construct
- $\Delta\text{AD}$  - attitude toward the ad construct
- $\Delta\text{BRCOG}$  - cognitions toward the brand construct
- $\Delta\text{B}$  - attitude toward the brand construct

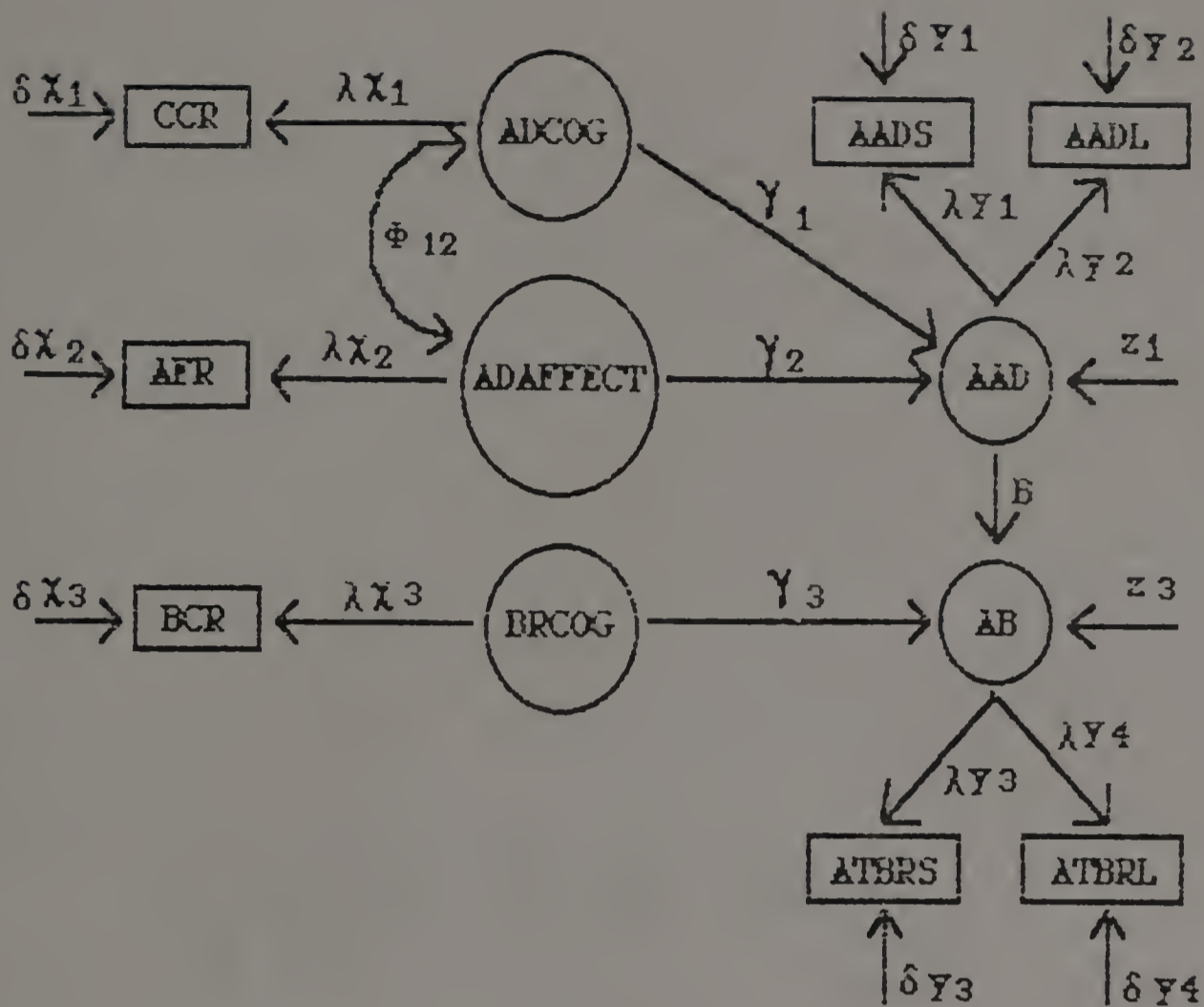
Figure 5.4. - Proposed Measurement Model of LISREL.



previously had been tested and supported by MacKenzie, Lutz and Belch (1986). Therefore, the results presented in this study actually support the affect transfer hypothesis. The revised measurement model used in this study can be seen in Figure 5.5.

As it can be seen from Table 5.9, indicator reliabilities for the six models were moderate to high with the exception of one indicator of the attitude toward the brand (ATBRL) in models 1, 2 and 3. This suggests a possibility that subjects in the high involvement condition did not consider the attributes of the brand as being salient to them. The reliability coefficients set definite limits on the accuracy of the indicators that are used. Table 5.9 also shows the variance extracted by the endogenous constructs from their respective indicators. Variance extracted by the constructs is analogous to the squared multiple correlations. As it can be seen from Table 5.9, constructs (AAD and AB) extracted variances were moderate to high across the six models. These results set the validity limits on the latent constructs.

Table 5.9 also shows the fit indices of the six structural model. As it can be seen from the Chi Square fit index figures, all the six models did not fit the data at .05 level. Only model 4 came remotely closer to a fit. However, according to Dillon and Goldstein



Notations:

- CCR - cognitive responses to commercial
- BCR - cognitive responses to brand
- AFR - affective response measure
- ΔDCOG - cognitions toward the advertising construct
- ΔDAFFECT - affect toward the ad construct
- ΔAD - attitude toward the ad construct
- BRCOG - cognitions toward the brand construct
- ΔAB - attitude toward the brand construct

Figure 5.5. Revised Measurement Model of LISREL.

Table 5.9. Reliability of the Indicators, Variance extracted by constructs, and Fit Indices for the Models.

INDICATOR RELIABILITIES

INDICATOR	MODEL 1	MODEL 2	MODEL 3	MODEL 4	MODEL 5	MODEL 6
AADS	.984	.916	.861	1.0	.936	.938
AADL	.982	.806	.812	.882	.752	.947
ATBRS	.543	.184	.485	.980	.898	.506
ATBRL	.253	.024	.013	.860	.775	.577

VARIANCE EXTRACTED BY CONSTRUCTS

CONSTRUCTS	MODEL 1	MODEL 2	MODEL 3	MODEL 4	MODEL 5	MODEL 6
AAD	.811	.529	.970	.993	.950	.972
AB	.488	.438	.820	.884	.790	.830

FIT INCIDES

INDICES	MODEL 1	MODEL 2	MODEL 3	MODEL 4	MODEL 5	MODEL 6
CHI SQUARE	46.7	93.71	34.17	21.30	91.53	29.42
DEGREES OF FREEDOM	8	11	9	8	8	8
P. LEVEL	.00	.00	.00	.01	.00	.00
GFI	.87	.78	.88	.94	.79	.89
AGFI	.74	.43	.74	.87	.59	.78
N	71	72	71	73	71	71

AADS = attitude toward the ad (semantic differential scales)  
 AADL = Attitude toward the ad (likert scales)  
 ATBRS= Attitude toward the brand (Semantic differential scales)  
 ATBRL= Attitude toward the brand (Likert scales)  
 AAD = Attitude toward the Ad Latent Construct  
 AB = Attitude toward the Brand Latent Construct  
 GFI = Goodness of Fit Index  
 AGFI= Adjusted Goodness of Fit Index  
 N = Sample Size

(1984), Chi Square measure as a fit index for the overall model should be used with extreme caution since Chi Square values are sensitive to sample sizes and its power is also unknown. They recommended goodness of fit index (GFI) and adjusted goodness of fit index (AGFI) to test the models overall. AGFI is adjusted for the degrees of freedom. GFI and AGFI fit indices are not sensitive to sample sizes.

Fairly good values on the GFI and AGFI measures of the goodness of the fit in Table 5.9 suggest that there was a fair fit of the models to the data. However, path coefficients in Table 5.10 for model 6 are unusually high and are suspect. Extreme caution should be exercised in evaluating the results of this model.

#### Results of the Hypotheses 7 through 10

Table 5.10 shows the path coefficients estimated by the six LISREL models. These path coefficients are analogous to the regression coefficients in the regression analysis, and are scale variant. These path coefficients define the relationships between the attitude toward the ad and the attitude toward the brand constructs and are used for the disposition of hypothesis 7 through 10. The results of each of the hypothesis are presented next.

Table 5.10. Estimated Path Coefficients for the Six Models

PATHS	INDICES	MODEL 1	MODEL 2	MODEL 3	MODEL 4	MODEL 5	MODEL 6
ADCOG TO AAD	GAMMA1	-.243	-.323*	.008	-1.282*	-.673*	-000.557*
ADAFPECT TO AAD	GAMMA2	-.102	-.326*	.041	.72*	-.273*	-000.383*
BRCOG TO AB	GAMMA3	4.021*	12.142*	3.499	-0.595*	.877**	-591.3*
AAD TO AB	BETA	-6.045*	-16.072*	-3.95*	1.08*	2.79*	726.8*

\* - indicates significant at .05 level

\*\* - indicates significant at .10 level

ADCOG - AD COGNITIONS

AAD - ATTITUDE TOWARD THE AD CONSTRUCT

ADAFPECT - AD AFFECT

BRCOG - BRAND COGNITIONS

AB - ATTITUDE TOWARD THE BRAND CONSTRUCT

### Hypothesis 7

It was expected in this hypothesis that under the high involvement condition, when the music is liked, the attitude toward the ad would have a greater effect on attitude toward the brand than brand cognitions.

As the path coefficients GAMMA3 and BETA show in Table 5.10, under the high involvement condition when the music was liked (see Model 1), the attitude toward the ad had a greater effect on the brand attitudes than the brand cognitions although it was not positive. That is, BETA was greater in magnitude than the GAMMA3 irrespective of its direction. Although, these results provide support for hypothesis 7, the negative relationship between attitude toward the ad (AAD) and brand attitude (AB) is counter-intuitive and indicates a need to be cautious in interpreting results.

### Hypothesis 8

It was expected in this hypothesis that under the high involvement condition, when the music is disliked or absent, attitude toward the ad would have less favorable (positive) effect on the attitude toward the brand than brand cognitions; but attitude toward the ad would have a greater effect than brand cognitions in the no-music condition than in the disliked music condition.

As the path coefficients in Table 5.10 show (see Models 2 and 3), under the high involvement condition,

when the music was disliked or absent, BETA was less favorable (positive) than the GAMMA3, which indicates that the attitude toward the ad had less positive favorable effect on attitude toward the brand than the brand cognitions. In this case, the effect of attitude toward the ad on the brand attitudes was negative. Additionally, BETA was greater than GAMMA3 in the no music condition than in the disliked music condition indicating that the attitude toward the ad had a greater effect than the brand cognitions in the no musical commercial condition than in the disliked musical commercial condition. These results are as expected in the hypothesis and lend support to it. Although, these results provide support for hypothesis 8, the negative relationship between attitude toward the ad (AAD) and brand attitude (AB) is counter-intuitive and indicates a need to be cautious in interpreting results.

#### Hypothesis 9

It was expected in this hypothesis that under the low involvement condition, when the music is liked, attitude toward the ad would have a greater impact on attitude toward the brand than the brand cognitions.

As the results of path coefficients in Table 5.10 (see Model 4) indicate BETA was greater than the GAMMA3. Under the low involvement condition, when the music was liked, attitude toward the ad had a significantly

greater impact on attitude toward the brand than the brand cognitions. Although, these results provide support for hypothesis 9, the negative relationship between brand cognitions (BRCOG) and brand attitude (AB) is counter-intuitive and indicates a need to be cautious in interpreting results.

#### Hypothesis 10

It was expected in this hypothesis that under the low involvement condition, when music is disliked or absent, attitude toward the ad would have a greater effect on attitude toward the brand than brand cognitions.

As the results show in Table 5.10, the path coefficient BETA was greater than GAMMA3 under low involvement condition when the music was disliked or absent (see Models 5 and 6). These results lend support to this hypothesis indicating that under the low involvement condition, when the music was disliked or absent, attitude toward the ad had a greater effect on attitude toward the brand than the brand cognitions. Therefore, hypothesis 10 was supported. Since the coefficients in model 6 are unusually high, they are suspect and extreme caution should be exercised in evaluating these results.



### Summary Results of the Hypotheses 7 through 10

Table 5.11 presents a summary of hypotheses 7 through 10. Hypothesis 7 and 8 relate to the high involvement condition and the results were as expected by the study. The results indicate that under the high involvement condition when the music was liked (Model 1), AAD had a greater effect on AB than brand cognitions (BRCOG). However, when the music was disliked (Model 2) or absent (Model 3), AAD had a less favorable (positive) effect on AB than brand cognitions; but AAD had a greater effect than the brand cognitions in the no music condition than in the disliked musical commercial condition.

