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CHAPTER 26

GENERAL FRAMEWORK FOR THE STUDY OF ATTITUDE CHANGE IN PSYCHOTHERAPY

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In opinion change research, a communicator attempts to influence his audience in a predetermined direction; in counseling, the counselor attempts to influence his client to attain the goals of counseling. In both fields . . . characteristics of the communicator . . . the audience, and . . . the communication affect the success of influence attempts. (Strong, 1968, p. 215)

is so dominant that it can emerge prior to people's recognition of what specifically are the discriminating features of these stimulus categories (Kunst-Wilson & Zajonc, 1980; Zajonc, 1980).

Attitudes, of course, are not the only determinants of behavior in any given situation (cf. Fishbein & Ajzen, 1975), and the importance of factors such as impression management, social norms, response control, and personality are discussed elsewhere in this volume. Attitudes and attitude changes are nevertheless important in psychotherapy because attitudes can influence how people perceive and feel about their world and can have direct and indirect effects on behavior across a wide range of situations.

The direct effect of attitudes on behavior represents the tendency for people to approach, acquire, support, protect, and promote liked, in contrast to disliked objects, persons, and issues. Although there may be intervening psychological operations between attitudes and behavior such as attitude accessibility and behavioral intentions, the emphasis here is on the response side of the

Attitudes represent global and enduring favorable or unfavorable response disposition toward a person, object, or issue. Studies from the structure of motivation (e.g., Dickinson & Dearing, 1979) to the structure of language (e.g., Osgood, Suci, & Tannenbaum, 1957), and from the conceptual organization of transient emotions (e.g., Russell, 1983) and daily moods (e.g., Diener, Larsen, Levine, & Emmons, 1985) to the organization of facial expressions of emotion (e.g., Abelson & Sermat, 1962; Osgood, 1966) have consistently revealed that people organize their perceptions of the world in terms of their evaluative responses (i.e., attitudes) toward stimulus categories. This evaluative categorization of stimuli

information-processing sequence (e.g., response execution). Evidence that existing attitudes predict behaviors has been summarized by Ajzen and Fishbein (1977, 1980). In an illustrative study, Hoyt and Janis (1975) found compliance with an exercise regimen and weight-loss program was enhanced by preceding the exercise program with an attitude change treatment. Briefly, subjects were induced to think carefully (through use of a "balance sheet" procedure) about the costs and benefits of the exercise program or an unrelated health behavior. Subjects who completed the balance sheet for the relevant behavior attended more classes and lost more weight than subjects who completed the balance sheet for an unrelated behavior.

Similarly, clients enter psychotherapy with a set of attitudes that contribute to related behavioral responses. Psychotherapy reveals both information that is discrepant from a subset of these attitudes and inconsistencies among attitudes. These discrepancies might become apparent, for example, in discussions with or among clients, reconceptualizations of events and behaviors, or new behaviors observed or emitted by clients. Because people are motivated to hold internally consistent (Abelson, Aronson, McGuire, Newcomb, Rosenberg, & Tannenbaum, 1968) and veridical (Petty & Cacioppo, 1986a) beliefs and attitudes, these discrepancies can lead to change in one or more attitudes. As the client's attitudes change, so too can the accessibility of related thoughts, feelings, behavioral options, and associated behavioral responses. Hence, although observable responses rather than attitudes are likely to be the ultimate target of change, the general influence of a person's attitudes in effecting and maintaining this change across situations—and the behavioral resistance, noncompliance, and recidivism that can result in the absence of such changes—have rendered attitudes an important construct in counseling and clinical psychology.

The indirect effect of attitudes on behavior stems from the influence of attitudes on people's selective attention to, interpretation of, and recollection of people and events in their world and, subsequently, on their behavior and on the behavior of others toward them. In contrast to focusing on the direct behavioral effects of attitudes, the emphasis here is on the effect of attitudes on an individual's experience and representation of the world (e.g., selective attention, encoding). Lord,

Ross, and Lepper (1979), for instance, exposed students to information about the crime-deterrence effectiveness of capital punishment. Half of the students favored capital punishment prior to the message and half of the students opposed capital punishment. In addition, the message was constructed such that half the evidence suggested that capital punishment was an effective deterrent to crime, whereas half the evidence suggested that it was not an effective deterrent. Because the information presented in the message presented both sides of the issue, the gap between the attitudes of students who initially favored or opposed capital punishment might be expected to diminish somewhat. Lord et al. (1979) found the opposite to be the case: each group accepted the evidence supporting their initial attitude and was critical of the evidence contradicting their attitude toward capital punishment. Consequently, each group perceived the evidence presented in the message to support their initial position, and the gap between the beliefs and attitudes of these subjects widened as a result of their exposure to the same "edifying" information. Behavioral measures were not taken in this study, but one would expect the disagreements between these two groups of subjects to have been enhanced rather than lessened by the arguments to which they were all exposed.

Although prior studies of attitudes in psychotherapy have focused primarily on the direct behavioral effects of attitude changes, the effects of attitudes on people's representation of their world and the indirect behavioral effects of attitudes may prove to be equally or more important. Attitudes and attitude changes could be pivotal in psychotherapy, even if attitudes influenced only how people perceived and felt about their world.

The present chapter concerns the attitude change literature and its implications for psychotherapy and psychotherapeutic change. A basic assumption of the present chapter was first articulated by Jerome Frank (1963), who, in his comparative study of the various schools of psychotherapy, noted that research on attitude change is "pertinent to our interests . . . since in psychotherapy the therapist tries to influence his patients" (p. 97). We begin by briefly reviewing historical developments in the field. We then outline a social psychological theory of communication and persuasion—the elaboration likelihood model (ELM; Petty & Cacioppo, 1981, 1986a, 1986b)—which provides a general integrative framework

for thinking about attitudes and attitude change. We conclude with a discussion of research using the ELM to study change in psychotherapy.

