## Chapter 1

# The Elaboration Likelihood Model of Persuasion

#### Introduction

On New Year's Day, 1986, U.S. President Ronald Reagan and U.S.S.R. Premier Mikhail Gorbachev appeared on television in each other's countries. It was the first time that American and Russian leaders had exchanged messages that were simultaneously televised. Reagan's message, broadcast without warning during the popular Soviet evening news, spoke of world peace and called for the development of new defensive weapons. Gorbachev's message, which appeared while many Americans were watching coverage of the traditional Tournament of Roses parade, also spoke of peace but decried seeking security with new weaponry. How effective were these messages likely to be? What would be the major determinant of effectiveness—the substance of the messages, or the appearance and demeanor of the speakers? If the messages produced attitude changes, would these changes last and would they lead to changes in behavior?

Social psychologists have been concerned with questions such as these ever since the discipline began (Allport, 1935; Ross, 1908; see McGuire, 1985). The study of influence has also long been at the heart of many applied psychological fields such as consumer behavior (Bettman, 1986; Kassarjian, 1982; Poffenberger, 1925; Strong, 1925) and clinical and counseling psychology (cf., Frank, 1963; Heppner & Dixon, 1981; Strong, 1968). Nevertheless, after a considerable flourishing of research and theory from the 1920s through the 1960s, interest in the psychology of persuasion began to wane. Two factors were largely responsible for this. First, the utility of the attitude construct itself was questioned as researchers wondered whether attitudes were capable of predicting behavior. Some reasoned that if attitudes did not influence behavior, then it might be time to abandon the attitude concept (Abelson, 1972; Wicker, 1971). Second, so much conflicting research and theory had developed that it had become clear that "after several decades of research, there (were) few simple and direct empirical

generalizations that (could) be made concerning how to change attitudes" (Himmelfarb & Eagly, 1974, p. 594).

Reviewers of the attitudes literature during the early 1970s lamented this sorry state of affairs. For example, in their 1972 Annual Review of Psychology chapter on attitudes, Fishbein and Ajzen wrote: "the attitude area is characterized by a great deal of conceptual ambiguities and methodological deficiencies... It is painfully obvious that what is required at this point in time...is...a rather serious reconsideration of basic assumptions and thoughtful theoretical reanalyses of problems confronting the field" (p. 531-532). Kiesler and Munson concluded their 1975 Annual Review chapter by noting that "attitude change is not the thriving field it once was and will be again" (p. 443).

By the late 1970s, considerable progress had been made in addressing important methodological and theoretical issues regarding the first substantive problem plaguing the field—the consistency between attitudes and behaviors. Conditions under which attitudes would and would not predict behavior were specified (e.g., Ajzen & Fishbein, 1977, 1980; Fazio & Zanna, 1981), and researchers began to explore the processes underlying attitude-behavior correspondence (Sherman & Fazio, 1983; Fazio, 1985). The attitude change problem was slower to be addressed, however. In 1977, Muzifer Sherif posed the question: "What is the yield in the way of established principles in regard to attitude change?" His answer was that there was a "reigning confusion in the area" and a "scanty yield in spite of (a) tremendously thriving output" (p. 370). In a 1978 review that generally heralded the arrival of a new optimism in the attitudes field. Eagly and Himmelfarb noted that "ambiguities and unknowns still abound" (p. 544; for even more optimistic reviews see Cialdini, Petty, & Cacioppo, 1981; Cooper & Croyle, 1984; Eagly, in press).

As we noted above, the major problem facing persuasion researchers was that after accumulating a vast quantity of data and an impressive number of theories, perhaps more data and theory than on any other single topic in the soical sciences (see McGuire, 1985), there was surprisingly little agreement concerning if, when, and how the traditional source, message, recipient, and channel variables (cf., Hovland, Janis, & Kelley, 1953; McGuire, 1969; Smith, Lasswell, & Casey, 1946) affected attitude change. Existing literature supported the view that nearly every independent variable studied increased persuasion in some situations, had no effect in others, and decreased persuasion in still other contexts. This diversity of results was even apparent for variables that on the surface, at least, appeared to be quite simple. For example, although it might seem reasonable to propose that by associating a message with an expert source, agreement could be increased (e.g., see Aristotle's Rhetoric), the accumulated contemporary research literature suggested that expertise effects were considerably more complicated than this (Eagly & Himmelfarb, 1974; Hass, 1981). Sometimes expert sources had the expected effects (e.g., Kelman & Hovland, 1953), sometimes no effects

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were obtained (e.g., Rhine & Severance, 1970), and sometimes reverse effects were noted (e.g., Sternthal, Dholakia, & Leavitt, 1978). Unfortunately, the conditions under which each of these effects could be obtained and the processes involved in producing these effects were not at all apparent.

Our primary goal in this monograph is to outline and provide evidence for a general theory of attitude change, called the Elaboration Likelihood Model (ELM; Petty & Cacioppo, 1981a), which we believe provides a fairly comprehensive framework for organizing, categorizing, and understanding the basic processes underlying the effectiveness of persuasive communications. Importantly, the ELM attempts to integrate the many seemingly conflicting research findings and theoretical orientations under one conceptual umbrella. The ELM began in our attempts to account for the differential persistence of communication-induced attitude change. After reviewing 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, 1977; Petty & Cacioppo, 1978). The first type of persuasion was that which likely occurred 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 other type of persuasion, however, was that which more likely occurred as a result of some simple cue in the persuasion context (e.g., an attractive source) that induced change without necessitating scrutiny of the central merits of the issue-relevant information presented (peripheral route). In the accumulated literature, the first kind of persuasion appeared to be more enduring than the latter (see Petty, 1977, and Cook & Flay, 1978, for reviews; see Chapter 7 for a comparison of the ELM with previous models of attitude persistence).

Following our initial speculation about the two routes to persuasion and the implications for attitudinal persistence, we have developed, researched, and refined a more general theory of persuasion, the ELM, which is based on these two routes. The two routes to persuasion and the ELM were first presented schematically as depicted in Figure 1-1 (Petty, 1977; Petty & Cacioppo, 1978, 1981a), but we have subsequently formalized the ELM in seven postulates that make the major principles of the model more explicit (Petty & Cacioppo, 1986; see Table 1-1). We will present these postulates shortly. In addition, we have addressed the various applications of the model to such fields as psychotherapy and counseling (Cacioppo, Petty, & Stoltenberg, 1985; Petty, Cacioppo, & Heesacker, 1984) and mass media advertising and selling (Cacioppo & Petty, 1985; Petty & Cacioppo, 1983a, 1984b; Petty, Cacioppo, & Schumann, 1984).

