

## The Elaboration Likelihood Model: The Role of Affect and Affect-Laden Information Processing in Persuasion

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The physiologists who, during the past few years, have been so industriously exploring the functions of the brain, have limited their attempts at explanation to its cognitive and volitional performances. . . . But the *aesthetic* sphere of the mind, its longings, its pleasures and pains, and its emotions, have been so ignored in all these researches that one is tempted to suppose that . . . the matter lay for them among the problems of the future, only to be taken up after the simpler ones of the present should have been definitively solved. (James 1884, p. 188)

William James's observations over a century ago that affect and emotion were relatively ignored applies equally well to the field of advertising and consumer psychology today. Inspection of the first three volumes of Division 23 conferences on advertising and psychology, for instance, reveals that the concepts of affect and emotion are considered only infrequently, whereas the concepts of cognition and deliberation are pervasive. This book, with its focus on affect and affect-laden information processing, marks an important departure from this tradition (see also Peterson, Hoyer, and Wilson 1986).

Our purpose in this chapter is twofold. We begin by reviewing briefly several questions and concerns shared by the other contributors to this book, noting not only common themes and approaches but also differences in conceptualization that are often disguised in the literature by similarities in terminology. Second, we outline a general theoretical framework to integrate the seemingly contradictory findings in the field and account for attitude persistence, attitude resistance, and attitude-behavior correspondence. Specifically, we outline the role of affect and affect-laden information processing in the Elaboration Likelihood Model (ELM; Petty and Cacioppo 1981, 1986). In addition, we address several questions and apparently contradictory empirical findings reported in this book in light of the ELM.

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## Themes, Conceptualizations, and Nomenclature

The contributors to this book represent diverse theoretical and methodological perspectives. Some have employed advertising stimuli to achieve an ecologically valid means of investigating what attributes make communications attention getting, emotional, memorable, and persuasive (Srull, chapter 7; Calder and Gruder, chapter 12). Others have attempted to identify cognition and emotion as they appear in advertising (see Holbrook and Westwood, chapter 16; Coulson, chapter 3). Despite this diversity, all deal with one-way persuasive communications transmitted through print, audio, or audiovisual channels; all adopt an intrapersonal-process orientation; and all seek ultimately to specify lawful relations between advertising input, affective response, and consumer behavior.

There are at least three problems relating to nomenclature and referents in the research of affect and affect-laden information:

1. The different ways in which the terms *affect*, *attitudes*, and *arousal* are used.
2. The concept that physiological arousal is necessarily a component of affect and emotion.
3. The concept that attitudes and affect are equatable.

### Usage of Terms: Affect, Attitude, and Arousal

The different ways in which *affect*, *attitudes*, and *arousal* are used in the various chapters and in the field generally are problematic. *Affect* has been used to refer to preferences, reported emotional state, evaluations, undifferentiated arousal tagged with an emotional label, any kind of positive or negative orientation toward a stimulus, and "feeling states." The term *attitude* has been used to refer to affect, evaluations, and the tripartite of affect, cognition, and behavior. *Arousal* has been used to refer to reported (symptomatologic) bodily activation, autonomic activation (such as skin conductance changes), diffuse physiological arousal, cortical activation, alpha blockage, and behavioral activation.

The variation in conceptual referent for these terms is a problem because there is often little evidence that the different referents are marking the same phenomena. In fact, just the opposite is the case. Consider, for instance, the low convergent validity for conceptualizations of "arousal." There are subtle distinctions among some of the early arousal theories (Duffy 1957; Lindsay 1951; Malmo 1959). The basic premise of these theories can nevertheless be succinctly summarized: behavioral processes are viewed as consisting of a directional component, which represents the orientation of the person toward a goal, and an intensive component, which specifies the concomitant

degree of energy expenditure. The construct of generalized physiological arousal refers to the intensity of physiological functioning. Moreover, the intensive component is viewed as being synonymous with the level of neural activity in the central nervous system (CNS) and as exerting an effect on performance.

According to arousal theory, behavioral efficiency increases as arousal increases to some optimal level. Beyond that point, behavioral efficiency decreases as arousal continues to increase (cf. Yerkes and Dodson 1908). There is an intuitively sensible arousal-affect model that might be postulated: Liking for a stimulus increases as the excitatory impact of the stimulus increases up to some optimal level, after which point liking for the stimulus decreases as its effect on organismic arousal continues to increase.

As appealing as these models might be, the task of moving the concept of arousal from hypothetical construct to intervening variable has been more complicated than typically recognized in theoretical and empirical investigations. The finding and mapping of the reticular formation (Moruzzi and Magoun 1949), which initially appeared to serve as a general organismic arousal mechanism, once provided a physiological locus for the construct of arousal. But the reticular formation is not as homogeneous as was first believed. For instance, it is a collection of nuclei that can have specific effects depending on the intensity of stimulation (see Van Toller 1979). This suggests that even if a noninvasive measure of reticular activation was feasible, it might not be a sufficient index of a general and diffuse state of physiological, reportable, and behavioral arousal.