HISTORICAL CONTEXT

The idea that psychotherapy can be conceptualized as an influence process has perhaps its clearest roots in the work of Frank (1963), Levy (1963), and Strong (1968) and his colleagues. Frank's *Persuasion and Healing*, first published in 1961, set forth a "common factors" view of psychotherapeutic change in which the therapist's verbal and nonverbal communications with the client represented persuasive appeals and constituted the principal mechanism of behavior change. Frank held that the locus of therapeutic change was the client's assumptive world, the "highly structured, complex, interacting set of values, expectations, and images of oneself and others, which guide and in turn are guided by . . . [one's] perceptions and behavior" (p. 27). Regardless of the specific target of the therapist's interventions—for example, the depth of the client's experiencing or the client's skill acquisition—the interventions also could be said to have an influential impact on the client's assumptive world. Changes in the assumptive world were expected in turn to enhance the persistence of client gains in therapy.

Levy (1963) also argued that attitude change research was relevant to the process of interpretation in psychotherapy. He linked variables such as the status of the communicator and the discrepancy between the client's initial attitude and the position advocated by the therapist to the comprehension, interpretation, and acceptance by the client of the therapeutic process and of therapist recommendations (cf. Claiborn & Dowd, 1985). Analog research on the effects of discrepancy indicate that message manipulations can contribute to attitude change, but what constitutes an optimal level of discrepancy and why are not clear from this model.

Strong (1968) developed a two-stage model of interpersonal influence in psychotherapy that was derived from the work by Festinger (1957) and Hovland and his colleagues (e.g., Hovland, Janis, & Kelley, 1953). In the first stage, therapists achieve credibility (expertise, trustworthiness, attractiveness) and power in the eyes of the client. In the second stage, the therapist attempts to influence the client by recommending positions that

are dissonant to the client. By virtue of having achieved high credibility before the influence attempt, the therapist theoretically avoids the client reducing his or her cognitive dissonance simply by derogating the source or by discounting the importance of the issue (cf. Bochner & Insko, 1966).

Strong's (1968) model stimulated research on two fronts: (a) how particular features of a therapist contribute to his or her perceived expertise, trustworthiness, and attractiveness; and (b) how these characteristics affect the therapist's ability to influence the client. The focus of this research, like the model itself, is on the therapist rather than on the interaction between the therapist and client as the active agent in the influence process. Consequently, source factors, in contrast to characteristics of the message, recipient, modality, and context, have received the most attention in research on psychotherapy and attitude change. This is problematic because by focusing on the attitudinal effects of source factors, interactions involving message, recipient, modality, and contextual factors are masked, and the impression is created that there are no general principles of attitude change. For instance, prior research has found that highly credible (e.g., expert) therapists sometimes lead to more attitude change (e.g., Heppner & Dixon, 1978; Strong & Schmidt, 1970), sometimes lead to about the same attitude change (e.g., Greenberg, 1969; Sprafkin, 1970), and sometimes lead to less attitude change (e.g., Heesacker, 1986) than therapists low in credibility. These conflicting results are similar to the pattern in the social psychological literature that led Himmelfarb and Eagly (1974) to conclude that "after several decades of research, there are few simple and direct empirical generalizations that can be made concerning how to change attitudes" (p. 594).

The belief that there are no general principles of attitude change has been further fueled by the use of different theories to account for the various findings obtained in studies of psychotherapy and attitude change. When attitude change is enhanced by source credibility, investigators generally favor the message learning approach championed by Hovland and his colleagues (e.g., Craighead & Craighead, 1980; DiMatteo & DiNicola, 1982); but when attitude change is unrelated (or inversely related) to source credibility or message learning, investigators seem to favor Festinger's (1957) theory of cognitive dissonance as the basis for understanding attitude change and

for designing therapeutic interventions (e.g., Brehm, 1976). Recent reviews of these theoretical perspectives and conflicting findings are provided by Corrigan, Dell, Lewis, and Schmidt (1980), Heppner and Claiborn (1989), and Heppner and Dixon (1981).

Importantly, the emphasis on the simple main effects of source, message, recipient, modality, and contextual factors on attitudes has been replaced over the past decade in the social psychological literature by an emphasis on the recipient (client) as a cognitively active participant in persuasion and on the interactive nature of the influence process. In the next section, we review an integrative framework of attitude change processes that has emerged from this research, and we discuss conceptual and methodological issues in the translation of this framework to psychotherapy. The approach taken here is based on Petty and Cacioppo's (1981, 1986a, 1986b) ELM of persuasion, which explicates how people relate incoming information to their previous experiences, knowledge, and attitudes. According to the ELM, for instance, the client is an active agent in the change process. Attitudes are a function of the thoughts and feelings evoked by an influence attempt, which in turn are a (sometimes complex) function of factors such as the person's knowledge, involvement, and motives, as well as the context and message content.

Effective and persisting persuasion within this framework does not rest on some invariant of the therapist or message, but rather requires an understanding of the functions served by the target attitudes and behaviors and the idiosyncratic manner in which clients think about the message arguments. This is because persisting attitude change is posited to be the consequence of idiosyncratic, issue-relevant thinking that favors the recommendation. For instance, what from the perspective of classical rhetoric theory might seem brilliant, persuasive arguments are anticipated by the ELM to provoke heated counterarguments and resistance in certain circumstances, whereas what might appear to one person to be logically flawed arguments could produce favorable thoughts and acceptance in others. The ELM may be of some general interest in the study of psychotherapy, then, because it provides a coherent means of thinking about the effects of many kinds of variables that come into play in persuasion and provides a means of understanding what some-

times appears to be conflicting results on attitude change attributed to these variables.

