

## The Development of the Hierarchy of Effects: An Historical Perspective

Thomas E. Barry

Just what constitutes advertising effectiveness is often a topic of heated debate. “Bottom-liners” contend that advertising is effective only when it sells. Communication advocates, however, suggest that there is a series of stages between the point of unawareness of a product and/or brand and the ultimate purchase/sale of a particular brand. Proponents in each of these two camps rarely agree on a middle road. The body of work in the marketing and advertising literature that relates to this advertising effectiveness controversy is called the *hierarchy of effects* and has been accorded theoretical status by many advertising and marketing practitioners and academics. However, as Tauber [1982--83] noted, there are several different classes of advertising them-y and, in light of this fact, researchers really must,

. . . take a step back to review theories about how advertising works. If we had a thorough review, we might see that the appropriate research measures flowed from the objectives of each advertising situation (p. 7).

On the other hand, Ramond [1976] has argued that advertising has no general theory that is widely accepted but rather the field is a collection of “pseudo-theories” whose genesis is introspection. He argues that the more mysterious and complex the field, the more systematic must be the approach to understanding that body of work. The purpose of this article is to provide the reader with a clear perspective of how the hierarchy of effects literature has developed over time. This historical perspective will provide researchers and practitioners with a thorough glimpse of this most important body of work and

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provide for a base from which future research can be generated and future strategies might be developed.

### Historical Perspective of the Hierarchy of Effects

A review of the advertising and marketing literature leads to the conclusion that there is not one but many hierarchy of effects models. While many of these models were developed in the personal selling literature, they were adopted early on by advertising researchers and practitioners and came to be known as hierarchy of effects models, a term first used by Palda [1966] in responding to the advertising effectiveness work of Lavidge and Steiner [1961]. The historical development of the hierarchy framework in selling and advertising can be categorized into three phases. The first, "Early Development," begins shortly before the turn of this century and continues to 1960. This initial phase involves the development of conceptual outlines or frameworks by sales practitioners and advertising and psychology researchers. In 1961, Lavidge and Steiner's work was the catalyst for the modern hierarchy of effects body of literature. This second phase is referred to here as "Modern Development," and continues through the mid-1970s. Since then, a period of "Challenge and Defense" has emerged. Several researchers and practitioners have begun to challenge the "iron-clad" notion of a stair-step, hierarchical response process, a challenge to the traditional hierarchy models.<sup>1</sup> Most notably, this challenge centers around the concept of "involvement" or the extent to which consumers are involved in the advertising they see and hear and the products and services that they buy. A summary of the three phases of the development of hierarchy of effects models appears in Table 1. Many of the models in each of these phases will be discussed below.

#### The Early Development Phase

In 1898, St. Elmo Lewis [Strong 1925a] proposed a stair-step hierarchical framework that theorized that salespeople had to attract attention, maintain interest, and create desire in order to be successful.<sup>2</sup> Shortly thereafter (*circa* 1900), Lewis added a fourth step, "get action," to his original model. This model came to be known as AIDA and is still one of the most referred to models in the advertising and personal selling literature concerning how people behave in responding to sales and advertising presentations. Lewis' work was further developed by Sheldon [1911] who added the word "favorable" to the first attention step and added a fifth step in the hierarchy that he called permanent satisfaction. Sheldon made it clear to his sales personnel that this sequence comprised the five "mental states" a customer's mind passed through on the way to making a purchase decision. However, the customer was not necessarily

YEAR	AUTHOR(S)	EARLY DEVELOPMENT PHASE FORM/DESCRIPTION OF MODEL
1898	E. St. Elmo Lewis	Attract Attention, Maintain Interest, Create Desire (AID)
circa 1900	E. St. Elmo Lewis	Added Get Action a few years later (AIDA)
1910	Printer's Ink	A complete advertisement must follow AICA Model—Attract Attention, Develop Interest, Produce Conviction, Induce Action
1911	Arthur Frederick Sheldon, The Art of Selling	AIDAS—Favorable Attention, Interest, Desire, Action, Permanent Satisfaction
1911	International Correspondence School	PAICSH—Preparation for Approach, Approach, Interest, Closing, Sale, Holding the Customer
1915	Samuel R. Hall, Writing an Advertisement	AICCA—Attention, Interest, Confidence, Conviction, Action
1920	West Coast Life Insurance Company, "Five Steps to a Sale"	ADICA—Attracting Attention, Creating Desire, Removing Inhibitions, Inspiring Confidence, Impelling to Action
1921	Robert E. Ramsay, Effective Direct Advertising	AIDCA—Attention, Interest, Desire, Caution. Action—however, virtually no discussion of this formula in his book
1921	Harry D. Kitson, The Mind of the Buyer	AIDCA—Attention, Interest, Desire, Confidence, Action
1922	Alexander F. Osborn, A Short Course in Advertising	AIIJA—Attention, Interest, Judgment, Action

1922	Edward K. Strong, Jr., The Psychology of Selling Life Insurance	Referred to the popularity of Sheldon's AIDAS but suggested outline was faulty; aim of advertising target immediate action all the time
1923	Daniel Starch, Principles of Advertising	SRBRA-Seen, Remembered, Believed, Read, Acted LTpon
1925	Edward K. Strong, Jr., "Theories of Selling," The Journal of Applied Psychology	Reviewed the theories to date; 3 main theories: AIDAS, Situation-Response, and Appeal-Response (for the advertising, not selling, world)
1938	Edward K. Strong, Jr., Psychological Aspect of Business	Refers to N. Hawkins' three different stages of attention and interest; a sales prospect must be taken through these six stages (3 each) before desire can occur; Synthesizes the three theories of selling discussed in 1925 piece; one of those is AID(W) C(S) PS—Attention, Interest, Desire (Want), Conviction (Solution), Purchase, Satisfaction
1940	Clyde Bedell, How To Write Advertising That Sells	Refers to "Proved Selling Stratagems," of AIDCA—Attention, Interest, Desire, Conviction, Action
1956	Merrill, DeVoe, Effective Advertising Copy	Refers to different sequences in constructing ads; the psychological sequence is popular and has been around for a long time, e.g., AIDCA—Attention, Interest, Desire, Conviction and Action; and AIDMA—Attention, Interest, Desire, Memory, Action; no references to these models

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MODERN DEVELOPMENT PHASE  
FOR DESCRIPTION OF MODEL

YEAR	AUTHOR(S)	DESCRIPTION OF MODEL
1961	Robert J. Lavidge and Gary A. Steiner, "A Model for Predictive Measurements of Advertising Effectiveness," Journal of Marketing	HIERARCHY OF EFFECTS—Awareness, Knowledge, Liking, Preference, Conviction, Purchase
1961	Russell H. Coney, DAGHAR—Defining Advertising Goals for Measured Advertising Results	ACCA—Awareness, Comprehension, Conviction, Action
1961	Advertising Research Foundation	EPC(K)C(A)A—Exposure, Perception, Communication (Knowledge), Communication (Attitude), Action
1962	Harry D. Wolfe, James K. Brown and G. Clark Thompson, "Measuring Advertising Results"	AAPIS—Awareness, Acceptance, Preference, Intention, Provocation of Sale
1962	Everett M. Rogers, Diffusion of Innovation	AIETA—Awareness, Interest, Evaluation, Trial, Adoption; relates to new product adoption process
1962	Harold Menckelsohn, "Measuring the Process of Communications Effect," Public Opinion Quarterly	Looks at three types of responses: rudimentary response (feeling), and active response (learning to aid decision making); developed an Active Response Scale similar to Cuttliff & Scheffé
1964	Leo V. Aspinwall, "Consumer Acceptance Theory"	API—Acceptance, Preference, Insistence
1967	Sanclage and Fryburger	EPIA—Exposure, perception, Integration, Action

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1969	David A. Schwartz, "Measuring the Effectiveness of Your Company's Advertising," Journal of Advertising	EARACP—Exposure, Attention, Retention, Attitude Change, Purchase
1969	John Howard and Jagdish Sheth, The Theory of Buyer Behavior	ACAIP—Attention, Comprehension, Attitude, Intention, Purchase
1969	William J. McGuire, "An Information - Processing Model of Advertising Effectiveness"	PACYRB—Presentation, Attention, Comprehension, Yielding Retention, Behavior
1971	Thomas S. Robertson, Innovative Behavior and Communication	ACALTA—Awareness, Comprehension, Attitude, Legitimation, Trial, Adoption
1971	Kenneth A. Longman, Advertising	EAPCBMA—Exposure, Attention, Perception, Comprehension, Belief, Motivation, Action
1974	Andrew S. C. Ehrenberg, "Repetitive Advertising and the Consumer," Journal of Advertising Research	ATR—Awareness, Trial, Reinforcement Model; hierarchy models don't tell us enough; advertising's role is to facilitate trial purchase among the consumer's repertoire of brands
1975	Morris B. Holbrook, "A Review of Advertising Research"	APMAI—Attention, Perception, Memory, Attitude, Intention

CHALLENGES AND DEFENSES  
FORM/DESCRIPTION

YEAR	AUTHOR(S)	CHALLENGES AND DEFENSES FORM/DESCRIPTION
1973	Michael L. Ray, et al. Marketing Communications and the Hierarchy of Effects"	There may be a multiple of hierarchy models operating under different involvement situations
1979	Robert L. Anderson and Thomas E. Barry, Advertising Management: Text and Cases	Added Brand Loyalty to the hierarchy of effects models
1980	Richard Vaughn, "How Advertising Works: A Planning Model," Journal of Advertising Research	Stated that "thinking model"—the traditional hierarchy model of cognition, affect, conation—not adequate; added three additional models in different sequencing, e.g. affect-cognition-conation; conation-cognition-affect; conation-affect-cognition
1981	Michael L. Rothschild and William C. Gaidis, "Behavioral Learning Theory: Its Relevance to Marketing and Promotions," Journal of Marketing	For low involvement purchases; advertising is stimulus for awareness and knowledge; leads to trial; product becomes stimulus and reinforces and satisfies leading to increased probability of repeat purchasing behavior
1992	Robert E. Smith and William R. Swinyard "Information Response Models An Integrated Approach," Journal of Marketing	The learning hierarchy may not be appropriate for low involvement purchase situations; look at high and low order belief and affect; suggest three models: traditional of cognition-affect-commitment; low involvement of cognition-trial-affect-commitment; and brand switching of cognition-trial-trial-trial

- 1952 Ivan L. Preston, "The Association Model of the Advertising Communication Process," *Journal of Advertising*
- 1983 Ivan L. Preston and Esther Thorson, "Challenges to the Use of Hierarchy Models in Predicting Advertising Effectiveness," AAA Proceedings
- 1983 Sandra Ernst Moriarty, "Beyond the Hierarchy of Effects: A Conceptual Framework," *Current Issues and Research in Advertising*
- 1984 Ivan L. Preston and Esther Thorson, "The Expanded Association Model: Keeping the Hierarchy Concept Alive," *Journal of Advertising Research*
- 1986 Richard Vaughn "How' Advertising Works: A Planning Model Revisited," *Journal of Advertising Research*

Presents more comprehensive consumer information processing model stating lack of this is fault of previous models: Distribution, Vehicle Exposure, Ad Exposure, Ad Awareness, Ad Elements Awareness, Association Evaluation, Product Perception, Integrate] Perception, Product Evaluation, Prior Evaluation, Integrated Evaluation, Product Stimulation, Prior Stimulation, Integrated Stimulation, Action; states traditional hierarchy valid in spite of low involvement theory

Defend traditional hierarchy models and add to the Association Model of 1982 with: Search, Search Perception, Search Evaluation, Search Stimulation, Trial, Trial Perception, Trial Stimulation, Adoption, Adoption Perception, Adoption Evaluation and Adoption Stimulation

Reviews and challenges traditional hierarchy models; presents a Continuum Domain Model with the domains being perception (no awareness to recall), education (learning to generalization and discrimination), persuasion (reinforce old attitudes to changing old ones) and behavior (inquiry to repurchase)

In effect combines 1982 and 1983 articles and presents the complete, expanded Association Model including the addition of the three Action Steps (Search, Trial, Adoption)

Continues contention in earlier article that there are multiple hierarchies used in responding to advertising messages

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always aware of this, such as the young boy who "... no sooner sees chocolate than he decides to buy some" (p. 29). Sheldon was one of the few to ever discuss the negatives associated with the stair-step process; that is, one could have unfavorable attention, be *indifferent*, display *disgust*, be *repulsed* and *not* buy. The ordering of the five steps was critical to selling success. As stated by Sheldon,

The great problem of salesmanship is so to master this fact that the customer, realizing his best interests are being served, is persuaded to make a purchase because you follow the right method. You do not try to make him take action before you have stimulated his desire; and you do not try to create desire until you have secured his interest. (p. 31)

About the same time as Sheldon's work, the International Correspondence School [1911] prepared a booklet for the "The Conducting of Selling" in which a behavioral sequence was suggested for sales success. The formula, however, was more a process of selling techniques than a theory of the mental processes engaged in by prospective and actual customers. In a review on selling theories, Strong [1925b] refers to other selling theories including Eastman's [1916] *Psychology of Salesmanship*. This work discussed the process of thinking, feeling, and acting without any formal framework as well as the West Coast Life Insurance Company [1920] that presented the five steps to successful selling as attracting attention, creating desire, removing inhibitions, inspiring confidence, and impelling to action. What appeared clear to Strong was that most of the selling and advertising books written in the first two decades of the twentieth century fully endorsed the Lewis/Sheldon viewpoint, Strong estimated that ninety percent of the persons engaged in selling were influenced by this attention-to-satisfaction hierarchy framework.