Hypotheses 9 and 10 relate to the low involvement condition, and the results here were also supported in favor of this study. The results indicate that when the liked music was present (Model 4), AAD had a greater effect on AB than the brand cognitions (BRCOG). When the music was either disliked (Model 5) or absent in the commercial (Model 6), AAD had a greater effect on Ab than brand cognitions. Finally, a note of caution about the LISREL results. In Models 1, 2 and 4, though the difference between GAMMA3 and BETA existed in magnitude, the signs between AAD and AB or BRCOG and AB were suspect. In addition, since the path coefficients in model 6 are unusually high, they were suspect, and extreme caution should be exercised in evaluating this

Table 5.11. Summary Results of LISREL

Hypothesis No.	Condition (Music and Involvement)	Hypothesis	Supported
7	LH	$GAMMA3 > BETA$	YES
8	DH	$BETA > GAMMA3$	YES
	NH	$BETA > GAMMA3$	YES
	AND		
	NH < DH	$BETA < GAMMA3$	YES
9	LL	$BETA > GAMMA3$	YES
10	DL	$BETA > GAMMA3$	YES
	NL	$BETA > GAMMA3$	YES

Note: The conditions are stated in terms of Music and Involment, i.e. the first letter pertains to music type, and second for the involvement type.

Music : L = Liked; D = Disliked; N = No Music

Involvement : H = High; L = Low

GAMMA3 - Path coefficient from brand cognitions to attitude toward the brand

BETA - Path coefficient from attitude toward the ad to attitude toward the brand

model's results. The path coefficients significantly differed in all involvement and music conditions.

### Conclusion

The analyses supported the first order interaction effects hypothesized in this study. Subjects affective and attitudinal responses were affected by the combined influences of music and repetition under varying conditions of involvement. The results were as expected. The difference in affective responses to the liked vs. disliked musical commercials was not significant with varying levels of exposure. The directional support for the results, however, was found.

In the next chapter, the conclusions of this study are presented. This includes an overall discussion of the study's major objectives and the findings along with implications for several theoretical aspects of the study. This is followed by the implications for marketing managers. Then, a discussion of the limitations and usefulness of the study is presented. Finally, some suggestions for future research are presented.

CHAPTER VI  
CONCLUDING REMARKS

Introduction

This study had two major objectives. First, to investigate affective and attitudinal responses to an affective stimulus (i.e. advertising) under the high and low involvement conditions as they are affected by varied exposures to polarized (liked vs. disliked) background music embedded in the advertising. Second, to determine the causal relationship between attitude toward the ad and brand attitudes.

A review of the literature relating to the mere exposure hypothesis, involvement, distraction and advertising effectiveness models led to the conclusion that understanding the conditions or structures under which consumers employ different strategies to process advertising stimuli can greatly enhance understanding and prediction of consumers affective and attitudinal responses. Consequently, this study focused its attention on the individuals differences in personal relevance (involvement) in interaction with affectively polarized background music with varied levels of repetition on their affective and attitudinal responses.

The findings of this study are discussed next along with implications for several theoretical aspects of this study followed by implications for marketing managers. This is followed by a discussion of the limitations and usefulness of this study. Finally, some guidelines for future research are provided.

### Discussion

While this study did not find any support for the second order interaction effects of music x involvement x repetition, two first order interaction effects were significant supporting the first five of the six hypotheses where MANOVA was used. The results relating to LISREL found support for the hypotheses seven through ten indicating a strong music x involvement interaction. This section has two purposes. First, an overall discussion of the study's findings is presented. Second, the implications of the study's findings for the attitude toward the ad, mere exposure hypothesis of repetition (Grush, 1976), involvement (Petty and Cacioppo, 1981), distraction hypothesis (Festinger and Maccoby, 1964), and advertising effectiveness models are discussed.

#### Overall Results: MANOVA

While the overall results of MANOVA were largely as expected by this study, the results concerning

attitudinal responses toward the brand under the high involvement condition lacked support. This study did not find support for the distraction hypothesis. In order to discuss the implications of this study's findings on several areas of literature used in this study, an overall discussion of results in terms of first order interactions of music x repetition, and music x involvement is presented. It is appropriate to note here that since the study did not have any hypotheses relating to the repetition and involvement interaction effects, these results are not discussed.

Music x Repetition: A Closer Look. The a posteriori Student Newman Keuls test for simple main effects indicates that the negative affective responses to the liked musical commercial under the high and low involvement conditions became increasingly negative with increasing levels of exposure to the ad. The positive affective responses, although not significant at .05 level, also increased in intensity when liked music in the commercial was present. The same results were found for the affect toward the music. These results, although not hypothesized, do lend support to the general expectations of the study. The manipulation of music did work successfully in this study.

However, when subjects were exposed to the disliked musical commercial, their positive affective response

toward the ad, and the affect toward the music scores significantly reduced with increasing levels of exposure to the ad. The negative affective response also became increasingly negative but it was not significant. These results, therefore, lend support to the expectations of this study.

Music x Involvement: A Closer Look. The Student Newman Keuls test provided several useful findings for the simple main effects. First, subjects' affective and attitudinal responses were higher under the low involvement condition than under the high involvement condition with the liked musical commercial. Second, when the disliked musical commercial was used, these scores were significantly lower under the low involvement condition than under the high involvement condition. These results were as expected by this study and lent clear support to the involvement literature.

The music x involvement interaction, when examined as the involvement x music interaction, provided another set of useful findings. Subjects' attitudinal responses to the brand under the low involvement condition were more positive with the liked musical commercial than with the disliked musical commercial. However, when no music was present in the commercial, subjects' attitudinal responses toward the brand were more positive than the disliked musical commercial. These results

were also as expected by the study and lent clear support to the distraction literature under the low involvement condition.

However, the results were disappointing under the high involvement condition for the distraction hypothesis. This study did not find any significant difference in subjects' attitudinal responses toward the brand in any of the music conditions, i.e. liked vs. disliked vs. no music. In addition, the results were also not in the direction expected in this study for one of the indices of attitude toward the brand (ATBRS).

The study found that in the high involvement condition, the distraction index (DISTRAC) was significantly different across musical conditions, i.e. it was higher with the disliked music than the liked music. This indicates that subjects' attitude toward the brand remained unaffected by the distraction. One possible explanation for the lack of significant results is that subjects under the high involvement condition pay even more attention to the stimuli when they are distracted by the affective cues present in the stimuli. They are mainly driven by the cognitions and disregard affect generated by the affective (music) cue.

These results indicate that liked musical commercials invoke more favorable attitudes than the disliked and no musical commercials under the low



involvement condition. Under the high involvement condition, however, the liked music may be better than the disliked, but no music is better than the liked and disliked music.

#### Overall Results: LISREL

The LISREL analysis used in this study provided several useful findings for the music x involvement interaction. The path coefficients provided the basis for testing the hypotheses. First, the results indicate that under the high involvement condition when the music was liked, the attitude toward the ad had a lesser effect on attitude toward the brand than the brand cognitions. However, when the music was disliked or absent, attitude toward the ad had more favorable (positive) effect on the brand attitudes than the brand cognitions; but attitude toward the brand had a less favorable effect than the brand cognitions in the no music condition than in the disliked musical commercial condition. Finally, a note of caution about the LISREL results. In Models 1, 2 and 4, though the differences between GAMMA3 (brand cognitions to brand attitude path) and BETA (a path  $\bar{f}$  from attitude toward the ad to brand attitude) existed in magnitude, the signs of GAMMA3 or BETA were suspect. In addition, under the high involvement condition when the music was absent (model 6), the path coefficients had unusually higher values

making them suspect. Therefore, extreme caution must be exercised in evaluating and interpreting these results.

Under the low involvement condition, the results indicate that when the liked music was present, attitude toward the ad had a greater effect on brand attitudes than the brand cognitions. When the music was either disliked or absent, attitude toward the ad had a greater effect on attitude toward the brand than brand cognitions. The path coefficients significantly differed in all involvement and music conditions.

The results were as expected by this study and provide support for the involvement literature and advertising effectiveness models literature.

#### Implications for the Attitude toward the Ad

This study found significant differences in the mean responses to the attitude toward the ad and attitude toward the brand indices resulting from differences in the affective stimulus (background music), involvement and repetition. The only exception was under the high involvement condition where attitude toward the brand scores remained unaffected by the distraction due to the presence of music in the commercial. One possible explanation for this result is that subjects in the high involvement conditions simply disregard affective cues that might be present in the

stimuli. The affect transfer relationship between attitude toward the ad and the brand attitude was supported.

This study extends the work of Park and Young (1986) by using the polarity of background music rather than simply the presence or absence of music. Involvement conditions are consistent with Petty and Cacioppo (1981a) and have been refined, based on the actual results of Park and Young (1986) that showed no significant difference between affective and low involvement conditions.

Madden, Allen and Twible (1988) indicated that the naturalistic setting lends more external validity for the attitude toward the ad research because according to the principle of higher-level dominance (see Greenwald and Leavitt, 1984 for details) when audience involvement is high, deliberate cognitive evaluation of the ad dominates affective processing thereby inhibiting the potential for evoking an affective reaction. In this study, subjects were exposed to the ads within a Jackie Gleason radio program and were directed toward the test ads within the context of the radio program. Additionally, subjects responded to some questions about the radio program and the filler ads to keep the spirits of the cover story. This execution provided the middle range between a "real world" or living room setting and the controlled laboratory setting. Therefore, in light

of the Madden, Allen and Twible (1988) study, the purpose of the study was partially disguised to make it possible to restrain subjects' cognitive-capacity commitments and thus effect more naturalistic setting in order to provide more external validity to the study. However, some external validity may have been compromised due to potential increase in cognitive capacity commitments made by subjects when they were directed toward the ads within the context of the radio program.

#### Implications for the Mere Exposure Hypothesis

This study provides support for the semantic generation explanation provided by Grush (1976). He argued that the initial valence of the stimuli may produce simultaneous polarization of affective and attitudinal responses toward the stimuli. This study however provided no support for his explanation on the attitudinal response indices. As far as the affective responses were concerned, this study provided only directional support on some indices of the affective response while providing clear support on others.

A possible explanation for the lack of significant differences on the positive affective responses to the ad and the affect toward the music in the liked musical commercial condition, and on the negative affective

response to the ad in the disliked musical commercial condition is that the background music when embedded in the ad does not generate as pronounced an effect during exposure as it may when subjects are exposed to the music alone. Although the results of this study were in the direction expected in this study, they were not supported with .05 level of significance on all the indices employed.

A second explanation for these results is that the affective response measure did not generate pronounced results with only three repetitions. It is likely that these results may become significant when more repetitions are used.

A third explanation for these results is that the liked music might not be well liked. That is, the liked music although not disliked was also not extremely well liked. The means for the liked musical condition on affective and attitudinal responses were in the middle range of the 7-point scales.

#### Implications for the Involvement Literature

This study provided clear support for the Elaboration Likelihood Model (ELM) of Petty and Cacioppo (1981). According to them, peripheral cues which include affective stimuli such as advertising or background features such as humor, music, and attractive

colors, may either have a facilitating or inhibiting role in persuasion. The peripheral route to persuasion by its definition implies a low involvement situation (i.e. the motivation to process the message is low) in which the attitude change relies on the effectiveness of the peripheral cues such as background music. Affective cues in the low involvement condition, thus, play a facilitating role. Conversely, the central route to persuasion by its definition implies a high involvement condition (i.e. the motivation to process the message is high) in which the attitude change relies on the extensive information processing by the consumers. Since the central route to persuasion taken in the high involvement condition is based on the extensive cognitive activity, the peripheral or affective cues such as background music in an ad are thought to play a inhibiting role. However, this investigation does not support such a conclusion.

This study found that the subjects in the low involvement condition followed a peripheral route to persuasion and their attitude toward the ad and brand attitudes were higher than those in the high involvement condition where a central route to persuasion was taken. In addition, these results were more pronounced when a positive affective stimuli (i.e liked musical commercial) was used.

### Implications for the Distraction Hypothesis

This study provides support for the distraction hypothesis of Festinger and Maccoby (1964) only under the low involvement condition. Distraction effects on the attitudinal responses were not significant under the high involvement condition.

According to Festinger and Maccoby (1964), distraction during exposure to discrepant information in the stimulus, interferes with counter-argumentation, thereby increasing the subject's acceptance in the advocated direction of the message. This hypothesis suggests a facilitative effect of distraction in yielding to counter-attitudinal messages. An individual tends to engage in active, subvocal counterarguing when confronted with a message with which he/she disagrees. When this counter-argumentation is interfered with by some distraction, resistance to the communication is lessened and acceptance to the message thus increases. Therefore, this study supported the distraction hypothesis on the facilitative effects of distraction only under the low involvement condition. However, the results were disappointing under the high involvement condition for the distraction hypothesis. This study did not find any significant difference in subjects' attitudinal responses toward the brand in any of the music conditions, i.e. liked vs. disliked vs. no music.

In addition, the results were also not in the direction expected in this study for one of the indices of attitude toward the brand.