The ELM deals explicitly with exposure to persuasive communications, but as we note elsewhere in this volume, the basic principles of the ELM may be applied to other attitude change situations. In the remainder of this chapter we will outline the seven postulates of the ELM. In the next chapter we will provide a methodology for testing the underlying processes outlined

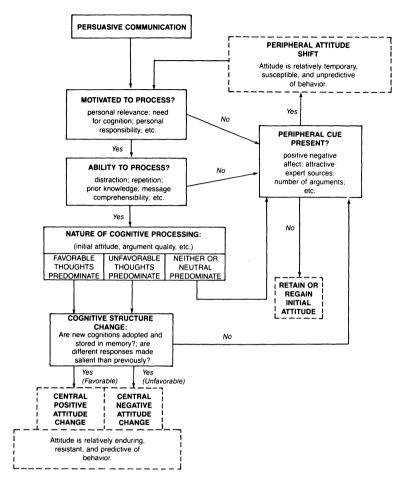


Figure 1-1. Schematic depiction of the two routes to persuasion. This diagram depicts the possible endpoints after exposure to a persuasive communication according to the Elaboration Likelihood Model (i.e., central attitude change, peripheral shift, no change) (adapted from Petty, 1977; Petty & Cacioppo, 1981a, 1986).

by the ELM, and in the remaining chapters in this book we will review our program of research and other relevant studies that address the validity of the major principles of the ELM.

Before presenting the ELM postulates, however, it is important to define our use of the term attitude and the terms influence and persuasion. Consistent with the positions of other attitude theorists (e.g., Thurstone, 1928), we regard attitudes as general evaluations people hold in regard to themselves, other people, objects, and issues. We will use influence as a very general term that refers to any change in these evaluations. We will use

#### Table 1-1. Postulates of the Elaboration Likelihood Model of Persuasion

- 1. People are motivated to hold correct attitudes.
- 2. Although people want to hold correct attitudes, the amount and nature of issuerelevant elaboration in which they are willing or able to engage to evaluate a message vary with individual and situational factors.
- 3. Variables can affect the amount and direction of attitude change by (a) serving as persuasive arguments, (b) serving as peripheral cues, and/or (c) affecting the extent or direction of issue and argument elaboration.
- 4. Variables affecting motivation and/or ability to process a message in a relatively objective manner can do so by either enhancing or reducing argument scrutiny.
- 5. Variables affecting message processing in a relatively biased manner can produce either a positive (favorable) or negative (unfavorable) motivational and/or ability bias to the issue-relevant thoughts attempted.
- 6. As motivation and/or ability to process arguments is decreased, peripheral cues become relatively more important determinants of persuasion. Conversely, as argument scrutiny is increased, peripheral cues become relatively less important determinants of persuasion.
- 7. Attitude changes that result mostly from processing issue-relevant arguments (central route) will show greater temporal persistence, greater prediction of behavior, and greater resistance to counterpersuasion than attitude changes that result mostly from peripheral cues.

persuasion more specifically to refer to any change in attitudes that results from exposure to a communication. A person's general evaluations or attitudes can be based on a variety of behavioral, affective, and cognitive experiences and are capable of guiding behavioral, affective, and cognitive processes. Thus, a person may come to like a new political candidate because she just donated \$100 dollars to the campaign (behavior-initiated change), because the theme music in a recently heard commercial induced a general pleasantness (affect-initiated change), or because the person was impressed with the candidate's issue positions (cognitive-initiated change). Similarly, if a person already likes a political candidate he may agree to donate money to the campaign (behavioral influence), may feel happiness upon meeting the candidate (affective influence), and may selectively encode the candidate's issue positions (cognitive influence).

#### Postulates of the ELM

## Postulate on Underlying Motivation

Our first postulate and an important guiding principle in the ELM agrees with Festinger's (1950) statement that:

#### People are motivated to hold correct attitudes.

Incorrect or improper attitudes are generally maladaptive and can have deleterious behavioral, affective, and cognitive consequences. As Festinger (1954) noted, "the behavioral implication of ... such a drive is that we would expect to observe behavior on the part of persons which enables them to ascertain whether or not their opinions are correct" (p. 118). Of course, as Festinger noted, attitudes or evaluations cannot be correct in any absolute sense. Instead, perceptions of which attitudes are right and which are wrong are necessarily subjective. Attitudes must be judged against some standard. In his influential theory of social comparison processes, Festinger focused on how people evaluated the "correctness" of their opinions by comparing them to the opinions of others. When other people are perceived to hold similar attitudes, one's confidence in the validity of one's own attitude is increased (Holtz & Miller, 1985). As Hovland, Janis, and Kelley (1953) noted, a sense of "rightness" accompanies holding opinions similar to others (p. 137).

In Chapters 4 and 8 we address how the ELM accounts for attitude changes induced by exposure to the opinions of varying numbers of other people. For now, it is important to note that the ELM does not exclusively link a person's subjective assessment of the correctness of an attitude to the number of others who hold this opinion (although as we note later, this may be used in some situations). Instead, there are a variety of standards people might use to determine which attitudes are correct for them. Furthermore, the standards used to judge what is right and what is wrong may differ among people (cf., Kohlberg, 1963), and different standards may be applied in different situations. Ultimately, we suspect that attitudes are seen as correct or proper to the extent that they are viewed as beneficial for the physical or psychological well-being of the person. Before discussing some of the different standards that might be applied, however, we need to outline our next postulate.

Postulate on Variations in Elaboration

Our second postulate states:

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 vary with individual and situational factors.

Postulate 2 recognizes that even though people want to hold correct attitudes, the amount of effort they are willing or able to engage in to hold these attitudes varies widely. Consider a person who is exposed to a message from the Secretary of the Treasury advocating a tax increase/reform package. At one extreme, a person may go to the library to do research, consult tax attorneys, rework his taxes under the new system, and list and consider all of the personal and national pros and cons in an attempt to

determine the desirability of the tax proposal. At the other extreme, a person may favor the proposal based largely on the credibility of the proposer or may reject the proposal based simply on its position (i.e., any tax increase is deemed unacceptable). It may even be possible for a person's attitude to be changed without his awareness if motivation and ability to process are very low and a strong positive or negative affective event becomes associated with the advocacy. The first person in our example has expended considerable cognitive (and physical) effort to evaluate the message, whereas the latter people have expended little effort.