The theory-driven assumption regarding arousal measurement has been that although some general measure of the level of excitation characterizing the CNS would be best, any measure of the extent to which the sympathetic dominated the parasympathetic nervous system would serve as a valid and sensitive measure. For instance, the degree of activation of an autonomic (for example, heart rate), somatic (for example, muscle tension), or cortical (for example, alpha blocking) measure could serve as a convenient, indirect measure of arousal within the CNS.

Among the problems confronting this conceptualization, however, are the distinctions found between tonic and phasic physiological responses. Briefly, Wilder (1957) proposed what he termed the "law of initial values," which states the magnitude and direction of a response (such as skin resistance response) within an individual varies inversely with the prestimulus level of arousal within that response system (such as skin resistance level). The implication worth noting is that whether an organism appeared to become more aroused, less aroused, or showed no change in arousal could be simply a function of the degree to which the target response (for example, cardiovascular, eccrine) system was activated prior to the stimulus of interest (cf. Cacioppo and Petty 1983).

Moreover, dissociations were soon found within and between response

systems thought to serve general and diffuse physiological arousal. For instance, behavioral and cortical arousal were found to be directly related when the ranges of arousal being compared were quite wide, as when contrasting deep sleep and waking states (cf. Lindsley 1951). But even here inverse relationships were soon realized, as when people are in the paradoxical sleep-stage of rapid eye movement (REM) or when people are "paralyzed" in fear. Cortical arousal is sometimes directly related to autonomic arousal, as during REM and high fear states, and sometimes inversely related, as in sensory deprivation (Zuckerman 1969).

The Lacey's (1959, 1967) also provided evidence that the physiological effects within a single system (such as the autonomic nervous system) are not highly correlated. Lacey and coworkers (1963), for instance, found that when people performed a task requiring them to monitor flashing lights, heart rate declined and electrodermal activity increased. The response fractionation found across and within physiological systems constitutes yet another problem for arousal theory. Whether subjects are labeled more or less aroused depends entirely on the process measure selected rather than on the stimulus-response conditions.

Finally, the concept of response fractionation has also been found when comparing autonomic and verbal measures of arousal following an excitatory stimulus or event. Cantor, Zillmann, and Bryant (1975), for instance, found that felt (reportable) arousal subsides more quickly than do the increases in heart rate and blood pressure that follow exercise. We recently replicated this result showing that exercise-induced cardiac activity remains significantly elevated when subjects ceased to report feeling aroused due to the exercise. In addition, psychophysical scaling of overall arousal level was used to demonstrate that the state of residual arousal is imperceptible rather than simply misreported (Cacioppo, Tassinari, Stonebraker, and Petty, in press). Clearly the psychological significance of the term *arousal* cannot be assumed to be the same across these various types of activated (or disinhibited) bodily response.

#### *Physiological Arousal as It Relates to Affect and Emotion*

A second problematic conceptualization is that physiological arousal is necessarily a component of affect and emotion (Schachter and Singer 1962). Although emotionally arousing situations and stimuli can be and perhaps often are both autonomically and behaviorally arousing, there are at least two reasons (besides those outlined above) to question conceptualizations of activating effects in which affect and arousal are equated. First, the affective states such as those evoked by mildly pleasant and unpleasant stimuli found in advertisements can be accompanied by rudimentary muscle action potentials over the muscles of emotional expressions that are detectable using electromyog-

raphy (EMG) even in the absence of reliable increases in electrodermal or cardiac activity (Cacioppo, Petty, Losch, and Kim 1986). This line of research implies that the absence of autonomic or behavioral changes should not be interpreted as the absence of affect. Second, a variety of cognitive as well as emotional stimuli have been found to evoke autonomic activation (Lacey et al. 1963; Cacioppo and Sandman 1978; Lynn 1966).

#### *Relationships between Attitudes and Affect*

A third quagmire, in our view, are conceptualizations in which attitudes and affect are equated. *Affect* is a term commonly used to refer to an emotional reaction that has a high probability of changes in awareness, expressive display, overt behavior, and physiological functioning (Tomkins 1981). The pleasantness-unpleasantness dimension of emotional experience is sometimes emphasized in conceptualizations of affect, whereas others have included dimensions such as activation and control (Osgood 1966). Affect is used here as the superordinate construct that encompasses moods as well as emotions. It is distinguished from cognition by its rudimentary manifestation in neonates, its potential to arouse feelings rather than facts, and its motivational consequences (Izard 1977; Zajonc 1980).