#### Implications for the Advertising Effectiveness Models

This study could not utilize the dual mediation hypothesis as proposed by Lutz (1985). The initial tests of the models using the dual mediation hypothesis resulted in inadmissible solutions as indicated by high negative estimates of structural errors associated with the latent endogenous constructs. The PSI matrix was not positive definite. To avoid this problem, the study utilized the affect transfer hypothesis commonly used in the literature by re-specifying brand cognitions as an exogenous latent construct with one indicator. The affect transfer hypothesis previously had been tested and supported by MacKenzie, Lutz and Belch (1986).

Utilizing the affect transfer hypothesis, the results consistently supported the hypotheses in this study. The study provided additional support for the ELM model of Petty and Cacioppo (1981). Subjects clearly followed a central route to persuasion under the high involvement condition, and a peripheral route under the low involvement condition. The results indicate that under the high involvement condition when the music was liked, the attitude toward the ad had a lesser effect on attitude toward the brand than the brand



cognitions. However, when the music was disliked or absent, attitude toward the ad had a more favorable (positive) effect on the brand attitudes than the brand cognitions; but attitude toward the brand had a less favorable effect than the brand cognitions in the no music condition than in the disliked musical commercial condition.

Under the low involvement condition, the results indicate that when the liked music was present, attitude toward the ad had a greater effect on brand attitudes than the brand cognitions. When the music was either disliked or absent, attitude toward the ad had a greater effect on attitude toward the brand than brand cognitions. The path coefficients significantly differed in all involvement and music conditions.

The results were as expected by this study and provide support to the involvement literature and advertising effectiveness models literature.

#### Implications for Marketing Managers

Several recommendations which appear useful and appropriate can be given to the marketing managers. Cognizant of the fact that this is a laboratory study and additional research may be necessary, these suggestions should be pursued with appropriate caution.

First, marketers should try to make better use of the background music for inclusion in their commercials. Liked music could be used as a facilitating factor for most consumer products while disliked music could serve as a distraction to persuade consumers to their discrepant position. For most consumer products which are low involving in nature, inclusion of liked music in the commercials may be better than the disliked or no music at all.

Second, polarized affective stimuli generate increasingly polarized consumers' affective responses with higher levels of repetition. This study found directional support for the polarized affective stimuli with three repetitions. It is quite possible that more repetitions may produce more pronounced affective responses.

Third, for most products that would be categorized as low involvement or in low personal relevance situations, affective cues such as background music should be present that would enhance persuasion. Since most consumer products are low involving in nature, the affect generated by the affective cues such as background music provides a greater relative contribution than the factual information.

Finally, marketers should be hesitant to accept simplistic explanations of consumer behaviors. One may believe that the liked or popular music embedded in an

ad generates higher preferences for the products. However, as the study demonstrates this is true only under conditions of low involvement.

#### Limitations of the Study

There are some limitations of the present study which need to be recognized. Although none of them are deemed to be serious, they may provide useful guidelines for future research endeavors.

#### Product

The objective of this study was to investigate the impact of music, an affective cue, embedded in an ad on consumers' affective and attitudinal responses. While a hair shampoo was an appropriate choice for this study, it is only one product. Zaichkowsky (1985) provided a number of other products which were low involving. Ratchford (1987) also provided a number of other products in the low involvement category which might be considered comparable to the shampoo product studied here. It would be especially relevant for future studies to utilize a product which may not be popular with the current social norms (i.e. would trigger counter-arguing) so that the effects of distraction with the disliked music can be studied.

### Artificiality of the Situation

While every effort was made in this study to mirror the realistic settings of ad execution in terms of placement of ads within a radio program at regular commercial breaks, the nature of the laboratory setting to obtain consumer response is not an ideal one. However, it is an excellent setting for theory testing, which is what was done in this study. The laboratory setting does limit the generalizability of the findings.

### Background Music

The background music employed in this study were excerpts from old Klezmer music performed by the Andy Statman Orchestra because the familiarity effects of the music had to be factored out of the experiments. It is recognized that Klezmer music is in no way representative of the popular music commonly employed in advertising these days. However, for the purpose of the study, Klezmer music did turn out to be obscure and the familiarity effects were not present.

### The Radio Program

The study employed an old Jackie Gleason radio program in which test commercial and two other filler commercials were placed the beginning, middle and end of the program. The post-experimental inquiry questionnaire revealed that the Jackie Gleason program was not very appropriate for the subject population who

were young and between the age 18 to 30. This may have created boredom for some subjects. Perhaps a newer and more popular program may provide more realistic setting for future research.

### Summary

In general, these limitations are not major and for the most part can be easily offset by future research.

### Usefulness of the Study

The study provides an array of useful results. Although the results on the affective response measures due to repetition were not as pronounced as they possibly could be, they were not disappointing either. Overall, the results were largely as expected by this study.

### Polarized Affective Stimuli

This study provides support for the usage of polarized affective stimuli to enhanced consumers' affective and attitudinal responses. The results indicate clear relationships between the polarized affective stimuli and the consumers' affective and attitudinal responses. Positive affect generated by the stimuli does enhance consumers affective and attitudinal responses under the low involvement condition

characterized so commonly in the "real-world". The results further suggest that no affective cues may be better than the cues that generate negative affect.

### Repetition

This study provides support for the increasing levels of repetitions used in advertising. The study suggests that the consumers' affective and attitudinal responses do become increasingly polarized when polarized affective stimuli are used. Therefore, the results demonstrate a clear relationship between the polarized affective stimuli and repetition.

### Involvement

The study supports the use of involvement levels as a general indicator of consumer response. It suggests that in order to understand and predict consumers' affective and attitudinal response, it is necessary to understand their involvement with the product in order to determine the type of information processing strategies they will use to process the message.

### Summary

This study clearly supports a multidimensional perspective to consumer research. It suggests that in order to understand the consumer response to affective stimuli, consumers' involvement and repetition levels must be factored into the situation.

### Future Research Recommendations

The present study indicates that the orientation of the individual, polarized affective stimuli and repetition hold promise for marketers' understanding of consumers' affective and attitudinal response to advertising. However, much more work needs to be done.

To begin with, a wider variety of products and polarized background music need to be utilized in future studies to provide conclusive results for the semantic generation hypothesis. It would be wise to retain the laboratory settings as it provides a useful test for the theory. However, it would be useful to select newer musical selections which may suit the tastes of the subject population. Also a newer program to reflect the subject population's tastes should be chosen to motivate subjects to actively participate in the studies.

Finally, it would be helpful to work on the post-hoc determination of subjects' involvement with the products and stimuli rather than manipulating it with cover stories. Zaichkowsky (1985) has embarked on a beginning to this type of research. In order to provide more conclusive findings with additional products and stimuli, further research is needed.

## Conclusion

This study has provided support for the usage of polarized affective stimuli and involvement with varied levels of repetitions to fully understand the consumers' affective and attitudinal responses to advertising. Hopefully, the results reported here will encourage other marketing researchers to further look into the polarity of affective stimuli along with other factors to fully understand the consumer response.



APPENDIX A: Summary of Attitude Toward  
the Ad Research

Source: Moore (1985).

Author(s), Date & Pub.	Definition of Ad	Operationali- zation of Ad	Analysis Design	Research Subjects/ Sample Size	Hypothesis	Results/ Findings
Burke and Edell, 1983 Duke Univ. Working Paper	Consumer's evaluations of the adver- tisement as opposed to evaluations of the product.	1. Mells, et al 2. Four phrases (Interesting, Informative, Convincing, Believable.) + (1). 3. Overall Ad measure.	6 Factor 1. R type principal component analysis w/varimax rotation. 2. 3 Factor R type analysis 3. Regre- ssion analysis forward stepwise. for 6 factor and 3 factor models.	Members of University Community N=132	1. Ad is a multi dimen- sional construct. 2. An evalua- tive dimension will explain more of the variance in Ad than any other dimension. 3. Do the effects of the underlying dimensions of Ad remain stable as exposures increase? 4. Do the effects of the underlying dimensions of Ad on the prediction of Ad remain stable as exposures increase?	Hypotheses 1&2 supported for both 6 and 3 factor models. under assumption of 3 factor model evaluative compo- nent clearly domi- nates in the explanation of Ad. Hypothesis 3 under- factor model under- lying determinants of Ad remain stable and this adds some external validity to the existence of the Ad construct. Hypothesis 4 after exposures, Ab more significant than Ad. In addition, under 6 factor model 1. The irritation factor always enters first, ex- plains the largest amount of variance in Ad, is negative and relatively large. 2. After several viewings of the ad, uniqueness, initially the second factor to emerge contributes little to the model. 3. Possibly after many exposures Ad and Ab may become confounded.

Hessner, 1977 Journal of Business Research	Affective response to the ad	2 7-point Likert type scales (toward ad itself and toward ads in general) (After only measure).	After only for Rad	177 grad students	Positive Ab leads to positive Rad/	Hypothesis appears to be supported.
Mitchell and Olson, 1901 Journal of Marketing Research	Individuals' internal evaluations of an object.	Mean value of four 5-point evaluative scales.	4 x 4 Latin Square	71 Jr.-& Sr under-grads, male & female	Ho: biei is sole mediator of attitude formation. H1: There are other mediators (i.e.Rad)	Does not "strongly" disconfirm" the null. Support is indicated for the existence of Rad as a separate mediator of Ab.
Moore and Hutchinson, 1983 NCR X	Affective reactions	2 5-point scales measuring positive/negative reactions to ads and ad familiarity	Rads as classification factor in the analysis of changes in brand knowledge & brand consideration.	46 students	Critical test of 5 basic hypotheses of Rad on Ab: 1. Generalization 2. Distraction 3. Distinctive familiarity 5. "Sleeper" affect.	Suggests immediate and delayed effects differ. Immediate support. Generalization. Delayed support. "Sleeper" affect.
Shimp, 1901 Journal of Advertising	Affective reactions to ads relatively independent of cognitions	Conceptual article	N/A	N/A	N/A	N/A
Shimp and Yokum, 1901 AMA Educators Proceedings	Consumers' opinions of ads	see Wells, Leavitt, and McConville, 1971	3 x 2 bet-ween sub-jects	88 (Regular cola users)	The more favorable the Rad, the more often the brand will be repurchased.	Results of the ANCOVA marginally support the hypothesis. (p = .1)

Silk and Vavra, 1974 in Buyer/Consumer Information Processing.	Affective reactions to ads.	Conceptual article.	Literature	N/A	N/A	Basic review of early studies of consumers' affective responses to advertising.
Gelb and Pickett, 1983 Journal of Advertising	Focus is on cognitive component of Rad. Rad is viewed as liking/disliking of the ad for a "reason" (cognitive component or "feeling" (affective component))	5-point semantic differential single item scale like/dislike.	Correlations, Chi-square analysis vs. non smokers.	Mail Survey	383 licensed drivers 16 & up in age 20% response rate.	H1: Perceived Humor in ad is possibly associated with the ad. H2: Liking (or not disliking) will be associated with (a) positive Ab. (b) Credibility of ad. (c) Persuasiveness of message. (d) intention to purchase.
Lutz, MacKenzie and Belch, 1983 NCR, Vol.10	Affective reactions toward the advertised brand (or where desirable, attitude toward purchasing the brand.)	2 7-point scales (Favorable-Unfavorable and Interesting-Uninteresting) Mediating variable.	Latent structure analysis (LISRELS maximum likelihood technique).	After only split sample	162 church members age 18 to 75, mean of 45.	H1: Rad on Ab relationship not supported. H2: Rejected. Peripheral processing emerged as dominant in both subsamples. Central processing secondary contribution in high(H2) group.

consumers high in ability and motivation to process information exhibit a relatively weak influence of Ad on Ab and a relatively strong influence of Cb on Ab.

MacKenzie and Lutz, 1983, AMA Research Methodology Conference	Pleasant or Unpleasant feelings evoked by ad.	2 7-point scales (as above)	Split-sample: 1175 analysis 1160 validation. Chi-square analysis of goodness of fit.	After-only consumers	2335	Comparison of four models of the causal relationships within the traditional hierarchy of effects model, including Ad as a mediating variable.	"Reasonably strong support" for model 1 which depicts Ad as having a direct one-way causal mediating effect on Ab.
Wells, Leavitt, and McConville, Journal of Advertising Research	Consumers' opinions of T.V. commercials	Subjects were asked to check all words which applied to the commercials they viewed.	ANOVA followed principal components analysis w/varimax rotation.	After-only	120 Housewives.	Concept test	Six stable factors (humor; vigor; sensuousness; uniqueness; personal relevance; and irritation) emerged.
MacKenzie, Lutz and Belch, 1986 Journal of Marketing Research	Affect	7-point semantic differential scales for the T.V. ads.	ANOVA and LISREL	After-only	225 students	Causal tests of Affect transfer, Dual mediation, Reciprocal mediation and Independent influences.	Dual Mediation hypothesis strongly supported. Support was found for the Affect Transfer hypothesis also.
Lutz, 1985	N/A	Theoretical paper	N/A	N/A	N/A	N/A	Proposition of Dual mediation hypothesis between Ad and Ab.