Miller and his colleagues (1975) noted that: "It may be irrational to scrutinize the plethora of counterattitudinal messages received daily. To the extent that one possesses only a limited amount of information processing time and capacity, such scrutiny would disengage the thought processes from the exigencies of daily life" (p. 623). People must therefore choose which messages to scrutinize and which to process as "lazy organisms" (McGuire, 1969) or "cognitive misers" (Taylor, 1981). We assume that the more important it is to hold a correct attitude, the more effort people will be willing to expend in order to evaluate an advocacy. Importantly, even if a person is highly motivated to scrutinize a message, if ability is lacking the person may be forced to rely on simple cues such as source credibility in order to evaluate the message.

#### The Elaboration Continuum

Implicit in Postulate 2 is the notion that one of the best ways for people to form veridical attitudes is to carefully elaborate the information that is perceived relevant to the central merits of the advocacy. By elaboration, we mean the extent to which a person carefully thinks about issue-relevant information. In a persuasion context, elaboration refers to the extent to which a person scrutinizes the issue-relevant arguments contained in the persuasive communication. When conditions foster people's motivation and ability to engage in issue-relevant thinking, the "elaboration likelihood" is said to be high. This means that people are likely to attend to the appeal; attempt to access relevant information from both external and internal sources; scrutinize and make inferences about the message arguments in light of any other pertinent information available; draw conclusions about the merits of the arguments for the recommendation based upon their analyses; and consequently derive an overall evaluation of, or attitude toward, the recommendation. This conceptualization suggests that when the elaboration likelihood is high, there should be evidence for the allocation of considerable cognitive resources to the advocacy. Issue-relevant elaboration will typically result in the new arguments, or one's personal translations of them, being integrated into the underlying belief structure (schema) for the attitude object (Cacioppo & Petty, 1984a). As we will note shortly, sometimes this issue-relevant elaboration proceeds in a relatively objective manner and is governed mostly by the issue-relevant arguments presented, but at other

times this elaboration is more biased and may be guided more by the person's initial attitude.

We view the extent of elaboration recieved by a message as a continuum going from no thought about the issue-relevant information presented, to complete elaboration of every argument, and complete integration of these elaborations into the person's attitude schema. The likelihood of elaboration will be determined by a person's motivation and ability to evaluate the communication presented (see Figure 1-1). In the ELM, motivational variables are those that affect a person's rather conscious intentions and goals in processing a message. Features of the persuasive message itself (e.g., is the topic of high or low personal relevance?), the persuasion context (e.g., is a forewarning of persuasive intent provided?), and the message recipient (e.g., is the person high or low in "need for cognition"?) can all affect the intensity with which a person chooses to process a message and the direction of that processing (see further discussion of motivational variables in Chapters 4 and 5). Ability variables in the ELM are those that affect the extent or direction of message scrutiny without the necessary intervention of conscious intent. Features of the message itself (e.g., is it understandable?), the persuasion context (e.g., is external distraction present?), and the message recipient (e.g., how much topic-relevant knowledge does the person have?) can all determine whether or not the person is capable of elaborating upon the message (see further discussion of ability variables in Chapter 3). Our conceptualization of motivation and ability therefore has parallels to Heider's (1958) concept of "trying" (motivation) and "can" (ability; see Chapter 9 for further discussion).

In an earlier review of the attitude change literature (Petty & Cacioppo, 1981a), we suggested that the many theories of attitude change could be roughly placed along an elaboration likelihood continuum (cf., Palmerino, Langer, & McGillis, 1984). At the high end of this continuum are theoretical orientations such as inoculation theory (McGuire, 1964), cognitive response theory (Greenwald, 1968; Petty, Ostrom & Brock, 1981a), information integration theory (Anderson, 1981), and the theory of reasoned action (Ajzen & Fishbein, 1980; Fishbein, 1980), which make the assumption that people typically attempt to evaluate carefully (though not always successfully) the information presented in a message and integrate this information into a coherent position. Researchers within this tradition have emphasized the need to examine what kinds of arguments are persuasive and how variables affect the comprehension, elaboration, learning, integration, and retention of issue-relevant information (McGuire, 1985).

Other persuasion theories do not place much credence on the arguments in a message or issue-relevant thinking. Instead, they focus on how simple affective processes influence attitudes without much conscious thought or on how people can employ various rules, inferences, or heuristics to judge their own attitudes or the acceptability of an attitudinal position. Although in most laboratory studies of attitude change, subjects will have some

motivation and/or ability to form at least a reasonable opinion either by scrutinizing arguments or making an inference about the acceptability of the message based on cues in the context, there are circumstances in which neither arguments nor acceptance cues are present. For example, when nonsense syllables are employed (Staats & Staats, 1957) or polygons are presented subliminally (Kunst-Wilson & Zajonc, 1980), no elaboration of arguments is possible because none are presented, and validity cues may be irrelevant because there is no explicit "advocacy" to judge. Theories such as classical conditioning (Staats & Staats, 1957) and mere exposure (Zajonc, 1968: 1980), which describe evaluations of objects changing as a result of rather primitive affective and associational processes, are especially relevant under these circumstances. Although these theories have been tested and applied primarily in situations where no explicit "advocacy" is presented, they should also be applicable to situations in which an issue position is advocated, but people have virtually no ability and/or motivation to consider it. In these situations, attitudes may still be changed if the attitude object is associated with a relatively strong positive or negative affective cue. or if a weaker cue is continually paired with the attitude object.

Whether or not strong affective cues are presented, it is also possible for people to form a "reasonable" attitude without relying on scrutiny of the issue-relevant arguments presented by relying on various persuasion rules or inferences that may be either rather simple or relatively complex. For example, according to self-perception theory (Bem. 1972), people may come to like or dislike an object as a result of a simple inference based on their own behavior (e.g., if I bought it, I must like it). According to the heuristic model of persuasion (Chaiken, 1980; Eagly & Chaiken, 1984), people may evaluate messages by employing various rules that they have learned on the basis of past experience (e.g., people agree with people they like). In social judgment theory (Sherif & Sherif, 1967), it is proposed that people evaluate messages mostly on the basis of their perceived position—messages are contrasted and rejected if they appear too discrepant (fall in the latitude of rejection), but are assimilated and accepted if they appear closer to one's initial position (fall in the latitude of acceptance; Pallak, Mueller, Dollar, & Pallak, 1972). In addition to the relatively simple acceptance/rejection rules proposed by the preceding models, more complex reasoning processes such as those invoked by balance (Heider, 1946; Insko, 1984) and attribution (Kelley, 1967; Eagly, Wood, & Chaiken, 1978) theories may also be used to evaluate messages without requiring scrutiny of the issue-relevant arguments presented. For example, a recipient may attribute credibility to a speaker and accept the message because the source appears to be arguing against his own best interests (e.g., Eagly, Chaiken, & Wood, 1978).