Early advertising writings by Scott [1903; 1908] put great emphasis on topics of attention, idea association, suggestion, fusion, perception, feeling, habit, and so forth but there was no attempt by him to formulate any model of the selling or advertising process. *Printer's Ink* [1910] proposed, in an editorial, that a complete advertisement must attract attention, develop interest, produce conviction, and induce action in order to be effective; and Hall [1915] wrote that attention, interest, confidence, conviction and action were essential to effective advertisement writing. While Ramsay [1921] did not propose a sequential model for developing advertising copy, he discussed the importance of attention, interest, desire, caution, and action. Kitson [1921], on the other hand, devoted an entire book to a hierarchy of attention, interest, desire, confidence, and action. Osborn [1922] developed a hierarchy procedure that included the traditional steps of attention, interest, and action with judgment preceding action. At about the same time, Starch [1923] began to develop measures of advertising effectiveness (seen, read, believed, remembered, and acted upon) that were to become standard for measuring magazine ad effectiveness in later years.

Among the more behaviorally oriented works was Adams' [1916] book about the mental laws of advertising. Adams generally supported the traditional hierarchy work of Lewis and Sheldon, noting that in order to produce effective advertising an advertisement must lead to some action by arresting and holding attention, creating a favorable impression, and having it remembered. Adams focused on the "sensation complexes" of the audience—their receiving equipment such as end and sense organs. According to Adams, these sensation complexes are modified by and grouped with memories to form perceptions.

To Adams, attention was the basis of all voluntary actions, and incoming stimuli, such as advertisements, had to link up with other ideas associated with past experiences or hereditary responses. Associations could then be made and tested by the "laws of recall." These laws included communication variables such as contiguity, similarity and contrast, primacy and recency, frequency and intensity, as well as purposes, attitudes, education, social pressures, and heredity. Perception and knowledge were "fusions of sensations," and learning was the simple formation of associations that were fused together. It was important that advertisers understand the laws of learning including repetition, series length, rhythm, will to learn, and others. Adams's notion of "dynamogenesis" was the most fundamental law of action declaring that any sensation or idea will result in some kind of movement, be it automatic, reflexive, habitual, or random. Adams was one of the original "bottom-liners" in that advertising was only effective, in his mind, when it led an audience to action.

Strong [1922] was also a "bottom-liner" and suggested in a book on the psychology of selling life insurance that Sheldon's [1911] five-step hierarchy was faulty and had done as much harm as good to the science of selling. It was Strong's belief that it was both unnecessary and a waste of time to lead a prospect through the five hierarchical stages, stating, ". . . , while the outline is sometimes true, the ideal is to get action immediately" (p. 155). In a later work, Strong [1925b] referred to three general theories of selling: Sheldon's AIDAS, stimulation-response (or appeals-response in advertising), and man as a dynamic being seeking to satisfy wants. According to Strong, the five mental states (AIDAS) were not the goal the seller should strive for; he believed that this formulation was likely responsible for many poor advertisements and sales presentations.

Poffenberger [1925] contended that it would be too difficult to try to analyze advertising behavioral responses through some hierarchical format stating that the "processes involved in the human reaction to an advertisement are too complex and too much interwoven with each other to permit [of] analysis into a chain of distinct and loosely connected operations, each to be examined in isolation from all the others (p. 566). Rather, it was the association of wants and needs that provoked responses from advertisements. And it was only where wants were weak or where consumers faced a large variety of means to satisfy their wants when ". . . all the devices of the sciences and the arts need to be

called upon to make an appeal effective" (p. 566). For example, Poffenberger wondered how 38 brands of cigarettes and 30 brands of toothpaste could differ in their power to satisfy wants. These situations would call for the skillful use of advertising and, through association, could effectively generate reactions from consumers.

Jenkins [1935] maintained, like Strong and others, that the primary aim of advertising was to influence immediate action or "goodwill action" over some period of time and that, in order to develop effective advertising, the various stages of action should be understood. All other aims of advertising should be focused on making the total advertisement an "effective governor of action" (p. 259). In later research, Strong [1938] presented the work of Hawkins, a Sales Manager for General Motors, who proposed that there were three stages of attention and three stages of interest that a selling prospect had to be carried through before desire could be reached. Attention was compulsory, curious, or spontaneous; interest was attentive, associating, or personal. The main objective of Strong's later work was to synthesize the three theories of selling (AIDAS, appeals-response, and the dynamic man theory) mentioned earlier. His synthesis scheme is presented in Figure 1. Part (a) of Figure 1 conveys Strong's synthesis of AIDAS and the dynamic man theory; Part (b) synthesizes the appeals-response theory with the dynamic man theory.

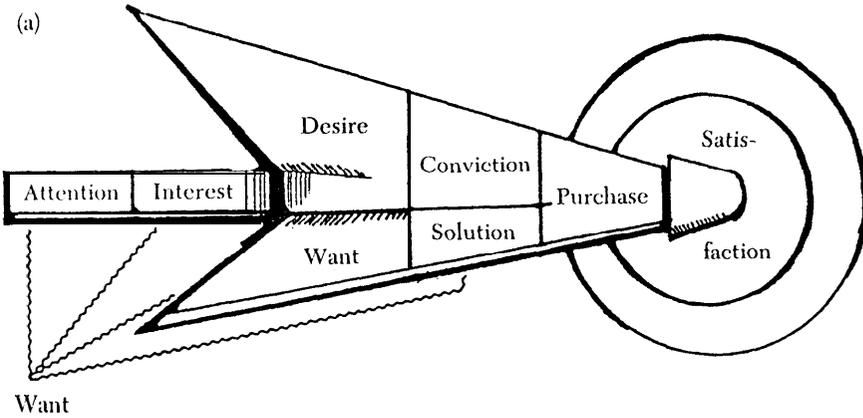
The attention, interest, desire, conviction, action sequence was heavily relied upon by Bedell in his text, *How to Write Advertising that Sells* [1940]. For each phase of the hierarchy, Bedell presented five or six "selling strategems"—proved selling devices—that would create copy that would lead ad readers from the attention phase to the buy phase.

In a final advertising work in this early phase, Devoe [1956] referred to two popular psychological sequences: attention, interest, desire, conviction and action; and attention, interest, desire, memory, and action. He criticized these "models" for not differentiating attention to the product versus attention to the advertisement. He proposed that there is also a difference in the interest toward the product as well as toward the ad itself.

These early models were descriptive representations based on intuition and logic. There was virtually no empirical analysis of any of them. Some were more psychology-bounded than others, but it is evident that these models provided the foundation for the discussions of the hierarchy models developed over the next thirty years.

### The Modern Development Phase

In contrast to many of their early development predecessors, Lavidge and Steiner [1961] felt that immediate sales was an incomplete criterion of advertising effectiveness, even if that criterion were measurable. They felt that advertising was a long-term investment, principally because many of advertising's



effects were long-term in nature, In their work, Lavidge and Steiner felt that consumers do not jump from a stage of disinterest to that of convinced purchasers; rather, they go through a series of steps to that threshold of purchase.

The seven steps that consumers followed enroute to the purchasing threshold were:

1. unawareness of product or service existence
2. awareness of product or service existence
3. knowledge of what the product has to offer
4. favorable attitude toward the product-consumers like it
5. a favorable attitude to the point of preferring one brand over others
6. a desire to buy as well as conviction that the purchase would be wise
7. the actual purchase,

Lavidge and Steiner held that these steps were not necessarily equidistant from each other and that consumers could move “up” several steps simultaneously. The consumer’s psychological or economic commitment would have an important bearing on his or her succession to the top (purchase) of the ladder with more committed purchases taking longer to go through the process. It was also important to note that the “simple model,” according to these researchers, assumed that all consumers started from “scratch.” In reality, however, they felt that those consumers who had developed negative attitudes had to be removed from the negative steps and then moved up the ladder through the process. It was at this stage in the development of the hierarchy of effects work that the popular terms of “cognition,” “affect,” and “conation” were first used in reference to the actual hierarchy of advertising responses. Cognition referred to mental or rational states, affect to feeling or emotional states, and conation to the striving or behavioral states.

At the same time of Lavidge and Steiner’s work, Coney [1961] developed his awareness, comprehension, conviction, and action hierarchy in his well-known work referred to as DAGMAR—Defining Advertising Goals for Measured Advertising Results. Coney reasoned that most advertising objectives were too vague and not easily measured. He suggested that a hierarchy of communications objectives existed that led to ultimate purchase, These communication objectives could be more easily measured, compared to direct sales results, to determine whether the impact of advertising on an audience was effective or not. The interest in the hierarchy notion was further fueled by the Advertising Research Foundation’s [1961] hierarchy model of exposure, perception, communication (knowledge), communication (attitude), and action.

Wolfe, Brown, and Thompson [1962] published the results of a two-year Conference Board study that sought to determine how to measure the effects of

Appeals	Response
1. Incitements arousing wants of prospect	1. Want
2. Explanations and demonstrations that the commodity will adequately satisfy the wants	2. Solution- s. Commodity b. Trade Name
3. Inducements to buy now	3. Purchase
4. Guarantees that the solution will be satisfactory for a reasonable length of time	4. Satisfaction

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Printed with permission of Harper & Row Publishers, inc. From Strong, Edward K. Jr. (1938) *Psychological Aspects of Business*. New York: McGraw-Hill Book Company, Inc., 210. After Lucas, D. B. and Benson, C. E. (1930) *Psychology for Advertisers*. New York: Harper & Bros.

Figure 1, Strong’s Synthesis of Three Response Models

advertising. They concluded that it was not reasonable to use sales as a measure of advertising results unless advertising was the dominant selling force and other marketing factors remained constant. According to the study, sales result from advertising via a five-stage process beginning with product awareness, nurturing product acceptance, establishing product preference, arousing an intent to buy, and, finally, provoking the sale. The specific influence of advertising at each of these stages was dependent on the industry, the product, the type of advertising clone, the prevailing market position, and the selling methods of the company as well as other company factors. The influence of advertising, according to the study, diminished along each of the successive stages of the advertising or sales process.

About the same time as the above Conference Board study, Rogers [1962] developed a response hierarchy model for new product introductions. Referred to as the adoption model, Rogers proposed that consumers go through a hierarchy of awareness, interest, evaluation, trial, and adoption. This adoption process model was expanded upon by Robertson [1971] as awareness, comprehension, attitude, legitimation, trial, and adoption.

Mendelsohn [1962] was unique in the mass communications branch of social psychology in his study of the more generic process of communication effects contending that the Hull learning theory approach as well as the Gestalt sociological approach were not much help in aiding researchers in understanding the process that people go through in responding to communications. The former approach was too "gross" and "monolithic," while the latter was too "multi-dimensional" to be useful for developing theories of communication effect.

Mendelsohn proposed that communications can affect an individual's actions directly; that effect is a broad psychological process rather than simply a learning process; effect is not equally distributed among an audience's recipients; and that the effect process is cumulative within an individual going from a "rudimentary psychological brush" with the particular communication to actually being activated by it. He stressed that the effect did not result from simple learning but was accompanied by emotion. This led Mendelsohn to an early hypothesis of involvement suggesting ". . . a totality of psychological experience with a communication in terms of learning, feeling, and preparing oneself to act as a consequence of exposure. The greater the involvement that the communication produces, then the more effective it can be considered" (p. 413).

Mendelsohn's response stages were congruent with the cognition, affect, and conation stages suggested by Lavidge and Steiner. Rudimentary response was simple recall ability, Emotional response involved recall coupled with some emotional reaction, as opposed to indifference, toward the communication. Active response entailed recall and emotion as well as learning that the object of the communication was worth recommending and following up on.

The hierarchy models of Lavidge and Steiner, Wolfe, Brown and Thompson, and Coney were reviewed by Palda [1966], Palda suggested that these models were "sketchy views" of the internal psychological process, Palda cited Copland's [1963] work that suggested all consumers could not be expected to go through these hierarchy stages; for example, some may purchase with the mere awareness of a brand's existence. Palda's criticism of the hierarchy was directed at each step of the process rather than at the hierarchy concept as a whole and focused on methodologies rather than assumptions. In reviewing previous studies related to the hierarchy notion, Palda concluded that there was little evidence to suggest that changes in awareness had to precede rather than follow purchase. Further, most studies of cognition showed no relationship to attitude or behavior change. With regard to effect, some dissonance studies illustrated that there is no obvious relationship between attitude and behavior. Finally, no research illustrates that advertising induces intentions to buy,

Palda stated that the real problem in analyzing the hierarchy of effects was related to the lack of careful experimental design. If there is a hierarchy of effects operating, Palda reasoned that it would be no more expensive to illustrate that relationship with experimental design than to try to illustrate the direct relationship between advertising and sales.