APPENDIX B: Summary of Distraction Research.

(Partially adapted from Petty, Ostrom and Brock, 1981).

Source and Publication	Subjects	Message or Stimuli	Distraction	Decreased counter-argumentation under distraction?	Increased persuasion under distraction?
Festinger & Maccoby, 1964, <i>Journal of Abnormal &amp; Social Psych</i> , Vol. 63	Male students- two groups	Against college fraternities	An amusing film	(not assessed)	Yes - for one group only.
Janis, Kaye, and Kirschner, 1965, <i>JPSp</i> , 1	Undergraduate students	Four popular positions(e.g. reducing armed forces by 85%)	Eating peanuts and Pepsi	(not assessed)	Yes
Rosenblatt, 1966, <i>Psychonomic Science</i> , 5	students	Opposed to yearly T.B. chest x-rays	Slides of dental hygiene or general psychology	(not assessed)	Yes
Silverman and Regula, 1968, <i>J. of Social Psych.</i> , 75	students	Tuition increase	Tapes with static	(not assessed)	Yes, when distraction was thought to be intentional.
Kiesler and Mathog, 1968, <i>Psychology Reports</i> , 23	students	Several counter-attitudinal topics	Copying list of two-digit numbers	(not assessed)	Yes, for highly credible speaker
Vohs and Garrett, 1968, <i>Public Opinion Quarterly</i> , 32	students	Presented the Ku Klux Klan favorably	Operations on geometric figures or arithmetic	(not assessed)	No
Haaland and Venkatesan, <i>Journal of Personality and Social</i>	students	Lowering voting age to 18, and vice-versa	Humorous film, filled out questionnaire	(not assessed)	No

Psychology (JPSP), 9					
Shamo and Meador, 1969, Journal of Communications, Vol. 19	students	In favor of racial segregation	Slides of scenery, sporting events, etc.	(not assessed)	Yes
Osterhouse and Brock, 1970, JPSP, Vol. 15	students	Tuition increase	Monitoring a panel of flashing lights	Yes	Yes
Rule and Rehill, 1970, JPSP, 15	students (pretested)	Increased use of T.V. in high schools	Tape of 22 different sounds	(not assessed)	Yes, for self-esteem groups
Zimbardo and Ebbesen, 1970, JPSP, 16	Pretested students	Required military service and shorter vacations	Delayed auditory feedback	(not assessed)	Yes
Zimbardo, Snyder, Thomas, Gold, and Gurwitz, 1970, JPSP, 16	students	Giving state aid to sectarian schools, and shorter vacations	Number summation task	(not assessed)	Yes, when instructed to pay attention to message first
Keating and Latane, 1972, Proceedings, American Psychological Association, 7	students	Against all volunteer army or for censorship of pornography	Intermittent or continuous distortion of T.V. reception	(not assessed)	Yes, under intermittent condition
Regan and Cheng, 1973, J. of Experimental & Social Psychology, 13	students	Simple and complex message for less toothbrushing and seatbelt use	Alternating classical and popular music	(not assessed)	Yes, for simple messages
Bither and Wright, 1973,	Male college students	Pro-Ford, anti-Chevrolet	Irrelevant visual to	(not assessed)	Yes, for moderate and



Journal of Marketing Research, 10	automobile commercial	accompany the audio	high confident subjects
Keating and Brock, 1974, J. Exp. & Social Psychology, 10	Undergraduate students Tuition increase	Manually or vocally monitoring a panel of flashing lights	Yes
Insko, Turnbull and Yandell, 1974, Sociometry, 37	students Shorter summer vacations	Number summation task	Yes, when focus was on message and not on task
Haslett, 1976, European Journal of Social Psychology, 6	students Advocated compulsory male sterilization	Writing or verbalizing the values of flashing numbers	Yes
Petty, Hells, and Drock, 1976, JPSP, 34	students Easy or difficult to counter-argue message on increasing or reducing tuition	Monitoring of a screen of flashing x's	Yes, for easy to argue message
Halls and Hold, 1979, JPSP, 16	High school students Contemporary issues (e.g. nuclear proliferation)	Message printed in white type or black background	(not assessed) Yes, on an immediate but not a delayed measure
Romer, 1979, European Journal of Social Psychology, 9	students Favoring student loans over grants; a tuition increase	Beep sounds on taped message	Yes, for moderate but not high distraction
Lammers and Becker, 1980, Personality and Social Psychology, 19	students In favor of or against tuition increase	Rating the pleasantness of various slides	Yes, for the counter-attitudinal message as

	students	Radio ad	Humor	Yes	closer to own position
Psychological Bulletin, 6				Yes	
Cantor and Venus, 1980, Journal of Broadcasting, Vol.24					
Nelson, Duncan and Frontczak, 1985, Journal of Marketing, Vol. 49	157 male undergraduate students	Four different versions of a T.V. ad	Relevant to product vs. discrete (rather than continuous) humor	No, measure not valid	No

APPENDIX C: Summary of the Involvement Research.

(Adapted from Moore, 1985)

Key for Involvement Definitions:

- 1 = Commitment (e.g. stance on issue)
- 2 = Cognitive Complexity (e.g. personal connections)
- 3 = Importance (e.g. salience; personal meaning)
- 4 = Situational/Personality (e.g. motivation)
- 5 = Brain Wave Activity
- 6 = Unclear

Author(s), Date & Publication	Involvement Definition Type	Hypotheses/Research	Research Design	Subject/ Sample Size	Analysis Results/ Findings
Appel, Weinstein & Weinstein, 1979, Journal of Advertising Research (JAR)	5/Media	H1:TV viewing generates greater right brain activity than left brain activity H2:High recall comm's > left brain activity than low recall commercials. H3:High recall comm's > brain wave activity in both hemispheres than low recall.	10 x 2 factorial	Right-handed women/30	4-way Anova, F-test Fail to support H1, H2-support of H3.
Posler and Sears, 1968, JPSp	1/	H1:Forewarning reduces change under high involvement. H2: Facilitates change under low involvement	2 x 2 Factorial	Households/ 143	Anova P < .05 F-test Support hypotheses.
Dolk, 1981, Advances in Consumer Research (ACR), Vol.9	7/Task	H1:Low involvement gift giving situations warrant less costly, more easily purchased, and low quality gifts. None	Randomized block	Female shoppers/ 291	Anova F-test Generally, support hypothesis.
Bloch, 1981(a), 6/ ACR, Vol.8	product class		Scale construction	Students/ 301	Principal component w/varimax 44 items reduced to 17 item scale of product class involvement (27.7%)explained.
Bloch, 1981(b), 4/ ACR, Vol.9	product	H1:The magnitude of enduring involvement is positively related to the extent related individual perceives such involvement as a vehicle for self-expression or	Survey	Adults- male- female/ 438	Bivariate co-relation Generally support hypothesis.

enhancement.

Author and Year	Product	Hypothesis	Design	Subjects	Statistical Test	Support
Chaffee and Landauer, 1974, Quarterly (JIB)	11/ product	H1: Pertinent appeals more effective only under high involvement.	2x2x2xN factorial	Students 97	Z-test	Support H0.
Calder, 1979, Attitude Research Plays For High Stakes (ARPHS)	2/ product- issues	N/A	N/A	N/A	N/A	Questions of existence of low involvement information processing hierarchy.
Chaffee, 1967, Journal of Communication (JC)	3/ communication message	H1: Communication less likely to continue under non-homeostatic conditions. H2: Non-homeostatic situation more likely to be an attempt to achieve homeostasis than some other type of communication.	Before and After Experimental	Students 105	Anova F-test	Support H1: Salience inversely related to value change $p < .05$ . Inconclusive on H2.
Chaffee, 1967 (b), JC	3/ issues	Unclear	1. After only 2. Before/After	Jr. high school students/ 400	Anova F-test	Salience and pertinence relations provide independent sources of value change.
Chaffee and Landauer, 1969, JC	3/ object	H1: Salience, pertinence & dissonance operate as 3 distinguishable sources of changes in evaluations. H2: These changes will be manifested in corresponding changes in directed behavior toward the object.	2 Experiments. 3x3 factorial before-design	High school students/ 100. Jr. high/149	F-test on row means	Non-supportive of hypotheses.
Clark and Bells, 1979, ICR, Vol. 6	4/ product & task	H1: More stores shopped, time & money spent under high task invol-	2 x 4 factorial	Under-graduates/ 56	Anova F-test	Support H1 and H2. Reject H3.

vement than low task  
 H2:More stores shopped,  
 time & money spent under  
 high product involve-  
 ment than low.  
 H3:Effects of task and  
 product involvement  
 will be additive with  
 no interaction.

DeDrucker, 1979, IRPIS	2/Comuni- cation	N/A	N/A	N/A	N/A	Proposes 4 orders Model information processing.
Eagly and Manis, 1966, JPSP	3/ issue	High involved males (females) reject female (male) oriented messages.	2x2x2 Factorial	Jr. high students/ 124	Anova F-test ANACOVA	Support hypotheses.
Finn, 1982, IMM Educators Proceedings (EP)	1/ behavioral	N/A	N/A	N/A	N/A	N/A
Freedman, 1964, Journal of Abstract Psychology	1/ issue	H1:Low involvement > greater change with > discrepancy. H2:High involvement > change with moderate discrepancy.	2 x 3 factorial before- after	Undergrad & high school students/ 110	Anova F-test	Support H1 and H2.
Gardner, Mitchell and Russo, 1978, NCR, Vol.5	2/ task	H1:Response time to attributes and brand evaluation statements greater for high involvement. H2:Response time for attention, evaluation, and attention criteria statements greater for low involvement.	2 x 4 after only	Students, secret- aries and staff/30	Anova F-test	Support H1 and H2, except for attention and evaluation.
Grass and Hallace,	2/ media	H1:TV and print differ under natural conditions only	After	Unclear/ 168	None	Generally support

1974, JAR	concerning recall of facts.	hypothesis.
Houston and Rothschild, 1978, AMA EP	4/ N/A	N/A
Hupfer and Gardner, 1971, ACR Second Annual Conference	1/ product- issue	Survey Undergrad students male/44 Anova Tukey; F-test
Kassarjian, 1981, ACR, Vol. 8	4/ product situational	N/A
Kassarjian & Kassarjian, 1979, ARPHS	6/ product	N/A
Krugman, 1965, Public Opinion Quarterly (POQ)	2/ media	N/A
Krugman, 1966-67, POQ	2/ media	Shoppers/ 29, Various/ 300
Krugman, 1971, JAR	5/ media	Secretary/ 1
Krugman, 1977, JAR	5/ media	N/A



involvement operates on right hemisphere.

Krugman, 1979, ARPHS	5/ media	T.V. - right brain Print - left brain	Survey	House- holds/ 143	Anova p < .05 F-test	Inconclusive (62.35% variance unaccounted for)
Krugman, 1980, ARPHS	5/ media	Left - attends to Right - screens				
Lastovika, 1979(a), ACR, Vol. 6	1/ product class	H1: Relation between norm impact and routinized behavior. H2: Relation between noncommitment and routinized behavior. H3: Relation between knowledge, experience and routinized behavior. H4: Relation between age and routinized- like behavior. H5: Relation between occupation and routi- nized-like behavior. H6: Sex, marital status and income have no relation. Major: Can product classes be defined in terms of product involvement.	Survey			
Lastovika, 1979(b), Attitude Research Under the Sun	Conceptual hierarchies of learning theories, Advertising copy typo- logy.					
Lastovika and Bonfield, 1979,	3/ product issue	H1: Individuals do not necessarily hold atti- tudes toward branded consumer products.	Survey	Female household heads/127	T-test 3-way Anova, F-test	Generally supported hypotheses.

Working Paper, Temple University		H2: Individuals are more likely to hold attitudes toward issues than brands.						
Lastovika and Gardner, 1979, ACR, Vol. 5	2/ product	H1a: High Involvement consumers are highly complex in decisions and perceptions. H1b: Low Involvement consumers are low complex in decisions and perceptions. H2: High involved - high dimensionality on attributes.	Survey	Undergrad students/ 126	Spearman correlation	Generally support hypotheses.		
Lastovika and Gardner, 1979, ARPHS	1/ product class	not stated (exploratory)	3 x 3 Factorial	Students/ 40	Factor Analysis Scree test	Familiarity not deterministic of normative and commitment held.		
Leavitt, Greenwald, & Obermiller, 1981, ACR, Vol. 8	2/ communication	N/A	N/A	N/A	N/A	Proposal for research orientation in lieu of multiple approaches.		
Miller, 1965, Journal of Experimental and Social Psychology	3/ issue	Attitude change from communication H1: Least change under high involvement and dogmatism. H2: Most change under both low H3: Intermediate change under combinations.	2 x 2 x 2 Factorial	High school students/ 40	Anova F-test	Involvement manipulation increase: -increased extremity of attitude. -support hypotheses. -attitudes of acceptance unaffected by product. -cons more resistant than pros.		
Mitchell, 1981, ACR, Vol. 8	4	N/A	N/A	N/A	N/A	Provides a nomological network for involvement.		