<sup>&</sup>lt;sup>1</sup>See Insko (1981) for an extension of balance theory to include arguments processing.

Importantly, even though this attributional acceptance may require cognitive activity, the "peripheral route" to persuasion has still been followed because the cognitive activity is not spent personally evaluating the actual merits of the issue-relevant arguments presented by the speaker.

In sum, we have proposed that when either motivation or ability to process issue-relevant arguments is low, attitudes may be changed by associating an issue position with various affective cues, or people may attempt to form a reasonable opinion by making inferences about the likely correctness or desirability of a particular attitude position based on cues such as message discrepancy, one's own behavior, and the characteristics of the message source.

### Developmental Trends in Elaboration

Interestingly, the attitude change processes that we have just described form an elaboration continuum that may coincide with the manner in which attitude change processes (and the subjective determination of right and wrong) develop through adulthood. Specifically, the very young child probably has little motivation to think about the true merits of people, objects, and issues, and even less ability to do so. Thus, attitudes may be affected primarily by what feels good or bad. As children mature, they become more motivated to express correct opinions on certain issues, but their ability to scrutinize issue-relevant arguments is still poor. Therefore, they may be particularly reliant on what others say and do and certain cognitive rules developed from experience such as, "My mother knows what's right," or "If I play with it, I must like it." Consistent with this reasoning, children have been shown to be more susceptible to appeals based on behavioral cues and self-perceptions than issue-relevant argumentation (e.g., Miller, Brickman, & Bolen, 1975).

Finally, as people move into adulthood, interests become more focused and the consequences of holding correct opinions on certain issues increase. In addition, as people's acquired knowledge and cognitive skills grow, this renders them more able to critically analyze issue-relevant information on certain topics and makes them less reliant than children on certain primitive heuristics (cf., Ross, 1981). As we noted earlier, of course, although people may have the requisite ability and motivation to scrutinize certain attitude issues, they will lack motivation and ability on others. Thus, simple inferences and affective cues may still produce attitude change in adults.

In sum, one's initial evaluations are likely to be largely hedonistic and because one lacks the motivation and/or ability to consider issue-relevant arguments, attitudes will be based primarily on positive and negative affective cues associated with the attitude object. As development proceeds, some attitudes may be formed on the basis of social attachments, simple inferences, and decision rules. Finally, the formation and change of some attitudes becomes a very thoughtful process in which issue-relevant information is scrutinized carefully and evaluated in terms of existing

knowledge and values. Importantly, our sequence of the developmental stages of influence is consistent with other developmental models of judgment. For example, in discussing the development of moral standards of correctness, Kohlberg (1963) identifies three developmental levels. At the first level (preconventional), moral evaluations are based primarily on the affective consequences of an act. At level 2 (conventional), evaluations of acts are based primarily on socially accepted rules and laws. Finally, at level 3 (postconventional), an evaluation of an act is based on a person's idiosyncratic but well-articulated moral code. The parallels to our stages of influence are obvious.

Although we have argued that there is a continuum of message elaboration ranging from none to complete, and that different attitude change processes may operate along the continuum, it is also important to note that these different theoretical processes can be viewed in their extreme cases as specifying just two qualitatively distinct routes to persuasion. The first route, which we have called the "central route," occurs when motivation and ability to scrutinize issue-relevant arguments are relatively high. The second, or "peripheral route," occurs when motivation and/or ability are relatively low and attitudes are determined mostly by positive or negative cues in the persuasion context that either become directly associated with the message position or permit a simple inference as to the validity of the message. In short, even though one can view message elaboration as a continuum, we can distinguish persuasion that is primarily a result of issuerelevant thinking from persuasion that is primarily a result of some cue in the persuasion context that permits attitude change without argument scrutiny. In fact, we will find it useful elsewhere in this volume to talk about the elaboration likelihood continuum by referring to the prototypical processes operative at each extreme.

#### Additional Distinctions about the Extent of Thinking

The ELM is not unique, of course, in its view that the type or amount of cognitive effort expended by people varies from situation to situation. In fact, current research in cognitive and social psychology strongly supports the view that at times people engage in "controlled," "deep," effortful," and/or "mindful" analyses of stimuli, and at other times the analyses are better characterized as "automatic," "shallow," "heuristic," and/or "mindless" (see Craik, 1979; Eagly & Chaiken, 1984; Kahneman, Slovic, & Tversky, 1982; Langer, 1978; and Schneider & Shiffrin, 1977). Before proceeding with our other postulates, it would be instructive to briefly compare the ELM with its elaboration continuum and central and peripheral routes to persuasion with some of the more prominent processing distinctions from cognitive psychology.

Automatic versus controlled processing. Automatic and controlled processes have been proposed to distinguish between types of processing that are

under the control of the person and those that are not (Laberge & Samuels, 1974; Schneider & Shiffrin, 1977; Shiffrin & Schneider, 1977). Automatic processes are characterized by effortlessness and by the absence of capacity limitations. Posner and Snyder (1975, p.55), for instance, proposed that an automatic process occurs without intention, without giving rise to conscious awareness, and without interfering with ongoing mental activity. Bargh (1984) has argued that automatic processes are those under the immediate control of the environment, requiring no conscious intervention of any kind. Controlled processing, in contrast, requires attention, gives rise to awareness, is flexible and easily adapted to the particular features of a given situation, is severely limited by the available processing capacity, and interferes with other processing.

Langer's (1975, 1978, 1982; Langer, Blank, & Chanowitz, 1978) notions of "mindlessness" and "mindfulness" embody a distinction analogous to automatic and controlled processes. Langer has argued that people progress through their social environment relying much more on habit and less on problem-solving activities than has been assumed:

We typically have assumed that virtually all behavior other than overlearned motor acts are performed with conscious awareness. Perhaps a more efficacious strategy is one that assumes that by the time a person reaches adulthood, (s)he has achieved a state of "ignorance" whereby virtually all behavior may be performed without awareness... unless forced to engage in conscious thought. (Langer, Blank, Chanowitz, 1978, p. 48, italics added)

Recently, Langer, Chanowitz, and Blank (1985) have clarified their earlier position and distinguish between "mindful" and "mindless" cognitive activity:

When mindful, the individual was presumed to be actively drawing distinctions, making meaning, or creating categories. When mindless, the individual was said to rely on distinctions already drawn... Further, mindless activity does not imply the absence of all cognitive activity—just the absence of flexible cognitive processing. Under such circumstances, individuals are neither reasoning well nor reasoning badly about the significance of the environment. They are not reasoning at all. (p. 605, italics added)

That is, the distinction between mindfulness and mindlessness appears to be analogous to the distinction between automatic and controlled processing.