Consistent with Bower (1981), each distinct affective state can be conceived as having a specific node in memory, connected by associative pointers to other aspects of the emotion (some of which are not cortical). For instance, propositions describing products, advertisements, and events from one's life during which a particular affect was activated would be linked with varying associative strength to the corresponding functional affect-unit. When an affect-unit is activated, by whatever means (external stimuli, proprioceptive, or interoceptive stimuli), excitation is transferred in a continuous flow to nodes responsible for autonomic arousal, expressive behavior, socialized display rules governing emotional expressions and behavior, and associated memory structures. The effects of this excitation at each of these nodes can range from sub-threshold to superthreshold activation. Depending on the level of activation and the criterion level, only a subset of the features that are thought to characterize intense emotional states (such as autonomic arousal, verbal report, expressive behavior, and mood congruence effects) may be evident in any particular instance in which affect is evoked.

By *attitude*, on the other hand, we mean a global and enduring evaluation of some attitude object—that is, a propositional representation rather than an affect.<sup>1</sup> Attitude objects can be defined at varying levels of specificity (for example, natural foods versus brand X granola bars). A person's general evaluations or attitudes can be based on a variety of behavioral, cognitive, and affective events and are capable of guiding behavioral, cognitive, and affective processes.

More specifically, attitudes are conceptualized as a specific node in memory connected by associative pointers to other aspects of the knowledge schema (such as thoughts, images, and emotions), but they represent a particular class of memorial (learned) categories rather than an organismic affect-unit. For instance, the memorial network underlying an attitude is conceived in cognitive terms and of a cortical locus, whereas the memorial network underlying an affect is conceived in cognitive and somatovisceral terms of a cortical and subcortical locus (Cacioppo, Petty, and Geen, in press).

Activation of an affect-unit need not spread so far as to invoke extensive somatovisceral activation. Moreover, whereas attitudes are generally conceived as being global and enduring evaluations of a stimulus (Petty and Cacioppo 1981; Zanna and Rempel 1986), affective reactions can be transient and specific (James 1905; Zajonc 1980). We have been using phasic physiological reactions such as evoked facial EMG responses to track these affective reactions. Our findings indicate that tasks requiring individuals to form an evaluation of a stimulus are accompanied by a different profile of facial EMG and autonomic response than tasks that evoke an affective response (Cacioppo, Petty, Losch, and Kim 1986; Cacioppo, Petty, and Morris 1985; see Cacioppo, Losch, Tassinari, and Petty 1986).

The underlying theory in our psychophysiological research on attitudes is that (1) attitudinal processing consists of a finite set of processing elements or operations; (2) qualitative differences in verbal, behavioral, and/or physiological response patterns suggest distinctive psychological operations (for example, due to a distinctive input, processing element, or set of processing elements); and (3) similarities in response patterns provide converging evidence for similar psychological operations (Cacioppo and Petty 1986). This approach has revealed support for the notions that similar general and enduring evaluations of stimuli (attitudes) can be based on and activate different psychological operations and that attitudes and affect can be differentiated. In recent pilot testing, for instance, we observed facial EMG activity to vary as a function of the positive or negative feelings a person has toward an attitude object, even when the person's general evaluation of the attitude object was held constant. One individual indicated that she held equally positive attitudes toward twenty-four-hour banking and lasagna, the former because of its high instrumental value to her and the latter because of its delicious consumatory value (cf. Millar and Tesser 1986). When the subject was asked to ruminate about these attitude objects, recordings of facial EMG activity revealed that rumination about the consumatory attitude object, which was liked because of the way lasagna made her feel, was accompanied by a stronger pattern of facial effluence characteristic of positive emotional states (for example, elevated EMG activity over the region of the zygomaticus major muscle) than was rumination about the instrumental attitude object. These pilot observations are tentative but illustrate graphically the conceptual distinctions psychophysiological research supports as existing among attitudes, beliefs, and affect.

Whether attitudes and facial EMG covary depends on a number of factors. For example, when people are left to think about a generally counterattitudinal versus proattitudinal topic, the stream of attendant affective reactions as one considers the topic might vary so dramatically and consistently that facial EMG could differentiate the individuals in these conditions (see Cacioppo and Petty 1979). But the same general factors mitigating attitude-behavior correspondence when comparing a general measure of attitude with a specific measure of behavior can also be expected to vitiate the correspondence between a person's general and enduring attitude toward a stimulus and the facial effluence associated with transient, specific, and possibly issue-irrelevant (perhaps the speaker's facial expression; cf. McHugo et al. 1985) affective reactions.

These observations led us to reconsider the evidence for the tripartite conceptualization of attitudes by which attitudes are viewed as consisting of affect, cognition, and behavior (Rosenberg et al. 1960). The conceptualization of attitudes as global and enduring evaluations is theoretically more parsimonious only if the data thought to support the attitude tripartite can be explained equally well by the view that attitudes represent global and enduring evaluations of stimuli.