Author(s) and Year	Product / Issue	Social Judgement / Involvement / Attitude	Design	Students / Sample	Statistical Test	Conclusion
Newman and Dolich, 1979, ACR, Vol. 6	2/ product	Social judgement involvement affective in explaining message acceptance or rejection	2 x 3 Factorial	Students/ 50	Not reported	Inconclusive.
Petty and Cacioppo, 1979, JPSP	3/ issue	H1: Increased involvement enhances processing of message content. H2: Cognitive and affective responses more extreme under high. H3: Increased involvement should decrease agreement with counterattitudinal message.	2 x 2 Factorial	Students/ 24/ students/ 72	Newman-Keuls	Support hypotheses.
Petty and Cacioppo, 1981, ACR, Vol. 8	3/ issue-product	High - Persuasion affected by message quality. Low - Credibility or attractiveness.	2 x 2 x 2 Factorial	Students/ 145, Students/ 240	Newman-Keuls	Support hypotheses.
Preston, 1966, Journalism Quarterly (JQ)	Pertinence	High pertinence: congruity principle operational. Low pertinence: is not operational.	3 x 3 x 2 Factorial	Students/ 90	T-test Chi-square	Inconclusive.
Preston, 1970, JQ	(see Krugman, 1965)	N/A	N/A	N/A	N/A	Call for reinterpretation of involvement based on context versus advertisements.
Ray, Sawyer, Rothschild, Heeler & Reed, 1973, New Models for Mass Communication Research	1/points subjects use to evaluate brands	Not stated - exploratory in terms of 3 orders model.	Post-hoc in lab and field	Various/ 8000+	Post-hoc	Provide support for distinct high and low involvement hierarchies.
Rhine and Polowniak,	3/ issue	Exploratory look at social judgement	3 x 2 x 2 factorial	Students/ 226	Anova F-test	More attitude change under low.

1971, JPSP		theory vs. cognitive dissonance theory as explanation of attitude change under levels of involvement.					support social judgement theory over cognitive dissonance.
Robertson, 1976, JAR	1/ communication	N/A	N/A	N/A	N/A		Refutation of active audience paradigm.
Rothschild, 1979(a), ARPHS	See Rothschild and Houston, 1978	N/A	N/A	N/A	N/A		Pragmatic strategy paper.
Rothschild and Houston, 1977, AMA EP	2/ political	H1:High involvement creates higher complexity.	Survey	Voting age residents/ 911	Correlation, Z-test, McNemar test, Chi-square.		Tends to support hypothesis.
Rothschild and Houston, 1980, ACR, Vol. 7	2/ response	H1:Situational involvement increases mean level of response H2:Interaction of situational and enduring involvement exists on response involvement such that at low levels of situational involvement, there will be a direct effect of enduring involvement on mean response involvement, while at high levels, this effect will disappear. H3:Greater variance in response involvement as exhibited by standard deviations will occur at lower levels of situational involvement.	Survey	Voting-age residents/ 103	T-test		Support H2. Reject H3. H1 unclear.

Rothschild and Ray, 1974, Communication Research	4/ issue	High involvement leads to: H1:greater recall H2:more connections H3:more positive intention	6 x 3 x 2 factorial post-test only with control	Shoppers (self-selected)/ 161	1-tailed Z-test p < .07	Minimal support of hypotheses.
Sherrell and Shimp, 1982, AMA EP	2/ product	H1:Subjective state scale ratings on high involved subjects will be significantly greater than those of low involved subjects. H2:The self insight accuracy of high involved subjects will be significantly greater than that of low involved subjects. H3:The elapsed decision times of high involvement subjects will be significantly greater than those of low involved subjects.	2 x 2 x 4 factorial	Undergrad students/ 65	Manova T-test Z-test	Reject H1, and H2. Support H3.
Swinyard and Coney, 1978 Journal of Consumer Research	2/ political	H1:Ads for low involvement races would have powerful effect. Ads for high involvement races minimal effect on behavioral response. H2:Different involvement levels should have different hierarchies of effect. H3:Personal contact-Advertising interaction will occur in low but not high involvement situations.	2 x 4 x 2 factorial	Voting-age adults/ 156	3-way Anova F-test	Generally, supported hypotheses.
Tyebee, 1979, ARPHS	2/ product	N/A	N/A	N/A	N/A	Pragmatic application of involvement for advertising.

Zimbardo, 1970, *Journal of Abnormal & Social Psychology*

1/ issue	High involvement subjects change opinions more than low involved.	2 x 2 factorial before- after	Students/ 10	ANOVA F-test	Inconclusive.
-------------	---	--	-----------------	-----------------	---------------

APPENDIX D: Experimental Questionnaire.

YOUR OPINIONS PLEASE

Please ANSWER ALL THE QUESTIONS in the questionnaire. The completeness of each question in the questionnaire is vital to the research project. The sponsors are INTERESTED IN YOUR OPINIONS. Since they want your opinions, there are NO RIGHT OR WRONG ANSWERS to any of the questions.

Most of the questions in the survey make use of rating scales with seven places; You are to circle a number that best describes your opinion. If you were asked to rate "the weather in West Lafayette", for example, on such a scale, the seven numbers should be interpreted as follows:

"The weather in West Lafayette is"

Good:	1	2	3	4	5	6	7	Bad
	extremely	quite	slightly	neither	slightly	quite	extremely	

Be sure to ANSWER ALL QUESTIONS -- Please do not omit any.

Please DO NOT CIRCLE MORE THAN ONE NUMBER ON A SINGLE SCALE.

PLEASE DO NOT START ANSWERING QUESTIONS UNTIL TOLD TO DO SO.



Questions about Radio Program

First, we would like to know your overall reactions to the Jackie Gleason Radio Program. Circle a number indicating your reactions to the Program on the scales below. The number which you circle, of course, depends on which of the two ends of the scale seem most characteristic of your reactions. The closer to the end points, the stronger your reactions should be. Please do not omit any scale.

Again, we are especially interested in your reactions to the Jackie Gleason Show and not your reactions to the ads.

I THINK THE JACKIE GLEASON SHOW IS

Unpleasant	1	2	3	4	5	6	7	Pleasant
Interesting	1	2	3	4	5	6	7	Boring
Likable	1	2	3	4	5	6	7	Unlikeable
Good	1	2	3	4	5	6	7	Bad
Lively	1	2	3	4	5	6	7	Peaceful
Entertaining	1	2	3	4	5	6	7	Unentertaining
Familiar	1	2	3	4	5	6	7	Novel

My overall attitude toward the Jackie Gleason show is

Favorable 1 2 3 4 5 6 7 Unfavorable

Overall, the Jackie Gleason show gave me very good feelings.

Strongly Agree 1 2 3 4 5 6 7 Strongly Disagree

Overall, the Jackie Gleason Show was not very pleasant

Strongly Agree 1 2 3 4 5 6 7 Strongly Disagree

Would you like to hear more of these type of programs on the WZFM 94 radio station?

Yes No

What time of the day do you normally listen to the radio.

Morning\_\_\_\_\_ Afternoon\_\_\_\_\_ Evening\_\_\_\_\_ Late Night\_\_\_\_\_

Cognitive Responses toward the Ad (CCR)

Next, we would like to try to help you recall your thoughts about the CRYSTAL SHAMPOO COMMERCIAL while listening to the commercial.

In the spaces below, please write down the thoughts that went through your mind while hearing this commercial. Please list thoughts that occurred to you about this commercial. After listing all your thoughts about the commercial, please evaluate each of your thoughts using a positive (+) or a (-) sign.

THOUGHTS ABOUT THE CRYSTAL SHAMPOO  
COMMERCIAL WHILE YOU WERE LISTENING  
TO THE COMMERCIAL

Positive(+)/  
Negative (-)

Cognitive Responses toward the Brand (BCR

Now, please list thoughts that occurred to you about the CRYSTAL SHAMPOO PRODUCT and your reactions during the commercial to what was being said about the Crystal shampoo product.

Please evaluate each of your thoughts by a positive (+) or a negative (-) sign after you have listed all your thoughts in the spaces below:

THOUGHTS ABOUT THE CRYSTAL SHAMPOO  
PRODUCT ITSELF WHILE LISTENING TO  
THE COMMERCIAL

Positive (+)/  
Negative (-)

Affective Response Questions (AFR)

Next, we want to try to help you remember what you might have been feeling WHILE LISTENING TO THE CRYSTAL SHAMPOO COMMERCIAL.

Below is a list of words describing different kinds of feelings. Indicate how characteristic each word is of how you felt while listening to the Crystal Shampoo commercial by using the scales where the end points are labeled "very much so " and "not at all". Please circle only one of the seven spaces for each scale. In this section we are especially interested in your feelings about the way in which the product information was communicated through the commercial, and not your feelings about the Crystal shampoo product.

DID THE CRYSTAL SHAMPOO COMMERCIAL MAKE YOU FEEL

	VERY MUCH SO						NOT AT ALL
Good	1	2	3	4	5	6	7
Agitated	1	2	3	4	5	6	7
Lively	1	2	3	4	5	6	7
Cheerful	1	2	3	4	5	6	7
Irritated	1	2	3	4	5	6	7
Impatient	1	2	3	4	5	6	7
Spirited	1	2	3	4	5	6	7
Pleasant	1	2	3	4	5	6	7
Repulsed	1	2	3	4	5	6	7
Happy	1	2	3	4	5	6	7
Stimulated	1	2	3	4	5	6	7
Soothed	1	2	3	4	5	6	7
Light	1	2	3	4	5	6	7
Amused	1	2	3	4	5	6	7
Angry	1	2	3	4	5	6	7
confused	1	2	3	4	5	6	7
calm	1	2	3	4	5	6	7

Attitude toward the Ad semantic scales (AADS)

Now, we would like to know your overall reactions to the Crystal shampoo commercial. Place circle a number indicating your reactions to this commercial on the scales below. The number you circle, of course, depends on which of the two ends of the scale seem most characteristic of your reactions. The closer to the end points, the stronger your reactions should be. Please do not omit any scale.

Again, we are especially interested in your reactions to the ad, not your reactions to the shampoo product.

OVERALL, I THINK THE CRYSTAL SHAMPOO COMMERCIAL IS

Pleasant	1	2	3	4	5	6	7	Unpleasant
Interesting	1	2	3	4	5	6	7	Boring
Refined	1	2	3	4	5	6	7	Vulgar
Active	1	2	3	4	5	6	7	Passive
Likable	1	2	3	4	5	6	7	Unlikeable
Tasteful	1	2	3	4	5	6	7	Tasteless
Artful	1	2	3	4	5	6	7	Artless
Good	1	2	3	4	5	6	7	Bad
Uninsulting	1	2	3	4	5	6	7	Insulting
Lively	1	2	3	4	5	6	7	Peaceful
Powerful	1	2	3	4	5	6	7	Weak
Spirited	1	2	3	4	5	6	7	Dull
Valuable	1	2	3	4	5	6	7	Worthless
Cheerful	1	2	3	4	5	6	7	Solemn
Entertaining	1	2	3	4	5	6	7	Unentertaining
Left me with good feelings	1	2	3	4	5	6	7	Left me with bad feelings
Familiar	1	2	3	4	5	6		Novel

Attitude toward the Ad Likert type scales (AADL)

My overall attitude toward the Crystal Shampoo commercial is

Favorable 1 2 3 4 5 6 7 Unfavorable

Overall, the Crystal shampoo commercial gave very good feelings

Strongly Agree 1 2 3 4 5 6 7 Strongly Disagree

Overall, the Crystal shampoo commercial was not very pleasant

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

Attitude toward the Brand Semantic scales (ATBRS)

NOW, PLEASE INDICATE YOUR OVERALL EVALUATION OF THE CRYSTAL SHAMPOO PRODUCT ON THE SCALES BELOW;

HERE WE ARE INTERESTED IN YOUR REACTIONS TO THE CRYSTAL SHAMPOO PRODUCT, AND NOT THE COMMERCIAL.

OVERALL, I THINK THE CRYSTAL SHAMPOO PRODUCT IS

Beneficial	1	2	3	4	5	6	7	Harmful
Good	1	2	3	4	5	6	7	Bad
Superior	1	2	3	4	5	6	7	Inferior
Useful	1	2	3	4	5	6	7	Useless
Meaningful	1	2	3	4	5	6	7	Meaningless
Attractive	1	2	3	4	5	6	7	Unattractive
Strong	1	2	3	4	5	6	7	Weak
Intelligent	1	2	3	4	5	6	7	Stupid
Valuable	1	2	3	4	5	6	7	Worthless
Important	1	2	3	4	5	6	7	Unimportant
Rewarding	1	2	3	4	5	6	7	Punishing

Like the								Dislike
Product	1	2	3	4	5	6	7	the product

Attitude toward the Brand Likert type scales (ATBRL)

Crystal offers high quality shampoo at reasonable price.