In somewhat of a contrast to Palda's work, O'Brien [1971] sought a more straightforward approach to test the hierarchy framework. Using a panel of over 600 housewives, O'Brien found support for several traditional hierarchy hypotheses. Among those supported was one stating that awareness was causally prior to attitude, intention, and purchase. Further, attitude and intention were causally prior to purchase. Finally, O'Brien found an indeterminate relationship between attitude and intention, suggesting this could be due to levels of involvement.

During the mid-1960s, there were many psychological and sociological theories that addressed the consistency between attitudes (affect) and beliefs (cognition). With the exception of dissonance theory and the early work of Fishbein [1966] a review by Insko and Schopler [1967] illustrated that very little work looked at the consistency of cognition, affect, and conation. Insko and Schopler developed a theory of triad consistency—the consistency among the three dimensions in the response hierarchy. They theorized that the causal link from behavior change to attitude change is both stronger and more direct than the causal link from attitude change to behavior change and that most triadic consistency results from attitudes being adapted to be consistent with behavior.

The notion of a hierarchy of communications effect was incorporated into consumer behavior models [Howard and Sheth 1969] in the late sixties. The Howard-Sheth model outlined attention, brand comprehension, attitude, intention, and purchase as the response sequence of buying behavior, an S-O-R paradigm they labeled as "symbolic communication." Intention was an impor-

tant dimension of this theory because of the presumed amount of inertia that exists between the attitude change resulting from advertising and the actual purchase situation. It is the integration of a response hierarchy into a more general model that creates some confusion as to the ability of theorists to develop an advertising model of response per se [Preston and Thorson 1984].

Several other hierarchical propositions were presented throughout the 1960s and early 1970s. Among these was the consumer acceptance hierarchy of Aspinwall [1964] suggesting that consumers first accepted products, then preferred them, and finally insisted on them. Sandage and Fryburger [1967] presented an exposure, perception, integration, and action model. Schwartz [1969] focused on retention and attitude change in between the attention and purchase stages of hierarchy and McGuire [1969; 1978], who proposed the information processing model, was one of the first to suggest that consumers were information processors. This model looked at the probabilities of occurrence of each stage in the hierarchy. McGuire suggested that the probability of a subsequent sequence occurring was conditional upon the previous sequence occurring. In the McGuire model, information has to first be presented, then attended to, then comprehended. Once comprehended, the recipient must yield to the message, retain it, and then, behavior occurs.

Longman's [1971] model followed along the lines of the McGuire proposition. In Longman's view, audiences were exposed to messages, attended to them, developed perceptions and comprehension, formed beliefs, were motivated as a result of those beliefs, and finally acted according to that motivation and the beliefs. Holbrook [1975] also considered memory or retention important in his model that suggested consumers attended to messages, perceived them, submitted them to memory, and then developed attitudes and intentions around them. Preston [1982] briefly reviews these and other hierarchy models as they relate to his association model discussed below.

### Challenges to and Defenses of the Traditional Hierarchy Models

Among the earliest to suggest that there is an alternate order to the traditional hierarchy were Ray and others [1973]. These researchers suggested that there are actually three hierarchy models (three-orders model) that can account for the response of audiences to advertising messages. The first, the learning hierarchy, was the thinking model that led audiences to think and perceive, then feel or develop attitudes, and then behave. This is the traditional cognition-affect-collation model. The second model, dissonance-attribution hierarchy, proposes that consumers respond to advertising in a way that is basically the reverse of the learning hierarchy. That is, consumers first behave, then develop attitudes and feelings as a result of that behavior, and then learn or process information that supports the earlier behavior. This cognition-affect-collation model is based on the theories of attribution and

dissonance. Finally, as a result of the work of Krugman [1965; 1966] the low involvement hierarchy maintains that consumers behave, then learn as a result of that behavior, and then develop attitudes as a result of the behavior and the learning.

Ray [1974] suggested that "initial processing" could occur at each stage of the consumer decision-making process and affect the basic attitude structures of consumers. He contended that all three order hierarchies are feasible and can be correct because consumer responses are likely to be individual- and situational-specific. The work of Ray and his colleagues has been reviewed more extensively by Leckenby and Wedding [1982].

Ehrenberg [1974] contended that advertising was not as powerful as its proponents believed and that *repeat buying* is the main determinant of sales. Therefore, advertising must focus more on being a reinforcement mechanism in the marketplace rather than a persuasive force. Advertising, Ehrenberg argued, was not the prime mover of product class demand; in fact, most advertising was for brands rather than product classes. Furthermore, advertising's affect on sales was neither immediate nor direct.

Ehrenberg suggested the ATR model—awareness, trial, reinforcement. Previous hierarchy models, according to him, did not account for markets where shares of advertising and sales were "roughly in line" for each brand. Nor did these models account for common situations where advertising expenditures dropped without resultant catastrophic sales declines. Further, these previous hierarchy models did not explain why four out of five new brands failed in spite of heavy advertising expenditures and did not explain why advertising has only a marginal effect on the total demand for a product group.

The ATR model took into account the fact that most buyers were not totally brand loyal and that consumers had a "repertoire" of brands from which they purchased fairly regularly. In other words, repeat buying and brand switching patterns do not vary materially from one brand or product to another. Rather, buying is steady and habitual rather than dynamic and erratic. Hence, the role of advertising, according to Ehrenberg's theory, is generally defensive with the primary objective of reinforcing previously developed repeat buying habits. Increasing advertising expenditures in this case would not help, although decreasing them would hurt as competitors could make inroads into this "repetitive void."

In their summary of some of the more important traditional hierarchy models, Anderson and Barry [1979] added the sequence of "brand loyalty" to the decision-making process indicating that advertisers are striving to create the habitual buying of their brands by consumers as suggested by Ehrenberg. Rothschild and Gaidis [1981] felt that behavioral learning theory could be a good model for understanding low involvement purchases. Their model was similar to Ehrenberg's in that they saw the role of advertising in the hierarchy as generating awareness of the product or brand which leads to trial purchase

behavior. At this point, if the perceived benefit of the product is realized, satisfaction and reinforcement occur followed by an increased probability of repeat purchase behavior and, hence, brand loyalty. Thus, the “shaping procedures” of advertising and other promotional strategies can create behavioral learning and make trial purchasing more than just a random behavior.

Vaughn [1980] supported the notion that there is more than one response hierarchy and suggested that there are actually four possible hierarchy models that explain advertising’s impact on audiences. Vaughn’s model is based on low involvement theory as well as on work in brain specialization and was developed at Foote, Cone & Belding advertising agency [Vaughn 1980; 1986]. The traditional hierarchy model was referred to as the “rational” or “thinking” model. Consumers who were acting in their own self-interest would calculate consumption decisions. They would process information, develop attitudes, and then behave accordingly. Vaughn hypothesized that the purchase of cars, home furnishings, and new products might fall in this hierarchical category,

However, Vaughn suggested three other classifications of consumers. The first includes responsive or habitual consumers who are lazy and want to shop with the minimum of effort. They follow the stimulus-response learning pattern and behave first, learn as a result of that behavior, and finally develop attitudes based on that learning. The purchase of food and household items leads people to be responsive consumers. The second group constitutes the “feeling” consumer who responds more to affect or emotion than to information. The hierarchy of this consumer is affect, cognition, and then behavior. Fashion, jewelry, and cosmetic products dictate affective behavior. Finally, the imitative consumer is a reactor following a hierarchical sequence of cognition, affect, and cognition—the opposite of the traditional hierarchy. Vaughn [1986] stated that, while the definitive answer on how advertising works may never be known, the FCB Grid, as these four theories have come to be known, does help advertisers develop distinct advertising copy for distinct consumer types. In short, Vaughn supports the multiple hierarchy thesis of Ray and his colleagues [1973] and Krugman [1965; 1966].

Given the growing number of detractors from the traditional hierarchy camp, Smith and Swinyard [1982] sought a framework that could reconcile the differences in conflicting findings between the traditional model supporters and their “nonlearning model” colleagues. Called the information response model, Smith and Swinyard integrated concepts from several research areas and focused on message acceptance and belief strengths. Their more integrated model claimed flexibility in dealing with the different advertising response sequences and illustrated the different effects of advertising and promotion between cognition-trial behaviors and cognition-commitment, that is, brand loyalty.

The integrated information response model suggests a cognition-trial-affect-commitment sequence. In general, advertising leads to low

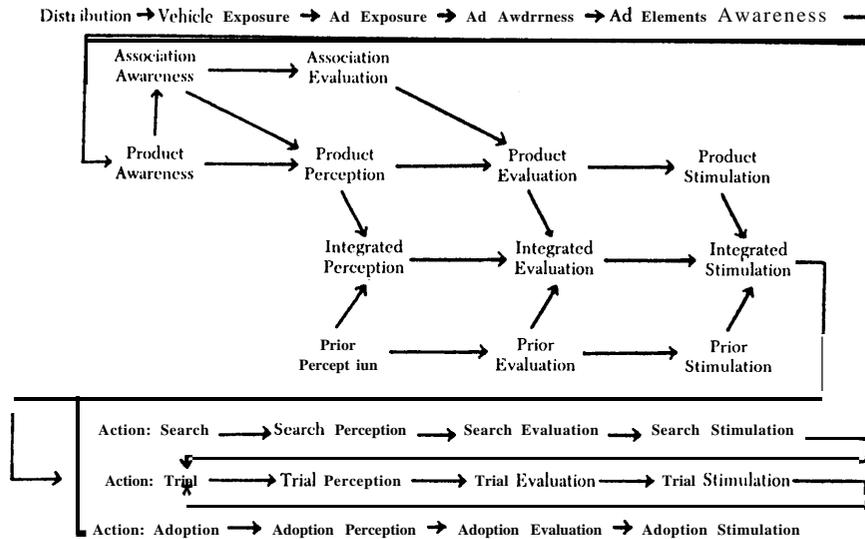
information acceptance, lower order beliefs (cognition), and lower order affect. The resultant behavior is trial which then provides direct experience leading to high information acceptance and higher order beliefs and affects resulting in commitment or brand loyalty. Advertising generally leads only to lower order beliefs because of the high levels of source derogation, message rejection, counterarguing, and so forth done by recipients of advertising messages. However, when perceived risk and involvement are low, advertising may very well move consumers directly to purchase.

In a review of the integrated information response model, Finn [1984] explored the conditions under which advertising might or might not lead to higher order beliefs. Finn expands on the notion of beliefs and advertising’s influence on them and establishes a set of propositions that, if held valid through research, will lead to the conclusion that advertising rarely influences affect directly and supports the proposition of Smith and Swinyard that product trial is a dominant predictor of attitude.

Strong support for a traditional hierarchical processing sequence in advertising response is found in Preston’s [1982] “association model.” The association model focuses on a comprehensive advertising process that takes into account advertising research techniques. Further, the model expands on the three traditional phases of cognition, affect, and conation as can be seen in an expanded version of the model [Preston and Thorson 1984] in Figure 2. Previous hierarchy models failed to portray the important role that consumer information processing plays, for example, as in prior states of perception, evaluation, and stimulation. While prior models may have implied these roles, the association model makes them explicit. The association model is a high involvement hierarchy of effects model; low involvement may threaten the ordering of a hierarchy model but not the basic notion of the hierarchy concept and its various steps.

Preston and Thorson [1983; 1984] reviewed the challenges to the hierarchy of effects model, concluding that, with expanded steps to the original association model, the notion of a sequential hierarchy could be kept intact, specifically as that hierarchy related to advertising objectives and effectiveness. They did not feel that the criticisms of alternate ordering models such as those proposed (and discussed earlier) by Krugman, Ray, and Vaughn or models of omitted steps based on the low-involvement work of Krugman and the unconscious processing work of Zajonc [1968; 1980a] were compelling enough to dismiss the traditional hierarchy concept as expanded upon in the association model. Preston and Thorson admit that the association model is more of a marketing model than an advertising model but contend that an advertising model cannot be *solely* an advertising model since advertising is *part* of marketing. In this respect, advertising researchers must be content in knowing that this sequential or behavioral process *begins with advertising*.

In her review of the hierarchy framework, Moriarty [1983] proposed to



Source: Preston, Ivan L. and Thorson, Esther. (1984). "The Expanded Association Model: Keeping the Hierarchy Concept Alive." *Journal of Advertising Research* 24 (Feb./March): 60.

Figure 2. The Expanded Association Model

replace the process-oriented hierarchy model with one based on the three domains of advertising: perception, education, and persuasion. She contends that these three domains are equally important and are interdependent and simultaneous. Suggesting that there is no theory of how advertising works and that the linear processes of the hierarchy models do not illustrate how the sequences are connected, what they have in common, and their patterns of communication effects, Moriarty's model describes the continua of the three domains. For example, perception runs the continuum of no awareness of subliminal or preawareness to recall. Education results in no learning, association, comprehension, generalization, and discrimination. Finally, persuasion reinforces existing attitudes, forms new ones, or changes old ones. These domains result in inquiry, trial, considered purchase, or repurchase. By providing for this continuum of effects from advertising, Moriarty holds that the debatable concept of process or sequence and the simplistic steps of the hierarchy model are eliminated.