Although traveling the central route clearly involves controlled processing, the central/peripheral distinction is not synonymous with the automatic/controlled distinction. When the elaboration likelihood is high, there should be evidence for the allocation of cognitive resources to the issue under consideration. Hence, central processing is a particular kind of controlled process—one directed at evaluating the merits of the arguments for a recommendation. Although automatic inputs are possible, as when one's prior knowledge influences how one interprets message-relevant

information (see Chapter 5), the deliberations themselves require attention, give rise to awareness, are flexible and easily adapted to the particular features of a given situation, are severely limited by the available processing capacity, and can interfere with other processing.

As factors in the persuasion setting reduce the recipients' motivation or ability to think about an issue, there is a reduction in the likelihood that the recipients will try to evaluate the merits of the recommendation by relating the incoming information to their prior knowledge about and experiences with the attitude object. The concept is that when the "elaboration likelihood" is low, individuals will not utilize much in the way of cognitive resources, or they will expend much of their cognitive resources on another task. As we noted earlier, in peripheral processing individuals are more likely to adopt a strategy in which they attempt to derive a "reasonable" attitude based on existing schemata and superficial analyses of the veracity of the recommendation. That is, when the elaboration likelihood is low, the acceptance or rejection of the appeal is not based on the careful consideration of issue-relevant information and consequent restructuring of schemata, but rather it is based on the issue or object being associated with positive or negative cues (an association of which the individuals may or may not be aware), or with the individual's drawing a simple inference based on various cues in the persuasion context. Hence, although a peripheral route to attitude change could conceivably rely on an automatic process (e.g., frequency/liking; see Zajonc, 1980), they are not synonymous.

An analogy may help to clarify the distinction we wish to draw between the processes involved when traveling the central versus peripheral route to persuasion. Consider first the case of a student who has studied diligently for an exam. The student knows the material over which he is being tested. reads each test question and set of answers, relates this incoming information to what he remembers about the material, attempts to integrate these various data, and selects the option that is judged to be the most veridical. This manner of processing the material corresponds to the message processing that we have suggested is invoked when the elaboration likelihood is high in a persuasion context. There is no guarantee that the student's responses will be correct or that his attempts to relate the material from the test question to the prior knowledge he has about the topic will necessarily be logical or rational. However, the student's responses are more likely to be reliable (enduring) and correct than if his answers were based on a simpler, more peripheral analysis of the question. Note, too, that the student's comprehension of the question and memory of material relevant to the topic are important but distal mediators of his response to the question; these factors affect how the student interprets, elaborates upon, and evaluates the incoming information, but it is the nature of the topicrelevant thinking that is viewed here as being the proximal determinant of the student's response to the question.

The responses of this student, who went through the diligent and effortful

process of evaluating the merits of the various options, can be contrasted to the reactions of a student who, because he either does not care (i.e., low motivation) or does not know the material (i.e., low ability), reads each question and set of answers but fails to relate the incoming information to memorial information that is related specifically to the topic in question. The responses of this student are not necessarily random or irrational, but rather they can reflect the operation of simple and sometimes specious decisional rules evoked by peripheral cues, such as the position of the answer within the set of answers (e.g., "a" is seldom the correct answer) or previous responses (e.g., "c" was marked twice previously, so I'll try "b"). Note that the incoming information may still be deliberately related to prior knowledge (i.e., may still invoke controlled processes), but this body of knowledge applies to test-taking in general and not specifically to the merits of the person's various options for a particular question. Thus, as the student's "elaboration likelihood" decreases, obvious features in the testing (or persuasion) setting that signal which option is likely to be acceptable or correct are more likely to be used to cue him regarding the option to adopt even though all of the externally provided information may well be comprehended and recalled.

Cognitive effort. Another prominent processing distinction in cognitive psychology is between "effortful" and "effortless" information processing. Briefly, cognitive effort refers to the amount of cognitive capacity expended on a task (Tyler, Hertel, McCallum, & Ellis, 1979). This distinction, too, shares the assumption that people are neither invariantly cogitative nor universally mindless when dealing with their world. Moreover, we believe that in most natural circumstances people will expend more cognitive effort when evaluating the merits of the arguments for a recommendation (central route) rather than forming their attitudes based on prior conditioning or by using some simple decisional rule (peripheral route). However, elaboration rather than cognitive effort is the crucial dimension here. Recall that by elaboration we mean the process of relating the to-be-elaluated recommendation and arguments to other issue-relevant information in memory. Elaboration, therefore, typically results in the self-generation of information unique to the externally provided communication.<sup>2</sup> Cognitive

<sup>&</sup>lt;sup>2</sup>The term "elaboration" also appears in the experimental psychological literature in discussions of encoding activities. For instance, Craik and Watkins (1973) discriminated between "maintenance rehearsal" and "elaborative operations." Maintenance rehearsal is simply repetitive rehearsal, as one might do when trying to remember a telephone number until it is dialed. The elaborative process, on the other hand, is described as a "meaningful connections strategy" wherein subjects form associations, sentences, and images when encoding a stimulus. In an illustrative study, Craik and Tulving (1975) manipulated "elaboration" by varying the amount of information expressed in stimulus sentences. For example, subjects might

effort will tend to covary with message elaboration, therefore, because one feature of message elaboration is the use of cognitive resources in evaluating the merits of a recommendation. However, message elaboration is not the only cause of cognitive effort in persuasion contexts, and hence these constructs cannot be equated. For instance, consider a hypothetical study in which half of the subjects received a personally involving counterattitudinal text in which interfering labels have been embedded, whereas half of the subjects received the same communication without interfering labels embedded. Although message processing in the former condition should require more cognitive effort (cf., Zacks, Hasher, Sanft, & Rose, 1983), the embedded labels might also interfere with subjects' attempts to evaluate the implication and merits of the message arguments and, hence, *lower* elaboration likelihood (Petty, Cacioppo, & Heesacker, 1981; Petty, Wells, & Brock, 1976).