Likely	1	2	3	4	5	6	7	Unlikely
--------	---	---	---	---	---	---	---	----------

Crystal keeps hair clean, soft and shiny.

Likely	1	2	3	4	5	6	7	Unlikely
--------	---	---	---	---	---	---	---	----------

Crystal shampoo removes dandruff flakes from hair.

Likely	1	2	3	4	5	6	7	Unlikely
--------	---	---	---	---	---	---	---	----------

Crystal has a nice natural fresh scent.

Likely	1	2	3	4	5	6	7	Unlikely
--------	---	---	---	---	---	---	---	----------

Crystal shampoo would not leave hair dry.

Likely	1	2	3	4	5	6	7	Unlikely
--------	---	---	---	---	---	---	---	----------

Crystal is a good brand name shampoo.

Likely	1	2	3	4	5	6	7	Unlikely
--------	---	---	---	---	---	---	---	----------

Having a nice natural fresh scent in a shampoo is important and good.

Agree	1	2	3	4	5	6	7	Disagree
-------	---	---	---	---	---	---	---	----------

Having dry hair is good and important to me.

Agree	1	2	3	4	5	6	7	Disagree
-------	---	---	---	---	---	---	---	----------

Removal of dandruff flakes is

Good	1	2	3	4	5	6	7	Bad
------	---	---	---	---	---	---	---	-----

Keeping hair clean, soft and shiny is

Important	1	2	3	4	5	6	7	Not Important
-----------	---	---	---	---	---	---	---	---------------

I think offering quality product at reasonable prices is

Good	1	2	3	4	5	6	7	Bad
------	---	---	---	---	---	---	---	-----

Brand name shampoos usually are

Good      1      2      3      4      5      6      7      Bad

Did you notice the presence of background music in the Crystal shampoo commercial.

1. Yes \_\_\_\_\_      2. No \_\_\_\_\_

If NO, please go to page 9 directly.

Affective Response toward the Music (MUSAFCT)

If YES, we would like to know your overall reactions to the Music in the Crystal shampoo commercial. Circle a number indicating your reactions to this commercial on the scales below. The number you circle, of course, depends on which of the two ends of the scale seem most characteristic of your reactions. The closer to the end points, the stronger your reactions should be. Please do not omit any scale.

Again, we are especially interested in your reactions MUSIC in the ad, not your reactions to the ad or the shampoo product.

THE MUSIC IN THE CRYSTAL SHAMPOO COMMERCIAL MADE ME FEEL

Pleasant	1	2	3	4	5	6	7	Unpleasant
Interesting	1	2	3	4	5	6	7	Boring
Active	1	2	3	4	5	6	7	Passive
Likable	1	2	3	4	5	6	7	Unlikeable
Fast	1	2	3	4	5	6	7	Slow
Happy	1	2	3	4	5	6	7	Sad
Lively	1	2	3	4	5	6	7	Peaceful
Powerful	1	2	3	4	5	6	7	Weak
Spirited	1	2	3	4	5	6	7	Dull
Valuable	1	2	3	4	5	6	7	Worthless



Cheerful	1	2	3	4	5	6	7	Solemn
Calm	1	2	3	4	5	6	7	Agitated
Light	1	2	3	4	5	6	7	Serious
Familiar	1	2	3	4	5	6	7	Novel

Distraction scales (DISTRAC)

It was hard to concentrate on major ideas in the Crystal shampoo commercial due to the presence of music in the commercial.

Strongly Agree	1	2	3	4	5	6	7	Strongly Disagree
----------------	---	---	---	---	---	---	---	-------------------

I was distracted by the background music in the crystal shampoo commercial.

Agree	1	2	3	4	5	6	7	Disagree
-------	---	---	---	---	---	---	---	----------

The crystal shampoo commercial described the product features clearly.

Agree	1	2	3	4	5	6	7	Disagree
-------	---	---	---	---	---	---	---	----------

Sony Trinitron T.V. Filler Ad Questions

Now, we would like to know your overall reactions to the SONY TRINITRON T.V COMMERCIAL. Circle a number indicating your reactions to the Program on the scales below. The number you circle, of course, depends on which of the two ends of the scale seem most characteristic of your reactions. The closer to the end points, the stronger your reactions should be. Please do not omit any scale.

Again, we are especially interested in your reactions to the SONY TRINITRON T.V. Advertising and not your reactions to SONY TRINITRON T.V.

I THINK THE SONY TRINITRON T.V. COMMERCIAL WAS

Unpleasant	1	2	3	4	5	6	7	Pleasant
Interesting	1	2	3	4	5	6	7	Boring
Refined	1	2	3	4	5	6	7	Vulgar
Active	1	2	3	4	5	6	7	Passive
Likable	1	2	3	4	5	6	7	Unlikeable
Good	1	2	3	4	5	6	7	Bad
Lively	1	2	3	4	5	6	7	Peaceful
Powerful	1	2	3	4	5	6	7	Weak
Dull	1	2	3	4	5	6	7	Spirited
Solemn	1	2	3	4	5	6	7	Cheerful
Entertaining	1	2	3	4	5	6	7	Unentertaining
Left me with good feelings	1	2	3	4	5	6	7	Left me with bad feelings

My overall attitude toward the Sony T.V. is

Favorable	1	2	3	4	5	6	7	Unfavorable
-----------	---	---	---	---	---	---	---	-------------

Overall, the Sony Trinitron T.V. has a very sharp picture.

Strongly Agree	1	2	3	4	5	6	7	Strongly Disagree
-------------------	---	---	---	---	---	---	---	----------------------

Overall, the Sony Trinitron T.V. is a very good T.V.

Strongly Agree	1	2	3	4	5	6	7	Strongly Disagree
-------------------	---	---	---	---	---	---	---	----------------------

## POST EVALUATION QUESTIONNAIRE

Please respond to the following questions as completely as you can. Your response to these questions are EXTREMELY IMPORTANT and will be very helpful in the evaluation of this research project.

1. Prior to your participation in this research today, did you discuss this project or any part of this project with anybody who was involved in it.

1. Yes \_\_\_\_\_ 2. No \_\_\_\_\_

- (a) If yes, how did this discussion affect your participation, if at all?

- (b) Did the discussion make you change your responses on any of the questions in the questionnaire.

2. What do you think was the purpose of this research? Please be specific.

3. Did you have difficulty in expressing what you really felt, due to the design of the questionnaire, the design or wordings of the questions, or for any other reason? If so, what was it?

4. Do you have any other comments concerning the research or the researcher.

## BIBLIOGRAPHY

- Abelson, Robert P., Donald R. Kinder, and Mark D. Peters (1982), "Affective and Semantic Components in Political Person Perception," Journal of Personality and Social Psychology, 42, (April), 619-30
- Allen, C.T. and T.J. Madden (1983a), "Humor, Affect and Choice Behavior: More Evidence on the Classical Conditioning of Attitude," Working Paper # 83-25, School of Management, University of Massachusetts, Amherst
- Allen, C.T. and T.J. Madden (1983b), "Examining the Link Between Attitude Toward an Ad and Brand Attitude: A Classical Conditioning Approach," Working Paper # 83-30, School of Management, University of Massachusetts, Amherst
- Allen, C.T. and T.J. Madden (1985), "A Closer Look at Classical Conditioning," Journal of Consumer Research (December)
- Appel, Valentine (1966), "Attitude Change: Another Dubious Method for Measuring Advertising Effectiveness," in Adler and I. Crespi (eds.), Attitude Research at Sea, Chicago: American Marketing Association, 141-152
- Bartos, Rena (1981), "Ads That Irritate May Erode Trust in Advertized Brands," Harvard Business Review, 59, (July-August), 138-140
- Bauer, Raymond (1958), "The Limits of Persuasion", Harvard Business Review, 36, (Sept.-Oct.), p.110
- Bauer, Raymond and A.H. Bauer (1960), "America, Mass Society and Mass Media," Journal of Social Issues, 16, 3, 3-66
- Bentler, P.M. and George Speckart (1979), "Models of Attitude Behavior Relations", Psychological Review, 86, (September), 452-64
- Berlyne, D.E. (1970), "Novelty, Complexity and Hedonic Value," Perception and Psychophysics, Vol.8, 279-286

- Bither, S.W. (1972), "Effects of Distraction and Commitment on the Persuasiveness of Television Advertising," Journal of Advertising Research, 9, (Feb.), 1-5
- Bogart, L. Staurt Tolly and F. Orenstein (1970), "What One Little Ad Can Do", Journal of Advertising Research, 10, (Aug.), 3-13
- Bradley, I.L. (1971), "Repetition As a Factor in the Development of Musical Preferences," Journal of Research in Music Education, 19, 295-298
- Brickman, P., J. Redfield, A.A. Harrison and R. Crandall (1972), "Drive and Predisposition as Factors in the Attitudinal Effects of Mere Exposure," Journal of Experimental Social Psychology, 8, 31-44
- Burgess, T.D.G. and S.M. Sales (1971), "Attitudinal Effects of Mere Exposure: A Reevaluation," Journal of Experimental Social Psychology, 7, 461-472
- Crandall, J.E. (1967), "Familiarity, Preferences and Expectancy Arousal," Journal of Experimental Social Psychology, 73, 374-381
- (1968), "Effects of Need for Approval and Intolerance of Ambiguity Upon Stimulus Preference," Journal of Personality, 36, 67-83
- (1970a), "Predictive Value and Confirmability of Traits as Determinants of Judged Trait Importance," Journal of Personality, 38, 77-90
- (1970b), "Preference and Expectancy Arousal: Further Evidence," Journal of General Psychology, 83, 267-268
- Crandall, J.E., V.E. Montgomery, W.W. and Rees (1973), "Mere Exposure Versus Familiarity with Implications for Response Competition and Expectancy Arousal Hypotheses," Journal of General Psychology, 88, 105-120
- DeBruicker and F. Stewart (1979), "An Appraisal of Low Involvement Consumer Information Processing," In J.C. Maloney and B. Silverman (eds.), Attitude Research Plays for High Stakes, Chicago: American Marketing Association, 112-130

- Downey, J.E. and G.E. Knapp (1927), "The Effects on a Musical Program of Familiarity and of Sequence of Selections," In M. Schoen (ed.), The Effects of Music, New York: Harcourt
- Duncun, Calvin P. (1979), "Humor in Advertising: A Behavioral Perspective,:", Journal of the Academy of Marketing Science, 7, (Fall), 285-306
- Festinger, Leon and Nathan Maccoby (1964), "On Resistance to Persuasive Communications," Journal of Abnormal and Social Psychology, 68, 4, 359-366
- Fishbein, Martin A. (eds.) (1967) Readings in Attitude Theory and Measurement, New York: Wiley
- Fishbein, M.A. and Icek Ajzen (1975), Belief, Attitude, Intention and Behavior: An Introduction to Theory and Research, Reading: Addison Wesley.
- Gardner, David M. (1966), "The Effect of Divided Attention on Attitude Change Induced by a Marketing Communication," In R.M. Hass (ed.) Science, Technology and Marketing, Chicago: American Marketing Association
- (1970), "The Distraction Hypothesis in Marketing," Journal of Advertising Research, 10, (December), 25-30.
- Gardner, Meryl P., Andrew A. Mitchell and J. Edward Russo (1978), "Chronometric Analysis: An Introduction and Application to Low Involvement Perception of Advertisements," In H.K. Hunt (ed.), Advances in Consumer Research, Vol.5, Ann Arbor: Association for Consumer Research, 581-9.
- Gardner, M.P. and M. Vandersteel (1984), "The Consumer's Mood: An Important Situational Variable," In Advances in Consumer Research, Vol.XI, 530-33.
- Gelb, Betsy D. and Charles M. Pickett (1983), "Attitude Toward The Ad: Links to Humor and to Advertising Effectiveness," Journal of Advertising, 12, 2, 34-42.
- Gilliland, A.R. and H.T. Moore (1924), "The Immediate and Long-term Effects of Classical and Popular Phonograph Selections," Journal of Applied Psychology, 8, 309-323.