ELABORATION LIKELIHOOD MODEL

Prior to the development of the ELM, there were two major approaches to the study of persuasion. In the first, attitude change was viewed as resulting from a change in the salient beliefs about a particular position, whereas in the second, attitude change was viewed as resulting from an association between positive or negative stimuli (e.g., credible sources, unconditioned stimuli) and a particular position. For instance, people were conceived as being students of the message arguments who agreed to the extent that they attended to and learned the arguments and incentives for a new position (e.g., Eagly, 1974; Eagly & Warren, 1976; Hovland et al., 1953). This view began to be questioned by research demonstrating that (a) people's attitudes were frequently unrelated to message-learning (e.g., Greenwald, 1968; Insko, Lind, & LaTour, 1976); (b) subject-generated information and attributes were considered in addition to the explicit information provided in persuasive communications (cf. Petty, Wells, & Brock, 1976); (c) attitudes were influenced by biased as well as objective message-processing (e.g., Cacioppo, Petty, & Sidera, 1982; McGuire, 1981; Petty & Cacioppo, 1979a); and (d) attitudes and preferences could also be influenced by what appear to be only superficially related cues, such as the communicator's speed of speech (e.g., Miller, Maruyama, Beaver, & Valone, 1976). Research using retrospective verbal protocol analyses (e.g., "thought-listing" techniques; see Cacioppo & Petty, 1981) further suggested that the informational basis for attitudes was sometimes quite elaborate, but other times inconsistent, incoherent, or impoverished (Cacioppo & Petty, 1981; Petty, Cacioppo, & Goldman, 1981).

Central and Peripheral Routes to Attitude Change

The primary goal of the ELM is to provide a comprehensive framework for organizing, categorizing, and understanding the basic processes underlying the effectiveness of persuasive communications. That is, the ELM attempts to integrate the many seemingly conflicting research findings and theoretical orientations under one conceptual

umbrella. After reviewing the literature on attitude persistence, Petty and Cacioppo (1978; Petty, 1977) concluded that the many different empirical findings and theories in the field might profitably be viewed as emphasizing one of two relatively distinct "routes to persuasion." The first was attitude change that 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 was what 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 merits of issue-relevant information (peripheral route). This conceptualization, which is depicted in Figure 26.1, illustrates the interesting possibility that attitudes are multiply determined, and that attitudes that appear on the surface to be the same may have different antecedents and consequences. For instance, the issue-relevant elaboration typifying the central route to persuasion can result in new arguments, or one's personal translations of them, being integrated into one's underlying belief structure for the attitude object, and extensive issue-relevant thinking can increase factors such as the informational coherence, accessibility, and generalizability of the consequent attitude. Attitudes formed through the central route, therefore, were expected to be relatively persistent, resistant to counterpersuasion, and predictive of behavior. The accumulated literature supports these predictions (cf. Petty & Cacioppo, 1986a).

Of course, it would be paralyzing if people were to try to adopt only those attitude positions about which they had thought carefully. This is true even though people are motivated generally to hold correct attitudes. According to the ELM, the numerous attitude stimuli to which people must respond daily, coupled with their limited time and cognitive resources, make it imperative that simple cues, habits, or rules of thumb can be used to guide acceptance or rejection of at least some attitude positions. The resultant attitudes are based on information that is really only superficially or peripherally related to the actual merits of the chosen attitude position, so these attitudes are said to be formed through the peripheral route. Note that whereas taking cognitive shortcuts to arrive at reasonably veridical attitude positions may prove adaptive in the long run, an immediate cognitive consequence is that people are less likely

to elaborate on or integrate the message arguments into a core position within their attitude schema. In a psychotherapy setting, the client may comprehend but not engage in the cognitive elaboration required to personalize or internalize the therapist's rationale or position.

(By *personalize* we mean the assimilation of a message argument or recommendation to one's initial point of view, whereas by *internalize* we mean to adopt a message argument or recommendation as one's own.) Hence, attitudes reached through the peripheral route have been shown to be relatively susceptible to change and not highly predictive of behavior (see Figure 26.1; see also the review by Petty & Cacioppo, 1986a).

The Elaboration Likelihood Continuum

The ELM also provides a general theoretical framework for understanding how a variety of factors, such as speed of speech and source credibility, can increase, decrease, or have no effect on attitude change. If the central route is followed, the subjective cogency of the message arguments is predicted to be an important determinant of the individual's acceptance or rejection of the recommendation, and factors in the persuasion setting that might serve as peripheral cues are relatively unimportant determinants of attitudes. If, on the other hand, the peripheral route is followed, then the strength of the message arguments becomes less important and peripheral cues become more important determinants of attitudes.

The ELM also specifies in general terms the conditions that lead to influence through the central versus the peripheral route (see Figure 26.1). For instance, many attitudes and decisions are either perceived to be personally inconsequential or involve matters about which people are uninformed. In these situations, people may still want to be correct in their attitudes and actions, but they are not willing or able to think a great deal about the arguments for or against a particular position. Peripheral cues provide a means of maximizing the likelihood that one's position is correct while minimizing the cognitive requirements for achieving this position. Implicit in the central route, on the other hand, is that people must relate the incoming message arguments to their prior knowledge in such a way as to evaluate the agency and scope of the arguments, that is, they must elaborate cognitively on the information