Finally, Rust and Henderson [1985] contend that the major flaw of the hierarchy models is that they imply causal relationships between the attitude structure components rather than an integration of these components. These models disregard the possible interaction between cognition and affect. Their work is based on the proposition that affect and cognitive processing can and do occur separately and that emotion is not the same as a fleet.

## Advertising and the Hierarchy Stages

Because the traditional and alternate hierarchy models are so steeped in the concepts of cognition, affect and conation, it is important to review the development of the research that investigates these sequences and/or interactions. This section reviews the development of the literature relating to the impact of advertising on the cognitive, affective, and conative stages of the hierarchy of effect models.

## Advertising and Cognition

In his discussion of the history of cognition and social cognition, Zajonc [1980b] explains why the area of cognition has dominated social psychology for four decades. Among the most important reasons are that social behavior is vastly complex and necessitates an analysis and understanding of the thought processes—that is, the way that human beings process information. Too, because social psychologists have tended to focus on attitudes and they have always been regarded as cognitive and affective organizations impacting on behavior, cognition has been a key element of research in social psychology. Zajonc also contends that World War II, with its totalitarian doctrines finding solutions in biology and genetics, led important thinkers to conclude that solutions must come through thinking and reasoning rather than through biology and genetics.

In essence, cognition is the mental processing that occurs when people are exposed to information. It is quite clear that the information processing skills of people differ greatly. For example, Petty [1980] contends that cognitive processing is a function of both the ability and the motivation of people to engage in that processing. There is, in Petty's terms, a "need for cognition." In both the traditional and alternative ordering hierarchy models, the cognitive phase is integral to the models. While most cognitive and social psychologists believe that cognition precedes the attitudinal or affect stage [Van Raaij 1984] more recent researchers such as those supporting the alternate ordering model disagree. Nevertheless, cognition in advertising is critical.

The impact of advertising on the cognitive component of the hierarchy has been studied extensively. Among the earliest investigators of advertising and cognition was Zielske [1959] who studied remembering and forgetting in advertising. Zielske investigated the number and intensity of advertising schedules and their impact on how well audiences remembered advertising content. He contended that advertising will quickly be forgotten by consumers if they are not continually exposed to it. Rohloff [1966] suggested the use of quantitative analyses that would shed light on the structural relationship that existed in measuring recall of an advertisement due to the variance in time and audience composition. The importance of recall as a measure of advertising

effectiveness has been questioned by many researchers. Haskins [1964] concluded that, while learning and factual recall of advertising do occur, these measures appear irrelevant to attitude change. Gibson [1983] argued that recall theory was weak on empirical grounds and suggested that advertisers not use recall as a measure of copy effectiveness given its weak association with persuasion. More recently however, Stewart [1986] concluded that recall and comprehension are important variables of persuasion, and Zinkhan and Gelb [1986] maintain that Starch recall scores may be good predictors of attitudes, Woodside and Wilson [1985] demonstrated a strong, positive association between brand awareness and brand preference.

Krugman [1972; 1975] and Naples [1979] believe that advertisers often waste money by trying to "overhit" target audiences. They argue that advertising is ineffective unless consumers are in or near their "purchase cycles" and trying to build up recognition and recall through continuous advertising expenditures may be inefficient. Krugman [1977; 1986] has argued that recall measures, or "cognitive effectiveness" of advertising do not take into account the amount of recognition that is processed by advertising audiences that cannot be captured by recall measures. Singh and Rothschild [1983] investigated the problems and distinctions with and between recognition and recall measures in low-involvement situations and Bettman [1979] suggests that consumer brand choices may require only recognition when choice is made in the store but recall when choice is made in the home. Thus a shopping list for groceries made at home may require recall learning while impulse brand choice in the store may only necessitate brand recognition. These are both elements of cognitive processing and their differences have been illustrated through *A Study of Printed Advertising Rating Methods (PARM)* [Krugman 1985],

Olson, Toy, and Dover [1982] investigated the differences in advertising effects among cognitive response models, cognitive structure models, and a combination response or structure mass communication model. A cognitive response model states that advertising exposure creates cognitive responses that impact on attitude or attitude change. Cognitive structure models are basically attitude models such as the Fishbein model. Beliefs result from ad exposure. Beliefs impact on attitudes which impact on intentions and behavior. The combination model holds that audiences respond cognitively from advertising exposure. Beliefs occur and impact on attitudes, intentions, and behavior. Their results support the viability of the combination model in explaining advertising effects and cognitive processing.

Much research in the advertising or cognition arena has focused on audiences' defenses to advertising information. For example, Venkatesan and Haaland [1968] illustrated that visual and behavioral distractions for a television commercial can jeopardize the recall of brand names and product types. Cohen and Houston [1972] empirically illustrated that brand loyal consumers for toothpaste tended to engage in cognitive dissonance toward the brands which

they did not buy. Wright [1973; 1975] concluded that personal characteristics clearly affect the cognitive responses that consumers have toward advertising.

Cognitive processing is very complex and cognitive models, as developed by experimental psychologists, do not always provide marketers with unique models of information processing [Hughes and Guerrero 1971]. Balance models, reinforcement models, congruity models, dissonance models, attribution models, and so forth are presented by their supporters as explainers of the variance in consumer responses to advertising and other social communications. But it is clear that cognitive processing is only one part of the complex advertising response puzzle; another is affect.

### **Advertising and Affect**

While not studied to the extent that cognition has been studied, there is, nevertheless, a plethora of information regarding advertising and the affective component of the hierarchy of effects model. It is generally held that affect consists mostly of attitudes, although Kreshel [1984] in her study of emotion in advertising suggests that research in this area has tended to confound affect, emotion, and attitude. On the other hand, Batra [1986] uses the terms feeling, emotion, and affect interchangeably.

According to Rokeach [1966-67], "an attitude is a relatively enduring organization of beliefs about an object or situation predisposing one to respond in some preferential manner" (p. 530). It follows, then, that attitude change is a change in predispositions to behavior. Rokeach considered it critical to separate attitude toward an object from attitude toward a situation and felt that the failure to do so by researchers retarded the growth of attitude and attitude-change theory. The importance of attitude and attitude change relates to their predictive ability on related behaviors and behavior changes. In this light, Crespi [1971] held that attitudes must be treated as multidimensional and should not be generalized as predisposing variables that will have common effects in a variety of situations. Rather, attitudes should be treated as a combination of beliefs with varying degrees of intensity.

Marketers and advertisers have long sought to show the relationship between attitudes and sales behavior. Assael and Day [1968] assumed the predictive cognition (recall) and affect (attitudes) on market share performance. They concluded that affective components of the hierarchy of effects model were consistently more powerful in explaining market share variance than were either cognition or conation (usage) components. In answer to the critics of the hierarchy of effects who contend that sales is the only real measure of advertising effect, Boyd et al. [1972] concluded that it might be more functional to look at advertising's ability to impact on attitudes toward salient product characteristics which ultimately will affect sales and profits favorably.

In defining attitudes as mental or neural states of readiness, Smith and

Swinyard [1983] studied the relationship of attitude-behavior consistency in light of their integrated response model. They showed that there is a low correlation between attitudes and behavior and pointed to the work of Fazio and Zanna [1978; 1981], suggesting that the direct means of producing an attitude determined attitude strength and, subsequently, consistent behavior. As an example, advertising produces low-order or indirect attitudes which are likely to correlate poorly with purchase behavior. On the other hand, product trial is more likely to lead to stronger attitudes and higher correlations with consistent purchase behavior. In an experiment, 64 percent of subjects developed lower-order affect from advertising, while 65 percent of subjects developed higher-order affect from direct product trial. However, Fazio and Zanna illustrated that indirect experiences (e. g., advertising) can sometimes lead to stronger affective responses than direct experience. Smith and Swinyard hold that advertisers should understand those situations when their message strategies can lead to higher-order affect.

Recent research by MacKenzie et al. [1986] illustrates the importance of the high-order affect thesis by studying the importance of an audience's attitude toward an advertisement as well as a brand. They looked at four alternative models to explain the mediating effect of the ad itself: the affect transfer hypothesis, dual mediation hypothesis, reciprocal mediation hypothesis, and independent influences hypothesis. The affect transfer hypothesis assumes a direct, one-way causal flow from ad to brand attitude. The dual mediation hypothesis suggests a more indirect flow from ad to brand attitude by way of source perceptions that influence the cognitive and affective reactions to message content. The reciprocal mediation hypothesis, in essence, posits a Heider theory of balanced cognitive relationships between the receiver of the ad and a liking or disliking toward it. That is, consumers will either like or dislike both the ad and brand. Finally, the independent influences hypothesis assumes that attitudes toward the ad and the brand are independent. The dual mediation hypothesis, focusing on source impacts on cognition and attitudes, was considered superior in explaining the relationship between attitude towards an ad and towards a brand. The directional impact of cognition on attitudes and attitudes on conation is critical to understanding the hierarchy of effects literature. The research highlighted below indicates that we have anything but definitive conclusions regarding these causal flows,

### The Causal Flow of Affect

Recent research on the role of affect in consumer behavior [Peterson et al. 1986], led to the following conclusions:

1. affect has long been a step-child to cognition in understanding consumer behavior;

2. affect should be studied at least as much if not more than cognition regarding its role in influencing consumption choice;
3. while affect has long been held as being post-cognitive, it may well be simultaneous or directive to cognition;
4. Affect is difficult to study because it is a messy construct not easily defined and very difficult to operationalize,

The causal relationships between cognition and affect and affect and conation are at the very heart of the hierarchy of effects concept. Zajonc and Markus [1982] hold that preferences may well involve both cognitive and affective dimensions of attitudes and that, in some cases, cognitive components can be dominant in determining these preferences while at other times affective factors may dominate this influence on preferences. While some [for example, Mandler 1982; Lazarus 1981; 1982; 1984] argue that cognition must precede affect, the theoretical argument of Zajonc and Markus suggests the possibility of affect without "cognitive participation." That is, affect and cognition are independent and affect need not always be postcognitive as in the case of acquiring a taste for chili peppers through habit and surroundings rather than persuasive information. There is a significant motor component to preferences and emotion is most expressed through this motor component. The importance of this somatic dimension of affect is illustrated in the recent facial response research of Cacioppo et al. [1986]. The thesis by Zajonc and Markus that affect can be precognitive has recently been disputed by Tsal [1985] and further defended by its proposers [Zajonc and Markus 1985]. In viewing the cognitive research of repeated exposures on attitudes and preferences, Zajonc [1986] comments that, while this is the most primitive means of understanding preferences, researchers still do not completely understand how exposure effects work. In that respect, understanding how affect, a much more complex component of behavior, works will be considerably more difficult for researchers, but necessary indeed.

### Emotion in Advertising

Holbrook [1978] argued that attitude research has been too narrowly focused and more recently [Holbrook 1986] that emotion in consumer behavior is one of the most needed areas of investigation. Researchers have focused too much on man as a computer receiving and processing information, evaluating that information, and then behaving based on that processing. He argues that affect has been too narrowly conceived as a result of this information processing approach and that the rich attributes of emotion such as love, hate, fear, anger, joy, and sorrow have been ignored in the research process. Holbrook proposes replacing the traditional hierarchy model of cognition, affect, and behavior with "consciousness," "emotion," and "value." In this model, emotion is the "linking

pin that holds together the consumption experience” (p. 23). Holbrook points to the wave of emotion-based work by advertising copywriters as a clue to the importance of this construct in consumption behavior,

Advertising is laden with emotional messages rather than factual claims. This was recently illustrated by Holman [1986] who investigated the roles of products in the emotional lives of consumers and analyzed advertising from an emotional perspective. Holman pointed out the importance of differentiating between consumers’ emotional reactions toward advertising and a particular brand, although she felt that the two should be as congruent as possible. In positing that visual imagery advertising can be very effective in forming or changing attitudes, Rossiter and Percy [1980] state,

We often lose sight of the fact that the reason why beliefs (cognitive) are capable of altering attitude (affective) is because of their own affective connotations. It is the affective or emotional feeling that accompanies the belief that is critical (p. 11).

In an extensive study of emotion and advertising, Kreshel [1984] noted the tendency to view cognition and emotion as separate rather than interrelated processes. The three levels of the traditional hierarchy model, according to Kreshel, are viewed as three separate levels of response aligned in a sequential or causal pattern rather than an interfunctional one. This makes the hierarchy model rather simplistic, in spite of its appeal as a planning and decision making model. A more realistic model, according to Kreshel, would be one that made emotion the center of the traditional cognition, affect, conation sequence and changed the levels from sequential to circular as depicted in Figure 3. Thus, as Holbrook [1986] proposes emotion as the linking pin of consumer behavior, Kreshel suggests emotion as the linking pin of the advertising response model.