- Greenwald, Anthony G. and Clark Leavitt (1984), "Audience Involvement in Advertising: Four Levels," Journal of Consumer Research, 11 (June), 581-592.
- Gorn, Gerald J. (1982), "The Effects of Music in Advertising on Choice Behavior: A Classical Conditioning Approach," Journal of Marketing, 46, (Winter), 94-101.
- Gorn, G.J. and M.E. Goldberg (1980), "Children's Response to Repetitive Television Commercials," Journal of Consumer Research, 6, (March), 421-424.
- Greenwald, A.G. (1968), "Cognitive Learning, Cognitive Response to Persuasion, and Attitude Change," In A. G. Greenwald, T.C. Brock and T.M. Ostrom (eds.), Psychological Foundations of Attitude, New York: Academic Press
- Grush, J. E. (1976), "Attitude Formation and Mere Exposure Phenomena: A Non-artifactual Explanation of Empirical Findings," Journal of Personality and Social Psychology, 281-290.
- Haaland, G.A. and M. Venkatesan (1968), "Resistance to Persuasive Communications: An Examination of the Distraction Hypothesis," Journal of Personality and Social Psychology, 90, 167-170.
- Harrison, A.A. (1968a), "Exposure, Favorability, and Item Endorsement," Psychological Reports, 23.
- Harrison, A.A. (1968b), "Response Competition, Frequency, Exploratory Behavior and Liking," Journal of Personality and Social Psychology, 9, 363-368.
- Harrison, A.A. (1977), "Mere Exposure", In L. Berkowitz (ed.), Advances in Experimental Social Psychology, Vol.10, New York: Academic Press.
- Harrison, A.A., R. Tutone and G. McFadgen (1971), "The Effects of Frequency of Exposure of Changing and Understanding Stimulus Pairs on Affective Ratings," Journal of Personality and Social Psychology, 20, 102-111.
- Heingartner A. and J.V. Hall (1974), "Affective Consequences in Adults and Children of Repeated Exposure to Auditory Stimuli," Journal of Personality and Social Psychology, 29, 719-723.

- Holbrook, Morris B. (1981), "Cue Configuralities and Tactile Sensations in Consumer Judgement of Real Products," Working Paper, Columbia University.
- Holbrook, Morris B. and Elizabeth C. Hirschman (1982), "The Experimental Aspects of Consumption: Consumer Fantasies, Feelings, and Fun," Journal of Consumer Research, 9, (December), 132-140.
- Holbrook, M.B. and W.L. Moore (1981), "Feature Interactions in Consumer Judgements of Verbal versus Pictorial Presentations," Journal of Consumer Research, 8, 103-113.
- Isen, A. (1984), "The Influences of Positive Affect on Decision-Making and Cognitive Organization," Association of Consumer Research, Vol. XI, 534-537.
- Jakobovits, L.A. (1968), "Effects of Mere Exposure: A Comment," Journal of Personality and Social Psychology, 9, Monograph Supplement 2, Part 2, 30-32.
- Johnson, M.A. (1973), "The Attitudinal Effects of Mere Exposure and the Experimental Environment," paper presented at the meeting of the Western Psychological Association, Anaheim, California.
- Johnson H.H. and T.A. Watkins (1973), "The Effect of Message Repetition in Immediate and Delayed Attitude Change," Psychonomic Science, 22, 101-103.
- Joreskog, Karl G. and Dag Sorbom (1984), LISREL VI: Analysis of Linear Structural Relationships by Likelihood, Instrumental Variables and Least Square Methods, University of Uppsala: Sweden.
- Kanhouse, D.E. and L.R. Hanson (1972), "Negativity in Evaluations," In E.E. Jones, D.E. Kanhouse, H.H. Kelly, R.E. Nesbit, S. Valins and B. Winer (eds.), Attribution: Perceiving the Causes of Behavior, N.J.: General Learning Press.
- Kassarjian, H.H. (1981), "Low Involvement: A Second Look," In K. Monroe (ed.), Advances in Consumer Research, Vol.8, Ann Arbor: ACR, 31-34.
- Kassarjian, H.H. and W. Kassarjian (1979), "Attitude Under Low Commitment Conditions," In J.C. Maloney and B. Silverman (eds.), Attitude Plays for High Stakes, Chicago: American Marketing Association, 3-15.



- Kellog, Ronald T. (1980), "Is Conscious Attention Necessary for Long-term Storage?," Journal of Experimental Psychology: Human Learning and Memory, 6, (July), 379-90.
- Kiesler, S.B. and R.B. Mathog (1968), "The Distraction Hypothesis in Attitude Change: The Effects of Interference and Credibility on Communication Effectiveness," New London: Connecticut College, Psychology Department. (Mimeo).
- Klapper, J.T. (1960), The Effects of Mass Communication, New York: The Free Press.
- Kroeber-Riel, W. (1984), "Emotional Product Differentiation by Classical Conditioning," In Advances of Consumer Research, Vol. XI, 538-543.
- Krugman, H.E. (1943), "Affective Response to Music as a Function of Familiarity," Journal of Abnormal and Social Psychology, 38, 388-392.
- Krugman, H.E. (1965), "The Impact of Television Advertising: Learning Without Involvement," Public Opinion Quarterly, 29, 349-356.
- Krugman, H.E. (1966), "The Measurement of Advertising Involvement: Learning With Low Involvement," Public Opinion Quarterly, 30, 583-596.
- Krugman, H.E. (1970), "Temporary Effects of Communication," Journal of Advertising Research, 10, (Feb.), 15-17.
- Krugman, H.E. (1971), "Brain Wave Measures of Media Involvement," Journal of Advertising Research, 11, (Feb.), 3-9.
- Krugman, H.E. (1972), "Why Three Exposures May be Enough," Journal of Advertising Research, (December), 11-14.
- Krugman, H.E. (1977), "Memory Without Recall, Exposure Without Perception," Journal of Advertising Research, 17, (Aug.), 7-12.
- Krugman, H.E. (1979), "Low Involvement Theory in the Light of Brain Wave Research," In J.C. Maloney and B. Silverman (eds.), Attitude Research Plays for High Stakes, Chicago: American Marketing Association, 16-22.

- Krugman, H.E. (1980), "Point of View: Sustained Viewing of Television," Journal of Advertising Research, 20, (June), 65-68.
- Langer, Ellen J. (1978), "Rethinking the Role of Thought in Social Interaction," in J.H. Harvey, W. Ickes, and R.F.Kidd, (eds.), New Directions in Attribution Research, Vol. 2, Hillsdale: Lawrence Erlbaum Associates, 35-58.
- Lastovicka, John L. (1979a), "Questioning the Concept of Involvement Defined Product Classes," in W. Wilkie (ed.), Advances in Consumer Research, Vol.6, Ann Arbor: Association for Consumer Research, 174-9.
- \_\_\_\_\_ (1979b), "Are Attitude Models Appropriate for Mass T.V. Advertising?," in John Eighmey (ed.), Attitude Research Under Sun, Chicago: American Marketing Association, 151-170.
- \_\_\_\_\_ and E.H. Bonfield (1979), "Do Consumers Have Attitudes," Temple University Marketing Working Paper.
- \_\_\_\_\_ and David M. Gardner (1978), "Low Involvement Versus High Involvement Cognitive Structures," in H. Keith Hunt (ed.), Advances in Consumer Research, Vol. 5, Ann Arbor: Association for Consumer Research, 87-92.
- \_\_\_\_\_ and D.M. Gardner (1979), "Components of Involvement," in J. C. Maloney and B. Silverman (eds.), Attitude Plays for High Stakes, Chicago: American Marketing Association, 53-73.
- Lavidge, Robert J. and Gary A. Steiner (1961), "A Model for Predictive Measurement of Advertising Effectiveness," Journal of Marketing, 25, (October), 59-72.
- Leavitt, Clark, Anthony G. Greenwald, and Carl Obermiller (1981), "What is Low Involvement Low In?," In K. Monroe (ed.), Advances in Consumer Research, Vol.8, Ann Arbor: Association for Consumer Research, 15-19.
- Lieberman, L.R. and W. M. Walters (1968), "Effects of Repeated Listening on Connotative Meaning of Serious Music," Perceptual and Motor Skills, 26, 891-895.

- Lutz, Richard J. (1975), "Changing Brand Attitudes through Modification of Cognitive Structure," Journal of Consumer Research, 1, 49-59.
- Lutz, Richard J. (1985), "Affective and Cognitive Antecedents of Attitude Toward The Ad: A Conceptual Framework," In L.F. Alwitt and A.A. Mitchell (eds.) Psychological Processes and Advertising Effects: Theory and Application, N.J.: Lawrence Erlbaum Associates, 45-63.
- Lutz, Richard J., Scott B. MacKenzie and George E. Belch (1983), "Attitude Toward the Ad As a Mediator of Advertising Effectiveness: Determinants and Consequences," in R.P. Bagozzi and Alice M. Tybout (eds.), Advances in Consumer Research, Vol. 10, Ann Arbor: Association of Consumer Research, 532-539.
- Madden, Thomas J. (1982) "Humor in Advertising: Application of a Hierarchy of Effects Paradigm," unpublished doctoral dissertation, University of Massachusetts, Amherst.
- Madden, Thomas J., Chris T. Allen and Jacquelyn L. Twible (1988), "Attitude Toward the Ad: An Assessment of Diverse Measurement Indices Under Different Processing Sets," Journal of Marketing Research, Vol. 25, August, 242-252.
- Madden, Thomas J. and K. Debevec (1983), "An Assessment of the Effects of Time Provided for Thought Elicitation on Subsequent Standard Scaled Measure of Attitudes and Intentions," Working Paper #83-1, School of Management, University of Massachusetts, Amherst.
- McCullough, J.L. and T.M. Ostrom (1974), "Repetition of Highly Similar Messages and Attitude Change," Journal of Applied Psychology, 59, 395-397.
- McGuire, William (1968), "Personality and Susceptibility to Social Influence," In E.F. Borgatta and W.W. Lambert (eds.), Handbook of Personality Theory and Research, Chicago: Rand McNally, 1130-87.
- MacKenzie, Scott B. and Richard J. Lutz (1982), "Monitoring Advertising Effectiveness: A Structural Equation Analysis of the Mediating Role of Attitude Toward The Ad," Working Paper # 117, Center for Marketing Studies, University of California, Los Angeles.

- MacKenzie, Scott B. and Richard J. Lutz (1983), "Testing Competing Theories of Advertising Effectiveness via Structural Equation Models," In William R. Darden, Kent B. Monroe, and William R. Dillon (eds.), Research Methods and Causal Models in Marketing, Chicago: American Marketing Association, 70-75.
- MacKenzie, Scott B., Richard J. Lutz and George E. Belch (1986), "The Role of Attitude Toward The Ad as a Mediator of Advertising Effectiveness: A Test of Competing Explanations," Journal of Marketing Research, (May), 130-143.
- Matlin, M.W. (1970), "Response Competition as a Mediating Factor in the Frequency-Affect Relationship," Journal of Personality and Social Psychology, 16, 536-552.
- Matlin, M.W. (1971), "Response Competition, Recognition and Affect," Journal of Personality and Social Psychology, 19, 295-300.
- Meyer, M. (1903), "Experimental Studies in the Psychology of Music," American Journal of Psychology, 14, 155-163.
- Mitchell, Andrew A. (1979), "Involvement: A Potentially Important Mediator of Consumer Behavior," In W. Wilkie (ed.), Advances in Consumer Research, Vol. 6, Ann Arbor: Association of Consumer Research, 191-196.
- \_\_\_\_\_ (1981), "The Dimensions of Advertising Involvement," In K. Monroe (ed.), Advances in Consumer Research, Vol. 8, Ann Arbor: Association for Consumer Research, 25-30.
- \_\_\_\_\_, J. Edward Russo, and Meryl Gardner (1980), "Strategy Induced Low Involvement Processing of Advertising Messages," Carnegie-Mellon University Marketing Working Paper.
- Mitchell, Andrew A. and Jerry C. Olson (1981), "Are Product Attribute Beliefs the Only Mediator of Advertising Effects on Brand Attitude?," Journal of Marketing Research, 18, (August), 318-332.
- Moore, David L. (1985), "The Effects of Cognitive Style and Advertising Type on Responses to Advertising Under Conditions of Low and High Involvement: An Empirical Investigation," Unpublished doctoral dissertation, University of Massachusetts, Amherst.

- Moore, D. J. and J. W. Hutchinson (1983), "The Effects of Ad Affect on Advertising Effectiveness," In R.P. Bagozzi and A.M. Tybout (eds.), Advances in Consumer Research, Vol. 10, 526-531.
- Moreland, R.L. and Robert B. Zajonc (1979), "Exposure Effects May Not Depend on Stimulus Recognition," Journal of Personality and Social Psychology, 37, No.6, 1085-89.
- Mull, H.K. (1957), "The Effects of Repetition Upon Enjoyment of Modern Music," Journal of Psychology, 43, 155-162.
- Nelson, James E., Calvin P. Duncun, and Nancy T. Frontczak (1986), "The Distraction Hypothesis and Radio Advertising," Journal of Marketing, 49, (Winter), 60-71.
- Newman, Larry M. and Ira J. Dolich (1979), "An Examination of Ego-Involvement As a Modifier of Attitude Changes Caused From Product Testing," In W. Wilkie (ed.), Advances in Consumer Research, Vol. 6, Ann Arbor: Association for Consumer Research, 180-183.
- Nisbett, Richard E. and Timothy D. Wilson (1977), "Telling More Than We Can Know: Verbal Reports on Mental Processes," Psychological Review, 84, 231-259.
- Obermiller, Carl (1985), "Varieties of Mere Exposure: The Effects of Processing Style and Repetition on Affective Response," Journal of Consumer Research, Vol. 12, 17-30.
- Olshvasky, Richard W. and Donald H. Granbois (1979), "Consumer Decision-Making: Fact or Fiction?" Journal of Consumer Research, 6, (September), 93-100
- Osterhouse, Robert A. and Timothy C. Brock (1970), "Distraction Increases Yielding to Propaganda by Inhibiting Counterarguing," Journal of Personality and Social Psychology, 15, No.4, 344-358.
- Park, C. Whan and Mark Young (1986), "Consumer Response to Television Commercials: The Impact of Involvement and Background Music on Brand Attitude Formation," Journal of Marketing Research, (February), 11-24.