Levels of processing. The "levels" of processing" framework was proposed by Craik and Lockhart (1972) who argued that what is remembered about a particular event will be what was attended to when the event was experienced, and semantic or meaningful features support better retention than do nonsemantic features. The distinction between the central and peripheral routes to persuasion, on the other hand, is based more on the direction than the depth of cognitive activity. Central processing presupposes that the persuasive communication is being processed semantically, whereas peripheral processing can be based on semantic or nonsemantic processing. Under conditions of high elaboration likelihood, however, the person's cognitive activity is directed at relating the information in a persuasive appeal to what is already known about the topic

be asked to state whether the noun "watch" fits into a relatively unelaborated sentence frame such as "He dropped the \_\_\_\_\_," or a more elaborated sentence frame such as "The old man hobbled across the room and picked up the valuable \_ from the mahogany table." After acquisition, participants were supplied with the sentence frames originally heard during acquisition and were tested for cued recall of the target nouns. Results revealed an increase in cued-recall as the elaborateness of the sentence frames increased—but only when the sentence frames were congruous with the target nouns. Elaboration is important in these cognitive models because of the links between elaborative encoding operations and subsequent recall of the initial stimulus. Although cognitive psychologists use elaboration to refer to any information added to the original stimulus, whether provided by the experimenter or generated by the subject, we mean more specifically information added by the subject in the process of vigilantly scrutinizing the arguments and information in memory bearing specifically on the desirability of a persuasive recommendation. Moreover, the link of interest in the ELM is not between an externally provided stimulus and recall as in cognitive psychology, but between the self-generated issue-relevant thoughts (i.e., elaborations) and attitudes.

in order to evalute the merits of a recommendation and thereby identify the most veridical position on an issue. Under conditions of low elaboration likelihood, on the other hand, the person may be engaged in a great deal or in very little cognitive activity; the person may be cognizant of searching for and selecting a simple affective cue or decisional rule with which to respond to the appeal (as illustrated in the example above of the student taking a test for which he was unprepared) or she may not. The critical feature is that a person's prior knowledge dealing specifically with the topic under consideration and the inferences one might draw from the externally provided message arguments are less likely to be considered in reponse to the persuasive appeal when the elaboration likelihood is low.

#### Postulate on How Variables Affect Persuasion

Now that we have reviewed our major guiding assumptions and compared the ELM processing continuum with others, we are ready to list the unique postulates that are directly relevant to persuasion. Our next postulate lists the three major ways in which variables can have an impact on attitude change.

Variables can affect the amount and direction of attitude change by (a) serving as persuasive arguments, (b) serving as peripheral cues and/or (c) affecting the extent or direction of issue and argument elaboration.

In subsequent chapters of this volume we discuss how many of the typical source, message, recipient, channel, and context variables manipulated in the accumulated persuasion literature can be understood in terms of the three-part categorization above. In the next chapter we provide further discussion of these constructs and provide a methodology for assessing them. In this section we will provide a brief conceptual overview of the constructs so that we can move on to the remaining postulates.

#### Argument Quality

In the ELM, arguments are viewed as bits of information contained in a communication that are relevant to a person's subjective determination of the true merits of an advocated position. Because people hold attitudes for many different reasons (Katz, 1960; Smith, Bruner, & White, 1956), people will invariably differ in the kinds of information they feel are central to the merits of any position. In discussing the application of the ELM to consumer behavior, we provided the following example:

Consider an advertisement for cigarettes that depicts a man and a woman on horseback riding through majestic mountain terrain. At the bottom of the ad is the headline, "20 REASONS WHY CALBOROS ARE BEST," along with a list of twenty statements. Will attitude changes induced because of this ad occur via the central or the peripheral route? Our framework suggests that in evaluating or designing an ad for a particular product, it is extremely important to know what information dimensions are important for people who desire to evaluate the true merits or

implications of the product (in this case, cigarettes). On the one hand, to smokers over fifty, the most important information may relate to the health aspects of the brand (for example, tar content). For this group, an effective ad would likely have to present considerable information about the medical consequences of the brand if it were to be effective in inducing influence via the central route. If the twenty statements listed in the ad presented cogent information about the health aspects of Calboros over competing brands, favorable thoughts may be rehearsed, and a relatively permanent change in attitudes that had behavioral implications might result. On the other hand, for teenage smokers, who may be more concerned with impressing their peers than with their health, the major reason why they smoke may relate to the image of the particular brand (for example, "tough man," "independent woman"; see Chassin et al., 1981). For this group, the presentation of the rugged outdoor images might provide important product-relevant information that would elicit numerous favorable thoughts and enduring attitude changes with behavioral consequences. It is interesting to note that for nonsmokers over fifty (an uninvolved group), the majestic scenery might serve as a peripheral cue inducing momentary liking for the brand and that for teenage nonsmokers, the twenty statements might lead to momentary positive evaluations of the brand because of the simple belief that there are many arguments in favor of it. (Petty & Cacioppo, 1983a, pp. 21-22)

This example makes it clear that the kind of information that is relevant to evaluating the central merits of a product or issue may vary from situation to situation and from person to person. A compelling demonstration of this is provided by a recent series of studies by Snyder and DeBono (1985). These authors reasoned that people who score highly on the self-monitoring personality scale (Snyder, 1974) should be especially susceptible to advertisements employing an "image" campaign. This is because high selfmonitors are very concerned with the images they convey in social situations (Snyder, 1979). Low self-monitors, on the other hand, were postulated to be less concerned with image and more concerned about the specific attributes of the product. In one test of these notions, Snyder and DeBono exposed high and low self-monitors to image or attribute ads for products. For example, one image-oriented ad depicted a man and woman smiling at each other in a candle lit room drinking coffee. The slogan read: "Make a chilly night become a cozy evening with Irish Mocha Mint." The attribute version of this ad contained the same picture but read: "Irish Mocha Mint: A delicious blend of three great flavors—coffee, chocolate, and mint." After exposure to either three image or three attribute ads. subjects were asked to indicate how much they would be willing to pay for each of the advertised products. High self-monitoring individuals were willing to pay more for the products advertised with the image campaign, but low self-monitoring individuals were willing to pay more for the products advertised with the attribute messages. Importantly, Snyder and DeBono view both high and low self-monitoring individuals as following the central route to persuasion, and we concur since both groups of subjects appear to be attempting to evalute the central merits of the product.

However, what features are believed to be central differ between high and low self-monitors. The important point is that in the ELM, the term "arguments" refers to any information contained in a message that permits a person to evaluate the message target (e.g., issue, object, person) along whatever target dimensions are central for that person.