Two aspects of the evidence purported to favor the tripartite model are therefore noteworthy. First, the evidence consists essentially of multitrait, multimethod studies in which attitude measures based on verbal responses from the affective, cognitive, and behavioral domains were found to exhibit convergent and discriminant validity. Second, in every study supporting the attitude tripartite distinction, the indexes of "cognition," "affect," and "behavior" have been scaled to reflect evaluations of the attitude objects. For example, Breckler (1984) obtained thought listings about an attitude object. However, rather than using the total number of issue-relevant thoughts (or some other cognitive structure index) as a measure of the cognitive component, he had each thought rated along an evaluative dimension and used the ratio of the favorable to unfavorable thoughts about the attitude object as an index of the cognitive component. The research purported to support the tripartite over the unidimensional model therefore may have resulted from the scaling of originally orthogonal, mutually exclusive, and exhaustive dimensions of experience along a common evaluative continuum. Indeed, this is exactly what one might expect based on Fishbein's (1963) model of attitudes (see also Cullen 1968).

If this reasoning is correct, then other independent dimensions representing a stimulus, such as activity and potency, may yield the same pattern of results found in research purported to support the attitude tripartite once the ratings constituting these orthogonal representations of the stimulus have been rescaled in terms of evaluation. Activity and potency dimensions of attitude objects might be particularly interesting to examine because previous research (Osgood, Suci, and Tannenbaum 1957) has shown them to provide independent representations of stimuli and to be orthogonal to people's evaluations of

the stimuli and because no one has ever argued that activity and potency are attitude components. Hence, if activity and potency representations of attitude stimuli were subsequently rated along an evaluative dimension (in much the same manner as did Breckler [1984] when calculating the cognitive-response measure to index the "cognitive" component of attitudes) one might get what appeared to be evidence for a multidimensional conceptualization of attitudes. More parsimoniously, the data would simply reflect the fact that evaluative ratings of any large enough set of stimulus attributes could be aggregated to yield a measure of attitudes.

Consistent with this reasoning, Green (1986) found that activity and potency ratings of attitude objects yielded two orthogonal representations of each attitude object, whereas transformations of these ratings along the evaluative dimension produced a pattern of results similar to that found in previous research on the attitude tripartite. Moreover, structural equation analyses (LISREL) of the transformed activity and potency data indicated that a two-component model was superior to a unidimensional model of attitudes, but in this case the "components" of attitudes would be activity and potency.

More parsimoniously, these data indicate that the conceptualization of attitudes as global and enduring evaluations of stimuli can account for the evidence cited in support of "multidimensional" attitude conceptualizations. As Ostrom (1969), the first to use the multitrait-multimethod approach to provide what he believed was unique support for the tripartite conceptualization of attitudes, acknowledged:

For the tripartite distinction to be of value, it must be demonstrated that evaluative responses within each component share a unique set of determinants distinct from those for the other components. If no unique determinants can be established, it would be conceptually unparsimonious to invoke a distinction which had no effect at the empirical level. (pp. 13-14)

But our research demonstrated that the evaluative responses within even initially orthogonal dimensional representations of a stimulus can yield the same pattern of data. Hence such a pattern does not provide support for the value of the tripartite distinction.

On the positive side, the separation of constructs of attitudes and affect renders more manageable a number of what otherwise appear to be perplexing issues regarding discrepancies between expressed attitudes and affect, between attitudes toward the ad and attitudes toward the brand, and between the ability of a particular ad execution to evoke affect and its ability to influence consumer attitudes and behavior. It is to some of these issues, and in particular to the role of affect in attitude change, that we turn.

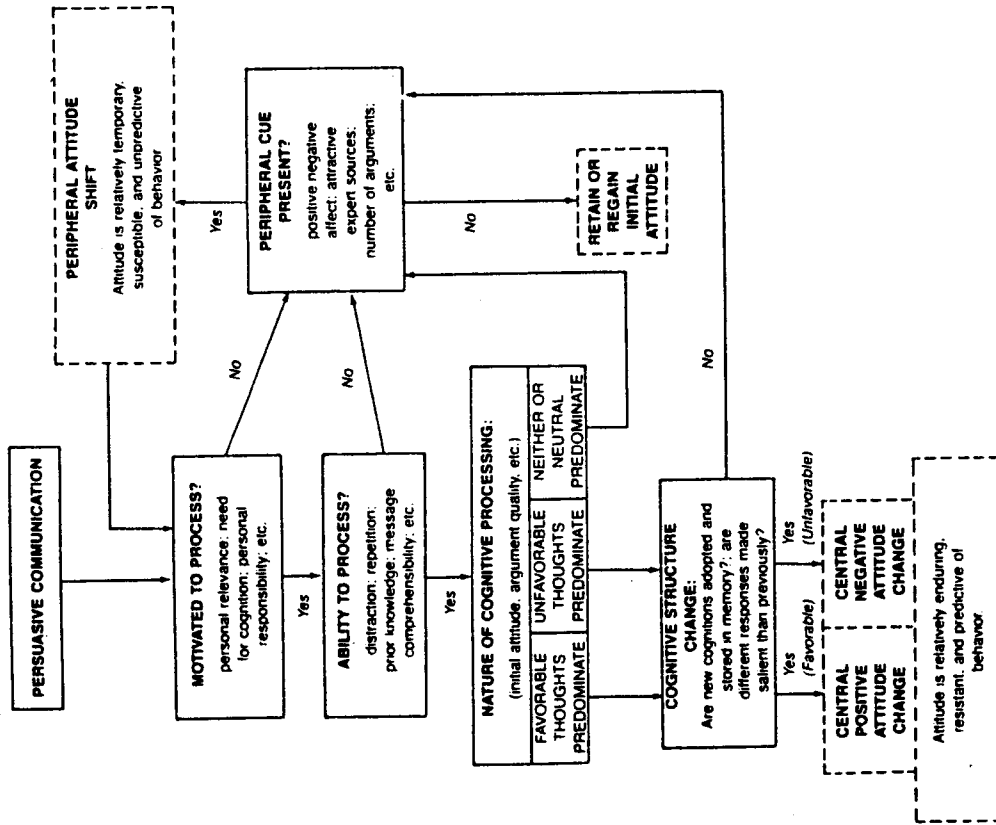
## Integrating Knowledge about Affect, Communication, and Persuasion