- Petty, Richard E. (1975), "Distraction Can Enhance or Reduce Yielding to Propaganda by Interfering with Cognitive Responses," Master Thesis, Ohio State University.
- \_\_\_\_\_(1977), "The Importance of Cognitive Responses in Persuasion," In W.D. Perreault (ed.), Advances in Consumer Research, Vol. 4, GA: Association for Consumer Research.
- Petty, Richard E. and John T. Cacioppo (1979a), "Effects of Forwarding of Persuasive Intent and Involvement on Cognitive Responses and Persuasion," In Personality and Social Psychology Bulletin, 5, 173-176.
- \_\_\_\_\_, \_\_\_\_\_ (1979b), "Issue Involvement Can Decrease Persuasion by Enhancing Message-Relevant Cognitive Responses," Journal of Personality and Social Psychology, 37, 1915-26.
- \_\_\_\_\_, \_\_\_\_\_ (1981a), Attitudes and Persuasion: Classic and Contemporary Approaches. Dubuque:Wm. C. Brown Company Publishers.
- \_\_\_\_\_, \_\_\_\_\_ (1981b), "Issue Involvement as a Moderator of the Effects on Attitude of Advertising Content and Context," in K. Monroe (ed.), Advances in Consumer Research, Vol. 8, Ann Arbor: Association for Consumer Research, 20-24.
- \_\_\_\_\_, \_\_\_\_\_, and D. Schumann (1983), "Central and Peripheral Routes to Advertising Effectiveness: The Moderating Role of Involvement," Journal of Consumer Research, (September), 135-146.
- \_\_\_\_\_, and Martin Heesacker (1981), "Effects of Rhetorical Questions on Persuasion: A Cognitive Response Analysis," Journal of Personality and Social Psychology, 40, 432-440.
- \_\_\_\_\_, T. M. Ostrom and Timothy C. Brock (eds.) (1981), Cognitive Responses in Persuasion, N.J.: Lawrence Erlbaum.
- \_\_\_\_\_, G.L. Wells and Timothy C. Brock (1976), "Distraction Can Enhance or Reduce Yielding to Propaganda: Thought Disruption Versus Effort Justification," Journal of Personality and Social Psychology, 34, 874-884.

- Pinson, C. and E. L. Roberto (1973), "Do Attitude Changes Precede Behavior Change?" Journal of Advertising Research, 4, 33-38.
- Ratchford, Brian T. (1987), "New Insights About the FCB Grid," Journal of Advertising Research, August-September.
- Ray, Michael L. (1979), "Involvement and Other Variables Mediating Communication Effects as Opposed to Explaining All Consumer Behavior," In W.L. Wilkie (ed.) Advances in Consumer Research, Vol.6, Ann Arbor: Association for Consumer Research, 197-179.
- \_\_\_\_ (1982), Advertising and Communications Management, N.J.: Prentice Hall, Inc.
- \_\_\_\_, Alan G. Sawyer, and Michael L. Rothschild, Roger M. Heeler, Edward C. Strong, and Jerome B. Reed (1973), "Marketing Communication and the Hierarchy of Effects," In P. Clarke (ed.), New Models for Mass Communication Research, CA: Sage Publishing, 147-176.
- \_\_\_\_, and Alan G. Sawyer (1971a), "Repetition in Media Models: A Laboratory Technique," Journal of Marketing Research, 8, (February), 20-29.
- \_\_\_\_, and \_\_\_\_\_ (1971b), "Behavioral Measurement for Marketing Models: Estimating the Effects of Advertising Repetition for Media Planning," Management Science, 18, (4-2), 73-89.
- \_\_\_\_, \_\_\_\_\_, and E.C. Strong (1971), "Frequency Effects Revisited," Journal of Advertising Research, 11, 14-20.
- Ray, Michael L. and Peter H. Webb (1974), "Three Learning Theory Traditions and Their Application in Marketing," In R.C. Curhan (ed.), 1974 Combined Proceedings, Chicago: American Marketing Association, 100-3.
- \_\_\_\_, \_\_\_\_\_ (1976), "Experimental Research on the Effects of TV Clutter: Dealing with a Difficult Media Environment," Report No. 76-102, Marketing Science Institute, Cambridge, Massachusetts, April.
- Rethans, Arno J., John L. Swasy and Lawrence J. Marks (1986), "Effects of Television Commercial Repetition, Receiver Knowledge and Commercial Length: A Test of the Two-Factor Model," Journal of Marketing Research, February, 50-61.

- Robertson, Thomas S. (1976), "Low-Commitment Consumer Behavior," Journal of Advertising Research, 16, (April), 19-24.
- Rosenblatt, P.C.(1966), "Persuasion as a Function of Varying Amounts of Distraction," Psychonomic Science, 5, 85-86.
- Rothschild, Michael L. (1984), "Perspectives on Involvement: Current Problems and Future Directions, in Advances in Consumer Research, Vol. 11, 216-217.
- Sawyer, Alan G. (1971), "A Laboratory Experimental Investigation of the Effects of Repetition of Advertising Communication," Unpublished doctoral dissertation, Stanford University.
- \_\_\_\_\_ (1975), "Demand Artifacts in Laboratory Experiments in Consumer Research," Journal of Consumer Research, 1, (March), 20-30.
- Semenik, Richard J. (1982), "Hemispheric Lateralization, Affect, and Consumer Esthetics," Paper Presented at American Marketing Association Conference on Non-Profit Marketing, Columbia, South Carolina, March 31 - April 2, 1982.
- Sherif, Carolyn W., and Muzafar Sherif (eds.) (1967), Attitude, Ego-Involvement, and Change, New York: John Wiley and Sons, Inc.
- Sherif, Carolyn W., Muzafar Sherif and Roger E. Nebergall (1965), Attitude and Attitude Change: The Social Judgement Approach, Philadelphia: Saunders.
- Shimp, T. A. (1981), "Attitude Toward The Ad as a Mediator of Consumer Brand Choice," Journal of Advertising, 10, (February), 9-15.
- Silk, Alvin J. Terry G. Vavra (1974), "The Influence of Advertising's Affective Qualities on Consumer Response," In G. David Hughes and Michael L. Ray (eds.), Buyer/Consumer Information Processing, Chapel Hill, North Carolina: The University of North Carolina Press, 157-89.
- Silver I. And C. Regula (1968), "Evaluation Apprehension, Demand Characteristics, and the Effects of Distraction on Persuasibility," Journal of Social Psychology, 75, 273-281.



- Smith, Robert T. and William R. Swinyard (1980), "Involvement and the Hierarchy of Effects," In G.B. Hafer (ed.), A Look Back, A Look Ahead, Chicago: American Marketing Association, 86-98.
- \_\_\_\_\_ (1982), "Information Response Models: An Integrated Approach," Journal of Marketing, 46, (Winter), 81-93.
- Stang, D.J. (1973), "Six Theories of Repeated Exposure and Affect," Catalog of Selected Documents in Psychology, 3, 126.
- \_\_\_\_\_ (1974a), "An Analysis of the Effects of Political Campaigning," Paper Presented at the 66th annual meeting of the Southern Society for Philosophy and Psychology, Tampa.
- \_\_\_\_\_ (1974b), "Intuition as Artifact in Mere Exposure Studies," Journal of Personality and Social Psychology, 30, 647-653.
- \_\_\_\_\_ (1974c), "Methodological Factors in Mere Exposure Research," Psychological Bulletin, 81, 1014-1025.
- \_\_\_\_\_ (1975a), "Is Learning Necessary for the Attitudinal Effects of Mere Exposure?" Paper Presented at the annual meeting of the American Psychological Association, August, 1975.
- \_\_\_\_\_ (1975b), "The Effects of Mere Exposure on Learning and Affect", Journal of Personality and Social Psychology, 31, 7-13.
- Thorndike, E.L. and I. Lorge (1944), The Teacher's Word Book of 30,000 Words, New York: Columbia Teachers College Press.
- Tyebjee, Tyzoon T. (1979a), "Refinement of the Involvement Concept: An Advertising Planning Point of View," In J.C. Maloney and B. Silverman (eds.), Attitude Research Plays for High Stakes, Chicago: American Marketing Association, 94- 111.
- \_\_\_\_\_ (1979b), "Response Time, Conflict, And Involvement in Brand Choice," Journal of Consumer Research, 6, (December), 295-304.
- Venkatesan M. and G.A. Haaland (1968), "Divided Attention and Television Commercials: An Experimental Study," Journal of Marketing Research, 5, (May), 203-205.

- Washburn, M.F., M.S. Child and T.M. Abel (1927), "The Effects of Immediate Repetition on the Pleasantness or Unpleasantness of Music," In M. Schoen (ed.), The Effects of Music, New York: Harcourt.
- Webb, Peter H. (1979), "Consumer Initial Processing in a Difficult Media Environment," Journal of Consumer Research, 6, (December), 225-236.
- \_\_\_\_\_ (1980), "Key Variable of Environment in Information Processing," In G.B. Hafer (ed.), A Look Back, A Look Ahead, Chicago: American Marketing Association, 99-108.
- Weiss, R.F. (1971), "Role Playing and Repetition Effects on Opinion Strength," Journal of Social Psychology, 85, 29-35.
- Wilson, L.R. and H. Miller (1968), "Repetition, Order of Presentation and Timing of Arguments and Measures as Determinants of Opinion Change," Journal of Personality and Social Psychology, 9, 184-188.
- Wintle, Regie Rae (1978), "Emotional Impact of Music on Television Commercials," Unpublished doctoral dissertation, University of Nebraska, Lincoln.
- Wright, Peter L. (1980), "Message Evoked Thoughts: Persuasion Research Using Thought Verbalizations," Journal of Consumer Research, 7, (September), 151-175.
- Zaichkowsky, Judith L. (1985), "Measuring the Involvement Construct," Journal of Consumer Research, 12, (December), 341-352.
- Zajonc, Robert B. (1965), "The Attitudinal Effects of Mere Exposure," Technical Report No. 34, Institute for Social Research, Ann Arbor, Michigan.
- \_\_\_\_\_ (1968), "The Attitudinal Effects of Mere Exposure," Journal of Personality and Social Psychology, 9 (Monograph Supplement 2), Part 2, 1-27.
- \_\_\_\_\_ (1969), "Attraction, Affiliation, and Attachment," In J.F. Eisenberg, W.S. Dillon and S.D. Ripley (eds.), Men and Beast: Comparative Social Behavior, Washington: Smithsonian Institution Press.

\_\_\_\_\_ (1980), "Feeling and Thinking: Preferences Need No Inferences," American Psychologist, 35, (February), 151-175.

\_\_\_\_\_ (1984), "On The Primacy of Affect," American Psychologist, 39, (February), 117-123.

\_\_\_\_\_, R. Crandall, R.B. Kail and W. Swap (1974a), "Effects of Extreme Exposure Frequencies on Different Affective Ratings of Stimuli," Perceptual and Motor Skills, 38, 667-678.

\_\_\_\_\_, H. Markus and W.R. Wilson (1974b), "Exposure Effects and Associative Learning," Journal of Experimental Social Psychology, 10, 248-263.

\_\_\_\_\_, H. Markus and W.R. Wilson (1974c), "Exposure, Object Preference, and Distress in the Domestic Chick," Journal of Comparative and Physiological Psychology, 86, 581-585.

\_\_\_\_\_, D.W. Rajecki (1969), "Exposure and Affect: A Field Experiment," Psychonomic Science, 17, 216-217.

\_\_\_\_\_, D. J. Reimer and D. Hausser (1973), "Imprinting and the Development of Object Preference in Checks by Mere Repeated Exposure," Journal of Comparative and Physiological Psychology, 83, 434-440.

\_\_\_\_\_, P. Shaver, C. Tavriss, and D. VanKrevelend (1972), "Exposure, Satiation, and Stimulus Discriminability," Journal of Personality and Social Psychology, 21, 270-280.

\_\_\_\_\_, W.C. Swap, A.A. Harrison and P. Roberts (1971), "Limiting Conditions of the Exposure Effect: Satiation and Relativity," Journal of Personality and Social Psychology, 18, 384-391.