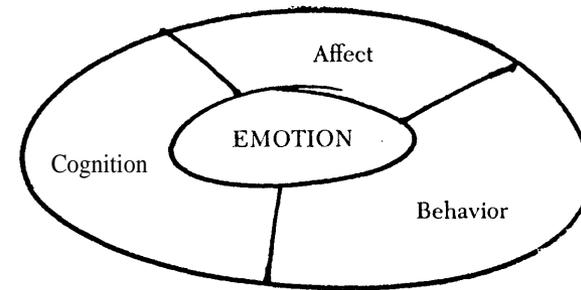
Research in the area of affect, and the hierarchy of effects in general, clearly supports the Conclusions that affect is a messy construct, difficult to define, and hard to operationalize [Peterson et al, 1986], In spite of that, Batra [1986] states,

Such research should bring a more complete understanding of how advertising is processed and a more balanced assessment of the role of cognition and affect in that processing (p. 85).

The final phase of the traditional hierarchy is conation or the behavioral results of advertising programs. We turn our attention, now, to the research on conation in the hierarchy of effects response process.

### Advertising and Conation

Academics and practitioners alike have long debated the appropriate measures to use in measuring the effectiveness of advertising programs. Two schools of thought have emerged in the literature: the hierarchy of effects school of



Source: Kreshel, Peggy J. (1984). "Emotion and Advertising: The 'Grand Idea' of the 80's." Working paper No. 17, Advertising Research Center, University of Illinois, November, 23.

Figure 3. The Role of Emotion in the Hierarchy of Effects

thought and the sales school of thought [Anderson and Barry 1979]. Proponents of the hierarchy camp contend that the effectiveness of advertising should be measured by its impact on some hierarchy of communication responses such as the ability of the audience to recognize brand names, recall main copy points, generate positive attitudes, change an image, and so forth. Thus, advertising is effective when it generates activity in the cognitive and affective stages of the hierarchy of effects model. Proponents of the sales camp, on the other hand, argue that the only real reason for advertising is to impact on sales and profits. There is little value to the manager who spends millions of dollars on an advertising program and discovers that there is a ninety percent recall on his/her brand but sales are flat! As Campbell [1969] states,

Advertising's principal job is to make sales at more profit than would have been made without advertising, . . . If this is true, then it must also be true that the proper goals for advertising are those that will be profitable means for producing sales. Can there be any other sound reason for spending marketing funds? (pp. 17-18)

Students of advertising realize, however, that a direct measure of sales and profit results from advertising is highly complex, if possible at all, in most marketing situations. This is due, simply, to the complexities of uncontrollable variables such as competitive actions, economic conditions, government regulations, and such, as well as the contributions of marketing mix variables other than advertising to the sales and profit picture for any particular brand or portfolio of brands in a firm. Additionally, the direction of attitude and sales or brand preferences and brand choice confound a clear understanding of the direct sales and profit impact of advertising.

Conation measures other than sales and profits have been investigated and further illustrate the complexities of relating advertising expenditures to various consumer decision processes. Among these include the problems in

measuring advertising expenditures and short term market share [Fothergill and Ehrenberg 1965; Buzzell 1964; Buzzell et al. 1965], advertising, attitude changes, and brand choice [Ginter 1974; Cobb and Hoyer 1985; Zinkhan and Zinkhan 1985], differences in responses and media mixes [Leckenby and Kishi 1984; Rust and Leone 1984], and the effects of broadcast bans on the cigarette industry [Holak and Reddy 1986], One of the more promising behavioral measures of advertising effect is the analysis of inquiries resulting from advertising campaigns [Schweiger and Hruschka 1980],

In spite of the conceptual problems in illustrating causation links between advertising expenditures and sales, much research has been done in this area. We now turn our attention to that research.

### Advertising and the Sales/Profit Link

One of the earliest empirical studies investigating the link between ad expenditures and sales was PaIda's [1964] extensive study of the Lydia Pinkham Medicine Company. palda sought to determine the cumulative effects of advertising over time using the Koyck distributed lag model, a model sensitive to effects beyond the period when the stimulus occurs. The use of Pinkham was ideal in that the firm had no sales force, and provided no credit, discounts, or point of purchase materials. Additionally, the product studied had no close substitutes at the time. An investigation of sales and advertising expenditures between 1907 and 1960 illustrated remarkable stability between the two variables, palda concluded that the momentum of past advertising can help sustain sales and that, for Pinkham, advertising was only wise for its long-run effects.

Bass [1974] reanalyzed the Federal Trade Commission's study of 97 food companies and the link between profit and the advertising/sales ratio. In criticizing previous methodologies used to illustrate relationships between ad/sales ratios and firm profitability, Bass concluded that, for some industries, profit and sales ratios are independent of each other, and for others, they are highly related to each other. In fact, there maybe some instances where the profitability of a firm causes a higher advertising/sales ratio [Comanor and Wilson 1967; Schmalensee 1972]. Lambin's [1975] extensive study of 108 brands in 25 markets in eight European countries also showed mixed results on the causality of advertising on market power and performance. Lambin concluded that the economic power of advertising has been overestimated by friends and foes of advertising, and that an analysis of advertising without a simultaneous analysis of other marketing mix variables will likely lead to a misunderstanding of advertising's effects,

In several experimental designs on the Budweiser brand of beer between 1963 and J 968, Ackoff and Emshoff [1975] sought to measure the effect of advertising on sales as well as to explain the causal effect of advertising on

consumer purchases. By varying advertising budgets in different markets and controlling for sales and sales promotion efforts, the researchers found that no change in advertising expenditures resulted in no change in sales; a 50 percent increase in advertising expenditures resulted in a 7 percent increase in sales; however, a 25 percent decrease in advertising expenditures resulted in a 14 percent increase in sales! Further experimentation illustrated that advertising reductions would have no negative effects on sales of Budweiser. Over the period of the research at Anheuser-Busch, a decline in per barrel advertising expenditures from \$1.89 to .80 resulted in sales of 7.5 million barrels to 14.5 million.

In a further investigation of distributed lag models, Rao and Miller [1975] noted the problems of econometric studies and the association between advertising levels and sales. Since many managers base advertising budgets on sales levels, the cause-effect relationship is often not clear. Rather than using annual advertising expenditure and sales data, bimonthly data were analyzed. Results showed that dollars spent on a variety of media advertising, price-off, and trade promotions were related to sales of five Lever brands in 15 different districts. In an investigation of alcohol consumption in Canada, Bourgeois and Barnes [1979] concluded that advertising expenditures do increase the consumption of beer but do not increase the consumption of liquor. A positive relationship was found between the amount of print advertising and per capita consumption of beer. However, a negative relationship was found between the level of print advertising and the per capita consumption of spirits. The researchers concluded that uncontrollable factors such as disposable income, population variables, education, broken homes, and so forth explained more variance in consumption habits than did advertising expenditures. In a more extensive study of the impact of advertising on alcohol consumption in the united States, Wilcox et al. [1986] studied the relationship between 1964 and 1984. They concluded that, despite the increased advertising expenditures for beer over the study period, beer consumption actually declined. The same was true for spirits and would have been so for wine had it not been for the recent surge in the wine cooler market. Their data illustrated that total alcoholic beverage advertising and total alcoholic beverage television advertising had no relationship with total alcoholic beverage consumption, The only important relationship for consumption of alcoholic beverages was with demographic or economic factors.

Among other questions in trying to determine the shape of the advertising response function, Simon and Arndt [1980] investigated the relationship between an increase in advertising expenditures and the proportional increase of units sold. The vast majority of studies pertaining to this question illustrated that there are diminishing returns for increased advertising expenditures. Further, they concluded that there is very little evidence illustrating increasing returns from increased advertising expenditures. In investigate ing the shape of

the advertising or sales response function for eight Australian firms, Metwally [1980] focused on consumer demand for goods from a given firm. Applying the Koyck distributed lag model, Metwally concluded that the more attached consumers are to a particular brand, the lower is the sales elasticity of advertising.

Callahan [1982] more recently investigated a ten-year relationship between advertising or sales ratios and industry profits. Hypothesizing that heavy advertising expenditures should be associated with high profits and light expenditures with not-as-high profits, Callahan found that these propositions held true in 151 out of 166 observations. Further, while no attempt was made to determine causality, cross-sectional regression analyses indicated a clear relationship between profits and advertising. On the other hand, Asker and Carman [1982] imply that profitability of firms that have frequently purchased brands may be less than optimal in that many of these firms are likely to overadvertise. In a review of 69 field experiment studies and 60 econometric studies, Asker and Carman concluded that there are few persuasive studies shedding light on the relationship between advertising and sales, that this relationship, for reasons mentioned earlier in this paper, is very difficult to model, and there is empirical evidence of overadvertising by advertisers. They called for advertisers to experiment with reduced advertising budgets and focus more on copy quality than on increased expenditures. In sum, they concluded that, even when advertising is found to be effective, its significance is most likely rather small.

In a "replication analysis" form of meta-analysis, Assmus et al. [1984] investigated the parameters of 128 econometric models from some 22 studies researching the relationship between advertising and sales. The majority of the studies were for mature products in the U.S. The authors concluded that more research must be done outside the U.S. and Europe and for goods other than packaged goods if we are to ascertain the real impact of advertising on sales. They also concluded that the quasi-experimental design is too imperfect to determine the impact of particular factors on explaining the carryover effects of advertising. They called for a more comprehensive model of advertising effectiveness for theoretical predictions under specific market conditions.

In a study of the German cigarette market, Leeflang and Reuijl [1985] concluded that advertising has a significant influence on primary demand although that influence tends to diminish over time. Using a Koyck transformation, the authors analyzed annual, bimonthly, and monthly data in the West German market. As observations are disaggregated over time, the direct influence of advertising decreases. These findings support the previous empirical work of Bass and Leone [1983] as well as the conclusion by Clarke [1976] that annual observations tend to overestimate the cumulative effects of advertising.

In a recent response to the conclusion that overadvertising can impede profitability [Asker and Carman 1982], Tull et al. [1986] investigated three separate sales response functions for advertising: diminishing returns, saturation, and quadratic response. Because of the illustrative nature of their research, the

authors cautioned against drawing hard and fast conclusions about sales response to advertising. They did, however, discuss some important implications for marketing managers and advertising researchers. First, the contribution to present-period profits and fixed costs changes very little over a rather extended range of advertising expenditures. Second, all three response function models indicate that the contribution margin is a partial determinant of an optimal advertising budget. Thus, firms that emulate their competitors' budgets should do so only when their contribution margins are similar. Third, finding a significant relationship between advertising and profits is difficult in the face of the "flat maximum principle": the notion that there are only very small changes in profits over a wide range of advertising expenditures.

In a final study, Batra and Vanhonacker [1986] conducted an empirical analysis in a "quasi-field experiment" containing extensive time-series observations to determine the cognitive, affective, and conative effects of advertising repetition. Their results indicated that the effects of advertising on these three hierarchical variables or stages are neither immediate nor simultaneous. Rather, they occur in "situationally varying and complex patterns of temporal precedence" (p. 24). Batra and Vanhonacker concluded that when there is high prior brand awareness, the traditional cognitive-fictive-conative hierarchy holds but, over time, a pattern develops where awareness follows rather than precedes purchase intentions. In addition, the relationships among the hierarchy variables appear to develop more slowly for low prior brand awareness than for high prior brand awareness. In short, Batra concludes that there is clear evidence for "multiple hierarchies" of advertising effect.

One of the more recently studied arguments in the hierarchy literature is that the level of consumer involvement both with the advertising and the brand/product advertised is an important mediating variable impacting on the sequential nature of the three hierarchy phases. It is to that issue that we now turn.

### The Hierarchy of Effects and Involvement

Since Krugman [1965; 1966-67] suggested that much of television learning, like the nonsensical, is learning without the need for involvement, consumer behavior and advertising researchers have studied the concept of involvement extensively. A fair amount of this research has focused specifically on advertising impact and the hierarchy of effects. In essence, involvement is considered to be a mediating variable in the effectiveness of advertising executions and the sequential nature of the three main phases of the hierarchy of effects. Zaltman and Wallendorf [1983] raised potential problems with the relationship between involvement and the hierarchy framework. One is the inappropriateness, from a lack of research, of concluding that low price products automatically lead to

lowinvolvement purchase decisions. Another isthatthe continuous nature of involvement makes it **difficult** to suggest two sequences of the hierarchy (for example, the low learning and high learning hierarchies) which are reversals of each other,

In spite of these problems, advertising and consumer behavior researchers find much merit in the potential of involvement as an explanatory variable for the hierarchy of effects and the impact of advertising on receivers. For example, Krugman [1965] theorized that the level of involvement does not increase resistance to advertising messages but rather shifts the sequential nature of them. Thus, under low involvement situations, learning is passive in that consumers do not link or connect the advertising message directly with needs and wants. Rather, over time and through repetition, advertising is persuasive in creating purchasing behavior (conation) followed by cognitive activity. Thus, consumers learn information randomly in the process of passive information gathering as opposed to being active information processors and seekers [Assael 1981].