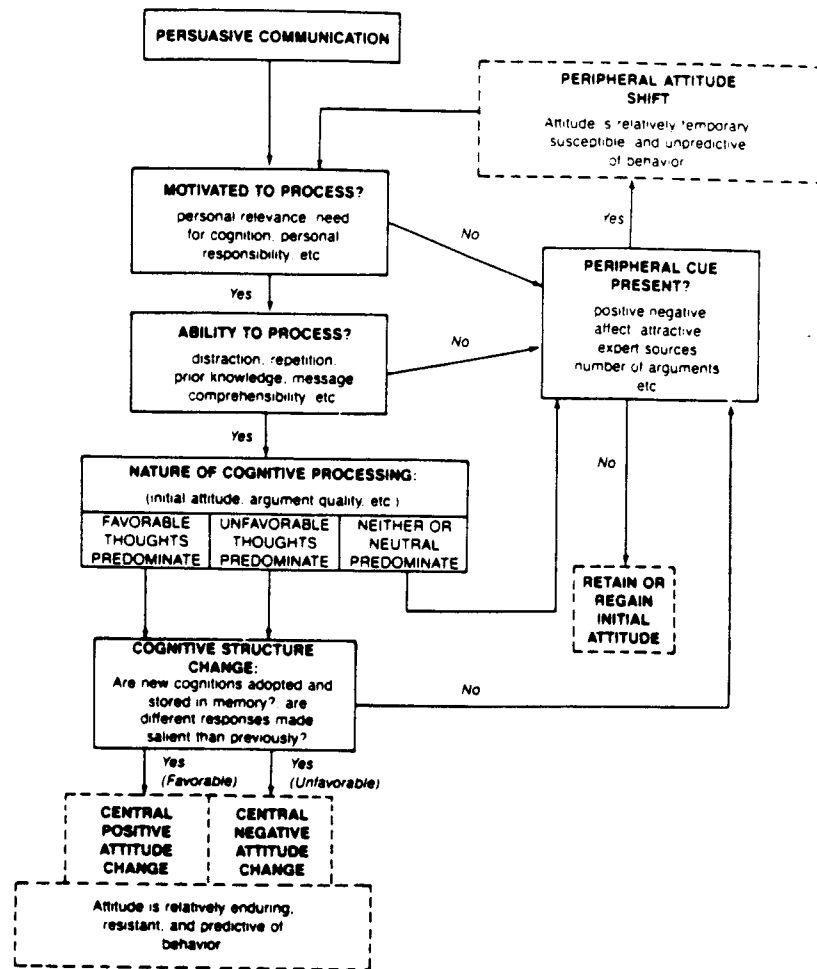


Figure 26.1. Central and peripheral routes to persuasion. The two anchoring endpoints on the elaboration likelihood continuum. From *Communication and Persuasion: Central and Peripheral Routes to Attitude Change* by R. E. Petty and J. T. Cacioppo, 1986. New York: Springer-Verlag. Copyright 1986 by Springer-Verlag. Reprinted by permission of authors.

they perceive to be relevant to the central merits of the advocacy. 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 on their analyses, and consequently derive an overall evaluation of, or attitude toward, the

recommendation. It should be apparent that given the nature of the processing constituting the central and peripheral routes to persuasion, these routes can be viewed as anchors on a continuum ranging from minimal to extensive message elaboration or issue-relevant thinking:

We view the extent of elaboration received 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 mo-

tivation and ability to evaluate the communication presented. (Petty & Cacioppo, 1986a, p. 8)

Motivational variables are those that propel and guide people's information-processing and give it purposive character. There are a number of variables that have been found to affect a person's motivation to elaborate on the content of a message. These include (a) task variables, such as the personal relevance of the recommendation (e.g., Petty & Cacioppo, 1979b); (b) individual difference variables, such as the individual's level of need for cognition (e.g., Cacioppo & Petty, 1982; Cacioppo, Petty, & Morris, 1983); and (c) contextual variables such as the number of sources advocating a position (e.g., Harkins & Petty, 1981). Petty and Cacioppo (1986a, chap. 9) noted that these kinds of variables seem to have in common that they act upon a directive, goal-oriented component that might be termed intention, and a non-directive, energizing information-processing component that might be termed effort or exertion. Intention is not sufficient for motivation, for instance, because one can want to think about a message or issue but not exert the necessary effort to move from "intending" to "acting" or "thinking."

If both intention and effort are present, then motivation to think about the advocacy may exist, but message elaboration may still be low because the individual does not have the ability to scrutinize the message arguments. There are a number of variables that can affect an individual's ability to engage in message elaboration, including task variables, such as message comprehensibility (e.g., Eagly, 1974); individual difference variables, such as intelligence (e.g., Eagly & Warren, 1976); and contextual variables, such as distraction (e.g., Petty, Wells, & Brock, 1976) and message repetition (Cacioppo & Petty, 1979, 1989). Note that contextual variables that affect a person's ability to elaborate cognitively on issue-relevant argumentation also can be characterized as factors affecting a person's opportunity to process the message arguments.

If task, individual, and contextual variables in the influence setting combine to render motivation and ability to process high, then the arguments presented in support of a change in attitudes or behavior will be thought about carefully. If the person generates predominantly favorable thoughts toward the message, then the likelihood of acceptance is enhanced, whereas if the person generates predominantly unfavorable thoughts

(e.g., counterarguments), then the likelihood of resistance or boomerang (attitude change opposite to the direction advocated) is enhanced. The nature of this elaboration (i.e., whether favorable or unfavorable issue-relevant thinking) is predicted by the ELM to be determined by whether the motivational and ability factors combine to yield relatively objective or relatively biased information-processing and by the nature of the message arguments. If elaboration likelihood is low, however, then the nature of the issue-relevant thinking is less important, and peripheral cues become more important determinants of attitude change (see Figure 26.1).

Inhibiting or Enhancing Message Elaboration

Many of the experiments examining the ELM have explored ways to stimulate or impair thinking about the message arguments in a persuasive appeal. For example, distraction can interfere with a person's careful scrutiny of the arguments in a message and thereby alter its persuasive impact. Petty et al. (1976), for instance, reported two experiments in which subjects listened to a persuasive message over headphones while monitoring in which of the four quadrants of a screen a visual image was projected (a distractor task). In the low-distraction condition, images were presented once every 15 seconds, whereas in the high-distraction condition, images were presented once every 5 seconds. Neither rate of presentation was so fast as to interfere with the subjects' comprehension of the simultaneously presented persuasive message, but the subjects' argument elaboration was much more disrupted in the high- than low-distraction condition. Consequently, subjects were less persuaded with distraction when the arguments were strong, but more persuaded with distraction when the arguments were weak.

A variety of task, contextual, and individual difference variables have been identified that enhance or impair argument elaboration by affecting a person's motivation or ability (see Petty & Cacioppo, 1986a). For instance, moderate levels of repetition of a complicated message can provide individuals with additional opportunities to think about the arguments and thereby enhance argument-processing (Cacioppo & Petty, 1989). Messages worded to underscore the self-relevance of the arguments facilitate the evaluation of the personal merits of the message arguments (Burn-

krant & Unnava, 1989). And being the only one rather than one of many assigned to evaluate a recommendation can induce thinking on the part of people who would normally be uninterested in the issue (Petty, Harkins, & Williams, 1980).