It is important to note that in our own research presented in the remainder of this volume, we have studied attitude objects (e.g., the institution of comprehensive exams for college seniors) for which for most people, cognitive considerations are likely to be central to a determination of merit. For other issues, however, it is quite reasonable to suppose that affective or behavioral considerations are central to a determination of merit. The ELM recognizes that people can scrutinize or elaborate upon feelings and behaviors as well as beliefs if they are perceived central to the merits of the attitude object under consideration. In short, just as peripheral cues can be based on affective, cognitive, or behavioral factors (see Chapter 6), a person's perception of the central merits of an attitude object can be based on these domains as well. In the next chapter, we will be more specific about how we have operationalized agrument quality in our research.

## Peripheral Cues

In the ELM, peripheral cues refer to stimuli in the persuasion context that can affect attitudes without necessitating processing of the message arguments. As we indicated earlier, some stimuli may influence attitudes by triggering relatively primitive affective states that become associated with the attitude object. Various reinforcing (e.g., food; Janis, Kaye, & Kirschner, 1965) and punishing (e.g., electric shock; Zanna, Kiesler, & Pilkonis, 1970) stimuli have proven effective in this regard. Other stimuli work, however, because they invoke guiding rules (e.g., balance; Heider, 1946) or inferences (e.g. self-perception, Bem, 1972). In the next chapter we will describe some methods for determining whether a stimulus is serving as a peripheral cue.

## Message Elaboration

The third way in which a variable can affect persuasion is by influencing the extent or direction of message elaboration. We have already defined what we mean by "elaboration," and have noted that the extent of elaboration can range from very little to very much. In Chapter 2 we outline various procedures for gauging the extent of processing induced by a message. It is important to note, however, that in addition to the quantitative dimension of extent of processing, the ELM also makes a more qualitative distinction between elaboration that is relatively objective versus elaboration that is more biased (Petty & Cacioppo, 1981a). By relatively objective elaboration, we mean that some variable either motivates or enables people to see the strengths of cogent arguments and the flaws in specious ones, or inhibits them from doing so. By relatively biased processing, we mean that a variable either motivates or enables people to generate a particular kind of thought

(favorable or unfavorable) in response to a message, or inhibits particular thoughts. Our next two postulates deal more specifically with these two kinds of processing.

Postulates on Relatively Objective and Relatively Biased Elaboration

Variables affecting motivation and/or ability to process a message in a relatively objective manner can do so by either enhancing or reducing argument scrutiny.

Variables affecting message processing in a relatively biased manner can produce either a positive (favorable) or negative (unfavorable) motivational and/or ability bias to the issue-relevant thoughts attempted.

In the strictest sense, when a person is *motivated* to process a message in a relatively objective manner, this means that the person is trying to seek the truth wherever it might lead. This, of course, does not ensure that the person will come to the truth, only that the person is attempting to do so. When a person has the *ability* to process a message in a relatively objective manner, this means that the person has the requisite knowledge and opportunity to consider the arguments impartially. When a variable enhances argument scrutiny in a relatively objective manner, the strengths of cogent arguments should become more apparent as should the flaws in specious ones. Similarly, when a variable reduces argument scrutiny in a unbiased fashion, the strengths of cogent arguments should become less apparent as should the flaws in specious ones.

In contrast to this relatively objective processing, when a variable affects the motivation to process in a relatively biased manner, this means that the variable encourages or inhibits the generation of either favorable or unfavorable thoughts in particular. When a variable affects the ability to process in a relatively biased manner, this means that the person's knowledge base or situational factors make it more likely that one side will be supported over another. Our distinction between relatively objective and biased processing has certain parellels with the cognitive distinction between "bottom-up" and "top-down" processing. Specifically, objective processing has much in common with bottom-up processing because the elaboration is postulated to be relatively impartial and guided by the data (message arguments) presented. Biased processing has more in common with top-down processing because the elaboration may be governed, for example, by a relevant attitude schema that guides processing in a manner favoring the maintenance or strengthening of the original schema (cf., Bobrow & Norman, 1975; Landman & Manis, 1983).

As we will document in subsequent chapters, there are many variables that determine the extent and direction of message elaboration. For example, the motivation to process a message increases as it becomes more important or adaptive to form a correct position, such as when an advocacy portends a large number of personal consequences (Petty & Cacioppo,

1979b). This enhanced processing is likely to be largely objective when the person has relatively little investment in which particular position turns out to be the best. For example, consider a couple buying a home for the first time. They would like to obtain the best mortgage, but which particular bank is ultimately deemed best does not matter. Rather, it is obtaining the best loan that is important. Elaboration is more likely to be biased when some threat is associated with adopting one position over another (e.g. deciding if one's children are delinquents). Of course, pure cases of objective or biased processing may be rare since competing motives are likely in many situations and people may often have somewhat more information on one side of an issue than another. Nevertheless, it is possible and useful to distinguish message processing that is relatively objective from that which is relatively biased. In the next chapter we describe procedures for doing this, and in Chapters 3 to 6 we discuss some of the more important variables affecting message processing in either a relatively objective or relatively biased manner.

## Postulate on Elaboration versus Peripheral Cues

We have now argued that the elaboration of a persuasive message may proceed in a relatively objective or in a relatively biased manner. However, in some persuasion contexts people may be unmotivated or unable to engage in either kind of message elaboration. Our next postulate indicates that there is a tradeoff between message elaboration and the effectiveness of peripheral cues.

As motivation and/or ability to process arguments is decreased, peripheral cues become relatively more important determinants of persuasion. Conversely, as argument scrutiny is increased, peripheral cues become relatively less important determinants of persuasion.

When situational and individual factors foster a high elaboration likelihood, people will scrutinize the message, though this processing may occur in a relatively objective or in a relatively biased way. Importantly, following the central route to persuasion requires both the motivation and the ability to elaborate the message. If ability is high, but motivation is low at the time of message exposure, little argument processing will occur. Instead, if any influence occurs at all, it will be the result of simple positive or negative cues that become associated with the advocacy, or simple inferences based on cues that permit the adoption of a subjectively reasonable position while conserving cognitive resources. However, if the person subsequently becomes motivated to process the issue, attitude change may occur via the central route. Whether the argument elaboration in the later processing will be relatively objective or biased will depend on a number of factors such as the number and kind of message arguments. people recall. For example, to the extent that people tend to better remember arguments on their own side of the issue, or weak rather than strong

arguments that are opposed to their position, the subsequent processing of the advocacy is likely to be highly biased.

If motivation to process the message is high, but ability is low, the person will want to process the message arguments, but will be unable to do so. In this case, the person is likely to engage in whatever processing is possible and may be forced to rely on shortcut inferences about message validity based on peripheral cues in the persuasion context. Again, if ability to process the arguments is subsequently acquired and motivation remains high, attitude changes via the central route may occur. When both motivation and ability to process the message are low, any influence that occurs will be the result of peripheral cues. In short, we postulate a tradeoff between argument elaboration and the operation of peripheral cues. As argument processing is reduced, whether objective or biased, peripheral cues become more important determinants of persuasion. In Chapter 6 we review the evidence relevant to this postulate.