Involvement theory also stems from the work of Sherif and others [1965] in social judgment theory. For given persuasive communications, the highly involved recipient increases “latitudes of rejection” or areas of unacceptability regarding the main communication issues. Therefore, messages such as advertising that deal with important issues for which people are highly involved, have an increased probability of being rejected compared to those for people who are less involved, The more uninvolved consumers are willing to consider more brands but less willing to spend time processing information and evaluating brands, In short, then, as stated by Assael [1981], “. . . advertising is perceived with little cognitive activity . . . “ (p. 86).

A third theory of involvement is suggested by Petty and others [1983] and is based on the Elaboration Likelihood Model (ELM) studies of Petty and Cacioppo [1981]. The ELM posits that consumers are more likely to elaborate or devote time to cognitive effort when a message issue and/or product involvement is high rather than low, The ELM is based on central and peripheral routing, In an advertising context, under central routing, a message recipient will “diligently process” an ad when the issue or the product in the ad is highly relevant to that recipient. This diligence is likely to lead to attitude change. With peripheral routing, consumers may change attitudes, not as a result of committed cognitive activity, but rather because of the positive or negative cues associated with the issue or product in the ad, such as the entertainment value of the ad or its having a pleasant celebrity spokesperson. High involvement, then, leads to central processing along the lines of the traditional (cognitive-affect-conative) hierarchy model. While the traditional model may also be followed with the peripheral processing, the degree of cognitive processing is clearly much less than in central processing.

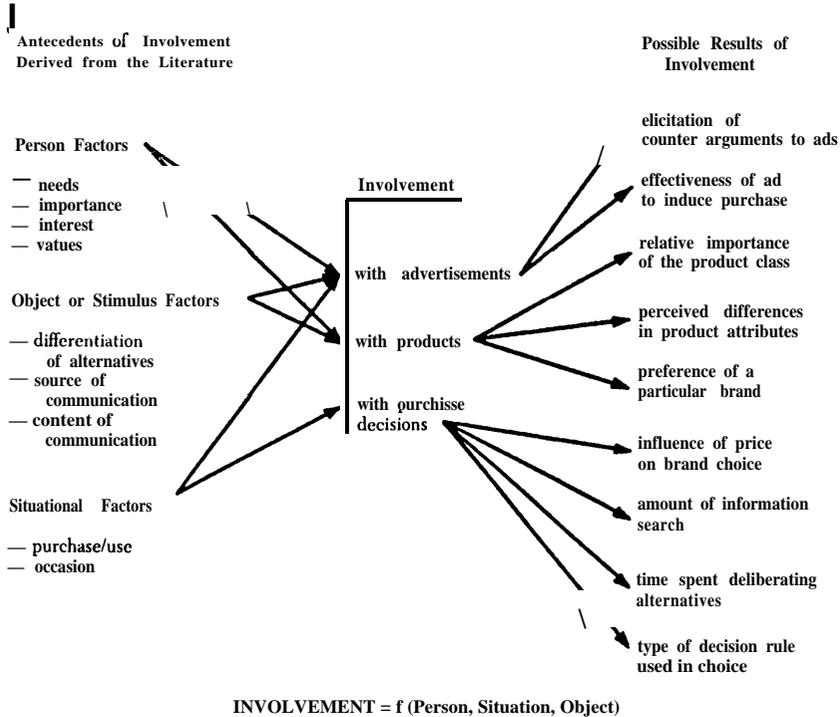
one of the main problems with the involvement construct is getting re-

searchers to agree on its definition and operationalization. Early work by advertising and consumer behavior researchers included that of Lastovicka and Gardner [1979] who contended that involvement, while a promising construct, seemed to be a “bag of worms.” They provided empirical evidence that suggested there is a continuum of involvement [also supported by DeBruicker 1979] on which it was possible to measure and place products. Rothschild [1979] speculated about media frequency, media classes, message content, price, and the probability of success for advertising strategies in high and low involvement situations. Tyebjee [1979] refined the concept of involvement in an advertising context operationalizing it through some form of arousal, for example, physiological, cognitive, attitudinal, interest, and mood (p. 99). Product involvement has been studied in its relationship to brand commitment [Traylor 1981b] as well as product importance concepts [Bloch and Richins 1983].

Korgaonkar and Moschis [1982] illustrated empirically that product involvement was a mediating variable in the postpurchase evaluation procedure. Recently, Park and Young [1986] showed that low involvement, cognitive involvement, and affective involvement have differential effects on the formation of brand attitudes. Extensive work on conceptualizing the involvement construct has been done by Zaichkowsky [1986]. She proposes, as a result of a review of the involvement literature, three antecedents to the involvement construct: characteristics of the person receiving the advertising (e. g., value system, unique experiences), the physical characteristics of the stimulus (e. g., media class, ad content, product class variations), and varying situation (e. g., whether one is, or is not, in the purchase cycle for the advertised product).’ Further, involvement can be operationalized with respect to involvement with the advertising itself, the products being advertised, and the purchase decision itself. A variety of results can follow. Figure 4 illustrates Zaichkowsky’s involvement conceptualization, An important implication for advertising managers (and researchers) is the ability to determine to what extent their products are perceived as high and low involvement products by target markets. We turn to that issue now,

### Measuring Involvement

Several attempts to scale the involvement concept have been made recently. Slama and Tashchian [1985] hypothesized a relationship between family life cycle, sex, work lives, education, income, and product involvement. They developed a purchasing involvement scale and concluded that demographics do relate to purchasing involvement in predictable ways. In analyzing data from 37 product categories for over 7500 interviews, Kapferer and Laurent [1985-86] concluded that involvement is not a single dimension construct. Rather it should be viewed as a “profile” of a variety of dimensions including perceived



The level of involvement may be influenced by one or more of these three factors. Interactions among persons, situation and object factors are likely to occur,

Source: Zaichkowsky, Judith L. (1986). "Conceptualizing Involvement." *Journal of Advertising* 15, no. 2: 6.

Figure 4. Conceptualizing Involvement

risk, interest, pleasure value, and the ability of a brand to express one's status. Further, they conclude that the dichotomy of high and low involvement is too **oversimplified**; these types only accounted for 2/5 percent of the purchase situations studied. Instead there are many **different** types of involvement that exhibit very little redundancy among themselves. Their research identified ten types of involvement profiles ranging from "minimal involvement" to "riskless involvement" to "total involvement."

In a rigorous approach to develop a Personal Involvement Inventory (PII) Zaichkowsky [1985] sought to devise a scale that would measure involvement focusing on personal relevance. The approach used met standards for internal reliability, reliability over time, content validity, criterion-related validity, and construct validity. The resultant PII consists of twenty hi-polar adjectives that could be used to judge the involvement of respondents with products, advertising, and purchase decisions, although construct validity of the scale was

supported only for product objects (p. 349). Zaichkowsky calls for a development of scale norms vis-à-vis empirical studies on involvement in order to determine its "true validity." The PII is presented in Figure 5,

### Contributions of the Hierarchy of Effects

In a recent discussion of the value of practitioner versus academic orientations in research, Brinberg and Hirschman [1986] discuss the importance of "triangulation" in the social and behavioral sciences. Triangulation suggests to researchers who wish to study a single approach to research that a multiple perspective relieves the pressure of constraints resulting from a singular focus. "For the field of marketing to advance . . . multiple perspectives are needed so that the strengths of one may compensate for the weaknesses of the other" (p. 171). Research in the hierarchy of effects field has demonstrated a multiple perspective approach. Practitioners have long sought to measure the impact of advertising on sales in a variety of ways. Academics have also sought to do this buy have advanced the field by investigating intervening variables that are more readily measured than sales.

For the vast majority of the hierarchy of effects 'life,' the single dominating focus has been that audiences must first process information from advertisers, then develop (and/or change) attitudes resulting from that information processing stage, and finally behave (positively or negatively) toward the advertiser's product as a result of the message and resultant attitude. **Only more recently**, through the work of Krugman, Ray and his colleagues, Petty and his colleagues, and others, has this research focus of cognition-affect-conation been challenged. Practitioners such as Vaughn and his colleagues at Foote, Cone and Belding have joined the challenge of the multiple hierarchies notion and sought to illustrate its validity through a variety of empirical research methodologies. This triangulated perspective is healthy for the hierarchy concept, and as Zinkhan and Fornell [1986] recently concluded, advertising response theory and measurement have progressed but measurement problems limit the advancement of advertising theory.

The persistent and pervasive attention given to the hierarchy of effects in advertising and marketing research and practice attest to its continuing importance as an academic and practitioner concept. Nevertheless, it seems clear that questions remain as to the future direction for research into the hierarchy of effects. Should, for example, research focus on the traditional sequence or alternate order models? Should involvement be pursued more? Should brain hemisphere research and other physiological measures of advertising effect be pursued more in relation to the hierarchy notion? To what extent, and under what conditions, should consumer information processing be predominate over attitude change or emotions in advertising? Can advertisers control or even

(insert name of object to be judged)

important	—:—:—:—:—:—	unimportant*
of no concern	—:—:—:—:—:—	of concern to mc
irrelevant	—:—:—:—:—:—	relevant
means a lot to mc	—:—:—:—:—:—	means nothing to mc*
Useless	—:—:—:—:—:—	useful
valuable	—:—:—:—:—:—	worthless*
trivial	—:—:—:—:—:—	fundamental
beneficial	—:—:—:—:—:—	not beneficial*
matters to mc	—:—:—:—:—:—	doesn't matter*
unintrestcd	—:—:—:—:—:—	interested
significant	—:—:—:—:—:—	insignificant*
vital	—:—:—:—:—:—	superfluous*
boring	—:—:—:—:—:—	interesting
unexciting	—:—:—:—:—:—	exciting
appealing	—:—:—:—:—:—	unappealing*
mundane	—:—:—:—:—:—	fascinating
essential	—:—:—:—:—:—	nonessential*
undesirable	—:—:—:—:—:—	desirable
wanted	—:—:—:—:—:—	unwanted*
not needed	—:—:—:—:—:—	needed

\*Indicates item is reverse scored,

Items on the left are scored (1) low involvement to (7) high involvement on the right. Totalling the 20 items gives a score from a low of 20 to a high of 140,

Source: Zaichkowsky, Judith Lynne (1985). "Measuring the involvement Construct." *Journal of Consumer Research* 12 (Dec.): 350.

Figure 5. A Scale for Measuring Involvement

influence the hierarchy? And, finally, is a broader, more-encompassing hierarchy model necessary to account for all of these issues of emotion, involvement, and single and multiple hierarchies? There are no simple answers to these questions. As history conveys, it is clear that all of these investigations have added to the debate of the hierarchy concept and most assuredly to the development and advancement of advertising and marketing practice. Both the rigor of academic research and the relevance of practitioner research [Brinberg and Hirschman 1986] are evident in hierarchy of effects research. The critical position of the hierarchy in both of these worlds must remain as a catalyst for researchers to continue its advancement in the social and behavioral sciences in general and marketing and advertising in particular.

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NOTES

1. Proponents of the traditional hierarchy framework claim that people must respond to advertising (or selling) messages cognitively first; affectively, next; and conatively, last. Thus, the proper sequence of responses is awareness-attitude-behavior.
2. The marketing and advertising literature generally attributes the development of AIDA to Edward K. Strong, "Theories of Selling," *The Journal of Applied Psychology*, 1925.

REFERENCES

Asker, David A. and Carman, James M. (1982). "Are You Overadvertising?" *Journal of Advertising Research* 22 (Aug./Sept.): 57-70.

Ackoff, Russell L. and Emshoff, James R. (1975). "Advertising Research at Anheuser-Busch, Inc. (1963-68)." *Sloan Management Review* (Winter): 1-15.

Adams, Henry Foster (1916). *Advertising and Its Mental Luws*. New York: The Macmillan Company.

Advertising Research Foundation (1961). Audience Concepts Committee. *Toward Better Media Comparisons*, New York.

Anderson, Robert L. and Barry, Thomas E. (1979). *Advertising Management: Text and Cases*. Columbus, OH: Merrill Publishing Company.

Aspinwall, Leo V. (1964). "Consumer Acceptance Theory." In *Theory in Marketing*, eds. Reavis Cox, Wroe Alderson and Stanley J. Shapiro. Homewood, IL: Richard D. Irwin.

Assael, Henry (1981), *Consumer Behavior and Marketing Action*. Boston: Kent Publishing Company, 75-98.

\_\_\_\_\_ and Day, George S. (1968). "Attitudes and Awareness as Predictors of Marketing Share." *Journal of Advertising Research* 8 (Oct.): 3-10.

Assmus, Gert, Farley, John U. and Lehmann, Donald R. (1984). "How Advertising Affects Sales: Mets-Analysis of Econometric Results." *Journal of Marketing Research* 21 (Feb.): 65-74.

Bass, Frank M. (1974). "'Profit and the A/S Ratio.'" *Journal of Advertising Research* 14 (Dec.): 9-19.

\_\_\_\_\_ and Leone, Robert P. (1983). "Temporal Aggregation, the Data Interval Bias, and Empirical Estimation of Bi-monthly Relations from Annual Data." *Management Science* 29 (Jan.): 1-11,

Batra, Rajeev (1986). "Affective Advertising: Role, Processes, and Measurement." In *The Role of Affect in Consumer Behavior: Emerging Theories and Applications*, eds. Robert A. Peterson, Wayne D. Hoyer and William R. Wilson. Lexington, Mass.: Lexington Books, 53-85.