Message Elaboration Vs. Peripheral Cues as Determinants of Attitude Change

According to the ELM, there is a trade-off between argument scrutiny and peripheral cues as determinants of a person's susceptibility or resistance to persuasion (see Figure 26.1). In an illustrative study, Petty, Cacioppo, and Goldman (1981) established two kinds of persuasion contexts: one in which the likelihood of relatively objective argument elaboration was high, and one in which the elaboration was low. This was accomplished by varying the personal relevance of the recommendation: subjects were exposed to an editorial favoring the institution of senior comprehensive exams at their university, but some subjects were led to believe these comprehensive exams would be instituted the following year (high personal relevance) whereas others were led to believe the exams would be instituted in 10 years (low personal relevance). To investigate the extent to which subjects' argument scrutiny determined attitudes, half of the subjects heard eight cogent message arguments favoring comprehensive exams, and the remaining subjects heard eight specious message arguments favoring the exams. Finally, to examine the extent to which peripheral cues were important determinants of attitudes, half of the subjects were told the recommendation they would hear was based on a report prepared by a local high school class (low expertise), whereas half were told the tape was based on a report prepared by the Carnegie Commission on Higher Education (high expertise). Following the presentation of the message, subjects rated their attitudes concerning comprehensive exams, listed the arguments they could recall, and completed ancillary measures.

According to the ELM, argument quality should be the most important determinant of the students' attitudes toward comprehensive exams when they listened to the message with the belief that the recommendation was consequential for them personally, whereas the purported status or expertise of the source would be the most important determinant of the students' attitudes when

they listened to the message with the belief that the recommendation would not affect them personally. The results supported these predictions even though the subjects across the various conditions of the experimental design exhibited equal comprehension/recall of the message arguments to which they were exposed, and subjects in both the low and high personal relevance conditions made comparable assessments of the expertise of the source. These results suggest that the attitudinal effects observed in this study cannot be attributed simply to differences in the information the students extracted from the persuasion appeal, but rather it is the associations generated by subjects (see also Petty & Cacioppo, 1984).

Objective Versus Biased Argument-Processing

When a person is motivated to scrutinize arguments for a position, there are no assurances that the person will come to the "truth" or that the person's issue-relevant thinking will be objective or rational. By relatively objective message-processing, we simply mean that a person is trying to seek the truth wherever that may lead. When a variable enhances argument scrutiny in a relatively objective manner, the strengths of cogent arguments and the flaws in specious arguments should become more apparent. Conversely, when a variable reduces argument scrutiny in a relatively objective fashion, the strengths of cogent arguments and the flaws of specious arguments become less apparent. Objective processing, therefore, has much in common with the concept of "bottom-up" processing in cognitive psychology (Norman, 1976) because elaboration is postulated to be relatively impartial and guided by data (in this case, message arguments).

When a person is motivated to process a message in a biased fashion, the activation thresholds for eliciting favorable or unfavorable thoughts about the advocacy are asymmetrical. As a consequence, the person's knowledge base or situational factors make it more likely that one side will be supported over another. Biased processing, therefore, has more in common with "top-down" than "bottom-up" processing because the elaboration of the arguments is governed by existing cognitive structures, such as a relevant attitude schema, which guide processing in a manner favoring the maintenance or strengthening of the original schema. For instance, Cacioppo et al.

(1982) found that messages written to activate an important dimension of the subjects' self-concept increased biased argument-processing even though the attitude topic did not bear directly on their self-concept. This study illustrates that people are capable of augmenting even specious arguments to arrive at a more cogent line of reasoning for their desired position.

Variables Can Have Multiple Effects on Elaboration

One of the striking predictions from the ELM is that the effects on attitudes of fairly simple variables can change dramatically as a function of other task, individual, or contextual variables due to the interactive effects of these variables on the nature and extent of issue-relevant thinking. The first clear evidence that some variables increase argument-processing at one level of another factor, but may actually decrease argument-processing at a different level of that factor, was provided in a study on the use of rhetorical questions in a message (Petty, Cacioppo, & Heesacker, 1981). Prior to this study, rhetorical questions in a message were thought to enhance persuasion due to their usual association with strong arguments (Zillman, 1972). Petty, Cacioppo, and Heesacker (1981) reasoned that rhetorical questions would enhance persuasion only if the message arguments were strong. If the message arguments were weak, then rhetorical questions would enhance counterargumentation and lessen attitude change. This reasoning is based on the assumption that presenting the message arguments in rhetorical rather than declarative form increases a person's propensity to think about the message arguments. When the recommendation is already personally involving, Petty, Cacioppo, and Heesacker (1981) reasoned that the insertion of rhetorical questions might actually interfere with the recipients' ongoing idiosyncratic message elaboration. Consistent with this reasoning, pilot testing in which subjects were exposed to a personally relevant audiotaped message in either declarative or rhetorical form revealed that subjects actually reported being distracted from thinking about the recommendation when the topic was personally involving and the message was delivered in rhetorical form (see also Swasy & Munch, 1985). In sum, the ELM can account for a rather complicated pattern of data even though the intervening processes are fairly straightforward: (a) rhetorical questions enhance

processing when the motivation to elaborate is low, but disrupt ongoing processing when motivation is already high; and (b) increasing argument-processing can increase or decrease persuasion depending on the quality of the message arguments.

To test this possible account, a study was conducted varying the use of rhetorical questions and argument quality along with a variable known to affect subjects' motivation to process issue-relevant arguments—the personal relevance of the message (Petty, Cacioppo, & Heesacker, 1981). Results revealed that under conditions of low personal relevance, message arguments in rhetorical rather than declarative form increased attitude change when the arguments were cogent but decreased attitude change when arguments were specious. Under conditions of high personal relevance, however, the opposite pattern was observed, and subjects who heard the rhetorical message arguments rated themselves as experiencing more distraction during the message than did subjects who heard the message arguments in declarative form.

The distracting effect of rhetorical questions is likely to be confined to situations in which the presentation rate of the message is controlled externally rather than by the subject (see Petty & Cacioppo, 1986a). If the presentation rate is controlled by the subject, as in a typical written message, then the disruption effect of rhetorical questions should be eliminated. Evidence for this was provided by Burnkrant and Howard (1984).

In sum, the introduction of new factors or procedures (e.g., arguments presented in rhetorical rather than declarative form) can have striking but explicable effects on people's cognitive processes and attitudes. The research we have discussed thus far has not been conducted in a context resembling psychotherapy. Therefore, we turn next to the ELM within the context of psychotherapy.