The major goal of an advertising appeal, whether to stem nuclear proliferation or to sell soap, is to influence the behavior of an audience. Behaviorists have long known that physical reinforcement and punishment can achieve this end, and various marketing strategies are designed to capitalize on these principles (coupons, rebates, and discounts, for example). It has, however, also long been recognized that the actual application of rewards and punishments was very limited. Hence attention turned to the task of developing general and enduring attitudes (for example, using mass communication) that would exert a corresponding influence on behaviors toward the attitude object (Thurstone 1928; Hovland, Lumsdaine, and Sheffield 1949). In the half-century of research that followed, theories of persuasion proliferated within psychology and advertising.

After reviewing the empirically supported communication and persuasion theories and the literature on attitude persistence, we concluded that the many different empirical findings and theories in the field might profitably be viewed as emphasizing one of just two relatively distinct routes to persuasion (Petty and Cacioppo, 1981, 1986; for a review of related follow-up work, see Pechmann and Stewart, chapter 4). The first route is that which likely occurs as a result of a person's careful and thoughtful consideration of the true merits of the information presented in support of an advocacy (central route). The second type of persuasion is that which more likely occurs as a result of some simple cue in the persuasion context that induced change without necessitating scrutiny of the central merits of the issue-relevant information presented (peripheral route).

Our Elaboration Likelihood Model (ELM) encompasses these two routes to persuasion. Before outlining the manner in which affect fits into the ELM, we briefly review a few of the basic postulates of the model. The ELM has typically been presented in graphic form (figure 5-1), but the fundamental postulates of the model have also been outlined (Petty and Cacioppo 1986).

The processes of attention, comprehension, elaboration, and integration are components of the ELM. Given people's limited capacity for processing information and the large number of daily exigencies, communications, and persuasive appeals to which individuals are exposed, it is little wonder that advertising researchers are concerned about capturing an audience with their appeals. Although the aspects of the ELM outlined in figure 5-1 presume attention and comprehension have been achieved, our first postulate addresses the underlying motivation leading individuals to expend their limited cognitive resources on persuasive appeals. Following Festinger (1954), it is postulated that people are motivated to hold correct attitudes. Correct attitudes help



Note: Schematic depiction of the two routes to persuasion. This diagram depicts the possible end points after exposure to a persuasive communication according to the ELM. (Central attitude change, peripheral shift, no change) (from Petty & Cacioppo, 1986).

Figure 5-1. Central And Peripheral Routes To Persuasion. This Figure Depicts The Two Anchoring Endpoints On The Elaboration Likelihood Continuum

individuals make sense of themselves and their world, respond and adapt effectively to the changing events around them, and garner the fruits of social interaction (Cacioppo et al., in press).

It is further postulated that although people want to hold correct attitudes, the amount and nature of issue-relevant elaboration in which they are willing or able to engage to evaluate a message varies with individual and situational factors. By elaboration, we mean the extent to which a person thinks about issue-relevant information, bits of knowledge that can be activated by or heavily imbued with affect. A discussion of the developmental trends in elaboration and the distinctions between the concept of elaboration in the ELM and the concepts of automatic versus controlled processing, mindfulness-mindlessness, cognitive effort, and levels of processing can be found elsewhere (Petty and Cacioppo 1986, chap. 1). However, it may be instructive to survey briefly the determinants of elaboration likelihood.

The likelihood that argument elaboration occurs can be viewed as being a function of the separable elements of motivation and ability (figure 5-2). Motivation refers to the factor that propels and guides people's information processing and gives it its purposive character. What variables affecting motivation seem to have in common is that they act on a directive, goal-oriented component, which might be termed *intention*, and a nondirective, energizing, information-processing component, which might be termed *effort* or *exertion*. Many variables can influence a person's intention to think about a message or issue, whether they are conscious or deliberative about the influence of these variables on intention. The task variables of personal relevance and responsibility, the individual difference variable of need for cognition, and the contextual variable of number of sources all influence an individual's intention to think about the persuasive communication presented.