\_\_\_\_\_ and Vanhonacker, Wilfried R. (1986). "The 'Hierarchy of Advertising Effects': An Aggregate Field Test of Temporal Precedence." New York: Columbia Business School, Avis Rent-a-Car System Working Paper Series in Marketing (March).

Bedell, Clyde (1940). *How to Write Advertising That Sells*. New York: McGraw-Hill Book Company, Inc.

- Bethnan, James R. (1979). "Memory Factors in Consumer Choice: A Review." *Journal of Marketing* 43, no. 2:37-53.
- Bloch, Peter H. and Richins, Marsha L. (1983). "A Theoretical Model for the Study of Product Importance Perceptions." *Journal of Marketing* 47 (Summer): 6%81.
- Bourgeois, Jacques C. and Barnes, James C. (1979). "Does Advertising Increase Alcohol Consumption?" *Journal of Advertising Research* 19 (Aug.): 1%29.
- Boyd, Harper W., Jr., Day, Michael L., and Strong, Edward C. (1972). "An Attitudinal Framework for Advertising Strategy." *Journal of Marketing* 36 (April): 27-33.
- Brinberg, David and Hirschman, Elizabeth C. (1986). "Multiple Orientations for the Conduct of Marketing Research: An Analysis of the Academic/Practitioner Distinction." *Journal of Marketing* 50 (Oct.): 161-73.
- Buzzell, Robert D. (1964). "Predicting Short-Term Changes in Market Share as a Function of Advertising Strategy." *Journal of Marketing Research* 1 (Aug.): 27-31.
- \_, Kolin, Marshall and Murphy, Malcolm P. (1965). "Television Commercial Test Scores and Short-Term Changes in Market Shares." *Journal of Marketing Research* 2 (Aug.): 307-13.
- Cacioppo, John T., Losch, Mary E., Tassinari, Louis G. and Petty, Richard E. (1986). "Properties of Affect and Affect-laden Information Processing as Viewed through the Facial Response System." In *The Role of Affect in Consumer Behavior: Emerging Theories and Applications*, eds. Robert A. Peterson, Wayne D. Hoyer, and William R. Wilson. Lexington, Mass.: Lexington Books, 87-118.
- Callahan, Francis X. (1982). "Advertising and Profits: 1969- 1978." *Journal of Advertising Research* 22 (April/May): 17-22.
- Campbell, Roy H. (1969). *Measuring the Sales and Profit Results of Advertising: A Managerial Approach*, Association of National Advertisers.
- Clarke, Darral G. (1976). "Econometric Measurement of the Duration of Advertising Effect on Sales." *Journal of Marketing Research* 13 (Nov.): 345-57.
- Cobb, Cathy J. and Hoyer, Wayne D. (1985). "The Influence of Advertising at the Moment of Brand Choice." *Journal of Advertising* 14, no. 4:5-12, 27.
- Cohen, Joel B. and Houston, Michael J. (1972). "Cognitive Consequences of Brand Loyalty." *Journal of Marketing Research* 9 (Feb.): 97-99.
- Coney, Russell H. (1961). *Defining Advertising Goals for Measured Advertising Results*. New York: Association of National Advertisers.
- Comanor, William S. and Wilson, Thomas A. (1967). "Advertising Market Structure and Performance." *Review of Economic Statistics* 49 (Nov.): 423-40.
- Copland, Brian (1963). "An Evaluation of Conceptual Frameworks for Measuring Advertising Results." *Proceedings*, 9th Annual Conference, Advertising Research Foundation.
- Crespi, Irving (1971). "What Kinds of Attitude Measures are Predictive of Behavior?" *Public Opinion Quarterly* 35 (Fall): 327-34.
- DeBruicker, F. Stewart (1979). "An Appraisal of Low-Involvement Consumer Information Processing." In *Attitude Research Plays for High Stakes*, eds. John C. Maloney and Bernard Silverman. Chicago, American Marketing Association, 112-30.
- Devoe, Merrill (1956). *Effective Advertising Copy*. New York: The Macmillan Company.
- Eastman, George R. (1916). *Psychology of Salesmanship*. New York: A. F. Fenno and Dayton, OH: Service Publishing.
- Ehrenberg, Andrew S. C. (1974). "Repetitive Advertising and the Consumer," *Journal of Advertising Research* 14 (April): 2%34.
- Fazio, Russell H. and Zanna, Mark P. (1978). "On the Predictive Validity of Attitudes: The Roles of Direct Experience and Confidence." *Journal of Personality* 46: 22&43.
- (1981). "Direct Experience and Attitude-Behavior Consistency." In *Advances in Experimental Social Psychology*, ed. Leonard Berkowitz. New York: Academic Press 14, 161-202.
- Finn, David W. (1984). "The Integrated Information Response Model." *Journal of Advertising* 13, no. 1: 24-33.
- Fishbein, Martin (1966). "The Relationship Between Beliefs, Attitude, and Behavior." In *Cognitive Consistency*, ed. Shel Feldman. New York: Academic Press, 199-223.
- and Ajzen, Icek (1975). *Belief, Attitude, intention and Behavior*. Reading, MA: Addison-Wesley.
- Fothergill, J. E. and Ehrenberg, Andrew S, C. (1965). "On the Scherwin Analyses of Advertising Effectiveness." *Journal of Marketing Research* 2 (Aug.): 298-306.
- Gibson, Lawrence D. (1983). "'Not Recall'," *Journal of Advertising Research* 23 (Feb./March): 39-46.
- Ginter, James L. (1974). "An Experimental Investigation of Attitude Change and Choice of a New Brand." *Journal of Marketing Research* 11 (Feb.): 30-40.
- Hall, Samuel R. (1915). *Writing an Advertisement: Analysis of the Methods and Mental Processes that Play a Part in the Writing of Successful Advertising*. Boston: Houghton Mifflin Co.
- Haskins, Jack B. (1964). "Factual Recall as a Measure of Advertising Effectiveness." *Journal of Advertising Research* 4 (March): 2-8.
- Holak, Susan L. and Reddy, Srinivas K. (1986). "Effects of a Television and Radio Advertising Ban: A Study of the Cigarette Industry." *Journal of Marketing* 50 (Oct.): 219-27.
- Holbrook, Morris B. (1975). "A Review of Advertising Research." In *Advertising and the Public Interest*, eds. John A. Howard and James Hulbert, Appendix Two, Chicago: Crain.
- (1978). "Beyond Attitude Structure: Toward the Informational Determinants of Attitudes." *Journal of Marketing Research* 15 (Nov.): 54%56.
- (1986). "Emotion in the Consumption Experience: Toward a New Model of the Human Consumer." In *The Role of Affect in Consumer Behavior: Emerging Theories and Applications*, eds. Robert A. Peterson, Wayne D. Hoyer, and William R. Wilson. Lexington, Mass.: Lexington Books, 17-52.
- Holman, Rebecca H. (1986). "Advertising and Emotionality." In *The Role of Affect in Consumer Behavior: Emerging Theories and Applications*, eds. Robert A. Peterson, Wayne D. Hoyer, and William R. Wilson. Lexington, Mass.: Lexington Books, 119-40.
- Howard, John A. and Sheth, Jagdish N. (1969). *The Theory of Buyer Behavior*. New York: John Wiley & Sons, Inc.
- Hughes, G. David and Guerrero, Jose L. (1971). "Testing Cognitive Models Through Computer-Controlled Experiments." *Journal of Marketing Research* 8 (Aug.): 291-97.
- Insko, Chester A. and Schopler, John (1967). "Triadic Consistency: A Statement of Affective-Cognitive-Consistency." *Psychological Review* 74 (Sept.): 361-76.
- International Correspondence Schools (191 1). *The Conducting of Selling*,
- Jenkins, John G. (1935). *Psychology in Business and Industry*. New York: John Wiley & Sons, Inc.

- Kapferer, Jean-Noel and Laurent, Gilles (1985-86). "Consumer Involvement Profiles: A New Practical Approach to Consumer Involvement." *Journal of Advertising Research* 25 (Dec./Jan.): 48-56.
- Kitson, Harry D. (1921). *The Mind of the Buyer: A Psychology of Selling*. New York: The Macmillan Company.
- Korgaonkar, Pradeep K. and Moschis, George P. (1982). "An Experimental Study of Cognitive Dissonance, Product Involvement, Expectations, Performance and Consumer Judgment of Product Performance." *Journal of Advertising* 11, no. 3: 32-44.
- Kreshel, Peggy J. (1984). "'Emotion and Advertising: The 'Grande Idee' of the 80's." Unpublished Advertising Working Paper, No. 17, University of Illinois at Urbana-Champaign (Nov.).
- Krugman, Herbert E. (1965). "The Impact of Television Advertising: Learning Without Involvement." *Public Opinion Quarterly* 29, no. 3 (Fall): 349-56.
- (1966). "Answering Some Unanswered Questions in Measuring Advertising Effectiveness," *Proceedings, 12th Annual Meeting, Advertising Research Foundation, New York*, 18-23.
- (1966-67). "The Measurement of Advertising Without Involvement." *Public Opinion Quarterly* 30 (Winter): 585-96.
- (1972). "Why Three Exposures May Be Enough." *Journal of Advertising Research* 12 (Dec.): 11-14.
- (1975). "What Makes Advertising Effective?" *Harvard Business Review* 53 (March/April): 96-103.
- (1977). "Memory Without Recall, Exposure Without Perception." *Journal of Advertising Research* 17 (Aug.): 7-12.
- (1985). "'Point of View: Measuring Memory-An Industry Dilemma.'" *Journal of Advertising Research* 25 (Aug./Sept.): 49-51.
- (1986). "'Low Recall and High Recognition of Advertising.'" *Journal of Advertising Research* (Feb./March): 79-86.
- Lambin, Jean-Jacques (1975). "What Is the Real Impact of Advertising?" *Harvard Business Review* 53 (May-June): 139-47.
- Lastovicka, John L. and Gardner, David M. (1979). "Components of Involvement." In *Attitude Research Plays for High Stakes*, eds. John C. Maloney and Bernard Silverman. Chicago, American Marketing Association, 53-73.
- Lavidge, Robert C, and Steiner, Gary A. (1961). "A Model for Predictive Measurements of Advertising Effectiveness." *Journal of Marketing* 25 (Oct.): 59-62.
- Lazarus, Richard S. (1981), "A Cognitivist's Reply to Zajonc on Emotion and Cognition." *American Psychologist* 36:222-43.
- (1982). "Thoughts on the Relations Between Emotion and Cognition." *American psychologist* 37, no. 9 (Sept.): 1019-24.
- (1984). "On the Primacy of Cognition." *American Psychologist* 39, no. 2 (Feb.): 124-29.
- Leckenby, John D. and Wedding, Nugent (1982). *Advertising Management: Criteria, Analysis and Decision Making*. Columbus, OH: Grid Publishing, Inc.
- and Kishi, Shizue (1984). "The Dirichlet Multinomial Distribution as a Magazine Exposure Model." *Journal of Marketing Research* 21 (Feb.): 100-6.
- Leefflang, Peter S. H. and Reuijl, Jan C. (1985). "Advertising and Industry Sales: An Empirical Study of the West German Cigarette Market." *Journal of Marketing* 49 (Fall): 92-98.
- Longman, Kenneth A. (1971). *Advertising*. New York: Harcourt Brace, 255.
- MacKenzie, Scott B., Lutz, Richard J., and Belch, George E. (1986). "The Role of Attitude Toward the Ad as a Mediator of Advertising Effectiveness: A Test of Competing Explanations," *Journal of Marketing Research* 23 (May): 130-43.
- Mandler, George (1982). "The Structure of Value: Accounting for Taste." In *Cognition and Affect*, eds. Susan T. Fiske and Margaret S. Clarke. New York: Academic Press.
- McGuire, William J. (1969). "An Information-Processing Model of Advertising Effectiveness." Paper presented to Symposium on Behavioral and Management Science in Marketing, University of Chicago.
- (1978). "An Information-Processing Model of Advertising Effectiveness." In *Behavioral and Management Science in Marketing*, eds. Harry L. Davis and Alvin H. Silk. New York: Ronald Press, 156-80.
- Mendelsohn, Harold (1962). "Measuring the Process of Communications Effect." *Public Opinion Quarterly* 26 (Fall): 411-16.
- Metwally, M. M. (1980). "Sales Response to Advertising of Eight Australian Products." *Journal of Advertising Research* 20 (Oct.): 59-64.
- Moriarty, Sandra Ernst (1983). "Beyond the Hierarchy of Effects: A Conceptual Framework." *Current Issues & Research in Advertising* 1983, 45-55.
- Naples, Michael J. (1979). *Effective Frequency: The Relationship Between Frequency and Advertising Effectiveness*. New York: Association of National Advertisers, Inc.
- O'Brien, Terrence (1971). "Stages of Consumer Decision Making." *Journal of Marketing Research* 8 (Aug.): 282-89.
- Olson, Jerry C., Toy, Daniel R., and Dover, Philip A. (1982). "Do Cognitive Responses Mediate the Effects of Advertising Content on Cognitive Structure?" *Journal of Consumer Research* 9 (Dec.): 245-62.
- Osborn, Alexander F. (1922). *A Short Course in Advertising*. New York: C. Scribners Sons.
- Palda, Kristian S. (1964). *The Measurement of Cumulative Advertising Effects*. Englewood Cliffs, NJ: Prentice-Hall, Inc.
- (1966). "The Hypothesis of a Hierarchy of Effects: A Partial Evaluation." *Journal of Marketing Research* 3 (Feb.): 13-24.
- Park, C. Whan and Young, S. Mark (1986). "Consumer Response to Television Commercials: The Impact of Involvement and Background Music on Brand Attitude Formation." *Journal of Marketing Research* 23 (Feb.): 11-24.
- Peterson, Robert A., Hoyer, Wayne D., and Wilson, William R. (1986). "Reflections on the Role of Affect in Consumer Behavior." In *The Role of Affect in Consumer Behavior: Emerging Theories and Applications*, eds. Robert A. Peterson, Wayne D. Hoyer, and William R. Wilson. Lexington, Mass.: Lexington Books, 141-59.
- Petty, Richard E. (1980). "The Role of Cognitive Responses in Attitude Change Processes." In *Cognitive Responses in Persuasion*, eds. Richard E. Petty, Thomas M. Ostrom and Timothy C. Brock. Hillsdale, NJ: Erlbaum, 13%39.
- and Cacioppo, John T. (1981). *Attitudes and Persuasion: Classical and Contemporary Approaches*. Dubuque, IA: William C. Brown.