ELM AND THE STUDY OF ATTITUDE CHANGE

The ELM places the recipient of influence—the client, in the case of psychotherapy—in the realistic role of being an active, willful, and sometimes biased participant in the influence process. The ELM also emphasizes the interactive effects of factors in the influence setting in producing attitude change or resistance to attitude change. Significant challenges can therefore be expected in extrapolating from the ELM to psychotherapeutic

practice. We discuss five illustrative challenges in this section. The point of these illustrations is that the ELM can provide a general framework within which to study attitudes and attitude changes in psychotherapy, but the operationalization of postulates from the ELM in psychotherapy settings requires additional theory about and research on the effects of contextual factors in this setting.

As with social influence research generally, the ELM has the advantage of dealing with the process of attitude change. That is, predictions from the ELM are not dependent on the specific topic, position, or psychotherapeutic approach employed (e.g., rational emotive therapy, object-relations therapy), but rather on the general attributes of the persuasive communication and setting. However, many topics discussed in psychotherapy are moderately to highly involving, are counterattitudinal, and pertain to issues about which clients have prior knowledge. These attributes suggest that clients may be especially likely to exhibit biased rather than objective message-processing; or more precisely, under what general conditions clients may be likely to exhibit biased message processing. Simply assuming that a client will be relatively objective in his or her processing of a therapist's message because the message is personally relevant ignores the powerful biasing influence of the prior knowledge and beliefs accessed by the client (cf. Petty & Cacioppo, in press). General features of the issues addressed in psychotherapy, such as their personal relevance, pro- or counterattitudinal nature, and knowledge base, may also need to be considered.

Second, goals in psychotherapy often target both direct and indirect behavioral effects of attitudes as well as the direct effect of attitudes on clients' representation of their worlds. For instance, one goal in psychotherapy may be to convert a client's biased argument-processing to objective argument-processing and thereby achieve a more adaptive attitude. Prior research on the ELM has examined various means of enhancing or impeding argument elaboration, and conditions that evoke biased versus objective argument elaboration. However, little attention has been paid to the problem of transforming an individual's biased argument scrutiny to relatively objective argument-processing. On the positive side, this heretofore unexplored focus promises to enrich both psychotherapy theory and the ELM.

Third, the ELM does not specify what are the specific qualities that render some arguments co-

gent and others specious, but rather points to the idiosyncratic nature of this assessment and to the importance of personally tailored arguments to achieve enduring attitude change. Snyder and DeBono (1985), for instance, reasoned that people who score high versus low on the self-monitoring scale (Snyder, 1974) differ in the kind of information that is most important when an individual is evaluating the central merits of an argument or issue. Specifically, Snyder and DeBono reasoned that individuals high in self-monitoring (i.e., who tend to monitor the social impact of their behavior) should especially be susceptible to advertisements employing an image campaign, whereas individuals low in self-monitoring should be relatively susceptible to advertisements espousing the specific attributes of a product. After exposure to a series of image and attribute advertisements in one study, subjects were asked to indicate how much they would be willing to pay for each of the advertised products. Results supported the predictions that high self-monitoring individuals were willing to pay more for the products advertised with image campaign, whereas low self-monitoring individuals were willing to pay more for the products in the attribute campaign. Snyder and DeBono characterized both groups of individuals as following the central route to persuasion, because both groups of subjects were attempting to evaluate the central merits of the product; what features were believed to be central simply differed for low and high self-monitors. We discuss procedures for operationalizing argument quality in the following section. An alternative perhaps more appropriate in psychotherapeutic practice is to develop strong and weak arguments tailored to match particular clients' cognitive structures and traits and to verify the subjectively cogent (or specious) nature of these arguments in discussions with the client.

Fourth, while persuasive messages in previous research on the ELM have often been presented in a one-way written communication, clients in psychotherapy receive most of their communications verbally in a dialogue with the therapist. Oral rather than written one-way communications may reduce a client's opportunity to process issue-relevant arguments because exposure is forced rather than self paced. Two-way communications may enhance a client's opportunity to process issue-relevant arguments because the therapist is able to monitor the client's nonverbal and verbal cues for comprehension and elaboration, and the client is,

for example, able to ask for clarification. Thus, whether the modality of persuasive communications in psychotherapy should enhance or impair message elaboration should depend on other factors in the setting. For instance, presenting messages in written form should be especially important when the arguments are complex and difficult to process rapidly. This is particularly true when the therapist does not attend to the nature and extent of the client's message-processing. Under these conditions, simple cues in the persuasion context also should be relatively powerful determinants of persuasion. Studies in which the modality of presentation and source cues have been manipulated have supported this proposition; both source credibility (Andreoli & Worchel, 1978) and likability (Chaiken & Eagly, 1983) have had a greater impact on attitudes when a message was presented on video- or audio tape rather than in written form.

In sum, the translation of postulates of the ELM to psychotherapy itself raises interesting theoretical questions about the simple and interactive effects of task, individual difference, and contextual variables in the psychotherapy setting. Procedures such as the thought-listing technique (Cacioppo & Petty, 1981) and the manipulation of argument quality (Petty & Cacioppo, 1986a, see pp. 30-36; Petty et al., 1976) to assess the nature and extent of issue-relevant thinking have proven revealing in work on the development of the ELM and may be useful in the study of attitude change in psychotherapy as well.

Empirical Research Applying the ELM to Psychotherapy

Several studies have attempted to apply the ELM to analogs of psychotherapy context, with mixed results. This literature was reviewed recently by McNeil and Stoltenberg (1989). Rather than duplicating their review, which was optimistic in tone, we focus here on some of the conceptual and methodological problems encountered in attempts to generalize the ELM to psychotherapy. Before proceeding, however, it is worth noting that a number of basic effects predicted by the ELM have been confirmed in the analog studies of counseling and psychotherapy. For example, message content has consistently been shown in these applied studies to affect subjects' attitudes following an analog counseling session. McNeil and Stoltenberg (1988), for instance, manipulated ar-

gument quality and counselor expertise in an analog study concerning career goals. In addition, subjects were classified as being in low- or high-involvement conditions based on their responses to scores on a career decisiveness scale. Results revealed that argument quality exerted a strong effect on attitude and behavioral intention measures. This and related studies, therefore, have highlighted the importance of message factors in psychotherapy and have provided a necessary corrective to earlier studies that focused almost exclusively on source factors.