Intention is not sufficient for motivation, however, since one can want to think about a message or issue but not exert the necessary effort to move from intending to trying. Little research has been directed explicitly at specifying what variables influence this stage, but hypothetically the excitatory strength of a persuasive appeal, as in advertisement, is related curvilinearly to this intensity (trying) component. That is, organismic arousal increases to some optimal level; the persuasive appeal evokes attention and exploration, comprehension, elaboration, and integration; as the arousal increases beyond this optimal level, there is a decrement in integration, elaboration, comprehension, and, ultimately, in attention as well. However, the conceptualization of arousal data obtained using measures of autonomic, cortical, reportable, and behavioral activation has not provided clear support for a physiological connection, and the status of arousal in the present context is only as a hypothetical construct. Interesting questions remain regarding exactly which variables

act on message elaboration and whether more sophisticated conceptualizations and measures of arousal, such as "wakefulness" (cf. Cacioppo and Petty 1983b) will yield evidence for this hypothetical link.

As specified in figure 5-2, message elaboration also requires that individuals have the ability to process the message. Task factors (such as comprehensibility), individual difference variables (such as IQ), and contextual variables (such as opportunity variables, distraction) are again germane because they can influence ability (see Petty and Cacioppo 1986 for a recent review of motivational and ability variables that influence elaboration likelihood).

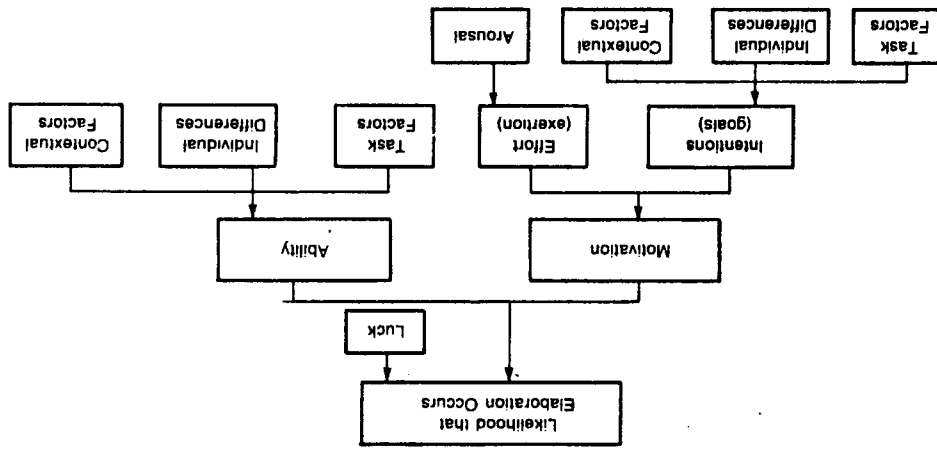
Figure 5-2 does not address what happens when motivation and ability are low or high, but the ELM does. The third postulate of the ELM concerns how variables in a persuasion context can determine the extent and amount of attitude change. It states that variables can affect the amount and direction of attitude change by serving as persuasive arguments, serving as peripheral cues, and/or affecting the extent or direction of issue and argument elaboration. The ELM is unique in that variables in an advertising context can serve in more than one of these capacities.

*Persuasive Arguments as a Basis for Attitude Change*

Persuasive arguments represent bits of information relevant to a person's subjective determination of the true merits of the advocated position. What kind of information is relevant to evaluating the central merits of a product or issue may vary from situation to situation or from person to person. The assessment of information is not assumed always to be rational, nor is affect viewed as necessarily irrelevant to the merits of a product or issue. That is, in the ELM, the term *arguments* refers to any information contained in a communication that permits a person to evaluate the message target along whatever target dimensions are central for that person.

Although persuasion researchers over the past few decades have focused on the cognitive foundations of attitudes (see McGuire 1969), investigators are beginning to show renewed interest in the affective bases of attitudes and persuasion (Cacioppo and Petty, 1981; Cacioppo, Petty, and Geen in press; Clark and Fiske 1982; Zajonc and Markus 1982). The ELM holds open the same possibilities for affect that it does for the other source, message, recipient, and context variables that have been the traditional focus of persuasion researchers. For example, for some people or in some situations, a determination of the central merits of an attitude object might entail an analysis of one's feelings rather than one's beliefs or behaviors. Thus the affective state (such as attraction or excitement) induced by an attitude object (perhaps another individual) might serve as a persuasive argument for or against the merits of the object when the elaboration likelihood is high (for example, if the individual is

Figure 5-2. Schematic Depiction of Factors Affecting the Likelihood of Elaboration



Source: Petty and Cacioppo 1986.

one's potential spouse)—a process most likely when the affect is perceived to be directly relevant to the central merits of the object or issue under consideration—for example, the salivating joy one feels when considering the merits of consuming a sizzling steak when furnished or the disgust one feels after sensing the steak is rancid).