## Postulate on Consequences of Elaboration

In the preceding postulates we have outlined how the ELM accounts for the initial attitude changes induced by persuasive communications, and we have detailed the two routes to persuasion. Our last postulate specifies the different consequences of attitude changes induced via the central and the peripheral routes.

Attitude changes that result mostly from processing issue-relevant arguments (central route) will show greater temporal persistence, greater prediction of behavior, and greater resistance to counterpersuasion than attitude changes that result mostly from peripheral cues.

There are several reasons why these differential consequences would be expected. Recall that under the central route, attitude changes are based on a thoughtful consideration of issue-relevant information and an integration of that information into an overall position. Under the peripheral route, however, an attitude is based on a simple cue that provides some affective association or allows some relatively simple inference as to the acceptability of the advocacy. Thus, attitude changes induced via the central route involve considerably more cognitive work than attitude changes induced under the peripheral route. The process of elaborating issue-relevant arguments involves accessing the schema for the attitude object in order to evaluate each new argument (e.g., by comparing it to information previously stored in memory). Under the peripheral route, however, the schema may be accessed only once to incorporate the affect or inference elicited by a salient cue. Or a peripheral schema unrelated to the issue-schema may be invoked in order to evaluate the cue (e.g., Is the source credible?). Under the central route then, the issue-relevant attitude schema may be accessed, rehearsed. and manipulated more times, strengthening the interconnections among the

components and rendering the schema more internally consistent, accessible, enduring and resistant than under the peripheral route (cf., Crocker, Fiske, & Taylor, 1984; Fazio, Sanbonmatsu, Powell, & Kardes, 1986; McGuire, 1981). Our analysis asumes, of course, that we are comparing subjects who have processed a message and have changed via the central route to subjects who have processed the same message and have changed to the same degree, but via the peripheral route. It may be possible to produce attitudes via the peripheral route that have some of the same characteristics (e.g., persistence, accessibility) as those produced via the central route, but more message and cue exposures should be required to achieve the same result (e.g., Johnson & Watkins, 1971; Weber, 1972).

The greater the accessibility of the information supporting an attitude, the greater the likelihood that the same attitude will be reported over time if people consider their prior knowledge before reporting their attitudes. Even if people don't scan their store of attitude-relevant information before reporting their attitudes in some circumstances (Lingle & Ostrom, 1981), the greater accessibility and endurance of the attitude itself would enhance the likelihood that the same attitude would be reported at two points in time. Also, the greater the accessibility of the information supporting the attitude and the more well organized it is, the greater the likelihood that this attitude-relevant knowledge can be used to defend the attitude from subsequent attack. Finally, the greater the accessibility of the attitude itself and the more well-organized it is, the greater the likelihood that it will guide behavior (Fazio, Chen, McDonel, & Sherman, 1982; Fazio & Williams, 1985; Norman, 1975).

In sum, the greater organization and accessibility of attitudes and attitude-relevant information for persuasion occuring via the central than the peripheral route render people more able to report the same attitude over time, to defend their beliefs, and to act on them. A motivational factor may also be relevant, however. Specifically, the process of scrutinizing issuerelevant arguments may generally be more deliberate than the processes of affective association and the invocation of well-rehearsed (even automatic) decision rules (Cialdini, 1984, 1985). Thus, changes induced under the central route may be accompanied by the subjective perception that considerable thought accompanied opinion formation. This perception may induce more confidence in the attitude, and attitudes held with more confidence may be more likely to be reported over time, to be slower to be abandoned in the face of counterpropaganda, and to be more likely to be acted upon. In Chapter 7 we review the evidence for the differential consequences of the route to persuasion and we compare the ELM to some alternative models of attitude persistence, resistance, and attitude-behavior correspondence.

Although the consequences of attitude change via the central route are quite desirable, the ELM makes it clear that this is a difficult persuasion strategy. The recipient of the message must have both the motivation and

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the ability to process the information contained in the communication, and the information presented must elicit a profile of thoughts (elaborations) that is more favorable than that available prior to message exposure. In basic experimental work on persuasion which is designed to test theories, it is possible to select topics for which strong comprehensible arguments can be constructed (even if that requires fabricating information), and to select situations and contexts in which people are likely to attend to and process these arguments. In the "real world," there are often constraints on the topics, arguments, and settings that can be employed. For example, the intended audience may be able to counterargue the only arguments available; or, the arguments may be compelling, but too complex to be understood fully by the audience. In many cases, the problem in inducing attitude change via the central route is even more basic—just motivating people to attend to and think about the message presented (in Chapter 4 we discuss variables that can increase motivation to process a message).

Given the difficulty of change via the central route, it is not surprising that what we have labeled the peripheral route is a popular and potentially successful persuasion strategy when the only available arguments are weak and/or the elaboration likelihood is low. Since persuasion via this route is postulated to be short lived, however, it will be necessary to constantly remind the targeted audience of the cue or cues upon which favorable attitudes are based. These constant reminders (accomplished, for example, via advertising repetition, political posters, etc.) may be sufficient to get the audience to buy certain products or vote for certain candidates. Interestingly, once a person has made a decision and voted for a candidate or purchased a product, motivation (e.g., due to increased personal relevance or personal responsibility) and ability (e.g., due to increased knowledge) to process any subsequent information received about the attitude object may be enhanced. This of course, could ultimately lead to attitudes that are persistent, resistant, and predictive of future behavior.

# Retrospective

In this chapter we have reviewed the seven postulates of the Elaboration Likelihood Model of persuasion. We have argued that people want to be "correct" in their attitudes and opinions but that they are not always willing or able to personally evaluate the merits of the issue-relevant arguments presented in support of an appeal. When people do elaborate issue-relevant arguments, this processing may proceed in either a relatively objective or in a relatively biased manner. When motivational and ability variables render the likelihood of issue-relevant elaboration as low, however, then attitudes may still be changed if simple positive or negative cues in the persuasion context either become directly associated with the advocacy or provide the basis for inferences that allow a subjective determination of the desirability

of the advocacy. Attitude changes based on extensive elaboration of issuerelevant arguments (central route) are postulated to be more persistent, resistant, and predictive of behavior than attitude changes based on simple cues (peripheral route). In the next chapter we discuss methodological factors relevant to testing the ELM and in the remainder of this volume we present the empirical evidence for the ELM.