More problematic in several of the existing studies are (a) predictions attributed to the ELM but which, in fact, are not accurately derived from the ELM; and (b) operationalizations of crucial independent or dependent variables that differ in ways that seriously threaten the construct validity of these variables. For example, Stoltenberg and McNeil (1984) hypothesized that under conditions of high elaboration likelihood, source credibility enhances message scrutiny and the tendency for subjects to travel the central route to persuasion. As discussed above, however, the ELM holds that under conditions of high elaboration likelihood, subjects should think carefully about the merits of the recommendation(s) regardless of peripheral cues such as source credibility. It is under conditions of moderate elaboration likelihood that factors such as source credibility may affect the extent of message-processing.

Potential problems in the operationalization of crucial independent and dependent variables range from the use of correlational rather than experimental designs, a mismatch between the message recommendation and the target of the attitude measure, and the manipulation of argument quality without regard to the profile (e.g., positivity) of issue-relevant thinking evoked by the "strong" and "weak" versions of the persuasive communication. Because the manipulation of argument quality is an important methodological tool by which both the nature and extent of argument-processing can be inferred (Petty & Cacioppo, 1986b; Figure 26.2), we focus on this particular problem in some detail.

Briefly, the ELM prescribes an operational definition for strong and weak arguments. One begins developing arguments for a topic by generating a large number of arguments, both intuitively compelling and specious ones, in favor of some target position (e.g., adopting a healthy life-style). Next, members of the appropriate subject popula-

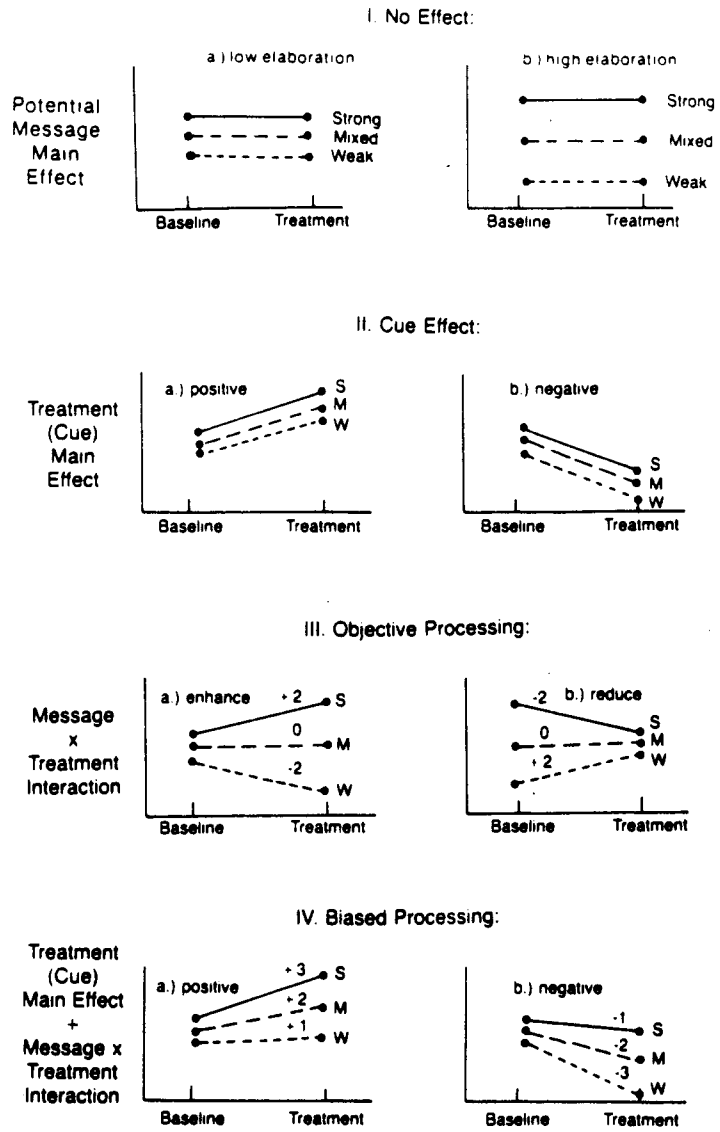


Figure 26.2. Impact of variables on attitude change according to the ELM. Under conditions of high-elaboration likelihood, attitudes are affected mostly by argument quality (I). Under conditions of low elaboration likelihood, attitudes are affected mostly by peripheral cues (II). Under conditions of moderate elaboration likelihood, variables may enhance or reduce message processing in either a relatively objective (III) or relatively biased (IV) manner. From *Communication and Persuasion: Central and Peripheral Routes to Attitude Change* by R. E. Petty and J. T. Cacioppo, 1986, New York: Springer-Verlag. Copyright 1986 by Springer-Verlag. Reprinted by permission of authors.

tion are given these arguments to rate for persuasiveness. Based on these scores, arguments with high and low ratings are selected to comprise at least one "strong" and one "weak" message. These arguments also are matched prior to their use on overall believability, comprehensibility, complexity, and familiarity. Other subjects are given one of these messages and are told to think about and evaluate it carefully. Following examination of the message, subjects list everything they thought about while examining the message, and these listed thoughts are coded as being favorable, unfavorable, or neutral toward the position advocated (see Cacioppo & Petty, 1981). A "strong" message is defined as one containing arguments such that when subjects are instructed to think about the message, the thoughts they generate are predominately favorable. A "weak" message is one that is also ostensibly in favor of the advocacy, but the arguments are constructed such that when subjects are instructed to think about the arguments they generate predominantly unfavorable thoughts. Because the message arguments are developed to elicit primarily favorable (strong), primarily unfavorable (weak), or neither predominantly favorable or unfavorable (mixed) issue-relevant thinking when subjects are instructed to think about the arguments, the various patterns of results depicted in Figure 26.2 can be predicted based on the nature and extent of message-processing actually evoked in a specific setting.