In short, according to the ELM, relevant affective states should serve as persuasive arguments or help in assessing the cogency of arguments when the elaboration likelihood is high (as when fear may contribute to a person's assessment of the danger inherent in not following a specific recommendation). When the elaboration likelihood is high but irrelevant affective states are induced, it is postulated that the affect will have little to no effect on attitudes and that any influence it does have will be to bias issue-relevant thinking by making affectively consonant thoughts and ideas more accessible in memory (Bower 1981; Clark and Izen 1982; see chapter 1).

#### *Peripheral Cues as a Basis for Attitude Change*

Peripheral cues in the ELM represent stimuli in the context that can affect attitudes without necessitating processing of the message arguments. Affect has the potential to operate as a peripheral cue. Indeed, one of the distinguishing characteristics of the ELM is the postulate that in addition to stimuli that can act as cues because they invoke guiding rules (such as balance) or inferences (such as self-perception) that are not inherently linked to the attitude object, stimuli that trigger relatively primitive affective states (whether relevant or irrelevant to the central merits of an attitude object) can become associated with it and serve as peripheral cues.

According to the ELM, the conditions under which affect operates in each of these capacities differ. In contrast to the postulated impact of affective states when the elaboration likelihood is high, affect, whether relevant or irrelevant, serves as a simple peripheral cue when people are either relatively unmotivated or unable to engage in the cognitive work necessary to evaluate the central merits of an attitude object or issue. As a cue, affect should enhance attitudes when it is pleasant but have a negative effect when it is unpleasant, unless, of course, the cue is so distal or weak that it has no effect whatsoever.

Several studies in consumer literature support this postulate. For instance, Gorn (1982) investigated the power of a simple affective cue to modify attitudes toward a product when the personal relevance of an advertisement was low. Before viewing any advertisements, subjects in the high-relevance conditions were told that their task was to advise an advertising agency as to whether they should purchase time on television. In addition, they were told that they would later get to choose as a gift one of the advertised pen packs. In the low-relevance conditions, subjects were provided with little reason to think about the advertisements. They did not expect to advise the ad agency nor did

they expect to receive pens as a gift prior to their exposure to the advertisements. All subjects were exposed to two different advertisements for a pen. One ad was attribute oriented and provided relevant information about the pen (such as "never smudges"); the other ad featured pleasant music rather than information. About one hour following their exposure to the advertisements, subjects were given a choice between the two brands of pens. The majority of the subjects in the high-relevance condition chose the pen advertised with the information, whereas the majority of the subjects in the low-relevance condition chose the pen advertised with pleasant music.

In a conceptually similar study, Srull (chapter 7 to this book) provided evidence that simple affective cues may be a more important determinant of attitudes when prior knowledge is low rather than high. Srull had subjects rate their general knowledge about automobiles. Following a positive, negative, or neutral mood-induction procedure, they were exposed to an attribute-oriented advertisement for a new car. Respondents then evaluated the advertised product. The results revealed that the attitudes of low-knowledge subjects were significantly affected by the mood induction, whereas the attitudes of high-knowledge subjects were not influenced by this simple and irrelevant affective cue. Together the Gorn and Srull studies demonstrate that affect can act as a simple persuasion cue and influence attitudes as outlined in figure 5-1 when people's motivation and/or ability to engage in issue-relevant thinking (their elaboration likelihood) is low (see also Batra and Ray 1985).

#### *Extent or Direction of Elaboration as a Basis for Attitude Change*

The third way in which a variable can affect persuasion is by influencing the direction and amount of issue-relevant thinking in a relatively objective or biased manner. According to the ELM, affect has the potential to serve in this capacity as well. It does so when people are uncertain as to whether they should think extensively about a persuasive communication (a moderate elaboration likelihood). Specifically affective states alter the amount of issue-relevant thinking through the influence of the associated changes in arousal on cognitive and behavioral effort (see figure 5-2) and possibly through a direct tendency of euphoric states to lead to greater cognitive effort than dysphoric states. Given that elaboration is thereby enhanced, affect may also alter the direction of issue-relevant thinking by making affectively consonant thoughts and ideas more accessible in memory ("mood congruence"; see chapter 6). Mood congruence is the mechanism postulated to explain, for instance, the increased negative thinking that occurs when a message is repeated an excessive number of times, even when the message arguments were initially effective (Cacioppo and Petty, 1985; see also chapter 8).

In conclusion, according to the ELM, affect is a variable that can have

multiple effects on issue-relevant thinking and persuasion. One important implication of this analysis is that simply contrasting "rational" with "emotional" advertisements will ultimately prove equally as frustrating as prior attempts to conceptualize other factors in a persuasion context (such as source credibility) as acting in a simple and uniform manner across persuasion contexts (see Petty and Cacioppo 1986, chap. 8).