- \_\_\_\_\_ and Schumann, David (1983). "Central and Peripheral Routes to Advertising Effectiveness: The Moderating Role of Involvement." *Journal of Consumer Research* 10 (Sept.): 135-46.
- Poffenberger, Albert T. (1925). *Psychology in Advertising*. Chicago: A. W. Shaw Company.
- Preston, Ivan L. (1982). "The Association Model of the Advertising Communication Process." *Journal of Advertising* 11, no. 2:3-15.
- \_\_\_\_\_ and Thorson, Esther (1983). "Challenges to the Use of Hierarchy Models in Predicting Advertising Effectiveness." *Proceedings of the Annual Convention of American Academy of Advertising*, 27-33. . . .
- \_\_\_\_\_ (1984). "The Expanded Association Model: Keeping the Hierarchy Concept Alive." *Journal of Advertising Research* 24 (Feb./March): 59-65.
- Printer's Ink* (1910). (Dec. 1): 74.
- Ramond, Charles (1976). *Advertising Research: The State of the Art*. New York: Association of National Advertisers, Inc., 1976.
- Ramsay, Robert E. (1921). *Effective Direct Advertising: The Principles and Practice of Producing Direct Advertising for Distribution by Mail or Otherwise*. New York: Appleton and Company.
- Rae, Ambar C. and Miller, Peter B. (1975). "Advertising/Sales Response Functions." *Journal of Advertising Research* 15 (April): 7-15.
- Ray, Michael L. (1974). "Consumer Initial Processing: Definitions, Issues, and Applications." In *Buyer/Consumer Information Processing*, eds. G. David Hughes and Michael L. Ray. Chapel Hill, NC: University of North Carolina Press, 14S.56.
- \_\_\_\_\_, Sawyer, Alan G., Rothschild, Michael L., Heeler, Roger M., Strong, Edward C., and Reed, Jerome B. (1973). "Marketing Communications and the Hierarchy of Effects." In *New Models for Mass Communication Research*, ed. Peter Clarke. Beverly Hills, CA: Sage Publishing, 147-76.
- Robertson, Thomas S. (1971). *Innovative Behavior and Communication*. New York: Holt, Rinehart, Winston.
- Rogers, Everett M. (1962). *Diffusion of innovation*. New York: Free Press.
- Rohloff, Albert C. (1966). "Quantitative Analyses of the Effectiveness of TV Commercials." *Journal of Marketing Research* 3 (Aug.): 239-45.
- Rokeach, Milton (1966-67). "Attitude Change and Behavioral Change." *Public Opinion Quarterly* 30, no. 4 (Winter): 529-50.
- Rossiter, John R. and Percy, Larry (1980). "Attitude Change Through Visual Imagery in Advertising." *Journal of Advertising* 9, no. 2:10-16.
- Rothschild, Michael L. (1979). "Advertising Strategies for High and Low Involvement Situations." In *Attitude Research Plays for High Stakes*, eds. John C. Maloney and Bernard Silverman. Chicago, American Marketing Association, 74-93.
- \_\_\_\_\_ and Gaidis, William C. (1981). "Behavioral Learning Theory: Its Relevance to Marketing and Promotions." *Journal of Marketing* 45 (Spring): 70-78.
- Rust, Roland T. and Robert P. (1984). "The Mixed-Media Dirichlet Multinomial Distribution: A Model for Evaluating Television—Magazine Advertising Schedules." *Journal of Marketing Research* 21 (Feb.): 89-99.
- \_\_\_\_\_ and Henderson, Pamela W. (1985). "Should Emotional Advertising Response Models Reflect Brain Physiology?" *Proceedings of the American Academy of Advertising*, NR204-7.
- Sandage, Charles S. and Fryburger, Vernon F. (1967). *Advertising Theory and Practice*, 7th ed. New York: McGraw-Hill.
- Schmalensee, Richard (1972). *The Economics of Advertising*. Amsterdam: Amsterdam-London Publication.
- Schwartz, David A. (1969). "Measuring the Effectiveness of Your Company's Advertising." *Journal of Marketing* 33 (April): 20-25.
- Schweiger, Cunter C. and Hruschka, Harald (1980). "Analysis of Advertising Inquiries." *Journal of Advertising Research* 10 (Oct.): 37-39.
- Scott, Walter D. (1903). *The Theory of Advertising: A Simple Exposition of the Principles of Psychology in Their Relation to Successful Advertising*. Boston: Small, Maynard and Company.
- (1908). *The Psychology of Advertising: A Simple Exposition of the Principles of Psychology in Their Relation to Successful Advertising*. Boston: Small, Maynard and Company.
- Sheldon, Arthur Frederick (1911). *The Art of Selling*. Chicago: The Sheldon School.
- Sherif, Carolyn W., Sherif, Muzifer, and Nebergall, Roger E. (1965). *Attitude and Attitude Change*. Philadelphia: Saunders.
- Simon, Julian L. and Arndt, Johan (1980). "The Shape of the Advertising Response Function." *Journal of Advertising Research* 20 (Aug.): 11-28.
- Singh, Surendra N. and Rothschild, Michael L. (1983). "Recognition as a Measure of Learning from Television Commercials." *Journal of Marketing Research* 20 (Aug.): 235-48.
- Slama, Mark E. and Tashchian, Armen (1985). "Selected Socioeconomic and Demographic Characteristics Associated with Purchasing Involvement." *Journal of Marketing* 49 (Winter): 72-82.
- Smith, Robert E. and Swinyard, William R. (1982). "Information Response Models: An Integrated Approach." *Journal of Marketing* 46 (Winter): 81-93.
- (1983). "Attitude-Behavior Consistency: The Impact of product Trial Versus Advertising." *Journal of Marketing Research* 20 (Aug.): 257-67.
- Starch, Daniel (1923). *Principles of Advertising*. New York: McGraw-Hill Book Company.
- Stewart, David W. (1986). "The Moderating Role of Recall, Comprehension, and Brand Differentiation on the Persuasiveness of Television Advertising." *Journal of Advertising Research* 26 (April/May): 43-47.
- Strong, Edward K., Jr. (1922). *The Psychology of Selling Life Insurance*. New York: Harper & Brothers Publishers.
- (1925a). *The Psychology of Selling and Advertising*. New York: McGraw-Hill.
- (1925b). "Theories of Selling." *Journal of Applied Psychology* 9:75-86.
- (1938). *Psychological Aspect of Business*. New York: McGraw-Hill Book Company, Inc.
- Tauber, Edward M. (1982-83). "How Does Advertising Work?" *Journal of Advertising Research* 22 (Dec./Jan.): 7.
- Traylor, Mark B. (1981a). "Product Involvement and Brand Commitment." *Journal of Advertising Research* 21 (Dec.): 51-56.
- (1981b). "Ego Involvement and Brand Commitment: Not Necessarily the Same." *Journal of Consumer Marketing* 1, no. 1:75-79.
- Tsal, Yehoshua (1985). "On the Relationship Between Cognitive and Affective Processes: A Critique of Zajonc and Markus." *Journal of Consumer Research* 12 (Dec.): 358-62.

- Tull, Donald S., Wood, Van R., Duhan, Dale, Gillpatrick, Tom, Robertson, Kim R. and Helgeson, James C. (1986). “**Leveraged** Decision Making in Advertising: The Flat Maximum **Principle** and Its Implications.” *Journal of Marketing Research* 23 (Feb.): 25-32.
- Tyebjee, Tyzoon T. (1979). “Refinement of the Involvement Concept: An Advertising Planning Point of View.” In *Attitude Research Plays for High Stakes*, eds. John C. Maloney and Bernard Silverman. Chicago, American Marketing Association, 94-111.
- Van Raaij, W. Fred (1984). *Affective and Cognitive Reactions to Advertising*. Report No. 84-111, Marketing Science Institute, Cambridge, Massachusetts.
- Vaughn, Richard (1980). “How Advertising Works: A Planning Model.” *Journal of Advertising Research* 20 (Oct.): 27-33.
- (1986). “How Advertising Works: A Planning Model Revisited.” *Journal of Advertising Research* 26 (Feb./March): 57-66.
- Venkatesan, M. and Haaland, Gordon A. (1968). “Divided Attention and Television Commercials: An Experimental Study.” *Journal of Marketing Research* 5 (May): 203-5.
- West Coast Life Insurance Company (1920). “The Five Steps of a Sale.”
- Wilcox, Gary B., Vacker, Barry and Franke, George R. (1986). “Alcoholic Beverage Advertising and Consumption in the United States: 1964-1984.” Unpublished Working Paper No. 86-1, The University of Texas at Austin.
- Wolfe, Harry D., Brown, James K. and Thompson, C. Clarke (1962). *Measuring Advertising Results*. New York: National Industrial Conference Board, 7.
- Woodside, Arch G. and Wilson, Elizabeth J. (1985). “Effects of Consumer Awareness of Brand Advertising on Preference.” *Journal of Advertising Research* 25 (Aug./Sept.): 41-48.
- Wright, Peter (1973). “The Cognitive Processes Mediating Acceptance of Advertising.” *Journal of Marketing Research* 10 (Feb.): 53-62.
- (1975). “Factors **Affecting** Cognitive Resistance to Advertising.” *Journal of Consumer Research* 2 (June): 1-9.
- Zaichkowsky, Judith Lynne (1985). “Measuring the Involvement Construct.” *Journal of Consumer Research* 12 (Dec.): 341-52.
- (1986). “Conceptualizing Involvement.” *Journal of Advertising* 15, no. 2:4-14,34.
- Zajonc, Robert B. (1968). “Attitudinal Effects of Mere Exposure.” *Journal of Personality and Social Psychology Monograph* 9, part 2:1-28.
- (1980a). “Feeling and Thinking: Preferences Need No Inferences.” *American Psychologist* 35 (Feb.): 151-75.
- (1980b). “Cognition and Social Cognition: A Historical Perspective.” Reproduced draft (Nov. 10), for *Four Decades of Social Psychology*, ed. Leon Festinger. Oxford University Press.
- (1986). “Basic Mechanisms of Preference Formation.” In *The Role of Affect in Consumer Behavior: Emerging Theories and Applications*, eds. Robert A. Peterson, Wayne D. Hoyer and William R. Wilson, Lexington, Mass.: Lexington Books, 1-16.
- and Markus, Hazel (1982). “Affective and Cognitive Factors in Preferences.” *Journal of Consumer Research* 9 (Sept.): 123-31.
- (1985). “Must All **Affect** Be Mediated by Cognition?” *Journal of Consumer Research* 12 (Dec.): 365-64.
- Zaltman, Gerald and **Wallendorf**, Melanie (1983). *Consumer Behavior: Basic Findings and Management Implications*. New York: John Wiley & Sons, chap. 19, “Involvement Theory and Consumer Behavior” by C. Whan Park and Banwari **Mittal**, 549-69.
- Zielske, Hubert A. (1959). “The Remembering and Forgetting of Advertising.” *Journal of Marketing* 22 (Jan.): 239-43.
- Zinkhan, George M. and Zinkhan, F. Christian (1985). “Response Profiles and Choice Behavior: An Application to Financial Services Advertising.” *Journal of Advertising* 14, no. 3:3944,51,66.
- Zinkhan, George M. and Gelb, Betsy D. (1986). “What Starch Scores Predict.” *Journal of Advertising Research* 26 (Aug./Sept.): 45-50.
- Zinkhan, George M. and Fornell, Claes (1986). “A Test of the Learning Hierarchy in High-Low Involvement Situations.” Paper presented at the University of California at Irvine (Nov.).