Implementation of this procedure is straightforward when working with relatively homogeneous subject populations, since the cognitive associations and elaborations of subjects in the pilot testing and those in the subsequent research are quite similar. This is less often the case in psychotherapeutic practice or research. One option is to block on the same individual difference variable(s) during pilot testing as in the planned research in order to identify message arguments that are strong and weak for each subgroup of subjects (see Cacioppo et al., 1983). A second option is to develop strong and weak arguments drawing upon a theory of the particular individual difference of interest. This second tack has the disadvantage of rendering disconfirmations of ambiguous theoretical import but has nevertheless proven informative in the social psychological literature (see Snyder & DeBono, 1985).

A third concern with the existing research on the ELM and attitude change in psychotherapy is

that the theoretical implications of moderate elaboration likelihood have been ignored. Consequently, authors have concluded that the ELM was not applicable when the data fit neither those predicted by the central or the peripheral route to persuasion even though the ELM has provisions for more complex outcomes—such as source factors interacting with argument quality to produce attitude change. The ELM predicts that when the elaboration likelihood is low, subjects are more likely to base their attitudes on peripheral cues rather than on issue-relevant thinking. When the elaboration likelihood is high, subjects are more likely to base their attitudes on issue-relevant thinking than on peripheral cues. When the elaboration likelihood is moderate, however, subjects may use source and other factors to determine whether the message and issue are worth careful scrutiny (Petty & Cacioppo, 1986a). Under these circumstances, an interaction is predicted of the form that issue-relevant thinking (e.g., argument scrutiny) is greater under one level of a factor (e.g., high source credibility) than under the other (e.g., low source credibility). Thus, attitudes may be more sensitive to variations in argument quality when source credibility is high than low. The predicted interaction has been obtained in several experiments (cf. Heesacker, Petty, & Cacioppo, 1983; Puckett, Petty, Cacioppo, & Fisher, 1983), although this portion of the model has not been explored extensively in basic laboratory research on the ELM. Because several of the applied studies of the ELM also have found interactions between source and message factors (e.g., Heesacker, 1986; Neimeyer, Guy, & Metzler, 1989), it will be important for future studies to clarify when and why such interactions occur and whether these interactive effects are occurring under conditions of moderate elaboration likelihood. In sum, applied studies of attitude change in psychotherapy promise to lead to important refinements of this portion of the model, although it is important to note that simply detecting an interaction between source and message factors does not constitute a disconfirmation of the ELM.

Future Directions

The main question in psychotherapy process research is, "How do clients change?" The ELM suggests that they change in response to persuasive messages from the therapist after scrutinizing the message—and elaborating their thoughts in a

relatively objective or biased fashion—in the context of their own prior beliefs. This change is affected by three general conceptual variables: message arguments, or information addressing the merits of a particular recommendation; peripheral cues, or stimuli that are not related specifically to the veridicality of a particular recommendation but rather signal in a general way (e.g., heuristics) that the associated recommendation is correct; and the elaboration-likelihood continuum, or people's motivation and ability to engage in issue-relevant thinking. Several nuances of the ELM may be of special importance as research moves from highly controlled laboratory settings using relatively homogeneous subject populations to the psychotherapy setting:

1. Specific factors can operate predictably in more than one of these capacities. For instance, the mere number of arguments in a heavily documented advocacy may serve as a cue regarding the likely support for a particular position under conditions of low elaboration likelihood, whereas these message arguments can be scrutinized for merit under conditions of high elaboration likelihood (Petty & Cacioppo, 1984).

2. The effect on cognitive responding of other factors (e.g., message repetition) has been found to vary as their level increases; for instance, moderate message repetition tends to increase objective argument-processing, whereas high levels of argument repetition tends instead to trigger biased argument-processing (e.g., Cacioppo & Petty, 1979, 1989).

3. Attitude changes achieved through the peripheral route, although relatively short-lasting and susceptible to counterpersuasion, may provide an opening through which irrational resistance and more enduring attitude change can be reached (e.g., see Cacioppo, Petty, & Stoltenberg, 1984).

4. Finally, whereas we have focused on the influence processes that characterize low- versus high-elaboration likelihood conditions, people often encounter recommendations under conditions of moderate-elaboration likelihood conditions. According to the ELM, people use cues in these circumstances to help decide whether or not to expend the time and effort to scrutinize the message arguments (Moore, Hausknecht, & Thomodaran, 1986; Petty & Cacioppo, 1984). These nuances make it clear that attempts to identify specific factors (e.g., argument number) with single conceptual variables within the ELM—and

predictions based on simply adding the previous empirical effects of variables tested separately rather than considering their possible interactive effects on the conceptual variables outlined by the ELM—are likely to be disappointing.

A second important focus of research on attitudes in psychotherapy concerns the differential consequences of attitude change achieved through various psychotherapy interventions. According to the ELM, attitudes changed through cognitive restructuring, whether achieved through cognitively or behaviorally oriented therapies, will be relatively enduring, resistant to counterpersuasion, and predictive of behavior more so than agreements reached through the peripheral route (Cacioppo et al., 1984).

Finally, Heppner and Claiborn (1989) concluded recently that substantive research on attitude change in psychotherapy will require the study of variables, many of which have not yet been incorporated into the ELM but that are relevant to the psychotherapy process as practitioners think of it. The target of influence in psychotherapy can range from global self-perceptions, such as self-esteem; to more particular self-perceptions, such as self-efficacy with respect to a particular behavior; to attitudes toward others in their social context, such as their colleagues or spouses. As these attitudes are defined, appropriate procedures for assessing the efficacy of generally or specifically focused psychotherapy interventions can be developed (cf. Fishbein & Ajzen, 1975). Both the conceptualization of these attitudes and the operationalization of the conceptualizations in psychotherapy research is a content matter, and perhaps can best be determined by personality and psychotherapy theory. Research on the processes underlying attitude change, on the other hand, may be indifferent to content, and, hence, an overarching conceptual formulation such as the ELM may organize what have previously appeared to be complicated or inconsistent results.

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