According to the ELM, both attribute-oriented and emotional appeals can lead to attitude change by the peripheral route when people's motivation to think about the message is low. Conversely, both rational and emotional appeals may lead to attitude change by the central route if the elaboration likelihood is high, and the appeals provide information that strikes to the core of an attitude objects' utility to recipients. Those attitudes achieved through the central route, whether through rational or emotional argumentation, have been shown to be more persistent (Petty and Cacioppo 1986), more resistant to counterpropaganda (Petty and Cacioppo 1986), and more predictive of behavior (Cacioppo, Petty, Kao, and Rodriguez 1986; Petty, Cacioppo, and Schumann 1983).

Although it may be possible to produce attitudes by the peripheral route that have some of the same characteristics (such as persistence and accessibility) as those produced by the central route, more messages and cue exposures should be required to achieve these results (Weber 1972). Of course, if the intended audience does not have the motivation to think carefully about the merits of a product, then repeated presentations of a positive cue with the product may be one of the few ways to induce the audience to try the product. Reinstatement of a positive cue at the point of purchase should also be helpful when an advertising campaign has operated through the peripheral route. Once individuals have made an initial product purchase, however, they are in a position to evaluate the central merits of the product based on their own experiences with it.

Answers to two questions are important from the perspective of advertising: whether a specific feature in an ad will serve as a message argument or peripheral cue and whether an affect provoked by an ad will be relevant. The answers to these questions, guided by and coupled with the ELM, should provide direction for advertising strategies and executions. However, these answers may be idiosyncratic to the audience or product (Snyder and DeBono 1985). This suggests the possible utility of psychographic profiles of the target audience and possible in-depth primary research to learn more about specific motivators and product relevance.

Finally, a little-studied but interesting theoretical issue arises regarding the differential effects that can be expected from attitudes changed because individuals considered carefully the cogent rational (such as instrumental) versus cogent emotional (such as consummatory) arguments for adopting a particular position; that is, when attitudes have been achieved through the central route as the result of affect-laden versus non-affect-laden thought about the

attitude object. One can conceive of such attitudes that are equally positive, enduring, and accessible. Many aspects of the cognitive (such as vertical and horizontal) structure underlying these attitudes could also be quite similar. The major difference in these attitudes, then, would be the memories, thoughts, and associations evoked by the attitude objects (the associated nodes in memory), as well as the associative pointers linking attitudes based on emotional appeals to one or more affect-units.<sup>2</sup>

Attitudes achieved through the central route are postulated to be more enduring, more resistant to counterpersuasion, and more predictive of behavior—in part because the more articulated structure and content of the schema is better able to guide the manner in which incoming information is related to people's previous experiences and knowledge. The content of the relevant knowledge structures and the functions served by the attitudes therefore hold additional information about effective communication and persuasion. Millar and Tesser (1986), for instance, found that attitudes toward puzzles for which affective (consummatory) antecedents were made salient were more predictive of consummatory than instrumental behaviors. Conversely, attitudes toward the same puzzles for which cognitive (instrumental) antecedents were made salient were more predictive of instrumental than consummatory behaviors.

In sum, the interesting theoretical and empirical analyses of affect and advertising provided in this book may at times suggest seemingly conflicting results. We have attempted to reconcile these differences in two ways. First, we have suggested some differences that exist because of the various ways in which terms are conceptualized and/or measured. Included are such fundamental concepts as attitudes, affect, and arousal. Second, we have extended the ELM in an attempt to place other conflicting results in the literature under one conceptual umbrella by specifying the major processes underlying persuasion and indicating how affect can relate to these processes in three separate capacities. Finally, we have examined how affect can influence the memorial (structural) basis of attitudes and thereby influence the stimuli that access the attitudes, the behaviors that are deemed relevant, and the comprehension and elaboration of subsequent incoming information.

## Notes

1. Ephemeral, transitory, or self-presentational expressions of global evaluation would not be considered expressions of attitude, because they would not be reliable and enduring. To say that attitudes are enduring, however, is not to say that they are not subject to various processes of change. An attitude can endure for varying lengths of time, just as learned information can endure for varying lengths of time. Hence the term *enduring* is used in the same sense as it is in learning and memory.
2. For didactic purposes, we are depicting attitudes formed in response to rational appeals as if they were solely the consequence of rational information processing and

the attitudes formed in response to emotional appeals as if they were solely the consequence of affect-laden, issue-relevant thinking. This is an oversimplification. Attitudes formed in response to rational appeals can also involve considerable affect-laden thinking, and the difference is likely to be more a matter of degree rather than presence or absence. Hence many attitude structures are likely to include associative pointers linking the attitude nodes to affect-units, although the strength of these links (and the excitation needed to activate the affect-links) should differ as a function of the emotional antecedents and consequences of the attitudes.

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